

66. Stieglitz STP

66.1 Activity and report details

| | | | |
|------------------------------|--|---------------|------------|
| Activity name | Stieglitz STP | | |
| Activity address | Stieglitz Track, Stieglitz | | |
| Permit number | Licence to Operate - 3931 | Date of issue | 01/04/1991 |
| EPN | 237/2 | Date of issue | 26/11/2014 |
| Treatment level | Secondary Treatment | | |
| Authorised dry weather flows | 110 kL/day | | |
| Key influent source | Residential/Tankered | | |
| Contact person | Kate Westgate | | |
| Report author | Luisa Romero (Environmental Scientist) | | |
| Contact details | Environment@taswater.com.au | | |
| Date of submission | 30 September 2024 | | |

Figure 66-1: Steiglitz Sewage Treatment Plant



66.2 Monitoring and compliance summary

66.2.1 Flow data

Table 66-A: Flow monitoring summary

| | Influent | Effluent | Reuse |
|--|-----------------------|----------------------------|--|
| Location name | Inlet | Emergency | Effluent Reuse Scheme – Stieglitz Reuse Scheme |
| Coordinates | E 609364 N 5423968 | E 609223 N 5423841 | E 609208 N 5423836 |
| Method of measurement | In line meter | Estimate based on influent | In line meter |
| Date of last calibration/validation (if applicable). | 21/09/2024 | NA – meter to be installed | 16/02/2024 |

Table 66-B: Annual flow and rainfall data

| Month | Average daily influent volume (kL/day) | Rainfall (mm/month) BOM Station ID 92120 | Discharge to waters total effluent volume (ML) | Discharge to reuse total effluent volume (ML) |
|----------------------|--|---|--|---|
| July 2023 | 121 | 9.6 | 0.00 | 4.20 |
| August 2023 | 107 | 34.8 | 0.00 | 2.79 |
| September 2023 | 107 | 5.2 | 0.00 | 1.40 |
| October 2023 | 148 | 43.8 | 0.00 | 2.36 |
| November 2023 | 129 | 35.4 | 0.00 | 1.66 |
| December 2023 | 168 | 89.8 | 0.00 | 3.29 |
| January 2024 | 165 | 20.8 | 0.00 | 1.54 |
| February 2024 | 173 | 157.6 | 0.00 | 1.78 |
| March 2024 | 172 | 25.0 | 0.00 | 3.26 |
| April 2024 | 166 | 64.0 | 0.00 | 5.94 |
| May 2024 | 147 | 78.2 | 0.00 | 5.03 |
| June 2024 | 172 | 66.6 | 0.00 | 4.81 |
| Annual 2023–24 | 148 | 630.8 | 0.00 | 38.05 |
| % of total discharge | -- | -- | 0.0% | 100.0% |

2023–24 monthly flow data was submitted directly to the EPA.

66.3 Bypass events

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

66.4 Discharge compliance with permit limits

This STP did not discharge to the environment during the period.

66.5 Reuse annual reporting

The Steiglitz STP supplies recycled water for irrigation of native bushland at the Steiglitz recycled water scheme.

Table 66-C: Reuse compliance summary

| Parameter | 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 | 12 | 12 |
| Statistical summary | | | |
| Maximum | 40 | 8.9 | 2382 |
| 90th percentile | 23 | 8.7 | 849 |
| 50th percentile | 16 | 7.8 | 458 |
| Minimum | 5 | 7.4 | 10 |
| Summary of results | | | |
| % compliance with maximum | 100% | -- | 100% |
| % compliance with 90th percentile | -- | -- | -- |
| % compliance with 50th percentile | -- | -- | 92% |
| % compliance with pH range | -- | 100% | -- |

No parameters had exceedances in the reporting period.

Annual soil sampling was completed at five sites, ID's Middle-west, North-east, North-west, South-east and South-west, at the RWS in April 2024. The field component of the annual compliance audit was completed in conjunction with the soil sampling with a follow-up phone audit in May. A summary of the findings of the programs is provided in the below table.

Table 66-D: Annual recycled water scheme compliance audit and soil monitoring summary

| Program | Compliance audit | Soil monitoring |
|--------------------------|---|---|
| Compliance status | Non-compliant | All sites remain non-saline whilst soil sodicity remains excessive at all sites. Sites North West and Middle West are both classified as strongly sodic. Soil pH is low at North West site to a point plant growth will be inhibited. |
| Comments | Excessive recycled water irrigation when soils are already saturated. This resulted in ponding of recycled water and runoff outside the fenced irrigation area. | Recycled water quality data indicates salinity of the recycled water supplied by the scheme is within acceptable limits. The SAR is at a moderate level. This SAR value, coupled with the salinity level of the recycled water, indicates a slight to moderate risk of soil permeability loss. The risk of soil structure degradation is lower due to the presence of sandy soils. Current irrigation rates are not considered sustainable |

Key: EC_{se} = Electrical Conductivity at saturation extent

Reuse groundwater site status: Green

Stieglitz RWS groundwater monitoring network consists of two bores; bore ID STRGW1 located east of irrigation area and bore ID STRGW2 located west of the irrigation area. One round of sampling (6-monthly) was completed in May 2024. The second (annual) sampling round was not completed. TasWater has put measures in place for the 2024-25 sampling program to address scheduling and resourcing delays experienced in recent years.

The 2023-24 RWS groundwater monitoring event reported concentrations within previously recorded levels and continue to show no evidence that suggests recycled water impacting on groundwater at this site. Biannual sampling at the extended analytical suite is scheduled across the monitoring network in 2024-25 groundwater monitoring program.

66.6 Ambient monitoring program

Table 66-E: Program details

| | |
|-----------------|---|
| Program | NA – No requirement for ambient monitoring. |
| Status | NA |
| Update | NA |
| Comments | NA |

66.7 Groundwater monitoring

Site status: Amber – (2022-23 report)

Stieglitz STP groundwater monitoring network consists of six groundwater monitoring bores, ID numbers STGW1, STGW3, STGW8-9 and STGW11-12. One round of sampling

(6-monthly) was completed across the monitoring network in May 2024. The second (annual) sampling round was not completed. TasWater has put measures in place for the 2024–25 sampling program to address scheduling and resourcing delays experienced in recent years.

Following delays, the 2023–24 report will be finalised and available in October 2024. Any actions to address identified potential issues will be determined following the hydrogeological review. Of note, previous monitoring reported stable concentrations exceeding adopted guidelines at bore ID STGW1 which has also been characterised as a water type closer with the STP primary lagoon suggesting STP impact.

Biannual sampling at the extended analytical suite is scheduled to continue across the network during the 2024–25 groundwater monitoring program. Previous recommendations of the installation of additional bores in groundwater monitoring network will be considered in future.

66.8 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. Update to the actions completed will be provided in the next revision due September 2024.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 83 out of 108 in priority.

66.9 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 fully compliant with the 2023–24 SSMP.

No stockpiling occurred at this site.

Table 66-F: Desludging status and comments

| Desludging status | Commentary |
|-------------------|--|
| Low Priority | Desludging is outside of the current priority planning schedule. |

66.10 Non-compliance with other permit requirements

Table 66-H: EPN non-compliances

| EPN condition | Description of non-conformance | Future actions to be taken |
|----------------------|---------------------------------------|--|
| Q1 Regulatory Limits | ADF exceeds ADWF EPN limit (110kl/d). | Stieglitz STP is currently being considered within the East Coast Sewerage Master Plan. This is considering short term and long term options for the STP. An adaptive planning and prioritisation approach will be |

| | | |
|---------------------------------|--|---|
| | | determined on finalisation and endorsement of the Master Plan, on track for completion within PSP4. |
| G8 Revised Wastewater Reuse EMP | No evidence of Wastewater Reuse EMP review submission to EPA | No scheduled revision of Reuse EMP during FY 2023-24 |

66.11 Complaints and incident reporting

No complaints or incidents reported during the FY2023-24 reporting period.

66.12 Any other relevant information

For further information on the Stieglitz STP please contact TasWater on 13 6992.

www.taswater.com.au