



Chain Valley Colliery Monthly Website Report – June 2025

Site:	Chain Valley Colliery
Department:	Health Safety and Environment
Report Title:	Monthly Environmental Website Report – June 2025
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Monthly Website Report

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Summary

Environmental monitoring results are presented in this report for monitoring undertaken during the period of June 2025.

Introduction

Great Southern Energy Pty Ltd (trading as Delta Coal) operates the Chain Valley Colliery, an underground coal mine at the southern end of Lake Macquarie.

Chain Valley Colliery operates under the following regulatory instruments:

- Section 66(6) of the *Protection of the Environment Operations Act 1997*, to make monitoring data related to an Environment Protection Licence (EPL) publicly available;
- Development Consent SSD-5465 (as modified), issued under the *Environmental Planning and Assessment Act 1979* to provide details of monitoring results and environmental performance;
- An Environment Protection Licence (EPL 1770) issued under the *Protection of the Environment Operations Act 1997*; and
- A Water Access Licence (WAL41508), Aquifer (Sydney Basin – North Coast Groundwater Source) for 4,443 unit shares (megalitres).

The above development consent and licences require various monitoring and reporting requirements to be undertaken by Delta Coal for Chain Valley Colliery.

This report provides environmental monitoring data from Chain Valley Colliery for the month of June 2025.

Details of the Chain Valley Colliery EPL 1770 are provided below.

Chain Valley Colliery Information	
Premises name	Chain Valley Colliery
Address	Construction Road, Chain Valley Bay, NSW, 2259
Licensee	Great Southern Energy Pty Ltd
EPL #	1770
EPL location	EPL 1770 – April 2025

The overall purpose of this monthly report is to keep stakeholders informed of the environmental monitoring results at Chain Valley Colliery and maintain a transparent and accountable reporting system.

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Scope

This report presents the results from the various environmental monitoring programs undertaken for Chain Valley Colliery. Results are presented monthly with annual data and averages.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Development Consent) to assess compliance. Monitoring results presented in this report include:

- Water – quality;
- Water – volume;
- Air Quality – Depositional Dust
- Air Quality – PM₁₀
- Air Quality – PM_{2.5}; and
- Meteorological data.

Definitions

g/m²/month – grams per square metre per month;

kL – kilolitre;

ML – megalitre;

mg/L – milligrams per litre;

TSS – total suspended solids;

µg/L – micrograms per litre; and

µS/cm – microSiemens per centimetre.

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References

ALS Group - Monthly Water Monitoring Results **June 2025**

ALS Group - Dust Deposition Report **June 2025**

Development Consent SSD-5465 (as modified)

Environment Protection Licence (EPL) 1770 (Licence version date: 9 April 2025)

Monitoring Results

Water – Quality

Water quality results for June 2025 monthly surface water and Spillway event sampling at Chain Valley Colliery, Licensed Discharge Points (LDP 1 and LDP27) are presented below.

LDP1 June 2025			
EPL	1770		
Licensee	Great Southern Energy Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	11-06-2025		
Date Obtained	18-06-2025		
Sampling Point	LDP 1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	3
pH	pH	6.5-8.5	7.72
Total Sus. Solids (TSS)	mg/L	50	<5
Electrical Conductivity	µS/cm	-	32200

LDP27 June 2025			
EPL	1770		
Licensee	Great Southern Energy Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled			
Date Obtained			
Sampling Point	LDP 27		
Parameter	Units	Limit	No discharge during June 2025
pH	pH	6.5-8.5	
Total Sus. Solids (TSS)	mg/L	50	
Electrical Conductivity	µS/cm	-	
Oil & Grease	mg/L	10	

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Water – Volume

Monthly water volumes discharged from the site are summarised below. There was no exceedance of volumetric discharge recorded at CVC for the period of June 2025.

EPL	1770
Licensee	Great Southern Energy Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	Daily
Date Reported	Refer report date
Discharge volume limit	12,161 kilolitres per day
Sampling Point	1 and 27

Date (24 hour period)	LDP 1 Volume (kL)	LDP 27 Volume (kL)	Total Discharged	Rainfall (mm)
01/06/2025	5875	0	5875	0
02/06/2025	6376	0	6376	0.2
03/06/2025	7317	0	7317	0
04/06/2025	5909	0	5909	15.8
05/06/2025	3226	0	3226	0.2
06/06/2025	4611	0	4611	0
07/06/2025	8682	0	8682	0
08/06/2025	6195	0	6195	0
09/06/2025	4683	0	4683	0
10/06/2025	4144	0	4144	0
11/06/2025	4974	0	4974	0
12/06/2025	3503	0	3503	1.6
13/06/2025	5231	0	5231	0
14/06/2025	5734	0	5734	7.2
15/06/2025	6084	0	6084	1.4
16/06/2025	6056	0	6056	0.2
17/06/2025	4648	0	4648	0
18/06/2025	5123	0	5123	0
19/06/2025	5919	0	5919	0.2
20/06/2025	5691	0	5691	0
21/06/2025	3742	0	3742	0.2
22/06/2025	4550	0	4550	0
23/06/2025	5702	0	5702	0.2
24/06/2025	6262	0	6262	0.2
25/06/2025	6283	0	6283	0
26/06/2025	6292	0	6292	0
27/06/2025	6281	0	6281	0.8
28/06/2025	6469	0	6469	1.2
29/06/2025	6267	0	6267	0.2
30/06/2025	5148	0	5148	6.2

Average	5566	0	5566	1
Minimum	3226	0	3226	0
Maximum	8682	0	8682	16

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Water – Groundwater Discharge

Groundwater discharged from underground workings to the CVC sedimentation ponds within the surface operational area has been detailed below. Chain Valley Colliery operates Water Access License (WAL 41508) permitting the extraction of 4,443 megalitres per water year (financial year calendar) with a roll-over entitlement up to a maximum of 8,886 megalitres.

CVC Groundwater to Surface Totals FY2024-2025		
Date (month)	GW Discharge (ML/Month)	GW Discharge (Cumulative ML YTD)
July 2024	207	207
August 2024	210	416
September 2024	193	609
October 2024	197	806
November 2024	182	988
December 2024	198	1186
January 2025	192	1378
February 2025	186	1564
March 2025	192	1756
April 2025	193	1949
May 2025	171	2121
June 2025	176	2297

Air Quality - Depositional Dust

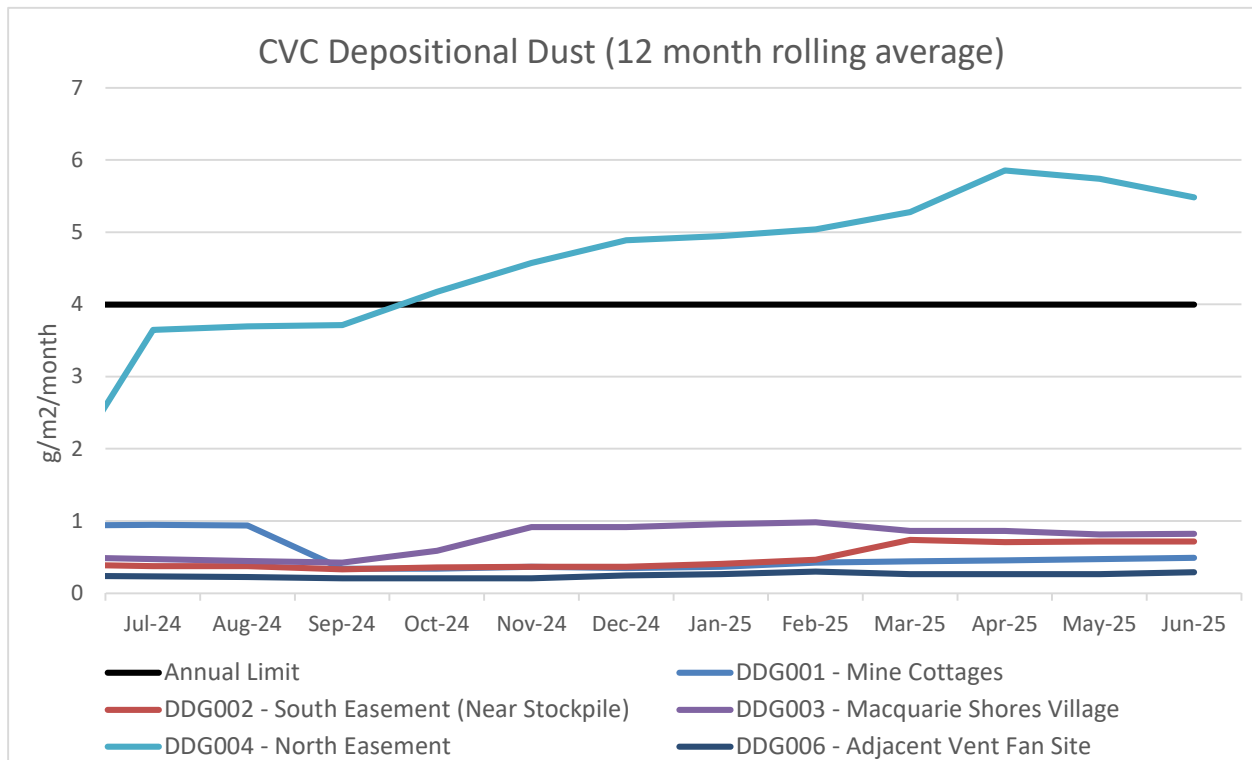
Monthly depositional dust results are shown below. Dust deposition gauges were sampled and analysed in accordance with Development Consent SSD-5465 (as modified), Delta Coal Air Quality and Greenhouse Gas Management Plan, and relevant Australian Standards.

June 2025	
EPL	1770
Limit	4g/m ² /month / Annum 2g/m ² /month increase from previous result
Sampling Date	6/05/2025 – 5/06/2025
Site	Insoluble Matter (g/m2/month)
DDG001	0.5
DDG002	0.2
DDG003	0.3
DDG004	1.3
DDG006	0.4
Notes: For site locations refer to the Delta Coal Air Quality and Greenhouse Gas Management Plan.	

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The 12 month rolling average results for DDG001, DDG002, DDG003 and DDG006 remain within the depositional dust limit of 4g/m²/month (annual average). The 12 month rolling average result for DDG004 was 5.48g/m² /month against the limit of 4g/m² /month.



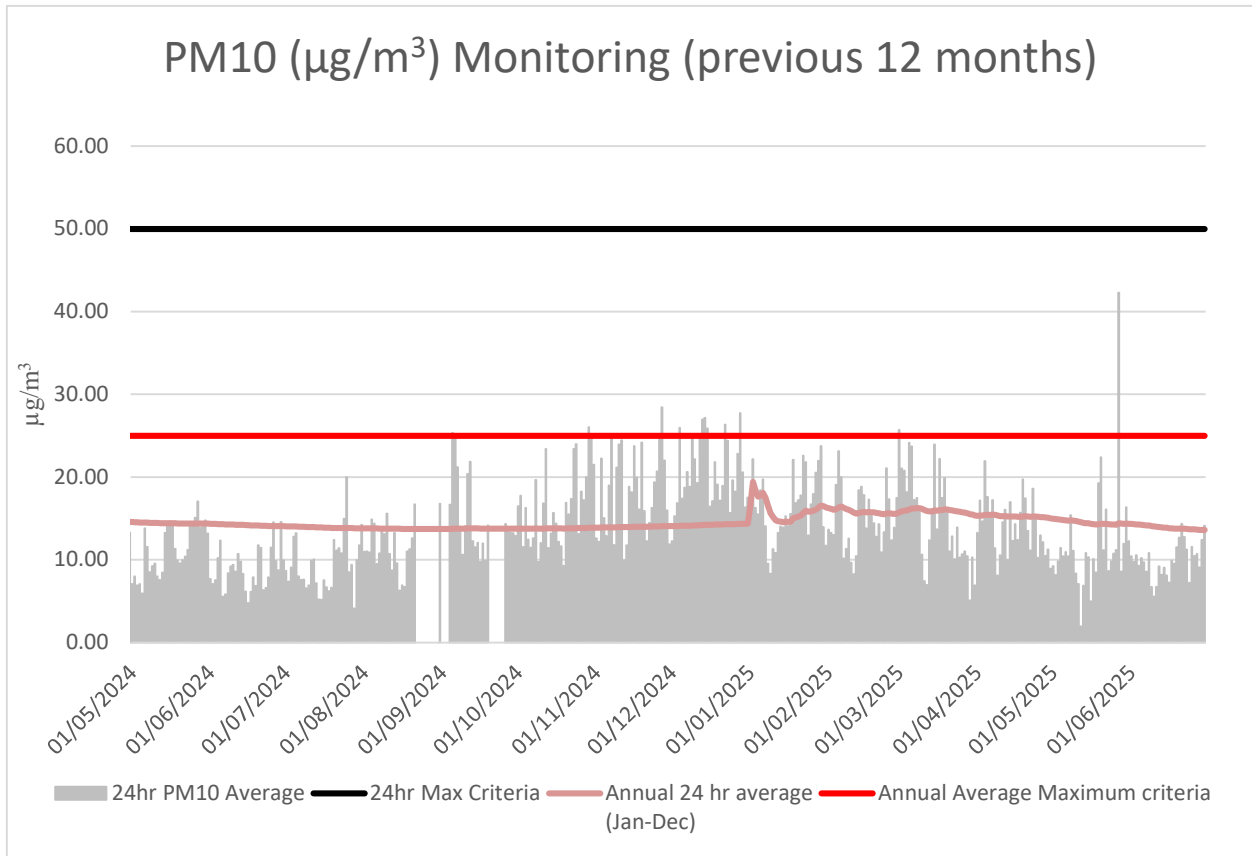
A 12-month rolling average of depositional dust concentrations has been presented above. Dust Gauges DDG001, DDG002, DDG003 and DDG004 are located within a closer proximity to Chain Valley Colliery and DDG006 is positioned in a location representative of the Chain Valley Colliery ventilation fan site at Summerland Point.

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Air Quality – PM₁₀

The 24hr PM₁₀ average from Delta Coal's Tapered Element Oscillating Microbalance (TEOM), located at the Mannering Park Sewage Treatment Plant, is presented below for the previous 12 months.



Annual 24hr PM₁₀ average maximum criteria for June 2025 was below the annual average maximum criteria limit. A summary of data availability for Delta Coal's TEOM is presented below for the reporting period. Delta Coals TEOM had a data availability of 100% for the month of June 2025.

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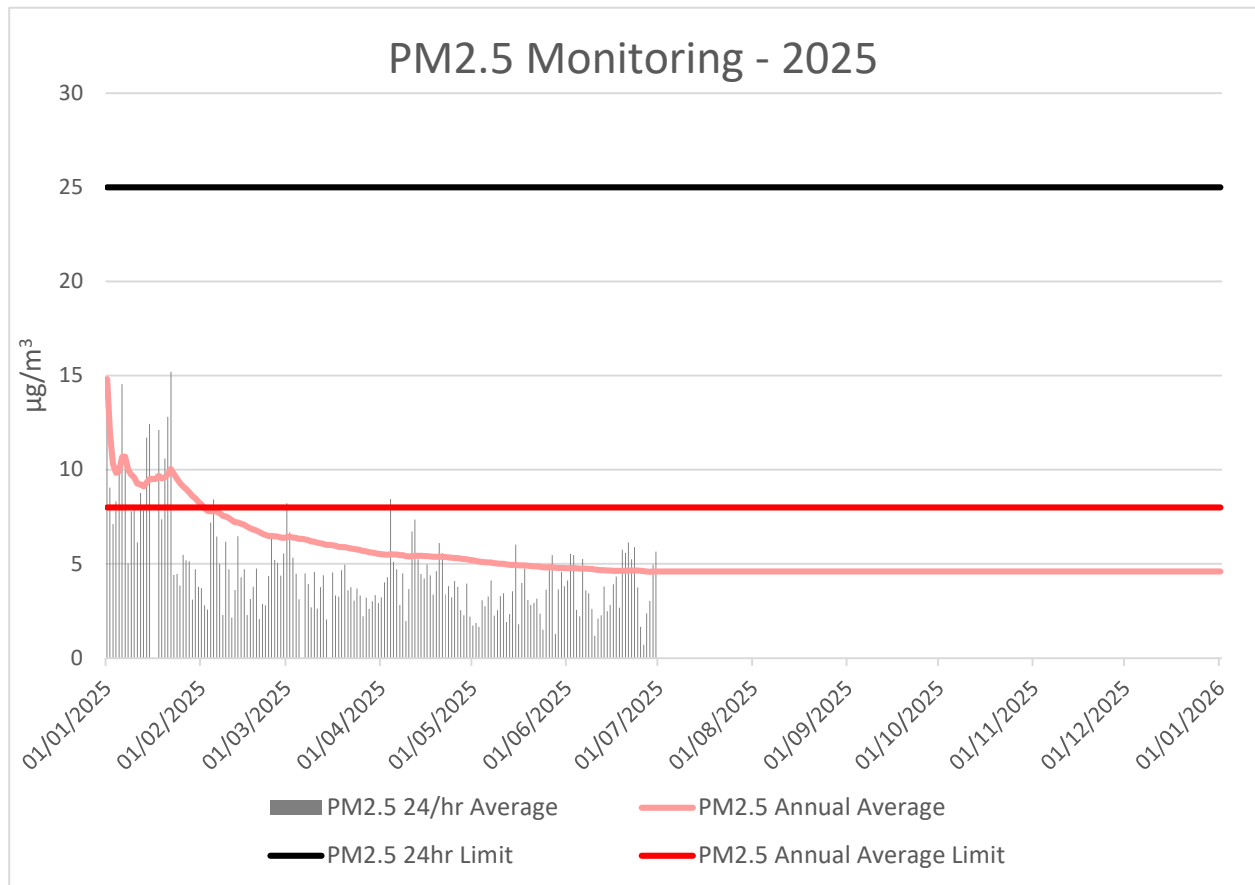
Variable	June	Total	Valid
A/C Temp	99.8%	8640	8622
A1_Scaled	99.8%	8640	8622
Band	99.8%	8640	8622
Bypass Flow	99.8%	8640	8622
Cap Temp	99.8%	8640	8622
Case Temp	99.8%	8640	8622
Config	99.8%	8640	8622
Dew Point	99.8%	8640	8622
Dig-In	99.8%	8640	8622
Dig-Latch	99.8%	8640	8622
ESN	99.8%	8640	8622
Filter Freq	99.8%	8640	8622
Filter Load	99.8%	8640	8622
Humidity	99.8%	8640	8622
MC	99.8%	8640	8622
MC 12Hr	99.8%	8640	8622
MC 1Hr	99.8%	8640	8622
MC 24Hr	99.8%	8640	8622
MC 30min	99.8%	8640	8622
MC 8Hr	99.8%	8640	8622
MC Total	99.8%	8640	8622
Mobile Signal	99.8%	8640	8622
Noise	99.8%	8640	8622
PM10 Flow	99.8%	8640	8622
Pressure	99.8%	8640	8622
Site	0.0%	8640	0
Temperature	99.8%	8640	8622
Tube Temp	99.8%	8640	8622
Vac Pressure	99.8%	8640	8622
Volts	99.8%	8640	8622

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Air Quality – PM2.5

Delta Coal utilises PM_{2.5} data obtained from Delta Electricity owned and operated beta attenuation monitor (BAM). The PM_{2.5} monitor is located on Tingley Road, Wyee.



There were no exceedances of the PM_{2.5} daily average limit in June 2025. The 12-month rolling average PM_{2.5} value on 30 June was 4.6 µg/m³. PM_{2.5} data availability in June was 99.6%. The 2025 year to date PM_{2.5} data availability is 94.1%.

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Weather Data

A summary of weather data recorded by a meteorological monitoring station at the adjacent Mannering Colliery is presented below for the year to date. (EPA ID no. 26).

Monthly Weather Data 2025			
Licensee	Great Southern Energy Pty Ltd		
Location	Mannering Colliery Meteorological station		
Date published	Refer report date		
Date sampled	Daily		
Date obtained	7 June 2025		
Month	Total Rainfall/Month (mm)	Min Temp	Max Temp
Jan-25	237	11.9	41.3
Feb-25	31	12.5	33.8
Mar-25	138	15.4	36.3
Apr-25	232	11	29.4
May-25	387	7.5	26
Jun-25	37.8	2.8	22.2

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Variable	May	Total	Valid
Baro (Corrected)	95.3%	2976	2835
10m Temp	95.3%	2976	2835
2m Temp	95.3%	2976	2835
A1	95.3%	2976	2835
A1_Scaled	95.3%	2976	2835
Assumed Temp	95.3%	2976	2835
Barometric	95.3%	2976	2835
Config	95.3%	2976	2835
Daily Evap	95.3%	2976	2835
Daily Rain	95.3%	2976	2835
Delta T	95.3%	2976	2835
Dew Point	95.3%	2976	2835
Dig-In	95.3%	2976	2835
Dig-Latch	95.3%	2976	2835
ESN	95.3%	2976	2835
FDI	95.3%	2976	2835
Heat Index	95.3%	2976	2835
Humidity	95.3%	2976	2835
Mobile Signal	95.3%	2976	2835
Rain	95.3%	2976	2835
Raw Evap	95.3%	2976	2835
S Class	95.3%	2976	2835
Scalar WS	95.3%	2976	2835
Sigma	95.3%	2976	2835
Site	0.0%	2976	0
Solar Radiation	95.3%	2976	2835
Vector WD	95.3%	2976	2835
Vector WS	95.3%	2976	2835
Volts	95.3%	2976	2835
Wind Chill	95.3%	2976	2835
Wind Direction	95.3%	2976	2835
Wind Speed	95.3%	2976	2835
WS Avg	95.3%	2976	2835
WS Gust	95.3%	2976	2835