

77. Wynyard STP

77.1 Activity and report details

Activity name	Wynyard STP		
Activity address	Walker Street, Wynyard		
Permit number	Licence to Operate - 3653	Date of issue	29/09/1986
EPN	9090/1	Date of issue	26/11/2014
Treatment level	Secondary Treatment		
Authorised Dry Weather Flows	2900 KL		
Key Influent Source	Residential/Industrial 1 x Category 4 Customer		
Contact person	Kate Westgate (Manager Environmental Performance)		
Report author	Jake Crisp (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 77-1: Wynyard Sewage Treatment Plant



77.2 Monitoring and compliance summary

77.2.1 Flow data

Table 77-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Plant Inlet	Bass Strait	No reuse scheme
Coordinates	E 395351 N 5460296	E 395605 N 5461614	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable).	29/08/2025	29/08/2025	NA

Table 77-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91107	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	2,462	115.2	76.32	--
August 2024	4,629	185.8	143.49	--
September 2024	5,783	133.4	173.50	--
October 2024	4,641	55.4	143.86	--
November 2024	4,287	81	128.61	--
December 2024	4,369	69.6	135.43	--
January 2025	3,793	18.2	117.58	--
February 2025	3,577	3	100.14	--
March 2025	3,482	29.4	107.95	--
April 2025	3,388	33.4	101.65	--
May 2025	3,209	45.2	99.49	--
June 2025	5,486	84.2	164.58	--
Annual 2024-25	4,089	853.8	1,492.60	0.00
% of total discharge	--	--	100.0%	0.0%

2024-25 monthly flow data was submitted directly to the EPA.

77.3 Bypass events

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

77.4 Discharge compliance with permit limits

Table 77-C: Discharge compliance with permit limits

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	5	25	--	40	10	8.5	20	1000	35
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	52	52	--	52	52	52	52	52	52
Number analysed	52	52	--	52	52	52	52	52	52
Statistical summary									
Maximum	13.9	49.0	0.0	39.4	3.5	7.6	31.6	24196.0	266.0
90th percentile	2.5	18.8	0.0	26.0	1.0	7.5	25.1	24196.0	18.1
50th percentile	0.2	5.0	0.0	5.8	1.0	7.3	13.4	13566.5	4.0
Minimum	0.1	5.0	0.0	0.9	1.0	6.4	0.2	552.0	4.0
EPN limit compliance									
% compliance with maximum	96%	92%	--	100%	100%	100%	81%	2%	94%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	98%	--	--	--

Table 77-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	14467.2
Phosphorous (kg)	--	Annual	17109.4
Method	Flow weighted/composite method		

Table 77-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
Ammonia	04/09/2024 11/09/2024	Likely attributable to process upsets from a significant wet weather event or intermittent peak trade waste loads that exceed the plant's aeration capacity, resulting in elevated ammonia.	No specific actions undertaken in reporting period.
E. coli	04/09/2024 12/03/2025 19/03/2025 26/03/2025 02/04/2025 09/04/2025 16/04/2025	23/04/2025 30/04/2025 07/05/2025 14/05/2025 21/05/2025 28/05/2025 04/06/2025 11/06/2025	Future disinfection at the site is being investigated during the PSP4 period. Refer to Section 77.12 for further information.
Phosphorus	12/03/2025 16/04/2025 30/04/2025	Wynyard STP does not have disinfection nor phosphorus removal processes, which results in more frequent non-compliance with the E. coli and Phosphorus limits.	

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD	4/09/2024 13/11/2024	15/01/2025 26/03/2025	Likely attributable to process upsets from a significant wet weather event or intermittent peak trade waste load, resulting in elevated BOD and TSS.
TSS	13/11/2024 15/01/2025	5/03/2025	

No other parameters had exceedances in the reporting period.

77.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP

77.6 Ambient Monitoring Program

Table 77-F: Program details

Program	Wynyard Ambient Monitoring Program
Status	Monthly water quality sampling during recreation season. Biennial biological monitoring, twice per year in summer and winter.
Update	Water quality monitoring completed between November 2024 and April 2025. Biological monitoring completed in December 2024 and June 2025.
Comments	<p>An ambient monitoring report for the Wynyard monitoring undertaken in 2024–2025 has been submitted separately to this AER. Notable findings of the study include:</p> <p>Water quality monitoring indicates an impact on recreational values surrounding the outfall and extends to approximately 350 m from the outfall. Elevated nutrients were observed up to 200 m from the discharge point. It is postulated that the extent of impact would change depending on weather conditions.</p> <p>Results of the biological survey show that there is a depression of abundance of algae growth within a 10 m radius of the discharge. This is attributed to decreased light attenuation from solids discharged, coupled with elevated nutrients in the discharge.</p>

77.7 Groundwater monitoring

Site status: Red (2023–24)

Wynyard STP groundwater monitoring network consists of four monitoring bores, ID numbers WNGW1–4. Bore ID WNGW1 is located south of STP Lagoon 1. Bore ID WNGW2 is located on the south–western boundary of sludge treatment lagoon 2 with bore ID WNGW3 situated on the northern boundary of sludge treatment lagoon 1. Bore ID WNGW4 is located on the northern boundary of Lagoon 2.

Bi–annual sampling at the extended analytical suite was completed across the network in December 2024 and May 2025 as scheduled.

The 2024–25 groundwater monitoring event report is due in September 2025. Any actions required following a review of the report will be provided by 21 January 2026 in the groundwater Summary Actions Report (SAR).

Bi–annual sampling at the extended analytical suite is scheduled to continue at all bores during the 2025–26 groundwater monitoring program.

77.8 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.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 44 out of 108 in priority.

77.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period. This STP was assessed as compliant with the 2024-25 SSMP.

This STP receives liquid sludge transfers from Ridgley, Sisters Beach and Somerset STPs. The total sludge volume received at Wynyard STP for the reporting period was 3826kL.

Biosolids are removed regularly from this STP, no stockpiling occurs at this site.

Table 77-G: Biosolids sludge classification

Parameter	Number of samples*	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	10.4	4.7	3.3	8.8	A
Cadmium	12	1.6	0.9	0.6	1.4	B
Chromium	12	89.4	57.4	44.2	81.4	B
Copper	12	155.0	121.8	89.4	160.3	B
Lead	12	33.7	21.6	15.4	31.7	A
Mercury	12	0.5	0.3	0.1	0.5	A
Nickel	12	47.4	30.5	25.1	43.3	A
Zinc	12	699.0	556.9	436.0	692.0	B

Table 77-H: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
266.7	15.7	None	U/C	B	U/C	Dulverton Compost

Notes: DST = Dry solid tonne. U/C = Unclassified

Table 77-I: Liquid sludge transfers received at Wynyard STP

STP transferred from	Volume received (kL)
Ridgley STP	800
Sisters Beach STP	1379
Somerset STP	1647
TOTAL	3826

77.10 Non-compliance with other permit requirements

Table 77-J: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
Q1 Regulatory limits	ADWF limit exceeded	TasWater provided an update to the EPA on 27 March 2024 regarding this ongoing non-compliance. In the update, TasWater indicated continuing development of the WWRMP commitment for PSP4 for the Master Plan/Strategy for Wynyard STP and that plans to address treatment capacity issues would be contained therein. Further, such upgrades would be subject to an EPA assessment process and would inform a DMP.
EF2 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 77.4 Discharge compliance with permit limits and Performance Analysis.
EM1 & EM3	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.
M6 Installation of Automated Treated Effluent Composite Sampling Equipment	Overdue for the installation of a treated effluent composite sampler	A composite sampler is situated at the STP but it is currently not installed due to difficulties with accessing a representative location. A project has been initiated to design, where necessary; platforms, pipe reconfiguration and electrical works to install the sampler at an appropriate location.
WM2 Sewage Sludge Management Plan	This STP was deemed non-compliant with the 2023-24 SSMP due to further clarification required regarding inputs, stabilisation grade and contaminant grade.	Ensure details on inputs, stabilisation grade and contaminant grade are included in 2024-25 SSMP.
G6 Annual Environmental Review	Found to be non-compliant due to complaints received not reported	All complaints detail to be to be included in AER 2024-2025

77.11 Complaints and incident reporting

There were no complaints receiving during the reporting period.

Table 77-K: Incident reporting

Date	Category	Details	Mitigation actions
13/06/2025	Trade Waste	Trade waste input resulted in elevated influent pH. There were concerns regarding impacts to the secondary treatment process.	Completed operational sampling to assess impacts to secondary treatment. Some immediate impacts were observed with elevated ammonia and nitrate levels, but compliance sampling showed that the STP remained within acceptable limits for these parameters.
3/04/2025	Mechanical	Rotork valve malfunction in North pasveer ditch. Resulted in some solids	Undertook prompt repairs and valve was operational by 4 April.

Date	Category	Details	Mitigation actions
		carryover into effluent discharge.	
23/01/2025	Mechanical	Aerator malfunction in pasveer ditch.	Engaged a crane operator to remove aerator. Continued secondary treatment with one remaining pasveer ditch. Replacement aerator ordered. Additional aerator ordered and stored as a spare. Replacement aerator arrived and was installed on 26 August 2025.

77.12 Any other relevant information

Table 77-L: Projects or significant operational events that occurred in FY2024-25.

Project or significant operational event	Progress
Proposed Wynyard STP Disinfection Project	In line with the Wastewater Risk Management Plan 2022-2026, TasWater is investigating options to install disinfection at the Wynyard STP. An options assessment for alternative technologies will be undertaken in FY26.
Wynyard Master Plan	Proposed regional master planning strategic options for Wynyard include upgrades and transfer of flows from Somerset and part of Burnie to Wynyard.

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

www.taswater.com.au