

64. St Marys STP

64.1 Activity and report details

Activity name	St Marys STP		
Activity address	Off Esk Highway, St Marys		
Permit number	License to Operate - 2847	Date of issue	26/07/1983
EPN	7362/2	Date of issue	16/08/2022
Treatment level	Secondary Treatment		
Authorised dry weather flows	190 kL/day		
Key influent source	Residential		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Figure 64-1: St Marys Sewage Treatment Plant



64.2 Monitoring and compliance summary

64.2.1 Flow data

Table 64-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	St Mary's Rivulet	Effluent Reuse Scheme – Ag Irrigation (Top Marches Property)
Coordinates	E 598310 N 5396100	E5 97814 N 5395786	E 597219 N 5396410
Method of measurement	In line meter	Flow based on inflow and EPA calculations using rainfall and lagoon area	Pump Run Hours
Date of last calibration/validation (if applicable).	26/11/2024	NA – meter to be installed	NA – meter to be installed

Table 64-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 92064	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	93	87.6	0.00	2.89
August 2024	117	67.6	0.00	3.64
September 2024	107	56.4	0.00	3.20
October 2024	91	62	0.00	2.82
November 2024	104	73.8	0.00	3.12
December 2024	163	206.2	0.00	5.06
January 2025	100	124.2	0.00	3.09
February 2025	90	80.2	0.00	2.53
March 2025	89	41.2	0.00	2.77
April 2025	90	28	0.00	2.69
May 2025	93	63.2	0.00	2.89
June 2025	99	126.2	0.00	2.98
Annual 2024-25	103	1016.6	0.00	37.67
% of total discharge	--	--	0.0%	100.0%

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

64.3 Bypass events

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

64.4 Discharge compliance with permit limits

Table 64-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	15	50	--	30	10	9	9	2000	50
90th Percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	12	12	--	12	12	12	12	12	12
Statistical summary									
Maximum	12.2	92.0	0.0	24.8	1.9	9.1	4.8	24196	95.0
90th percentile	11.6	90.5	0.0	24.2	1.4	9.0	4.4	22697.2	93.5
50th percentile	0.9	60.0	0.0	15.7	1.0	7.9	3.7	3371	67.0
Minimum	0.1	21.0	0.0	7.5	1.0	7.3	2.5	97	19.8
EPN Limit Compliance									
% compliance with Maximum	100%	50%	--	100%	100%	83%	100%	50%	33%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	83%	--	--	--

Table 64-D: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	208	Annual	0.0
Phosphorous (kg)	62	Annual	0.0
Method	Time weighted/grab sample method		

No parameters had exceedances in the reporting period.

64.5 Reuse annual reporting

St Marys STP supplies treated effluent to the recycled water scheme (RWS) located at one property Top Marshes.

Table 64-E: Reuse compliance summary

	BOD5	pH	E coli
Permit/EPN limit	mg/L	Units	MPN/100ml
Maximum	50	9.0	10000
90th Percentile	--	--	--
50th Percentile	--	--	1000
Minimum	--	5.5	--
Samples analysed			
Number required	12	12	12
Number analysed	12	13	12
Statistical summary			
Maximum	92.0	9.1	24196
90th percentile	90.5	8.9	22697
50th percentile	60.0	7.8	3371
Minimum	21.0	7.3	97
EPN Limit Compliance			
% compliance with Maximum	50%	--	83%
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	33%
% compliance with pH range	--	85%	--

Table 64-F: Performance analysis (discharge to reuse)

Reuse compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
BOD	10/06/2025 13/05/2025 29/10/2024 24/09/2024 27/08/2024 23/07/2024	Algae is believed to be the primary reason for elevated suspended solids and BOD. Algae is a source of oxygen and is fundamental to lagoon treatment.	No specific actions.

Note: Non-compliances only identified for the times STP has discharged to reuse

Annual soil sampling was completed at the four long-term soil monitoring sites (ID's CP A, CP B East, CPB West and CP C) in May 2025. The annual compliance audit was completed in conjunction with the soil sampling with a follow up phone audit in July 2025. A summary of the findings of the programs are provided in the table below.

Table 64-G: Annual recycled water scheme compliance audit and soil monitoring summary

Program	Compliance audit	Soil monitoring
Outcome	Minor non-compliance: Inadequate signage	Soil sodicity elevated at two sites increasing to recorded highs. Levels of one nutrient was elevated at one site but within historic observed levels.
Comments	Additional signage required on internal gates to irrigation infrastructure.	

RWS groundwater site status: Green

ST Marys RWS groundwater monitoring network consists of three bores, ID numbers SMGW3-5.

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

The 2024-25 groundwater monitoring event provided evidence that the groundwater chemistry, overall appeared stable in 2025 with all analytes within adopted assessment criterion, suggesting no impact of the irrigation of recycled water on groundwater. The monitoring identified an additional groundwater bore groundwater monitoring bore to expand network.

Sampling is scheduled to reduce to an annual frequency and remain at the standard analytical suite across the network for the 2025-26 groundwater monitoring program.

64.6 Ambient monitoring program

Table 64-H: Program details

Program	Seasonal ambient monitoring as required under EPA permit variation 18/01/2024.
Status	Ambient water quality monitoring required under EPA permit variation within the St Mary's Rivulet receiving environment.
Update	Ambient water quality monitoring from Jun - December 2024 and May - June 2025 was completed during the reporting period.
Comments	Ambient water quality monitoring was conducted in St Marys Rivulet from July - December 2024 and from May - June 2025, however no STP effluent discharges to the St Mary's Rivulet receiving environment occurred during the reporting period. Water quality within the St Marys Rivulet receiving environment is significantly impacted and typical of a slightly to moderately disturbed ecosystem with urban and agricultural inputs. Most water quality parameters at both monitoring locations exceeded relevant EPA DGVs with pathogen indicator organisms (<i>E. coli</i> & enterococci) exceeding low risk recreational guidelines and draft ANZG livestock drinking water guidelines irrespective of STP effluent discharges.

64.7 Groundwater monitoring

Site status: Green

St Marys STP groundwater monitoring network consist of two groundwater monitoring bores, ID numbers SMGW1 and SMGW2 immediately east and north-west of the STP, respectively.

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

The 2024–25 groundwater monitoring event recorded elevated concentrations of one analyte (total phosphorous) above an adopted assessment criterion, consistent with previous years. The installation of a background bore is recommended to provide reference for elevated concentration.

Sampling is scheduled to reduce to an annual frequency and remain at the standard analytical suite across the monitoring network in 2025–26 monitoring program.

64.8 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 95 out of 108 in priority.

64.9 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.

Sludge at this STP is captured within the two treatment lagoons, which will be periodically desludged as required. No stockpiling occurs at this site.

Table 64-I: Desludging status and comments

Desludging status	Comments
High Priority	Desludging of lagoon 1 is scheduled to occur in 2026–27, as per the current prioritisation planning schedule.

64.10 Non-compliance with other permit requirements

Table 64-J: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF3 Effluent Quality Limits for discharge to wastewater reuse scheme	Discharge compliance with reuse permit limits	See table 64.5 Reuse Annual Reporting and Performance Analysis

64.11 Complaints and incident reporting

No complaints or incidents received during 2024–25 reporting period.

64.12 Any other relevant information

Table 64-K: Projects or significant operational events that occurred in FY 2024-25

Project or significant operational event	Progress
Highlands Midlands Sewerage Regional Master Plan	The Highlands Midlands Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the St Marys STP with the strategy to retain and invest in the current STP.
St Marys Rivulet Sewer Remediation	The St Marys Remediation Project has been successfully completed. An exposed sewer pipe, caused by shifting creek conditions and natural erosion, was replaced with a new cement-encased pipe installed beneath the rivulet. The creek bed was restored with rock pitching to protect the environment and ensure long-term reliability of the asset.

For further information on the St Marys STP please contact TasWater on 13 6992

www.taswater.com.au