

38 Orford STP

38.1 Activity and report details

Activity name	Orford STP		
Activity address	Rheban Rd, Orford		
Permit number	Licence to Operate – 2840	Date of issue	8/03/1991
EPN	8949/1	Date of issue	17/03/2014
Treatment level	Secondary Treatment		
Authorised Dry Weather Flows	473 kL/day		
Key Influent Source	Residential		
Contact person	Kate Westgate		
Report author	Jayden Taylor		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2023		

Figure 38-1: Orford Sewage Treatment Plant



38.2 Monitoring and compliance summary

38.2.1 Flow data

Table 38-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location Name	Inlet	Mercury Passage off Quarry Point	No reuse scheme
Coordinates	E 572846 N 5285940	E 5747357 N 5286646	NA
Method of Measurement	In line meter	Estimate based on influent	NA
Date of last Calibration/Validation (if applicable).	05/09/2022	NA	NA

Table 38-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 92028	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2022	291	54.8	9.02	--
August 2022	342	70.6	10.60	--
September 2022	554	120.6	16.62	--
October 2022	643	150.0	19.93	--
November 2022	666	163.6	19.97	--
December 2022	470	95.8	14.58	--
January 2023	319	37.8	9.90	--
February 2023	252	42.2	7.05	--
March 2023	246	39.1	7.61	--
April 2023	358	67.0	10.74	--
May 2023	199	19.6	6.16	--
June 2023	378	92.0	11.34	--
Annual 2022-23	393	953.1	143.51	--
% of Total Discharge	--	--	100.0%	--

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

38.2.2 Bypass events

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

38.3 Discharge compliance with permit limits

Table 38-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	25	30	--	40	10	8.5	10	1000	40
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	16.9	64	--	23.9	1.1	9.2	4.8	1842	74.0
90th percentile	16.2	44	--	22.9	1.0	8.9	4.4	813	72.6
50th percentile	8.9	22	--	17.4	1.0	8.4	3.9	63	9.1
Min	0.1	5	--	6.8	1.0	7.3	2.3	10	4.0
EPN Limit Compliance									
% compliance with Maximum	100%	58%	--	100%	100%	--	100%	92%	75%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	58%	--	--	--

Table 38-D: Mass loads to the environment

Parameter	EPN Limit	Frequency	2022-23 result
Nitrogen (kg)	--	Annual	2505.2
Phosphorous (kg)	--	Annual	493.4
Method	Time weighted/Grab sample method		

Table 38-E: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD	28/07/2022 11/01/2023 2/02/2023	16/03/2023 26/04/2023	No specific actions undertaken
pH	28/07/2022 19/10/2022 11/01/2023	2/02/2023 16/03/2023	
TSS	28/07/2022 2/02/2023	16/03/2023 26/04/2023	

No other parameters have had exceedances in reporting period.

38.4 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

38.5 Ambient monitoring program

Table 38-F: Program details

Program	NA – No requirement for ambient monitoring in the reporting period
Status	NA
Update	NA
Comments	NA

38.6 Groundwater monitoring

No groundwater monitoring program associated with the STP.

38.7 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 7 out of 79 in priority.

38.8 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 is fully compliant with the 2022-23 SSMP.

No stockpiling occurs at this site.

Table 38-G: Desludging status and comments

Desludging Status	Comments
Low Priority	Desludging is outside of the current prioritisation planning schedule.

38.9 Non-compliance with other permit requirements

Table 38-H: 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 38.3 Discharge compliance with permit limits and Performance Analysis.

EPN Condition	Description of non-conformance	Future Actions to be taken
OP1 Operational Procedures and Maintenance Manual	No contemporary Operational Procedures Manual.	New SharePoint based solution for OPMMs currently being developed. First version to be implemented by FY24.
M2 Groundwater Monitoring	Groundwater Monitoring not as per specific requirements	Improve monitoring program for FY23/24 to meet compliance

38.10 Complaints and incident reporting

No complaints were reported during the FY2022-23 reporting period.

Table 38-I: Incident Reporting

Date	Category	Details	Mitigation Actions
18/04/2023	Lagoon	Overtopping of the final lagoon resulted in discharge to East Shelly Beach.	Project underway to install a new pump station and pipework at the STP, this will prevent overtopping.

38.11 Any other relevant information

Table 38-J: Projects or significant operational events that occurred in FY 2022-23:

Project or significant operational event	Progress
<p>Sewage Pump Station (SPS) upgrades and reconfiguring the sewerage network into two discrete networks.</p> <p>SPS upgrades involve new emergency storage tanks, pumps, wet wells, and electrical switchboards to reduce the frequency and volume of sewage overflows and allow for a greater holding capacity of wet weather flows within the network.</p>	TasWater's CDO has developed a Detailed Business Case (DBC)

For further information on the Orford STP please contact TasWater on 13 6992

www.taswater.com.au