

56. Scottsdale STP

56.1 Activity and report details

Activity name	Scottsdale STP		
Activity address	Bridport Road, Scottsdale		
Permit number	License to Operate - 3504	Date of issue	17/04/1989
EPN	448/2	Date of issue	16/07/2021
Treatment level	Secondary Treatment		
Authorised dry weather flows	3200 kL/day		
Key influent source	Residential/Industrial/Tankered 1 x Category 3 Customer		
Contact person	Kate Westgate		
Report author	Luisa Romero (Environmental Scientist)		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2024		

Figure 56-1: Scottsdale Sewage Treatment Plant



56.2 Monitoring and compliance summary

56.2.1 Flow data

Table 56-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Inlet	Cox's Creek	No reuse scheme
Coordinates	E 543052 N 5445098	E 543086 N 5445415	NA
Method of measurement	In line meter	Estimate based on influent	NA
Date of last calibration/validation (if applicable).	21/09/23	NA – to be installed	NA

Table 56-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 91219	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2023	427	111.6	13.24	--
August 2023	404	80.2	12.51	--
September 2023	384	34.8	11.53	--
October 2023	387	66.2	12.00	--
November 2023	394	37.8	11.83	--
December 2023	391	70.6	12.12	--
January 2024	401	77.6	12.43	--
February 2024	378	12.0	10.96	--
March 2024	306	3.8	9.49	--
April 2024	365	65.2	10.96	--
May 2024	353	60.4	10.96	--
June 2024	349	124.8	10.47	--
Annual 2023-24	379	745.0	138.48	--
% of total discharge	--	--	100.0%	--

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

56.3 Bypass events

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

56.4 Discharge compliance with permit limits

Table 56-C: 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	15.0	30	1.0	50.0	10.0	8.5	10.0	200	10.0
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	12	12	12	12	12	12	12	12	12
Number analysed	14	12	12	14	12	12	15	12	12
Statistical summary									
Maximum	3.9	15	1.54	49.0	3.7	8.5	8.7	30	13.5
90th percentile	3.7	12	1.38	42.7	2.6	8.5	8.4	28	10.2
50th percentile	2.7	7	0.94	36.7	2.1	7.7	7.2	10	6.8
Minimum	1.6	5	0.46	25.6	1.6	7.0	6.3	10	4.0
EPN limit compliance									
% compliance with maximum	100%	100%	58%	100%	100%	--	100%	100%	83%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 56-D: Mass loads to the environment

Parameter	EPN limit	Frequency	2023-24 result
Nitrogen (kg)	--	Annual	5117.1
Phosphorous (kg)	--	Annual	1021.6
Method	Flow weighted/composite method		

Table 56-E: Performance analysis (discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
TSS	18/10/2023 14/12/2023	Trickling filter effluent contains high particulate solids (biofilm accumulation on the media surface) which is difficult to control and capture in the humus tank. These solids contribute to elevated BOD and TSS.	No specific actions
Chlorine	27/07/2023 8/08/2023 18/10/2023 23/11/2023 15/04/2024	No automated chlorine control. The dose rate is manually adjusted, and chlorine residual is manually tested.	Normal operational dose adjustment

No other parameters had exceedances in the reporting period.

56.5 Reuse annual reporting

No Recycled Water Scheme associated with this STP.

56.6 Ambient monitoring program

Table 56-F: Program details

Program	Ambient water quality and biological monitoring in accordance with EPN and the risk ranking of Scottsdale STP.
Status	Ongoing
Update	<p>In 2023–2024 the ongoing frequency of water quality monitoring has increased to monthly. One event was conducted in September 2023 and was completed on a monthly basis from November 2023.</p> <p>Biological monitoring has been undertaken seasonally within the Cox’s Creek and Cox’s Rivulet during the reporting period.</p>
Comments	<p>Ambient water quality results obtained in 2023–2024 indicate similar impacts to previous years. There is very little dilution available in Cox’s Creek and Cox’s Rivulet, as such, effluent contaminants are elevated approximately 2.5 km downstream.</p> <p>Contaminants of concern in the effluent were chlorine and disinfection by-products, heavy metals (Al, Cu, Zn), nitrate, ammonia, total nitrogen and total phosphorus.</p> <p>Concentrations of chlorine, ammonia, nitrate and heavy metals significantly exceed the ANZG (2018) default guideline values (DGVs) for the protection of 95% of species in Cox’s Creek receiving environment as a direct consequence of the effluent discharges. Nutrient concentrations exceed the catchment DGVs along the length of the waterway. Scottsdale STP effluent contributes an estimated 77% of the total nitrogen and 93% of the total phosphorus catchment nutrient loads, yet only 12% of the flow.</p> <p>There was a notable impact of the STP effluent discharges on the macroinvertebrate diversity in Cox’s Creek and Cox’s Rivulet. An increase in the abundance of taxa indicative of nutrient enrichment was evident. All indicators steadily improved with distance downstream of the STP outlet.</p> <p>The REMR was submitted in December 2023.</p>

56.7 Groundwater monitoring

No groundwater monitoring program associated with the STP.

56.8 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 FY2024.

A Multi Criteria Assessment was undertaken by TasWater in 2024 to prioritise I&I investigation and works state-wide. This catchment was ranked 50 out of 108 in priority.

56.9 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 occurs at this site.

Table 56-G: Desludging status and comments

Desludging status	Comments
Low Priority	Desludging is outside of the current prioritisation planning schedule.

56.10 Non-compliance with other permit requirements

Table 56-H: EPN non-compliances

EPN condition	Description of non-conformance	Future actions to be taken
EF2 Effluent quality limits for discharge to Cox's Creek	Discharge compliance with permit limits	See table 56-E Discharge compliance with permit limits and Performance Analysis

56.11 Complaints and incident reporting

No complaints or incidents were received during the 2023–24 reporting period.

56.12 Any other relevant information

Table 56-I: Projects or significant operational events that occurred in FY 2023–24

Project or significant operational event	Progress
Scottsdale STP Effluent Management Project	The initial strategic site plan investigation has now been completed and will not proceed to a Detailed Business Case. The strategic direction of the STP will be re-considered as part of the Bridport & Scottsdale Strategic Options investigation.
Bridport (& Scottsdale) Sewerage Strategy	A Strategic Options Report is being developed to consider the preferred outcome for the Bridport and Scottsdale STPs upgrade requirements and disposal options considering rationalisation and a recycled water scheme (RWS). Investigation is anticipated to be completed in late 2024.

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

www.taswater.com.au