

35. Newnham STP

35.1 Activity and report details

Activity name	Newnham STP		
Activity address	Newnham Drive, Newnham TAS 7248		
Permit number	Licence to Operate - 3565	Date of issue	12/10/1988
EPN	8105/1	Date of issue	12/06/2013
Treatment level	Secondary Treatment		
Authorised dry weather flows	3920 kL/day		
Key influent source	Residential/Industrial/Tankered 3 x Category 3 Customers		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 35-1: Newnham Sewage Treatment Plant



35.2 Monitoring and compliance summary

35.2.2 Flow data

Table 35-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Newnham Creek then Tamar River	No reuse scheme
Coordinates	E 509793 N 5417209	E 509542 N 5417098	NA
Method of measurement	In line meter	Level Sensor	NA
Date of last calibration/validation (if applicable).	21/08/2024	13/12/2024	NA

Table 35-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91237	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	4,279	105	127.02	--
August 2024	4,411	103.2	131.58	--
September 2024	4,615	87.9	128.54	--
October 2024	3,046	36.8	89.68	--
November 2024	3,533	82.4	97.16	--
December 2024	3,358	57.2	97.74	--
January 2025	2,775	25	80.18	--
February 2025	2,855	14.2	79.94	--
March 2025	2,851	19.4	83.81	--
April 2025	2,916	25.4	83.71	--
May 2025	2,306	48.5	71.49	--
June 2025	2,709	71	81.26	--
Annual 2024-25	3,307	676	1,152.11	0.00
% of total discharge	--	--	100.0%	0.0%

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

35.3 Bypass events

Table 35-C: Bypass events summary

Bypass ID:	NEWSTO1-OPD				
Bypass description:	Primary effluent distribution pit overflow to chlorine contact tank				
Treatment bypassed:	Secondary Treatment				
Treatment level of impacted effluent:	Screened, Primary Treatment, Disinfection (Chlorine)				
Flows exceeding:	160 L/s (Approximate)				
Discharge location:	Tamar River: 509542E, 5417098N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
27/07/2024	27/07/2024	4.4 h	863 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 54 out of 108 in priority (high). Works this period included:</p>
6/08/2024	6/08/2024	1.5 h	341 kL	High Flow (Wet Weather)	
25/08/2024	25/08/2024	0.6 h	93 kL	High Flow (Wet Weather)	
27/08/2024	27/08/2024	0.3 h	40 kL	High Flow (Wet Weather)	
30/08/2024	30/08/2024	2.4 h	296 kL	High Flow (Wet Weather)	
30/08/2024	30/08/2024	0.4 h	40 kL	High Flow (Wet Weather)	
31/08/2024	31/08/2024	2.3 h	255 kL	High Flow (Wet Weather)	
1/09/2024	2/09/2024	5.6 h	1177 kL	High Flow (Wet Weather)	
6/09/2024	6/09/2024	7.2 h	2031 kL	High Flow (Wet Weather)	
18/10/2024	18/10/2024	1.0 h	156 kL	High Flow (Wet Weather)	
27/11/2024	27/11/2024	4.4 h	950 kL	High Flow (Wet Weather)	
28/11/2024	28/11/2024	1.0 h	188 kL	High Flow (Wet Weather)	
1/12/2024	1/12/2024	2.1 h	142 kL	High Flow (Wet Weather)	
24/06/2025	24/06/2025	2.6 h	387 kL	High Flow (Wet Weather)	

35.4 Discharge compliance with permit limits

Table 35-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	26	40	--	36	10	8.5	10	1000	60
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	31.8	73.0	1.8	50.2	14.2	7.2	9.7	24196.0	46.0
90th percentile	29.3	52.9	1.5	45.2	10.2	7.1	7.0	1446.2	27.9
50th percentile	25.6	41.0	1.0	39.7	7.4	6.9	6.5	31.0	18.9
Minimum	12.6	19.0	0.2	25.7	3.8	6.4	2.7	10.0	9.7
EPN limit compliance									
% compliance with maximum	62%	46%	--	15%	88%	100%	100%	87%	100%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	96%	--	--	--

Table 35-E: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	45841.2
Phosphorous (kg)	--	Annual	7147.9
Method	Flow weighted/composite method		

Table 35-F: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance			Reasons for non-compliance	Actions to improve performance
Chlorine	10/07/2024 30/04/2025 18/06/2025 25/06/2025			High flows due to wet weather contributed to the non-compliant Chlorine results.	Refurbishment of the primary sedimentation tanks to divert additional loading to the digester and reduce load to secondary treatment.
E. coli	14/08/2024 21/08/2024 2/10/2024 23/10/2024 27/11/2024 9/04/2025 30/04/2025			High flows due to wet weather contributed to the non-compliant E. coli and Chlorine results.	Future works include refurbishment of humus tank and a conditions assessment of the trickling filter.
BOD	10/07/2024 17/07/2024 7/08/2024 21/08/2024 11/09/2024 2/10/2024 16/10/2024 23/10/2024 30/10/2024	27/11/2024 18/12/2024 23/12/2024 15/01/2025 22/01/2025 29/01/2025 5/02/2025 12/02/2025 19/02/2025 26/02/2025	5/03/2025 26/03/2025 2/04/2025 9/04/2025 23/04/2025 30/04/2025 7/05/2025 14/05/2025 11/06/2025	The trickling filter is overloaded, which is believed to contribute to elevated BOD and oil and grease concentrations. Operational sampling also identified that the carbonaceous BOD is typically below the licence limit of 40 mg/L, indicating the impact of ammonia on the BOD test result.	

Effluent compliance parameter	Date(s) of non-compliance			Reasons for non-compliance	Actions to improve performance
Oil and grease	7/08/2024 29/01/2025 26/03/2025 9/04/2025 7/05/2025			Increased trade waste loading.	
Ammonia	3/07/2024 10/07/2024 17/07/2024 14/08/2024 21/08/2024 18/09/2024	25/09/2024 2/10/2024 9/10/2024 23/10/2024 30/10/2024 27/11/2024 23/12/2024	2/01/2025 8/01/2025 5/03/2025 2/04/2025 16/04/2025 14/05/2025 21/05/2025	The trickling filter is not designed to remove ammonia, and the compliance limits exceed the system's capability.	
Nitrogen	3/07/2024 10/07/2024 17/07/2024 31/07/2024 7/08/2024 14/08/2024 21/08/2024 18/09/2024 25/09/2024 2/10/2024 9/10/2024 16/10/2024 23/10/2024 30/10/2024	6/11/2024 13/11/2024 20/11/2024 27/11/2024 11/12/2024 18/12/2024 23/12/2024 2/01/2025 8/01/2025 15/01/2025 22/01/2025 29/01/2025 5/02/2025 12/02/2025 19/02/2025	26/02/2025 5/03/2025 12/03/2025 19/03/2025 26/03/2025 2/04/2025 9/04/2025 16/04/2025 23/04/2025 30/04/2025 14/05/2025 21/05/2025 4/06/2025 4/06/2025 11/06/2025	Newnham STP is not designed to remove nitrogen. The compliance limits are above the capacity of the STP.	

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
pH	27/11/2024 19/02/2025	27/11/2024 - Increase in temperature would have improved nitrification (reflected in low TAN and high TN), leading to more consumption of alkalinity in the Trickling Filter. Site lacks additional alkalinity dosing to buffer effluent pH. 19/02/2025 - Chlorinator valve stuck in maximum dose.	

No other parameters had exceedances in the reporting period.

35.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

35.6 Ambient monitoring program

Table 35-G: Program details

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

35.7 Groundwater monitoring

No groundwater monitoring program for this site.

35.8 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 54 out of 108 in priority.

35.9 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.

There are no sludge/biosolids dewatering facilities at this site, with sludge transferred via liquid sludge transport to Ti Tree Bend STP. Total volume of sludge removed during the reporting period was 10626kL.

Table 35-H: Liquid sludge transfers from Newnham STP

Receiving STP	Volume (kL)
Ti Tree Bend STP	10626
TOTAL	10626

35.10 Non-compliance with other permit requirements

Table 35-I: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF2 Effluent quality limits for discharge to the Tamar River	Discharge compliance with permit limits	See section 35.4 Discharge compliance with permit limits and Performance Analysis
EM3 Discharge Management Plan	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. Newnham is included in the Launceston Sewer Transformation project for rationalisation to Ti Tree Bend STP

35.11 Complaints and incident reporting

No incidents received during 2024-25 reporting period.

Table 35-J: Complaints reporting

Date	Category	Details	Mitigation actions
10/02/2025	Odour	Customer experienced very strong odour near Investigator Hall at the university, possibly from the treatment plant at University Way	Crews attended to ensure STP process was performing correctly. No issues were found at the STP

35.12 Any other relevant information

Table 35-K: 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 Newnham STP with the ultimate decommissioning of the STP and transfer of sewage to the Ti Tree Bend STP.

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

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