

## 44. Prospect Vale STP

### 44.1 Activity and report details

<b>Activity name</b>	<b>Prospect Vale STP</b>		
<b>Activity address</b>	Pitcher Parade, Prospect Vale, Launceston		
<b>Permit number</b>	Licence to Operate - 3590 Permit No. DA067/00	<b>Date of issue</b>	13/12/1988 29/08/2000
<b>EPN</b>	7958/2	<b>Date of issue</b>	23/09/2011
<b>Treatment level</b>	Secondary Treatment		
<b>Authorised dry weather flows</b>	1720 kL/day		
<b>Key influent source</b>	Residential		
<b>Contact person</b>	Kate Westgate		
<b>Report author</b>	Luisa Romero (Environmental Scientist)		
<b>Contact details</b>	Environment@taswater.com.au		
<b>Date of submission</b>	30 September 2025		

**Figure 44-1: Prospect Vale Sewage Treatment Plant**



## 44.2 Monitoring and compliance summary

### 44.2.1 Flow data

**Table 44-A: Flow monitoring summary**

	Influent	Effluent	Reuse
<b>Location name</b>	Inlet	Dalrymple Creek then South Esk River	No reuse scheme
<b>Coordinates</b>	E507981 N5408607	E507790 N5408870	NA
<b>Method of measurement</b>	In line meter	In line meter	NA
<b>Date of last calibration/validation (if applicable).</b>	24/03/2025	24/03/2025	NA

**Table 44-B: Annual flow and rainfall data**

Month	Average Daily Influent Volume (kL/day)	Rainfall (mm/month) BOM Station ID 91072	Discharge to Waters Total Effluent Volume (ML)	Discharge to Reuse Total Effluent Volume (ML)
July 2024	2,638	120.4	81.77	--
August 2024	2,379	107.2	73.76	--
September 2024	2,214	80.4	66.42	--
October 2024	1,404	37.4	25.53	--
November 2024	1,435	90.2	43.05	--
December 2024	1,736	46.8	53.81	--
January 2025	1,230	18.6	38.12	--
February 2025	1,238	17	34.67	--
March 2025	1,218	21.8	37.76	--
April 2025	1,269	24.4	38.08	--
May 2025	1,349	47.2	41.83	--
June 2025	1,791	85.7	53.72	--
<b>Annual 2024-25</b>	<b>1,662</b>	<b>697.1</b>	<b>588.51</b>	<b>0.00</b>
<b>% of Total Discharge</b>	--	--	100.0%	0.0%

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

### 44.3 Bypass events

**Table 44-C: Bypass events summary**

<b>Bypass ID:</b>	PROSTO1-BPSD				
<b>Bypass description:</b>	Inlet pump station overflow to secondary lagoon 2				
<b>Treatment bypassed:</b>	Secondary Treatment (SBR)				
<b>Treatment level of impacted effluent:</b>	Screened, Secondary Treatment (Lagoon), Lagoon UVD				
<b>Flows exceeding:</b>	52L/s (Approximate)				
<b>Discharge location:</b>	Dalrymple Creek: 507790E, 5408870N (GDA94)				
Start date / time	End date / time	Duration	Volume estimate	Cause	Response actions
27/07/2024	27/07/2024	16.9 h	1012 kL	High Flow (Wet Weather)	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.
30/08/2024	30/08/2024	13.6 h	1357 kL	High Flow (Wet Weather)	
30/08/2024	30/08/2024	1.0 h	22 kL	High Flow (Wet Weather)	
31/08/2024	2/09/2024	65.0 h	9724 kL	High Flow (Wet Weather)	
6/09/2024	6/09/2024	13.9 h	895 kL	High Flow (Wet Weather)	
27/11/2024	27/11/2024	1.1 h	98 kL	High Flow (Wet Weather)	
2/12/2024	2/12/2024	1.4 h	6 kL	High Flow (Wet Weather)	
3/12/2024	3/12/2024	9.2 h	249 kL	High Flow (Wet Weather)	
16/03/2025	17/03/2025	2.3 h	95 kL	High Flow (Wet Weather)	
17/06/2025	17/06/2025	2.7 h	22 kL	High Flow (Wet Weather)	
24/06/2025	24/06/2025	4.0 h	281 kL	High Flow (Wet Weather)	
27/07/2024	27/07/2024	16.9 h	1012 kL	High Flow (Wet Weather)	
31/10/2024	31/10/2024	1.8 h	108 kL	Power/Equipment Failure	Rectification

31/10/2024	4/11/2024	77.6 h	2192 kL	Power/Equipment Failure
4/11/2024	5/11/2024	26.9 h	868 kL	Power/Equipment Failure
5/11/2024	5/11/2024	10.3 h	309 kL	Power/Equipment Failure
6/11/2024	9/11/2024	70.4 h	2078 kL	Power/Equipment Failure
9/11/2024	10/11/2024	43.3 h	1356 kL	Power/Equipment Failure
11/11/2024	12/11/2024	21.8 h	684 kL	Power/Equipment Failure
12/11/2024	13/11/2024	21.9 h	675 kL	Power/Equipment Failure
13/11/2024	13/11/2024	5.2 h	114 kL	Power/Equipment Failure
13/11/2024	13/11/2024	6.4 h	264 kL	Power/Equipment Failure
14/11/2024	15/11/2024	10.2 h	265 kL	Power/Equipment Failure
15/11/2024	16/11/2024	21.8 h	560 kL	Power/Equipment Failure
16/11/2024	19/11/2024	66.9 h	1961 kL	Power/Equipment Failure
19/11/2024	20/11/2024	21.8 h	604 kL	Power/Equipment Failure
20/11/2024	20/11/2024	2.0 h	90 kL	Power/Equipment Failure
5/03/2025	5/03/2025	0.4 h	36 kL	Power/Equipment Failure
12/05/2025	12/05/2025	16.6 h	522 kL	Power/Equipment Failure
13/05/2025	13/05/2025	1.0 h	46 kL	Power/Equipment Failure
13/05/2025	13/05/2025	0.9 h	75 kL	Power/Equipment Failure

#### 44.4 Discharge compliance with permit limits

**Table 44-D: 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	20	--	20	10	8.5	10	200	30
90th Percentile	--	--	--	--	--	--	--	--	--
50th Percentile	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	6.5	--	--	--
<b>Samples analysed</b>									
Number required	12	12	--	12	12	12	12	12	12
Number analysed	12	12	--	12	12	12	12	12	12
<b>Statistical summary</b>									
Maximum	11.5	27.0	0.0	16.3	1.3	8.6	7.8	3448	61.0
90th percentile	8.4	24.4	0.0	12.6	1.0	8.1	7.0	1847.3	32.2
50th percentile	4.0	8.5	0.0	7.8	1.0	7.7	5.1	224	12.9
Minimum	0.8	5.0	0.0	5.3	1.0	7.2	1.9	10	4.0
<b>EPN Limit Compliance</b>									
% compliance with Maximum	100%	83%	--	100%	100%	92%	100%	50%	83%
% compliance with 90th percentile	--	--	--	--	--	--	--	--	--
% compliance with 50th percentile	--	--	--	--	--	--	--	--	--
% compliance with pH range	--	--	--	--	--	92%	--	--	--

**Table 44-E: Mass loads to the environment**

Mass Loads	EPN Limit	Frequency	2024-25 result
Nitrogen (kg)	--	Annual	5222.5
Phosphorous (kg)	--	Annual	2759.5
Method	Time weighted/Grab sample method		

**Table 44-F: Performance analysis (discharge to environment)**

Effluent compliance parameter	Date(s) of non-compliance	Reasons for non-compliance	Actions to improve performance
E. coli	3/07/2024 30/10/2024 6/11/2024 14/11/2024 4/12/2024 5/03/2025 7/05/2025 4/06/2025	L2 offline for desludging in October 2024 – decreased disinfection capacity  During summer months, disinfection capacity is reduced due to algae shading UV penetration while winter experiences shorter days with reduce UV exposure.  Dec. non-compliances occurred in close proximity to wet weather events, which decrease lagoon HRT.	Desludging of lagoon 2 was completed in October 2024.  The Meander Tamar Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Prospect Vale STP with the ultimate decommissioning of the STP and transfer of sewage to the Ti Tree Bend STP as part of the Launceston Sewer Transformation project.
BOD	4/12/2024 5/03/2025	Presence of algae in the polishing ponds during warmer months is believed to be the primary reason for elevated BOD and suspended solids.  04/12/2024 Potential sludge carryover due to L2 desludging activities	No specific actions taken in reporting period
TSS	6/11/2024 8/01/2025 5/03/2025	Presence of algae in the polishing ponds during warmer months is believed to be the primary reason for elevated BOD and suspended solids.  06/11/2024 Potential sludge carries over due to L2 desludging activities	
pH	23/10/2024 5/03/2025	Elevated pH is typically associated with algal blooms, which increase pH due to CO <sub>2</sub> stripping during photosynthesis.	

No other parameters had exceedances in the reporting period.

#### 44.5 Reuse Annual Reporting

No Recycled Water Scheme associated with this STP.

#### 44.6 Ambient monitoring program

**Table 44-G: Program details**

<b>Program</b>	<b>Ambient water quality and biological monitoring in accordance with TasWater risk based ambient monitoring program.</b>
<b>Status</b>	Ambient water quality and biennial, seasonal biological monitoring (AUSRIVAS) within the Dalrymple Creek and the South Esk River receiving environment.
<b>Update</b>	Monthly ambient water quality monitoring within Dalrymple Creek and at Duck Reach (recreational period) in the South Esk River completed the reporting period. Biennial, seasonal (spring 2024/autumn 2025) biological monitoring completed during the reporting period.
<b>Comments</b>	<p>Ambient water quality monitoring was conducted monthly within Dalrymple Creek and the South Esk River at Duck Reach during the recreational period (October 2023- March 2024). Monthly monitoring was also undertaken at Trevallyn Dam. Key findings from the ambient water quality monitoring are summarised below:</p> <ul style="list-style-type: none"> <li>• Ammonia levels significantly exceeded the ANZG toxicant Default Guideline Value (tDGV) within Dalrymple Creek on most occasions throughout the year especially during the summer – autumn period but not at the Duck Reach monitoring location. Both the Trevallyn Dam upstream and the Duck Reach downstream monitoring locations exceeded the EPA DGVs for slightly to moderately disturbed ecosystems within the South Esk River catchment.</li> <li>• Nitrate levels exceeded the draft ANZG nitrate tDGV within Dalrymple Creek during September – October 2024 and May – June 2025 and correlated with elevations observed in the STP effluent discharge. Nitrate levels within Duck Reach were within the EPA DGV during the recreational period but levels within Trevallyn Dam exceeded the DGV during the July – October 2024 period.</li> <li>• Total nitrogen levels within Dalrymple Creek were significantly elevated and generally correlated with effluent discharge levels. Both the Trevallyn Dam upstream and the Duck Reach downstream monitoring locations exceeded the EPA DGV on most occasions with Duck Reach levels generally correlating with upstream levels.</li> <li>• Total phosphorus levels within Dalrymple Creek were significantly elevated and generally correlated with effluent discharge levels. Both the Trevallyn Dam upstream and the Duck Reach downstream monitoring locations exceeded the EPA DGV with Duck Reach levels generally greater than upstream levels.</li> <li>• Enterococci and <i>E. coli</i> levels within Dalrymple Creek were always elevated and exceeded the EPA low risk guideline values for waters with current or potential recreational use, especially during November 2024 and February – May 2025. There appeared to be no direct correlation with STP effluent levels. Enterococci levels were significantly lower at Duck Reach but did exceed the EPA low risk recreational guidelines in January 2025 but did not correlate with levels within Dalrymple Creek. <i>E. coli</i> levels within Duck Reach were within the low risk recreational guidelines at all times during the recreational period.</li> <li>• Potential toxin producing BGA were detected within the STP effluent and in Dalrymple Creek at significantly elevated levels in February – April 2025 and included <i>Microcystis aeruginosa</i> and <i>Microcystis flos-aquae</i>. <i>M. aeruginosa</i> was also detected within Trevallyn Dam and Duck Reach in February 2025 but within the “low alert” recreational guidelines. No microcystin toxins were detected in either the STP effluent or within Dalrymple Creek</li> </ul> <p>Effluent discharges into the Dalrymple Creek and Pitcher Parade Wetlands are likely having a significant impact on water quality within this receiving environment especially from nutrients, but also from pathogens and potential BGA risks. Pathogen indicator organism levels within Dalrymple Creek/Pitcher Parade Wetlands are generally more elevated than that observed within the STP effluent suggesting there are likely other contributing factors at this location (aquatic birds and other species present in the wetlands). These impacts were not observed within the South Esk River at Duck Reach during the summer recreational monitoring period.</p>

Biological monitoring within the South Esk River receiving environment was completed in spring (October) 2024 and autumn (March) 2025 during the reporting period. Key findings from the biological monitoring are summarised below:

- In both spring 2024 and autumn 2025, the macroinvertebrate fauna in the South Esk River downstream of the Trevallyn Dam were in consistently poor condition, with relatively low taxa diversity at all sites.
- In both spring 2024 and autumn 2025, there was no evidence of an impact of the inflow of Dalrymple Creek (which receives the STP effluent discharge) on either the macroinvertebrate fauna or algae growth/chlorophyll-a density at the South Esk River sites downstream of the discharge.
- The results of the spring 2024/autumn 2025 sampling closely follow the general pattern of results on all previous sampling occasions. Overall, there has been no consistent evidence for an impact of the inflow of Dalrymple Creek and the STP discharge on the AUSRIVAS parameters at the South Esk River sites downstream of the confluence with Dalrymple Creek.
- The principal reason for the overall poor condition of the macroinvertebrate fauna throughout this section of the South Esk River is likely due to the major variations in flow resulting from the operation of the Trevallyn Dam.

#### 44.7 Groundwater monitoring

Site status: Green

Prospect Vale STP groundwater monitoring network consists of four groundwater bores, ID numbers PVGW1-4. The network is considered to provide good coverage downgradient, to the northeast of the STP.

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

The 2024-25 groundwater monitoring event recorded increasing trends against one of more bores for several key analytes but remain below the adopted assessment criterion. Monitoring results do not suggest impacts to groundwater from STP seepage.

Sampling is scheduled to reduce to annual frequency at the standard analytical suite is at all four bores in the 2025-26 groundwater monitoring program.

#### 44.8 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 14 out of 108 in priority. Works this period included:

- Desktop analysis to understand performance within the sewer network

#### 44.9 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 at this STP is captured within the two sludge lagoons, which are periodically emptied into the adjacent temporary drying bed (formerly Lagoon 1). Once suitably dried, the sludge is tested, classified and applied to farmland for beneficial reuse (provided the requirements for Class 2 biosolids are met). Sludge Lagoon 1 was emptied during the reporting period with the sludge incorporated in with the sludge removed from Lagoon 2.

Prospect Vale drying bed also received 972kL of DAFF sludge from the Westbury STP sludge drying lagoons during the reporting period.

The contents of the drying bed were homogenised and dried to a suitable consistency. Subsequent testing and classification of the sludge demonstrated compliance with requirements of Class B biosolids and the material was subsequently applied to suitable farmland for beneficial reuse.

There are currently no stockpiles onsite.

**Table 44-H: Biosolids sludge classification summary**

Parameter	Number of samples	Maximum (mg/kg)	Mean (mg/kg)	Minimum (mg/kg)	BACC (mg/kg)	Contaminant classification
Arsenic	3	10.8	9.3	6.7	11.6	A
Cadmium	3	1	0.7	0.3	1.1	B
Chromium	3	59.9	50.6	41.9	59.6	B
Copper	3	217	157.7	87	223.4	B
Lead	3	30.1	23.5	16.4	30.4	A
Mercury	3	0.41	0.3	0.13	0.4	A
Nickel	3	34	28.8	19.5	36.9	A
Zinc	3	725	467.3	222	719.1	B

**Table 44-I: Volume and disposal destination**

Quantity (DST)	Average solids content (%)	Stabilisation method	Stabilisation grade	Contamination grade	Biosolids classification	End use destination
4152.5	64.2	Anaerobic digestion	B	B	2	Henry Farm Longford

Notes: DST = Dry solid tonne. U/C = Unclassified

**Table 32-J: Liquid sludge transfers received at Prospect Vale STP**

STP transferred from	Volume received (kL)
Westbury STP	972
<b>TOTAL</b>	<b>972</b>

**Table 44-K: Desludging status and comments**

Desludging status	Comments
Low Priority	Desludging of lagoon 2 was successfully completed in October 2024. Lagoons 3 and 4 are unlikely to require desludging within the next 10 to 20 years.

#### 44.10 Non-compliance with other permit requirements

**Table 44-L: EPN non-compliances**

EPN condition	Description of non-conformance	Future actions to be taken
EF2 Effluent quality limits to Dalrymple Creek	Discharge compliance with permit limits	See section 44.3 Discharge compliance with permit limits and Performance Analysis
EM2 Effluent Reuse Feasibility study	Effluent Reuse Feasibility study overdue	Effluent reuse feasibility study dependant on Launceston Sewer Transformation project outcome.
EM1 Effluent Management	Discharge Management Plan overdue.	TasWater acknowledges the non-compliance associated with the DMP condition.
EM3 Discharge Management Plan	Discharge Management Plan overdue.	Prospect Vale is included within the Launceston Sewer Transformation Project to be rationalised to the Ti-Tree Bend STP. On completion of this project the STP will be decommissioned and the EPMN revoked.
LO1 Notification of incidents under section 32 of EMPCA	Failure to notify the Director, EPA not later than 24 hours after becoming aware of the release of a pollutant that causes or may cause serious or material environmental harm, contrary to section 32(3) of the Environmental Management and Pollution Control Act 1994 (EMPCA).	TasWater acknowledges the non-compliance with incident notification requirements and has implemented processes to ensure all future incidents are reported to the EPA within 24 hours.

#### 44.11 Complaints and incident reporting

**Table 4-M: Complaints reporting**

Date	Category	Details	Mitigation actions
30/09/2024	Odour	Strong sewer smell from treatment plant	Lagoon 2 desludging works completed in October 2024

**Table 44-N: Incident reporting**

Date	Category	Details	Mitigation actions
31/03/2025	Mechanical	During an inspection, OPS identified a frayed anchor cable on Aerator 2 in SBR 2 at Prospect STP.	As a precaution, Operators temporarily turned off the aerator for a few hours while completing the 12-month service. The process was restored to normal operation on the same day.

21/10/2024	Other	Approximately 5,000 L of liquid sludge was spilled when the tailgate of a tanker truck failed during transport from Lagoon 2 to the drying bed.	<ul style="list-style-type: none"> <li>• Sediment controls were installed to contain the spread of biosolids.</li> <li>• Clean-up began after confirming with the property's farmhand that the paddock was not in use.</li> <li>• An exclusion fence was installed around the impacted area.</li> <li>• Lime and fresh topsoil will be applied once the area has dried.</li> <li>• The exclusion zone will remain in place for 30 days to prevent livestock access.</li> <li>• The property owner has been contacted and is satisfied with the clean-up process.</li> </ul>
------------	-------	---	---

#### 44.12 Any other relevant information

**Table 44-O: Projects or significant operational events that occurred in FY2024-25:**

Project or significant operational event	Progress
Meander Tamar Region Sewerage Region Master Plan.	The Meander Tamar Sewerage Regional Master Plan has been completed and includes the short term and long-term considerations for the Prospect Vale STP with the ultimate decommissioning of the STP and transfer of sewage to the Ti Tree Bend STP as part of the Launceston Sewer transformation Project.
Pitcher Parade Wetlands Fencing	Pitcher Parade wetlands fencing period to reduce public health risks mostly completed during the reporting. A small portion of fencing still requires completion pending Council approval to remove/trim trees.
Lagoon 2 Desludging works	Completed - October 2024

For further information on the Prospect Vale STP please contact TasWater on 13 6992 [www.taswater.com.au](http://www.taswater.com.au)