

## 20. Dover STP

### 20.1 Activity and report details

<b>Activity name</b>	Dover STP		
<b>Activity address</b>	Station Road, Dover		
<b>Permit number</b>	Licence to Operate – 3198	<b>Date of issue</b>	9/12/1986
<b>EPN</b>	Permit Conditions Environmental – 6228 EPN 11379/1	<b>Date of issue</b>	21/04/2023
<b>Treatment level</b>	Secondary Treatment		
<b>Authorised dry weather flows</b>	360 kL/day		
<b>Key influent source</b>	Residential/Industrial		
<b>Contact person</b>	Kate Westgate		
<b>Report author</b>	George Fitzgibbon		
<b>Contact details</b>	Environment@taswater.com.au		
<b>Date of submission</b>	30 September 2024		

**Figure 20–1: Dover Sewage Treatment Plant**



## 20.2 Monitoring and compliance summary

### 20.2.1. Flow data

**Table 20-A: Flow monitoring summary**

	Influent	Effluent	Reuse
<b>Location Name</b>	Inlet	Port Esperance Bay	No reuse scheme
<b>Coordinates</b>	E 501620 N 5204372	E 502708 N 5204109	NA
<b>Method of Measurement</b>	In line	Estimate based on influent	NA
<b>Date of last Calibration/Validation (if applicable).</b>	26/07/2023	NA – to be installed	NA

**Table 20-B: Annual flow and rainfall data**

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 94020	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	141	76.8	4.37	--
August 2023	235	43.3	7.27	--
September 2023	253	80.8	7.60	--
October 2023	137	105.2	4.23	--
November 2023	177	57.8	5.31	--
December 2023	141	31.4	4.38	--
January 2024	138	45.0	4.28	--
February 2024	124	26.8	3.58	--
March 2024	113	18.8	3.52	--
April 2024	115	27.0	3.44	--
May 2024	119	42.2	3.68	--
June 2024	184	83.2	5.53	--
Annual 2023-24	157	638.3	57.20	--
<b>% of total discharge</b>	--	--	100.0%	--

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

## 20.3 Bypass events

**Table 11-C: Bypass events summary**

<b>Bypass ID:</b>	DOVST01-BPSD-1				
<b>Bypass description:</b>	Inlet pump station overflow to settling lagoon				
<b>Treatment bypassed:</b>	Secondary Treatment				
<b>Treatment level of impacted effluent:</b>	Screened, Disinfection (Chlorine)				
<b>Flows exceeding:</b>	12 L/s (Approximate)				
<b>Discharge location:</b>	Port Esperance: 502708E, 5204109N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
15/07/23 08:21	15/07/23 14:24	6.1 h	26 kL	Rainfall Event	No specific actions undertaken
31/07/23 17:06	31/07/23 22:36	5.5 h	25 kL	Rainfall Event	No specific actions undertaken
19/09/23 21:46	20/09/23 22:27	24.7 h	118 kL	Rainfall Event	No specific actions undertaken
21/10/23 23:31	22/10/23 00:41	1.2 h	23 kL	Rainfall Event	No specific actions undertaken
07/01/24 03:52	07/01/24 04:43	0.9 h	25 kL	Rainfall Event	No specific actions undertaken
03/06/24 16:50	03/06/24 21:44	4.9 h	25 kL	Rainfall Event	No specific actions undertaken
11/06/24 07:44	11/06/24 13:34	5.8 h	27 kL	Rainfall Event	No specific actions undertaken

## 20.4 Discharge compliance with permit limits

**Table 20-D: Discharge compliance with permit limits**

Parameter	Ammonia	BOD5	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E coli	Enterococci	Total suspended solids
Permit/EPN limit*	mg/L	mg/L	mg/L	mg/L	mg/L	Units	mg/L	MPN/100ml	MPN/100ml	mg/L
<b>Maximum</b>	5.0	--	1.0	40.0	--	8.5	10.0	750	3200	--
<b>90th percentile</b>	--	15.0	--	15.0	--	--	8.0	500	--	20.0
<b>50th percentile</b>	--	10.0	--	7.0	--	--	5.0	200	--	10.0
<b>Minimum</b>	--	--	--	--	--	6.5	--	--	--	--
<b>Samples analysed</b>										
<b>Number required</b>	12	12	12	12	12	12	12	12	12	12
<b>Number analysed</b>	12	12	12	12	12	13	12	12	12	12
<b>Statistical summary</b>										
<b>Maximum</b>	7.0	30	4.80	11.0	1.7	8.9	9.3	422	426	24.2
<b>90th percentile</b>	6.0	5	1.57	10.7	1.2	8.0	8.6	58	10	18.7
<b>50th percentile</b>	0.9	5	0.87	2.8	1.0	7.5	5.8	10	10	4.0
<b>Minimum</b>	0.1	5	0.33	1.8	1.0	7.0	1.1	10	10	4.0
<b>EPN limit compliance</b>										
<b>% compliance with maximum</b>	83%	--	58%	100%	--	--	100%	100%	100%	--
<b>% compliance with 90th percentile</b>	--	92%	--	100%	--	--	83%	100%	--	92%
<b>% compliance with 50th percentile</b>	--	92%	--	67%	--	--	42%	92%	--	83%
<b>% compliance with pH range</b>	--	--	--	--	--	92%	--	--	--	--

**Table 20-E: Mass loads to the environment**

Parameter	EPN Limit	Frequency	2023-24 result
Nitrogen	--	Annual	254.3
Phosphorous (kg)	--	Annual	288.4
Method	Time weighted/Grab sample method		

**Table 20-F: Performance analysis (discharge to environment)**

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
pH	22/02/2024	Failure on high pH, correlating with algae bloom in lagoon.	No specific action
Chlorine	14/09/2023 23/11/2023 22/02/2024 18/04/2024 24/06/2024	Poor chlorine control	No specific actions.
Ammonia	18/04/2024 23/05/2024	Lagoon system not specifically designed to remove ammonia	No specific action

No other parameters had exceedances in the reporting period.

## 20.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

## 20.6 Ambient monitoring program

**Table 20-G: Program details**

<b>Program</b>	Post new outfall commissioning ambient monitoring program
<b>Status</b>	Ambient water quality, sediment and biological monitoring has commenced during the reporting period.
<b>Update</b>	12-month monitoring program commenced in February 2024 and is due for completion in January 2025.
<b>Comments</b>	An Ambient Monitoring Report will be submitted by May 2025 to comply with condition EM4 of EPN 11379/1.

## 20.7 Groundwater monitoring

Site status: Green – (2022–23 Report)

Dover STP groundwater monitoring network consists of three monitoring bores ID numbers DOGW1–3. Bore ID# DOGW1 is located to the south of the STP, bore ID# DOGW2 to the north, and bore ID# DOGW3 is located immediately east of the STP.

One round of sampling (6-monthly) was completed at all three groundwater monitoring bores in February 2024. The planned second round of sampling (annual) was not completed. TasWater has put measures in place for the 2024–25 sampling program to address the scheduling and resourcing delays that impacted the reduced sampling frequency.

The groundwater monitoring report for the 2023–24 sampling event will be finalised and available in October 2024. Any actions to address potential issues will be determined following the hydrogeological review. The 2022–23 report data indicated a low risk to receiving environment as well as groundwater users in the area due to majority of parameters below guideline levels. Biological sampling has been consistently undertaken at all three bores for several sampling rounds.

Bi-annual sampling at the standard suite is scheduled to continue at all three bores during the 2024–25 monitoring program.

## 20.8. 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 16 out of 108 in priority (high). Actions in the period included:

- Flow Monitoring of the whole catchment
- Smoke Testing and MH Audits of problem sub catchments
- Manhole remediation completed

## 20.9. 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 20–H: Desludging status and comments**

Desludging status	Comments
High Priority	Desludging of the Polishing Lagoon is scheduled to occur in 2025–26, as per the current prioritisation planning schedule.

## 20.10. Non-compliance with other permit requirements

**Table 20–I: EPN non-compliances**

EPN condition	Description of non-conformance	Future actions to be taken
EF3 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 20.4 Discharge compliance with permit limits and Performance Analysis
F1 Flow Monitoring	No effluent flow meter installed	On flow meter program to be installed

## 20.11. Complaints and incident reporting

No complaints or incidents in the period.

## 20.12. Any other relevant information

**Table 20–J: Projects or significant operational events that occurred in FY 2023–24:**

Project or significant operational event	Progress
Dover STP Outfall Renewal and Extension project	New relocated outfall commissioned in July 2023

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

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