

32. Longford STP

32.1 Activity and report details

Activity name	Longford STP		
Activity address	Bishopsbourne Road, Longford		
Permit number	License to operate 3573	Date of issue	3/11/1988
EPN	10553/1	Date of issue	20/05/2021
Treatment level	Secondary Treatment		
Authorised dry weather flows	2700 kL/day		
Key influent source	Residential/Industrial 2 x Category 3 Customers, 1 x Category 4 Customers		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 32-1: Longford Sewage Treatment Plant



32.2 Monitoring and compliance summary

32.2.1 Flow data

Table 32-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Back Creek	No reuse scheme
Coordinates	E 507922 N 5395712	E 508948 N 5396629	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable).	03/03/2025	03/03/2025	NA

Table 32-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91167	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	2,229	76.4	70.85	--
August 2024	2,212	69.8	67.19	--
September 2024	2,891	86.2	87.63	--
October 2024	1,600	27.1	49.61	--
November 2024	1,661	61.8	50.37	--
December 2024	1,849	61.8	58.55	--
January 2025	1,539	25.2	47.00	--
February 2025	1,591	2.4	38.03	--
March 2025	1,481	16.5	48.97	--
April 2025	1,460	21.2	44.96	--
May 2025	1,536	26.6	48.55	--
June 2025	1,748	83.8	51.62	--
Annual 2024-25	1,817	558.8	663.29	0.00
% of total discharge	--	--	100.0%	0.0%

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

32.3 Bypass events

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

32.4 Discharge compliance with permit limits

Table 32-C: Compliance Summary

	Ammonia as N	BOD5	Chlorine	Nitrogen	Oil and Grease	pH	Phosphorus	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	10	40	--	20	20	8.5	5	2000	--
90th Percentile	5	30	--	15	15	--	3	1000	--
50th Percentile	2	20	--	10	10	--	1	200	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	16	16	--	16	16	16	16	16	16
Statistical summary									
Maximum	3.2	5.0	0.0	12.7	1.0	8.0	3.0	1274	11.9
90th percentile	1.9	5.0	0.0	11.6	1.0	7.7	2.3	223	8.8
50th percentile	0.3	5.0	0.0	7.4	1.0	7.3	1.0	10	4.0
Minimum	0.0	5.0	0.0	4.1	1.0	7.0	0.2	10	4.0
EPN Limit Compliance									
% compliance with Maximum	100%	100%	--	100%	100%	100%	100%	100%	--
% compliance with 90th percentile	100%	100%	--	100%	100%	--	94%	94%	--
% compliance with 50th percentile	94%	100%	--	75%	100%	--	50%	81%	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 32-D: Mass loads to the environment

Mass Loads	EPN Limit	Frequency	2024-25 result
Nitrogen (kg)	12812	Annual	5417.6
Phosphorous (kg)	2168	Annual	781.7
Method	Time weighted/grab sample method		

Table 32-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
E. Coli	3/09/2024	Believed to be a sampling error/ contaminated sample bottle. We maintained a minimum UV dose of 35 mJ/cm ² in at least 2 reactors over the whole day (sometimes 3 were running, sometimes achieving a higher dose) - minimum OCP dose is 30 mJ/cm ² .	No action taken. All other sample results on that day within normal range.

No other parameters had exceedances in the reporting period.

32.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

32.6 Ambient monitoring program

Table 32-F: Program details

Program	Longford STP Upgrade Post Commissioning Ambient Monitoring Plan (AMP)
Status	Ambient water quality and seasonal biological (AUSRIVAS) monitoring within the Back Creek and South Esk River receiving environment.
Update	<p>Monthly ambient water quality and seasonal (spring/autumn) biological monitoring undertaken during the reporting period.</p> <p>A Biological Monitoring Report (BMR) was completed during the reporting period. An Ambient Monitoring Report (AMR) detailing the results of ambient monitoring undertaken during the 2023-24 reporting period was submitted to the EPA during the reporting period.</p>
Comments	<p>The summarised findings of the AMR are provided below:</p> <ul style="list-style-type: none"> • The STP effluent discharge had minimal to no impact on chemical-physical parameters such as temperature, conductivity, pH, and chlorophyll a & b. There were a few occasions where turbidity and total suspended solids were elevated near the outfall but similar values were also recorded at reference sites suggesting a variability in the broader receiving environment that is not explained by the STP effluent discharge. There were also some instances of lower dissolved oxygen in the receiving environment, however this was not consistent. • Pathogen indicator organisms <i>E. coli</i> and enterococci exceeded the EPA low risk guideline values for recreational waters and the draft ANZG livestock drinking water guidelines near the outfall on multiple occasions, with similar exceedances observed at upstream and far downstream sites. The elevated levels are likely attributed to livestock and agricultural runoff rather than the STP. Despite this, water quality within Back Creek and the lower South Esk River likely poses a risk for recreational use, livestock watering and some irrigation. • Nutrient concentrations were generally higher in Back Creek compared to the South Esk River. There was no clear spatial pattern that could be attributed to the STP effluent discharge or proximity to the outfall. Elevated nutrient concentrations were occasionally recorded both upstream and far downstream of the STP outfall. This variability suggests that external sources, such as agricultural runoff, are the predominant contributors to nutrient levels. • Dissolved metals (aluminium, copper, zinc) occasionally exceeded ANZG toxicant default guideline values with some sampling events showing potential spatial patterns attributable to the STP effluent discharge. However, these results were not consistent and variability at the upstream and far downstream site suggest possible external factors not explained by the STP effluent discharge. <p>Water quality in Back Creek and the lower South Esk River receiving environment has elevated levels of pathogen indicators, nutrients, and some metals, posing potential risks to Protected Environmental Values. However, the data indicates that the STP effluent discharge has minimal influence, with the main contributors likely being external sources such as agricultural runoff. An AMR describing the finding of ambient water quality monitoring undertaken during the reporting period will be submitted to the EPA later in 2025.</p> <p>Biological monitoring of macroinvertebrates (AUSRIVAS) was carried out spring (September) 2024 and autumn (March) 2025 within the Back Creek and lower South Esk River receiving environment during the reporting period. A summary of the BMR findings is provided below:</p> <ul style="list-style-type: none"> • The AUSRIVAS analyses indicate that the macroinvertebrate fauna of Back Creek was significantly impacted at all sites, as has been observed in previous years. • In spring 2024, the AUSRIVAS analysis ranked all Back Creek sites in impairment Band B ('significantly impaired'). In autumn 2025, the AUSRIVAS analysis ranked the first four sites in impairment Band B ('significantly impaired') and the most downstream site in impairment Band C ('severely impaired').

- The trends in AUSRIVAS parameters were similar in both seasons, with no evidence for a deterioration in AUSRIVAS parameters at the site immediately downstream of the STP outfall. However, there was a consistent deterioration at the most downstream site situated approximately 500 m downstream of the STP outfall.
- The macroinvertebrate fauna in the South Esk River upstream and downstream of the confluence with Back Creek was also in a significantly impacted state. In both spring 2024 and autumn 2025, the AUSRIVAS analysis ranked all South Esk sites in impairment Band B ('significantly impaired'), although in autumn 2025 both downstream sites were located in the lower range of impairment band B. There was evidence of a deterioration in AUSRIVAS parameters at the sites downstream of the entry of Back Creek into the South Esk River.
- The results of the spring 2024 and autumn 2025 biological monitoring are consistent with the pattern of historical monitoring results with the trends in AUSRIVAS indicators relatively consistent over the sampling period. Overall, there has been no evidence of a consistent deterioration in the macroinvertebrate fauna immediately downstream of the STP outfall.

32.7 Groundwater monitoring

Site Status: Green

Longford groundwater monitoring network consists of nine bores, ID numbers LOGW1–9. Bore ID's LOGW1–4 are installed in the south–west to the north–west of the STP boundary whilst bore ID's LOGW5–9 are in the north–east of the STP.

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

The 2024–25 groundwater monitoring event recorded increasing trends of key analytes at one or more bores in the network; however, these trends did not correspond with exceedances. Analytical results and trend analysis continues to indicate no STP impact on groundwater.

Bi–annual sampling at the standard analytical suite is scheduled to continue across the network for the 2025–26 groundwater monitoring program.

32.8 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 49 out of 108 in priority.

32.9 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. A biosolids stabilisation report confirming Stabilisation Grade B was submitted to EPA in March 2025.

Biosolids are removed regularly from site (from the new mechanical plant) and TasWater have now removed all legacy sludge stockpiles from the decommissioned treatment lagoons.

A one-off liquid sludge transfer from Westbury STP DAFF sludge drying lagoons was received at Longford STP CAL Lagoon. The decommissioned Longford STP Lagoon 6 was also utilised as a temporary storage/drying bed for sludge removed from Legana STP.

Table 32-G: Biosolids sludge classification summary

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	6.6	2.8	1.3	5.8	A
Cadmium	12	0.5	0.3	0.2	0.5	A
Chromium	12	52.1	36.1	20.9	54.2	B
Copper	12	172.0	102.5	63.4	163.2	B
Lead	12	8.9	6.5	4.5	9.2	A
Mercury	12	0.7	0.3	0.1	0.7	A
Nickel	12	53.6	40.1	25.0	56.2	A
Zinc	12	416.0	362.3	257.0	458.4	B

Table 32-H: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
245.7	19.8	Anaerobic digestion	B	B	2	Logan Farm
6551.5 (Stockpiled)	60.5	Anaerobic digestion, drying	B	B	2	Henry Farm

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

Table 32-I: Liquid sludge transfers received at Longford STP

STP transferred from	Volume received (kL)
Westbury STP	752
TOTAL	752

Table 32-J: Stockpile comments

Stockpile onsite	Volume of stockpile (estimated m ³)
Yes	Lagoon 6 currently contains sludge from Legana STP lagoon 2 – approximately 10,000m ³ . This sludge will be dried out within the lagoon and applied to suitable farmland during FY2025-26.

32.10 Non-compliance with other permit requirements

Table 32-K: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF2 Effluent quality limits for discharge to water	Discharge compliance with permit limits	See section 32.4 Discharge compliance with permit limits and Performance Analysis

32.11 Complaints and incident reporting

No incidents reported during the FY2024–25 reporting period.

Table 32-L: Complaints reporting

Date	Category	Details	Mitigation actions
05/05/2025 07/05/2025	Odour	Strong sewer smell	Crews attended the site to confirm that the STP process was operating correctly. They inspected the treatment plant, network infrastructure, and lagoons, and no odour was detected.

32.12 Any other relevant information

Table 32-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 Longford STP. Long-term considerations include potential rationalisation of nearby STPs under the Meander Valley Sewerage Strategy (MVSS).

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

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