

36. Norwood STP

36.1 Activity and report details

Activity name	Norwood STP		
Activity address	Brookdale Street, Norwood, Launceston		
Permit number	Licence to Operate - 3176	Date of issue	25/01/1990
EPN	8104/1	Date of issue	12/06/2013
Treatment level	Secondary Treatment		
Authorised dry weather flows	4050 kL/day		
Key influent source	Residential/Industrial 1 x Category 3 Customer		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 36-1: Norwood Sewage Treatment Plant



36.2 Monitoring and compliance summary

36.2.1 Flow data

Table 36-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	North Esk River	No reuse scheme
Coordinates	E 515509 N 5410515	E 515780 N 5410687	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable).	26/11/2024	2/12/2024	NA

Table 36-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91072	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	4,913	120.4	152.31	--
August 2024	4,220	107.2	130.82	--
September 2024	2,838	80.4	85.13	--
October 2024	2,692	37.4	83.45	--
November 2024	3,177	90.2	95.30	--
December 2024	2,939	46.8	91.11	--
January 2025	2,219	18.6	68.79	--
February 2025	2,046	17	57.29	--
March 2025	2,097	21.8	65.02	--
April 2025	2,114	24.4	63.41	--
May 2025	2,236	47.2	69.33	--
June 2025	2,959	85.7	88.78	--
Annual 2024-25	2,879	697.1	1,050.73	0.00
% of total discharge	--	--	100.0%	0.0%

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

36.3 Bypass events

Table 36–C: Bypass events summary

Bypass ID:	NORSTO1-OND				
Bypass description:	Stormwater storage lagoon overflow to chlorine contact tank				
Treatment bypassed:	Secondary Treatment				
Treatment level of impacted effluent:	Screened, Disinfection (Chlorine)				
Flows exceeding:	80L/s (Approximate)				
Discharge location:	North Esk River: 515780E, 5410687N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
30/06/2024	1/07/2024	15.0 h	787 kL	High Flow (Wet Weather)	<p>To help reduce bypass events state-wide, during FY2024–25 TasWater has spent \$1.2 million on the identification, reification and monitoring of inflow and infiltration (I&I) within our systems. During FY2025 –26 we will be spending a further \$0.8 million on I&I works.</p> <p>A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 19 out of 108 in priority. Works this period included:</p> <ul style="list-style-type: none"> • Desktop analysis to understand performance within the sewer network.
10/07/2024	11/07/2024	14.8 h	2341 kL	High Flow (Wet Weather)	
11/07/2024	13/07/2024	42.1 h	2815 kL	High Flow (Wet Weather)	
13/07/2024	14/07/2024	13.4 h	285 kL	High Flow (Wet Weather)	
22/07/2024	24/07/2024	40.9 h	6124 kL	High Flow (Wet Weather)	
25/07/2024	26/07/2024	11.0 h	440 kL	High Flow (Wet Weather)	
26/07/2024	29/07/2024	54.8 h	6918 kL	High Flow (Wet Weather)	
29/07/2024	30/07/2024	14.3 h	621 kL	High Flow (Wet Weather)	
30/07/2024	31/07/2024	11.5 h	215 kL	High Flow (Dry Weather)	
31/07/2024	31/07/2024	7.8 h	73 kL	High Flow (Dry Weather)	
6/08/2024	8/08/2024	34.3 h	6364 kL	High Flow (Wet Weather)	
8/08/2024	9/08/2024	19.7 h	863 kL	High Flow (Dry Weather)	
9/08/2024	10/08/2024	17.6 h	811 kL	High Flow (Dry Weather)	

27/11/2024	27/11/2024	2.8 h	8 kL	High Flow (Wet Weather)
28/11/2024	29/11/2024	16.5 h	3533 kL	High Flow (Wet Weather)
1/12/2024	2/12/2024	22.5 h	2304 kL	High Flow (Wet Weather)
3/12/2024	4/12/2024	16.3 h	3206 kL	High Flow (Wet Weather)
17/06/2025	18/06/2025	13.9 h	885 kL	High Flow (Wet Weather)
25/06/2025	25/06/2025	8.5 h	337 kL	High Flow (Wet Weather)

36.4 Discharge compliance with permit limits

Table 36-D: 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	30	22	1.5	40	10	8.5	15	200	30
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	12	12	12	12	12	12	12
Number analysed	12	12	13	12	12	12	12	12	12
Statistical summary									
Maximum	9.2	11.0	2.0	23.2	1.4	7.3	4.9	146.0	12.1
90th percentile	4.1	9.5	1.9	16.8	1.3	7.2	3.7	25.4	11.7
50th percentile	2.2	5.0	1.1	7.9	1.0	7.1	2.0	10.0	5.4
Minimum	0.1	5.0	0.5	4.7	1.0	6.9	1.0	10.0	4.0
EPN limit compliance									

Parameter	Ammonia	BOD5	Chlorine	Nitrogen	Oil and grease	pH	Phosphorous	E coli	Total suspended solids
% compliance with maximum	100%	100%	77%	100%	100%	100%	100%	100%	100%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 36-E: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	11974.3
Phosphorous (kg)	--	Annual	2320.2
Method	Flow weighted/composite method		

Table 36-F: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
Chlorine	29/07/2024 10/06/2025	Non-compliance correlates with a wet weather event, which decreases detention time within the chlorine contact tank and limits available capacity for chlorine decay prior to discharge.	No specific actions taken.

No other parameters had exceedances in the reporting period.

36.5 Reuse annual reporting

No recycled water scheme associated with this STP.

36.6 Ambient monitoring program

Table 36-G: Program details

Program	Norwood Biological Monitoring Program
Status	Biennial monitoring completed of biota in the North Esk River upstream and downstream of the discharge
Update	Completed in 2024-2025
Comments	<p>A summary of the noteworthy observations is included below. The report has been provided to EPA separately to this AER:</p> <p>Results to date suggest a decline in several of the AUSRIVAS parameters moving downstream from the most upstream site to the most downstream site. In addition to evidence for nutrient enrichment occurring at the most downstream (riffle) site. It is not clear what role the STP discharge plays in this general decline in water quality moving downstream, and to what degree other factors such as stock in adjacent pasture may be involved.</p>

36.7 Groundwater monitoring

Site status: Amber

Norwood STP groundwater monitoring network consists of four groundwater bores, ID numbers NWGW1-4. The monitoring network is considered to provide good coverage with all bores are located along the eastern edge of the STP between the STP and likely receiving water body of the North Esk River.

Bi-annual sampling at the extended analytical suite was completed at all four bores in October 2024 and April 2025 as scheduled. No surface water sampling was completed at the STP Lagoons.

The 2024-25 groundwater monitoring event recorded exceeding concentrations of total nitrogen and/or total phosphorous above several adopted guideline criterion in bore ID's NWGW1-2 and NWGW4 with increasing trends of at least one analyte. Monitoring bore ID NWGW3 did not record increasing trends or exceedances above adopted assessment criteria.

Bi-annual sampling at the extended analytical suite is scheduled to continue at all four bores and re-introduced in the North Esk River during the 2025-26 groundwater monitoring program. Annual sampling at the STP is also scheduled to allow for further groundwater characterisation assessment.

36.8 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 19 out of 108 in priority. Works this period included:

- Desktop analysis to understand performance within the sewer network.

36.9 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 assessed as compliant with the 2024-25 SSMP.

The majority of sludge produced at this STP is captured in a sludge lagoon which is emptied annually, dried and sent to farmland for beneficial reuse. The sludge lagoon was emptied into the adjacent drying bed in November 2024. The dried sludge was tested and classified as Class 2 biosolids and was subsequently applied to suitable farmland in April 2025.

In addition, 174.9kL of liquid sludge was transferred to Ti Tree Bend STP during the reporting period.

Table 36-H: Biosolids sludge classification summary

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	3	4.8	3.8	2.9	4.7	A
Cadmium	3	0.4	0.4	0.3	0.4	A
Chromium	3	68.9	58.4	52.8	67.5	B
Copper	3	157	142.7	130	156.2	B
Lead	3	22.5	20.5	18	22.8	A
Mercury	3	0.44	0.2	0.14	0.4	A
Nickel	3	37.3	36.3	35.4	37.3	A
Zinc	3	361	323.7	274	368.5	B

Table 36-I: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
1600.4 (sludge lagoon)	87.5	Anaerobic digestion, drying	B	B	2	Camperdown Farm

Notes: DST = Dry solid tonne.

Table 36-J: Liquid sludge transfers from Norwood STP

Receiving STP	Volume (kL)
Ti Tree Bend STP	174.9
TOTAL	174.9

36.10 Non-compliance with other permit requirements

Table 36-K: EPN non-compliance

EPN condition	Description of non-conformance	Future actions to be taken
EM1 Effluent management	Discharge Management Plan overdue.	TasWater acknowledges the non-compliance associated with the DMP and RFS 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.
EM3 Discharge Management Plan	Discharge Management Plan overdue.	
EM2 Effluent Reuse Feasibility Study	Effluent Reuse Feasibility Study overdue.	
EF2 Effluent quality limits for discharge	Discharge compliance with permit limits	See section 36.4 Discharge Compliance with Permit Limits.

36.11 Complaints and incident reporting

No complaints reported during FY2024-25 reporting period.

Table 36-L: Incident reporting

Date	Category	Details	Mitigation actions
06/12/2024	Power outage	Power outage at Norwood STP for approximately two hours.	Operators monitored the treatment process during the outage. Disinfection continued via Cl ₂ dosing backup. No effluent quality impacts were observed.
12/09/2025	Power outage	Power outage at Norwood STP due to significant weather event.	A generator was used to power the Norwood STP. The plant was monitored over the following 24 hours to allow the process to stabilise. Biomass was seeded from Hoblers Bridge STP to Norwood STP to help re-establish biological activity and support process recovery. No effluent quality impacts observed.

36.12 Any other relevant information

Table 36-M: Projects or significant operational events that occurred in FY 2024-25:

Project or significant operational event	Progress
Meander Tamar Sewerage Regional Master Plan	The Meander Tamar Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Norwood STP with the ultimate decommissioning of the STP and transfer of sewage to the Ti Tree Bend STP.

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

www.taswater.com.au