57.Selfs Point STP

57.1 Activity and report details

Activity name	**Selfs Point STP**		
Activity address	Self's Point Road, Newtown, Hobart		
Permit number	Licence to Operate - 3513	**Date of issue**	5 December 1995
EPN	9797/1 10344/1 8548/1	**Date of issue**	16/08/2018 15/01/2020 05/02/2013
Treatment level	Tertiary Treatment		
Authorised Dry Weather Flows	13000 kL/day		
Key Influent Source	Residential/Industrial 5 x Category 3 Customers, 1 x Category 4 Customers		
Contact person	Kate Westgate		
Report author	George Fitzgibbon		
Contact details	Environment@taswater.com.au		
Date of submission	30 September 2025		

Commented [GN1]: @Fitzgibbon, George Please correct year date.

Figure 57-1: Selfs Point Sewage Treatment Plant

57.2 Monitoring and compliance summary

57.2.1 Flow data

Table 57-A: Flow monitoring summary

	Influent	Effluent	Reuse
Location name	Sewer Inlet	Derwent River	Effluent Reuse Scheme
Coordinates	E 526076 N 5256001	E 526078 N 5256057	NA
Method of measurement	In line meter	In line meter	NA
Date of last calibration/validation (if applicable)	14/04/2025	14/04/2025	NA

Table 57-B: Annual flow and rainfall data

Month	Average daily influent volume (kL/day)	Rainfall (mm/month) BOM Station ID 94030	Discharge to waters total effluent volume (ML)	Discharge to reuse total effluent volume (ML)
July 2024	9,794	82.8	269.40	0.00
August 2024	9,272	82.8	254.77	0.00
September 2024	10,704	70.2	306.37	0.00
October 2024	9,061	39.7	236.74	0.00
November 2024	9,131	21.3	223.68	0.00
December 2024	9,085	116.5	239.23	0.00
January 2025	8,135	26.6	219.95	0.00
February 2025	7,835	13.6	194.75	0.00
March 2025	7,587	34.2	207.22	0.00
April 2025	7,483	33.7	204.52	0.00
May 2025	7,399	63.8	224.97	0.00
June 2025	8,049	49	237.19	0.00
Annual 2024-25	8,632	634.2	2,818.77	0.00
% of total discharge	--	--	100.0%	0.0%

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

57.3 Bypass events

Table 57-C(i): Bypass events summary for SELST01-OFD

Bypass ID:	**SELST01-OFD**				
Bypass description:	Overflow to short outfall from final effluent wet well AND/OR from contact tank inlet channel				
Treatment bypassed:	Disinfection (UV & Chlorine) *This bypass has 2 overflow points, one before and one after disinfection. The resulting bypass flow will be partially disinfected*				
Treatment level of impacted effluent:	Screened, Primary Treated, Secondary Treatment (Only if **SELST01-BPD** is NOT active), Partial Disinfection (UV & Chlorine, see above)				
Flows exceeding:	~230L/s				
Discharge location:	Derwent Estuary short outfall: 526908E, 5256119N (GDA94)				
Start date / time	**End date / time**	**Duration**	**Volume estimate**	**Cause**	**Response actions**
18/10/24 20:58	18/10/24 21:18	0.3 h	60 kL	Rainfall Event	To help reduce bypass events state-wide, during FY2024-25 TasWater has spent $1.2 million on the identification, reification and monitoring of inflow and infiltration (I&I) within our systems. During FY2025 -26 we will be spending a further $0.8 million on I&I works. Works this period for the Selfs Point catchment included: • Desktop assessment of catchment and Monitoring performance of previous I&I actions for effectiveness Following the Selfs Point Upgrade completion, during wet weather conditions, the effluent in the effluent balance tank may be discharged to the new local Selfs Point effluent outfall. This will only occur under prolonged wet weather events. The local Selfs Point effluent outfall will have a peak hydraulic capacity of 1,340 L/s to accommodate all wet weather flows pumped to the new STP. All wet weather discharges will be treated and no chlorine will be added as disinfection is achieved through the membranes.
01/12/24 05:18	01/12/24 13:28	8.2 h	3440 kL	Rainfall Event	As above
07/12/24 08:02	08/12/24 06:32	22.5 h	7053 kL	Rainfall Event	As above
08/12/24 13:52	08/12/24 16:32	2.7 h	334 kL	Rainfall Event	As above
10/12/24 11:22	13/12/24 11:28	72.1 h	26596 kL	Rainfall Event	As above

Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
22/12/24 20:59	22/12/24 23:09	2.2 h	768 kL	Rainfall Event	As above
15/01/25 21:29	16/01/25 00:29	3.0 h	73 kL	Rainfall Event	As above
16/01/25 04:49	16/01/25 12:59	8.2 h	272 kL	Rainfall Event	As above
16/01/25 17:29	16/01/25 17:49	0.3 h	17 kL	Rainfall Event	As above
24/05/25 09:27	24/05/25 17:47	8.3 h	1032 kL	Rainfall Event	As above
10/06/25 14:41	11/06/25 10:01	19.3 h	1122 kL	Rainfall Event	As above

Table 57-C(ii): Bypass events summary for SELST01-OND-2

Bypass ID:	**SELST01-OND-2**				
Bypass description:	Inlet pump station overflow to short outfall				
Treatment bypassed:	Primary Treatment, Secondary Treatment, Disinfection				
Treatment level of impacted effluent:	Screened				
Flows exceeding:	~ 450 – 570 L/s				
Discharge location:	Derwent Estuary short outfall: 526908E, 5256119N (GDA94)				
Start date / time	**End date / time**	**Duration**	**Volume estimate**	**Cause**	**Response actions**
01/12/24 03:58	01/12/24 06:08	2.2 h	Unknown	Rainfall Event	See Table 57-C
07/12/24 06:22	07/12/24 18:42	12.3 h	Unknown	Rainfall Event	See Table 57-C
22/12/24 20:09	22/12/24 20:19	0.2 h	Unknown	Rainfall Event	See Table 57-C
15/01/25 18:49	15/01/25 19:19	0.5 h	Unknown	Rainfall Event	See Table 57-C
23/05/25 09:47	23/05/25 11:07	1.3 h	Unknown	Rainfall Event	See Table 57-C
24/05/25 07:57	24/05/25 12:47	4.8 h	Unknown	Rainfall Event	See Table 57-C
10/06/25 10:51	10/06/25 13:11	2.3 h	Unknown	Rainfall Event	See Table 57-C

* The volume of this bypass cannot be calculated as it occurs BEFORE the plant inlet flow meter

57.4 Discharge compliance with permit limits

Table 57-D: Compliance summary

Parameter	Ammonia	BOD_5	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	2	15	--	10	5	8.5	3	750	20
90th percentile	--	--	--	--	--	--	--	--	--
50th percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
Samples analysed									
Number required	52	52	--	52	52	52	52	52	52
Number analysed	52	52	--	52	52	52	52	52	52
Statistical summary									
Maximum	2.1	56.0	2.2	16.7	2.9	7.7	4.7	934	105.0
90th percentile	0.8	5.9	0.9	10.3	1.0	7.4	4.1	332.9	8.4
50th percentile	0.2	5.0	0.7	7.6	1.0	7.3	1.4	57.5	4.5
Minimum	0.1	5.0	0.3	4.6	1.0	7.1	0.3	10	4.0
EPN limit compliance									
% compliance with maximum	98%	96%	--	88%	100%	100%	79%	96%	96%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	100%	--	--	--

Table 57-E: Mass loads to the environment

Mass Loads	EPN limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	22228.0
Phosphorous (kg)	--	Annual	5469.0
Method	Flow weighted/composite method		

Table 57-F: Performance Analysis (Discharge to environment)

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
Chlorine	23/07/2024 24/09/2024 27/05/2025 3/06/2025	Some instances of high chlorine are related to elevated ammonia, since chlorine decays more slowly in the presence of ammonia. This is a particular issue due to the limited contact time in the chlorine contact tank. The system is not capable of automatically adjusting the chlorine dose rate in order to achieve a target chlorine residual concentration. The chlorine concentration at the environmental discharge point is expected to be significantly lower (~10 km pipeline).	Chlorine will not be used for disinfection purposes at the new Selfs Point STP. Disinfection will be achieved through the use of membrane technology.
Ammonia	16/07/2024	Ammonia failures are typically associated with lower dissolved oxygen concentrations in the aeration tanks caused by increases in organic loading on the process.	No specific actions undertaken. Selfs Point STP Upgrade will improve performance.
BOD	16/07/2024 3/09/2024	The BOD or TSS non-compliances could be associated with a wet weather event. Reduced hydraulic retention time in the aeration tank and increased hydraulic load on the clarifier causes increased BOD or TSS.	
TSS	16/07/2024 3/09/2024		
Phosphorus	29/04/2025	Increased phosphorus load to the secondary treatment process causes increased effluent phosphorous	
E. coli	19/11/2024 4/02/2025	*E. coli* exceedances likely due to low chlorine residual. Some instances of high chlorine are related to elevated ammonia, since chlorine decays more slowly in the presence of ammonia. This is a particular issue due to the limited contact time in the chlorine contact tank.	Chlorine control is included in the scope of the Selfs point upgrade project.

Effluent compliance parameter	Date(s) of non-compliance		Reasons for non-compliance	Actions to improve performance
			The system is not capable of automatically adjusting the chlorine dose rate in order to achieve a target chlorine residual concentration. The chlorine concentration at the environmental discharge point is expected to be significantly lower (~10 km pipeline).	
Nitrogen	16/07/2024 3/09/2024 12/11/2024	1/04/2025 8/04/2025 29/04/2025	Increases in the aerobic fraction in the aeration tanks provides good ammonia removal, however, prevents sufficient denitrification from occurring	Regular process adjustments to minimise ammonia and nitrogen exceedances.

No other parameters had exceedances in the reporting period.

57.5 Reuse annual reporting

The Selfs Point STP previously supplied recycled water for irrigation of sporting grounds at the Selfs Point recycled water scheme (RWS) located Friends School Sports Ground. Supply to the scheme ceased during FY2022-23.

Table 57-G: Reuse Compliance Summary

	BOD5	pH	E. coli
Permit/EPN limit	**mg/L**	**Units**	**MPN/100ml**
Maximum	10	9.0	--
90th Percentile	--	--	--
50th Percentile	--	--	10
Minimum	--	5.5	--
Samples analysed			
Number required	52	52	52
Number analysed	52	52	52
Statistical summary			
Maximum	56.0	7.7	934
90th percentile	5.9	7.4	333
50th percentile	5.0	7.3	58
Minimum	5.0	7.1	10
EPN Limit Compliance			
% compliance with Maximum	94%	--	--
% compliance with 90th percentile	--	--	--
% compliance with 50th percentile	--	--	21%
% compliance with pH range	--	100%	--

57.6 Ambient monitoring program

Table 57-J: Program details

Program	**NA – No requirement for ambient monitoring in the reporting period**
Status	NA
Update	NA
Comments	NA

57.7 Groundwater monitoring

The Selfs Point groundwater monitoring network consisted of one groundwater monitoring bore (ID CBGW1) which was located at a historic recycled water irrigation customer. This bore has been lost and no longer included in the groundwater monitoring program. TasWater will investigate the monitoring requirements of this STP.

57.8 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 43 out of 108 in priority.

57.9 Sludge and biosolids

The latest revision to the Sewage Sludge Management Plan (SSMP) includes full details of the actions undertaken during the reporting period. This STP was assessed as compliant with the 2024-25 SSMP.

Biosolids are removed regularly from site, no stockpiling occurs.

During the reporting period, liquid sludge was received from Cygnet, Dover and Geeveston STPs. The total sludge volume received at Selfs Point STP was 1292kL.

Table 57-K: Biosolids sludge classification

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	12	2.7	1.8	1.3	2.5	A
Cadmium	12	0.8	0.6	0.5	0.8	A
Chromium	12	19.1	12.2	10.3	17.0	A
Copper	11	509.0	382.4	256.0	523.5	B
Lead	12	29.3	12.6	7.8	25.3	A
Mercury	12	0.7	0.5	0.0	0.9	A
Nickel	12	20.3	12.1	9.5	17.9	A
Zinc	12	277.0	225.4	188.0	288.4	B

*No Copper result for February 2025 due to lab testing error.

Table 57-L: Volume and disposal destination

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
877.8	20.0	Hydrated Lime	B	B	2	Whitemarsh Farm, Blue Hills Farm, Coronation Hotel, Thorpe Farm

Notes: DST = Dry solid tonne.

Table 57-M: Liquid sludge transfers received at Selfs Point STP

STP transferred from	Volume received (kL)
Cygnet STP	271
Dover STP	409
Geeveston STP	612
TOTAL	**1292**

57.10 Non-compliance with other permit requirements

Table 57--N: 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 57.4 Discharge compliance with permit limits and Performance Analysis
EM3 Discharge Management Plan	Discharge Management Plan overdue.	Has not been formally resolved during FY2025. The EPA Board approved the upgrade of Selfs Point STP. Construction commenced in October 2024 and the STP is due for commissioning in 2027.

57.11 Complaints and incident reporting

No complaints received or incidents reported during the porting period.

Table 57-O: Complaints reporting

Date	Category	Details	Mitigation actions
13/03/2025	Odour	Strong odour identified coming from the STP from the rowing club.	1 trickling filter was bypassed the previous day due to emergency valve maintenance. The biofilm material drying out can lead to an increase in odour. However, no odour the following day. Trickling filter back online.

57.12 Any other relevant information

Table 57--P: Projects or significant operational events that occurred in FY 2024-25:

Project or significant operational event	Progress
Derwent Hobart Sewerage Regional Master Plan	The Derwent Hobart Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the existing Selfs Point STP.
Selfs Point STP Upgrade (this includes the decommissioning and transfer of flows from Macquarie Point STP)	Construction of the new Selfs Point STP commenced in September 2024 and is ongoing. Construction of the primary treatment area, inlet works, membrane bioreactor tank and digestor tanks all underway. The new STP is due to be commissioned in 2027.

For further information on the Selfs Point STP please contact TasWater on 13 6992

www.taswater.com.au.