75. Westbury STP

75.1 Activity and report details

Activity name	**Westbury STP**		
Activity address	Meander Valley Road, Westbury		
Permit number	PER3589	**Date of issue**	13/12/1988
EPN	PCE 7018 EPN 10265/1	**Date of issue**	2/06/2009 4/10/2019
Treatment level	Secondary Treatment		
Authorised dry weather flows	600 kL/day		
Key influent source	Residential/Industrial 1 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 75-1: Westbury Sewage Treatment Plant

75.2 Monitoring and compliance summary

75.2.1 Flow data

Table 75-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Plant Inlet	Quamby Brook	No reuse
Coordinates	E 395351 N 5460296	E 485806 N 5403256	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable).	13/12/2024	26/11/2024	NA

Table 75-B: Annual flow and rainfall data

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 91236	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2024	916	62.7	28.39	--
August 2024	1206	97.5	37.39	--
September 2024	1142	69.3	34.26	--
October 2024	570	38.7	17.66	--
November 2024	480	96	14.39	--
December 2024	939	78.7	29.11	--
January 2025	373	19	9.51	--
February 2025	382	15	10.69	--
March 2025	339	18.1	10.52	--
April 2025	410	28	12.31	--
May 2025	316	34	9.79	--
June 2025	435	68.8	13.05	--
Annual 2024-25	628	625.8	227.07	0.00
% of total discharge	--	--	100.0%	0.0%

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

75.3 Bypass events

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

75.4 Discharge compliance with permit limits

Table 75-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	15	--	15	10	8.5	3	200	20.
90th percentile	2	10	--	10	5	--	1	--	15
50th percentile	1	5	--	7	2	--	0.5	--	10
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	16	16	--	16	12	16	16	16	16
Statistical summary									
Maximum	30.8	58.0	0.0	40.0	3.1	8.2	5.3	8704.0	72.0
90th percentile	26.0	50.5	0.0	37.3	1.8	7.8	4.0	3727.0	52.5
50th percentile	16.4	22.0	0.0	24.2	1.0	7.3	1.9	813.0	24.5
Minimum	0.5	5.0	0.0	10.8	1.0	6.3	0.1	10.0	5.1
EPN limit compliance									
% compliance with maximum	13%	38%	--	31%	100%	100%	63%	44%	38%
% compliance with 90th percentile	6%	38%	--	0%	100%	--	44%	--	31%
% compliance with 50th percentile	6%	31%	--	0%	92%	--	31%	--	25%
% compliance with pH range	--	--	--	--	--	94%	--	--	--

Table 75-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen	1970	Annual	5712.8
Phosphorous (kg)	210	Annual	540.1
Method	Time weighted/grab sample method		

Table 75-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance		Reasons for non-compliance	Actions to improve performance
Nitrogen	3/07/2024 10/07/2024 15/07/2024 24/07/2024 31/07/2024	7/08/2024 9/10/2024 5/12/2024 16/04/2025 19/05/2025 25/06/2025	The plant is not designed to remove nitrogen. Overloaded lagoon struggling with decreased treatment capacity due to winter temperature and elevated flows. Winter increases the flow through the lagoons above the capacity of the DAF plant, which increase the rate of the bypass to the outfall.	No actions taken during reporting period. Desludging of lagoon 1 scheduled to occur in 2025-26, as per the current prioritisation planning schedule. Westbury STP is a high priority site on the proposed Statewide Aeration Improvement Plan. The Meander Tamar Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Westbury STP with the ultimate decommissioning of the STP and transfer of sewage to the Longford STP.
Ammonia	3/07/2024 10/07/2024 15/07/2024 24/07/2024 31/07/2024 7/08/2024 9/10/2024	13/11/2024 5/12/2024 21/01/2025 26/02/2025 16/04/2025 19/05/2025 25/06/2025		
E. coli	3/07/2024 10/07/2024	31/07/2024 7/08/2024	In wet periods, the lagoons are hydraulically overloaded and there is lower UV from	

Effluent compliance parameter	Date(s) of non-compliance		Reasons for non-compliance	Actions to improve performance
	15/07/2024 24/07/2024	19/09/2024 5/12/2024	the sun, causing poor E. coli removal. In warmer months, algal blooms prevent light and UV penetration.	
Phosphorus	3/07/2024 10/07/2024 15/07/2024	31/07/2024 5/12/2024 25/06/2025	The plant has some phosphorus removal capability, although the system is undersized to treat all influent flows.	
BOD	3/07/2024 10/07/2024 15/07/2024 24/07/2024	31/07/2024 7/08/2024 19/09/2024 9/10/2024 5/12/2024	High TSS and BOD are associated with algae	
TSS	3/07/2024 10/07/2024 15/07/2024 24/07/2024	31/07/2024 7/08/2024 19/09/2024 5/12/2024 19/05/2025		

No other parameters had exceedances in the reporting period.

75.5 Reuse annual reporting

No recycled water was supplied to the Westbury recycled water scheme (RWS) during the 2024-25 reporting period. Following advice from the recycled water customer, the scheme is currently not in operation. Prior to July 2021, the Westbury STP had supplied recycled water for irrigation purposes to the Westbury RWS located at Meander Valley Road under EPN 10265/1.

75.6 Ambient monitoring program

Table 75-F: Program details

Program	**Ambient water quality monitoring in accordance with PCE 7018. Biological monitoring in accordance with TasWater risk based ambient monitoring program.**
Status	Ambient water quality and annual, seasonal biological monitoring (AUSRIVAS) within the Quamby Brook receiving environment.
Update	Monthly ambient water quality and annual, seasonal (spring/autumn) biological monitoring completed during the reporting period.
Comments	Weekly (July 2024 only) and ongoing monthly ambient water quality was completed within the Quamby Brook receiving environment during the reporting period. Key findings from the ambient water quality monitoring are summarised below: • Ammonia levels downstream generally exceeded upstream levels throughout the reporting period but especially through summer and early winter. Downstream levels exceeded the ANZG toxicant Default Guideline Value (tDGV) at the first downstream monitoring location in mid-July 2024 but dropped rapidly by late July and were within both the tDGV and the draft Quamby Brook water quality objectives (WQO). Both downstream monitoring locations exceeded the draft Quamby Brook WQOs in early July 2024 and through January -June 2025. • On most occasions, all locations were within the draft Quamby Brook WQOs for nitrate with downstream levels higher but correlating with upstream levels. A general decline in levels was observed moving downstream. Nitrate levels were not directly attributable to the STP effluent but other factors and processes within Quamby Brook The draft ANZG nitrate tDGV was exceeded at both the upstream and two downstream monitoring locations in June 2025. • Downstream total nitrogen levels exceeded the draft Quamby Brook WQOs and were higher but correlated with upstream levels. Levels at the first downstream monitoring locations were significantly elevated above upstream levels in April – June 2025. • Total phosphorus levels within Quamby Brook varied at all locations, with downstream levels generally higher than upstream and declining moving further downstream. • Downstream enterococci and *E. coli* levels varied throughout the reporting period and correlated with upstream levels, with both upstream and downstream levels exceeding the EPA low risk guideline values for waters with current or potential recreational use and the draft ANZG livestock drinking water guidelines. • Potentially toxin producing blue-green algae (BGA) were not detected in the STP effluent at any time but detected in the upstream and downstream monitoring locations within Quamby Brook. *M. aeruginosa* levels downstream were generally higher than upstream but were well within the EPA low alert level classification for recreational water and draft ANZG guidelines for livestock drinking water. Effluent discharges appear to be having an impact on water quality within the Quamby Brook receiving environment especially relating to ammonia at the immediate downstream monitoring location. These impacts are exacerbated by changes in seasonal river flows and additional urban and agricultural inputs. Natural recycling of nutrients during low flow periods also effects water quality downstream. Biological monitoring within the Quamby Brook receiving environment was completed in spring (October) 2024 and autumn (April) 2025 during the reporting period. Key findings from the biological monitoring are summarised below:

- Results of macroinvertebrate sampling sites in spring 2024 and autumn 2025 indicate that Quamby Brook is significantly impacted from multiple impacts including both urban and agricultural development in the river catchment as well as likely impacts from the Westbury STP effluent discharge.
- For spring 2024 and autumn 2025, the AUSRIVAS analysis indicate a sharp decline in the condition of the macroinvertebrate fauna at the site immediately downstream of the STP outfall. This impact is likely to be a result of a localised impact from the STP effluent discharge.
- In both seasons, there was a substantial recovery in AUSRIVAS indicators at the second downstream site around 2 km below the STP outfall, indicating that the impact of the STP: effluent discharge is relatively localised. In spring 2024, this recovery was largely sustained by the third downstream site (3.5 km downstream of the STP outfall).
- Historical trends in all four AUSRIVAS indicators have been very consistent, with a marked decline in all indicators at the site immediately downstream of the STP outfall. This trend is apparent in the majority of induvial sampling occasions since autumn 2021 and for the mean values for all sampling periods combined. There has also been a consistent partial or full recovery in AUSRIVAS indicators by the second or third downstream site, indicating that the impact of the STP effluent discharge is relatively localised in downstream extent.

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75.7 Groundwater monitoring

Site status: Amber

Westbury STP groundwater monitoring network consists of three monitoring bores, ID numbers WBGW1-3. The monitoring bores are considered to provide good coverage and installed downgradient of the STP infrastructure, between the STP lagoons, and the likely receiving water body of Quamby Brook. Bore ID's WBGW1 and 2 are located immediately south and east Lagoon 1 respectively, with bore ID WBGW3 located on the north-eastern corner of Lagoon 3.

Bi-annual sampling at the extended suite was completed as scheduled in October 2024 and April 2025 at all three monitoring bores.

The 2024-25 groundwater monitoring event recorded exceedances of two analytes at one bore (ID number WBGW1). No exceedances or increasing trends were identified at the remaining bores.

Bi-annual sampling at the standard analytical suite is scheduled at all bores during the 2025-26 groundwater monitoring program following 2024-25 groundwater monitoring event report recommendations.

75.8 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 35 out of 108 in priority. Works this period included:

- Field investigation and defect identification ongoing.

75.9 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 from this STP is captured within the two treatment lagoons, which will be periodically desludged as required.

Sludge removed from the DAFF component of the treatment process is captured within two sludge drying lagoons which are both emptied once per year. During the reporting period, sludge from these lagoons was transferred to Prospect Vale STP and Longford STP for further treatment.

No stockpiling occurs at this site.

Table 75-G: Liquid sludge transfers from Westbury STP

Receiving STP	Volume (kL)
Prospect Vale STP	972
Longford STP	752
TOTAL	**1724**

Table 75-H: Desludging status and comments

Desludging status	Comments
High Priority	Desludging of lagoon 1 scheduled to occur in 2025-26, as per the current prioritisation planning schedule.

75.10 Non-compliance with other permit requirements

Table 75-I: EPN non-compliances

EPN Condition	Description of non-conformance	Future Actions to be taken
EF3 Current and future effluent quality limits for discharge to water	Discharge compliance with permit limits.	See table 75-E Discharge compliance with permit limits and Performance Analysis.
EF5 Mass load limits	Mass load limits exceeded in FY2024-25.	TasWater to progress investigations and project implementation to improve STP compliance and reduce environmental risks, as outlined in Westbury STP Discharge Management Plan.
OP5 Lagoon Maintenance	During the EPA audit it was observed erosion was taking place behind a concrete apron in L1.	Taswater submitted a scope of work to the EPA for the Lagoon 1 erosion remediation. TasWater cannot commit to a specific completion date as yet, however, this project has been included into the Dam infrastructure improvement program for the FY25-26.
A1 Odorous gases	Odorous gases must be managed, including collection and treatment as appropriate, so that odorous	Odour mitigation strategy:

EPN Condition	Description of non-conformance	Future Actions to be taken
	gases do not cause environmental nuisance beyond the boundary of the land.	• Short term actions: Taswater has implemented a program to periodically desludge the drying beds to prevent sludge from reaching conditions that cause odour. The first desludging activity was completed in September 2025 • Medium term actions: A Project Definition Statement has been prepared for the development of an on-site sludge management system. At this stage, TasWater is unable to commit to a specific commencement timeframe for this project. • Long term: The Westbury STP is planned to be decommissioned, with flow to be transferred to the Longford STP.
G9 Effluent discharge Management plan	Despite TasWater remaining non-compliant with Condition G9, in consideration of TasWater's risk-based prioritisation of state-wide infrastructure upgrades and further commitment to reviewing potential for scheme re-establishment during the remainder of PSP4, and the intended eventual rationalisation of the WWTP.	TasWater acknowledges the non-compliance associated with the DMP condition. TasWater will continue to investigate reuse options.

75.11 Complaints and incident reporting

Table 75–J: Complaints Reporting

Date	Category	Details	Mitigation actions
25/03/2025	Odour	Strong sewer smell from treatment plant	See odour mitigation strategy in Section 75.10.
20/03/2025	Odour	Strong sewer smell from treatment plant	
17/03/2025	Odour	Strong sewer smell from treatment plant	
04/03/2025	Odour	Strong sewer smell from treatment plant	
28/02/2025	Odour	Strong sewer smell from treatment plant.	
25/02/2025	Odour	Strong sewer smell from treatment plant.	

Table 75-K: Incident reporting

Date	Category	Details	Mitigation actions
11/06/2025	Other	UV system offline	Operations actively monitored the STP performance. A faulty ballast was identified and replaced, restoring the UV system to normal operation.

04/09/2024	Weather event	Westbury Lagoon overtopping due to weather event.	Operations monitored and levels returned to normal following event.

75.12 Any other relevant information

Table 75-L: 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 Westbury STP with the ultimate decommissioning of the STP and transfer of sewage to the Longford STP.
Westbury STP Interim Project Upgrades	Westbury STP additional inlet (industrial flows) and lagoon bypass effluent flow meters completed.

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

www.taswater.com.au