

## 65. Stanley STP

### 65.1 Activity and report details

Activity name	Stanley STP		
Activity address	Green Hills Rd, Stanley		
Permit number	Licence to Operate - 3303	Date of issue	17/11/1986
EPN	9193/1	Date of issue	19/05/2015
Treatment level	Secondary Treatment		
Authorised dry weather flows	276 kL/day		
Key influent source	Residential		
Contact person	Kate Westgate (Manager Environmental Performance)		
Report author	Jake Crisp (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2024		

**Figure 65-1: Stanley Sewage Treatment Plant**



## 65.2 Monitoring and compliance summary

### 65.2.1 Flow data

**Table 65-A: Flow monitoring summary**

	Influent	Effluent	Reuse
Location name	Plant Influent	Bass Strait	No reuse scheme
Coordinates	E 355916 N 5487049	E 356263 N 5487655	NA
Method of measurement	In line meter	Estimate based on influent	NA
Date of last calibration/validation (if applicable).	19/07/23	NA – meter to be installed	NA

**Table 65-B: Annual flow and rainfall data**

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91034	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	256	166.8	7.95	--
August 2023	218	98.8	6.75	--
September 2023	245	57.8	5.94	--
October 2023	237	65.8	5.54	--
November 2023	186	38.4	5.58	--
December 2023	185	54.0	5.75	--
January 2024	199	81.2	6.15	--
February 2024	182	10.2	5.28	--
March 2024	172	19.8	5.34	--
April 2024	165	59.8	4.96	--
May 2024	146	35.2	4.52	--
June 2024	142	98.4	4.26	--
Annual 2023-24	195	786.2	68.01	--
% of total discharge	--	--	100.0%	--

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

### 65.3 Bypass events

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

## 65.4 Discharge compliance with permit limits

**Table 65-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	22	50	1.0	35	10	9.0	10	1000	--
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									
Maximum	13.4	147	--	28.0	3.6	9.9	11.3	17329	228.0
90th percentile	9.9	115	--	27.2	3.1	9.7	9.8	11981	215.1
50th percentile	3.1	85	--	21.7	2.0	8.6	7.4	1351	116.0
Minimum	0.2	14	--	12.3	1.0	7.4	4.6	20	13.8
EPN limit compliance									
% compliance with maximum	100%	17%	--	100%	100%	--	92%	33%	--
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	58%	--	--	--

**Table 65-D: Mass loads to the environment**

Parameter	EPN limit	Frequency	2023-24 result
Nitrogen (kg)	--	Annual	1404.0
Phosphorous (kg)	--	Annual	495.9
Method	Time weighted/grab sample method		

**Table 65-E: Performance analysis (discharge to environment)**

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance	
BOD	25/07/2023 10/10/2023 14/11/2023 19/12/2023 16/01/2024	13/02/2024 12/03/2024 16/04/2024 14/05/2024 18/06/2024	Elevated levels of algae are considered the main contributor to increased pH and BOD. Through photosynthesis, algae absorb carbon dioxide and produce oxygen, which can influence pH levels in the effluent.	
pH	10/10/2023 19/12/2023 16/01/2024	13/02/2024 18/06/2024		
E. coli	25/07/2023 8/08/2023 14/11/2023 19/12/2023	13/02/2024 12/03/2024 16/04/2024 14/05/2024		Insufficient lagoon HRT coupled with inadequate chlorine dosing control are likely contributing factors for the non-compliant E. coli levels.
Phosphorus	16/04/2024			The increase in phosphorus levels coincided with high concentrations of algae in the effluent, suggesting that the algae were likely the source of the phosphorus, as they release it during decomposition.
				An external environmental engineering consultant has completed a lagoon assessment. TasWater is exploring several potential upgrade options, pending further internal investigations and feasibility discussions. A formal letter outlining these considerations has been sent to the EPA.

No other parameters had exceedances in the reporting period.

### 65.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

### 65.6 Ambient monitoring program

**Table 65-F: Program details**

<b>Program</b>	Stanley Ambient Monitoring Plan
<b>Status</b>	No ambient monitoring conducted during the reporting period.
<b>Update</b>	No ambient monitoring conducted during the reporting period. Next round of ambient monitoring is scheduled for FY 2024-25.
<b>Comments</b>	Not applicable.

### 65.7 Groundwater monitoring

Site status: Amber

Stanley STP groundwater monitoring network consists of five monitoring bores, ID numbers SYGW2, SYGW3 and STGW5-7, which are all located on the eastern boundary of the STP between the coastline and STP. One round (biannual) of sampling was completed at all bores during low tide in March 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 found limited signs of STP impact as ammonia and total phosphorus concentration have decreased below adopted guideline limits at across the groundwater monitoring network. Increasing trends were identified at bore ID SYGW5 for total nitrogen and nitrate analytes although concentrations returned to levels comparable to the other bores in the network. The Report suggests there are likely tidal influences at the monitoring bores.

Biannual sampling at the extended analytical suite across the network at low tide is scheduled for the 2024-25 groundwater monitoring program. Annual sampling of STP is scheduled for completion at low tide as per 2022-23 groundwater monitoring report.

### 65.8 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 65 out of 108 in priority.

## 65.9 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 2023–24 SSMP.

No stockpiling occurs at this site.

**Table 65–G: Desludging status and comments**

Desludging status	
Medium Priority	Desludging of lagoon 2 scheduled to occur in 2026–27, as per the current prioritisation planning schedule.

## 65.10 Non-compliance with other permit requirements

**Table 65–H: 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 65E Discharge compliance with permit limits and Performance Analysis.
EM2 Wastewater Reuse EMP Review	No evidence of Wastewater Reuse EMP review submission to EPA.	Desktop RFS study completed in 2021 and has been reviewed. No Reuse EMP action planned until Strategic Business Case (SBC) decided for Stanley STP.
EM3 Discharge Management Plan & EM1 Effluent Management	Discharge Management Plan overdue.	TasWater acknowledges the non-compliance associated with the DMP condition. We are working towards the intent of the EPN condition to prioritise discharge risk reduction projects in line with our EPA endorsed Wastewater Risk Management Plan and Price and Service Plan process.
WM2 Lagoon Sludge Removal	Lagoons must be desludged within 12 months of the date on which EPN takes effect.	Desludging scheduled to occur in 2026, as per the current prioritisation planning schedule.
EF4 WWTP Improvement Works	Inlet screening and aeration equipment installed by 30 November 2016.	Upgrade options currently being investigated as part of SBC.
EF3 Installation and Commissioning of Disinfection Equipment and Bacteriological and Chlorine Effluent Quality Limits.	No ambient monitoring plan provided by 30 June 2016. No implementation plan for the installation and commissioning of effluent disinfection by 1 December 2026.	Ambient monitoring plan submitted to EPA in 2021 with low risk identified to recreational activities in Stanley. Upgrade options being investigated as part of SBC.

## 65.11 Complaints and incident reporting

**Table 65–I: Complaints reporting**

Date	Category	Details	Mitigation actions
5 December 2023	Odour	Complainants phoned TasWater indicating strong	TasWater uses a diesel generator to power an aerator for three to four summer months.

Date	Category	Details	Mitigation actions
8 December 2023	Odour	Odour emanating from Stanley lagoons.	Complaints arose before the aerator was started, likely due to warm conditions and low DO causing increased odours. The aerator was activated following these complaints, and no further issues were reported.

#### **65.12 Any other relevant information**

For further information on Stanley STP please contact TasWater on 13 6992

[www.taswater.com.au](http://www.taswater.com.au)