

Chain Valley and Mannering Collieries

Combined Community Consultative Committee
Meeting Presentation
17th November 2021



AGENDA



- 1. Welcome and apologies**
- 2. Declarations of interest**
- 3. Confirmation of previous minutes**
- 4. Business arising**
- 5. Correspondence**
- 6. Operational Update**
- 7. Approvals Update**
- 8. Environmental Performance**
- 9. Environmental Projects**
- 10. Site Rehabilitation**
- 11. Next meeting**

WELCOME AND APOLOGIES



Welcome

Apologies

Declaration of interests

Confirmation of previous minutes

ACTIONS / BUSINESS ARISING FROM PREVIOUS MINUTES



Action / Business Arising	Action Owner	Update
Review potable water use by Delta Coal.	LM	Presented on Slide 24.
Provide proposed depth within Eastern Mining Area.	LM	Presented on Slide 25.
Provide update of rehabilitation security deposit held for CVC and MC.	LM	Presented on Slide 26.
Provide update on objectives of MOP/Rehabilitation Management Plan in regard to Radiata Pine trees at MC.	LM	Presented on Slide 27.
Provide a letter of thanks to Chris Armit.	MMH	Issued.

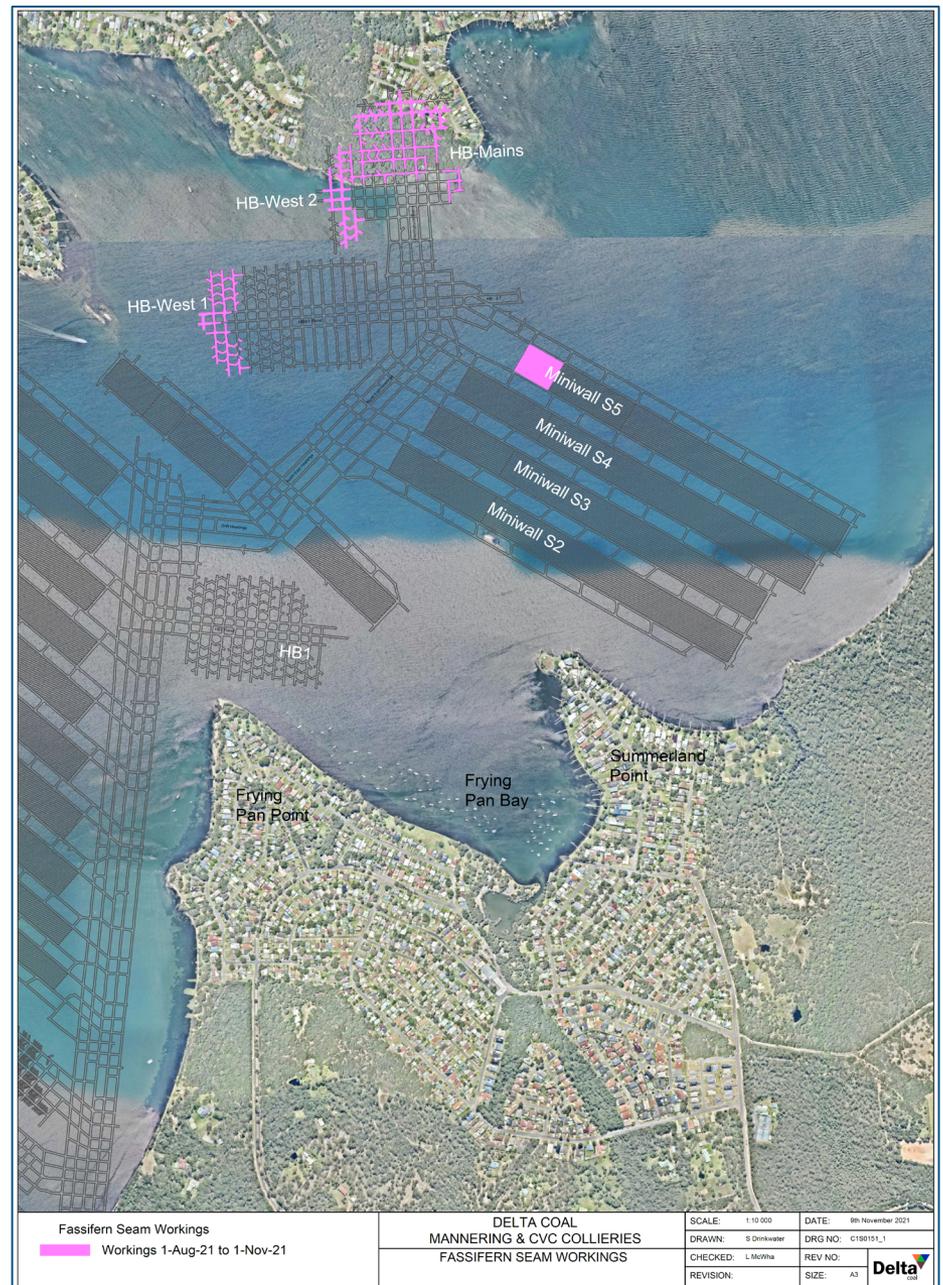
Correspondence since previous meeting

Outgoing:

- 24th August 2021 – MMH emailed letter of appreciation to Chris Armit from CCC
- 2nd September 2021 – LM/MMH emailed August Delta Coal Newsletter to the CCC
- 3rd September 2021 – MMH emailed August Delta Coal Newsletter to the president of GaSPPIG.

OPERATIONAL UPDATE

- Production areas are currently under Lake Macquarie and Morisset Peninsula.
- Current operations are first-workings only (no secondary extraction).
- Miniwall S5 was completed in August 2021.
- Forecast coal production for FY20/21 was reduced from 1.5Mtpa to 1.2 Mtpa.

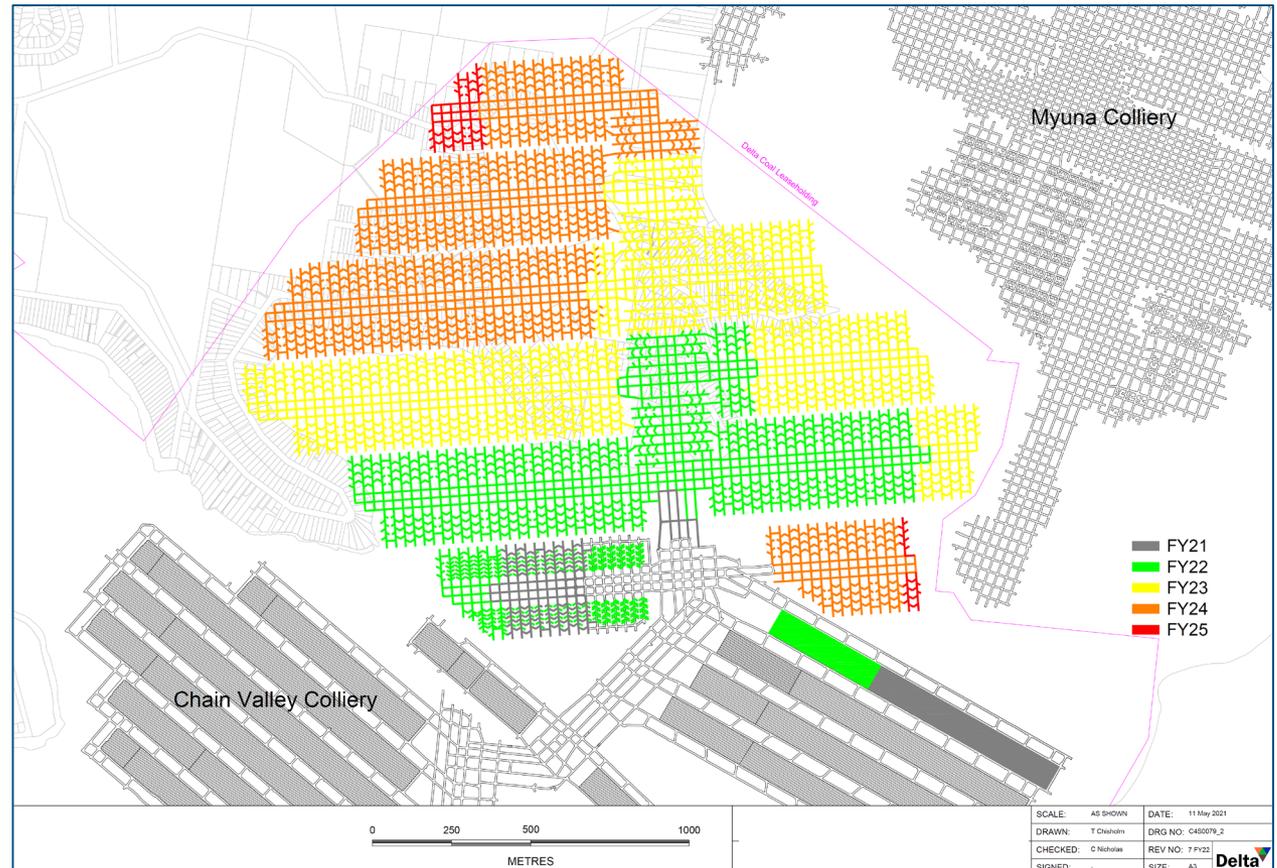


Above: Workings 1 August 2021 to 1 November 2021

PRODUCTION FORECAST



The forecasted mine design remains the same to previously presented in the Aug-21 CCC meeting.



APPROVALS - CURRENT



Approval	Status
Chain Valley Colliery	
Environmental Protection License (EPL) 1770	Updated 30 September 2021
CVC and MC MOP 2020-2023 Amendment 2 Amendment to include the Mining Lease transfer of ML1632 to ML1785.	Approved 30 th August 2021 Expires 31/12/2023
Chain Valley Colliery Development Consent CVC SSD-5465 (MOD 4)	Approved 5 th August 2021
MWS5 and NPA Extraction Plan	Approved in March 2021
Mannering Colliery	
EPL 191 – Mannering Colliery	Updated April 2021
Mannering Colliery Project Approval PA 06_0311 (MOD 5)	Approved June 2020

Mining Lease ML1784



Below: Advert placed in Newcastle Herald, 30th October 2021.

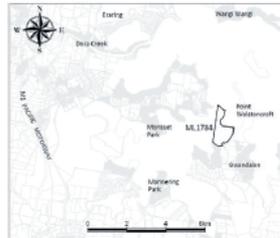
LANDOWNER NOTIFICATION

Great Southern Energy Pty Ltd (trading as Delta Coal) registered Mining Lease 1784 on the 14th May 2021, as the result of a partial transfer of Mining Lease 1370 from Centennial Myuna Pty Ltd.

Great Southern Energy Pty Ltd (ABN 40 621 1409 201) gives notice of the partial transfer to landholders as required under the Mining, Exploration and Geoscience Group within Regional NSW & Mining Lease Conditions 2013.

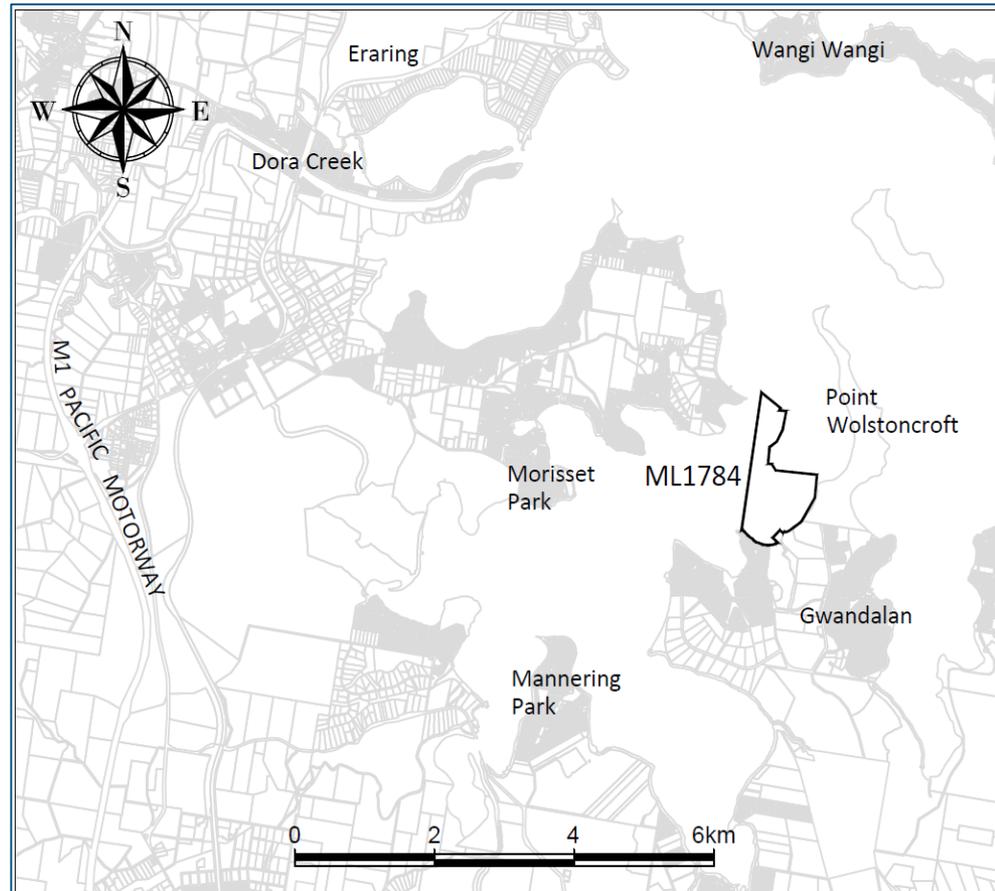


For more information:
Email: info@deltacoal.com.au
Community Information Line:
1800 687 260



AW7179144

www.deltacoal.com.au



DELTA COAL CONSOLIDATION / CONTINUITY PROJECT STAGES



The Environmental Impact Statement for the Consent Consolidation and Eastern Mining Area project is planned for submission in early December 2021.

Environmental Impact Statement Technical Reports

Subsidence	Surface Water
Groundwater	Aboriginal Archaeology
Stygofauna	Historic Heritage
Ecology	Air Quality
Noise	Greenhouse Gas
Economics	Social Impact Assessment

Phase two consultation for coal mine extension

TOPICS: Community Consultation Delta Coal Development Mining



Chain Valley Colliery

SEPTEMBER 8, 2021

Delta Coal is seeking community feedback on plans to consolidate the operations of Chain Valley and Mannering collieries under the one development approval and extend it until 2029, as well as expand mining into Chain Valley Bay.

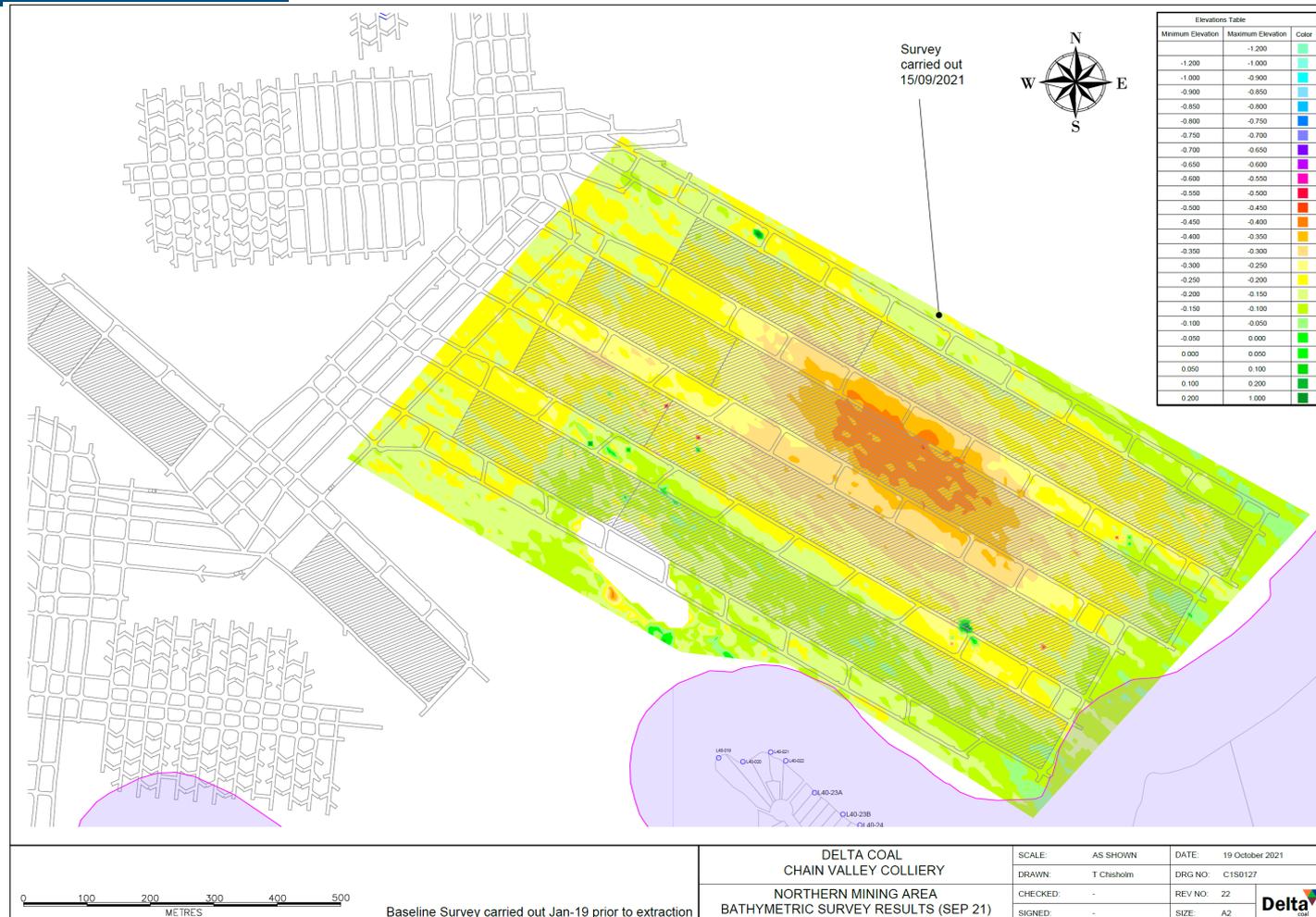
Above: Article in Central Coast Chronicles inviting community feedback.

SUBSIDENCE MONITORING



Bathymetric surveys for Miniwalls S2 – S5 completed in September 2021 following completion of MWS5.

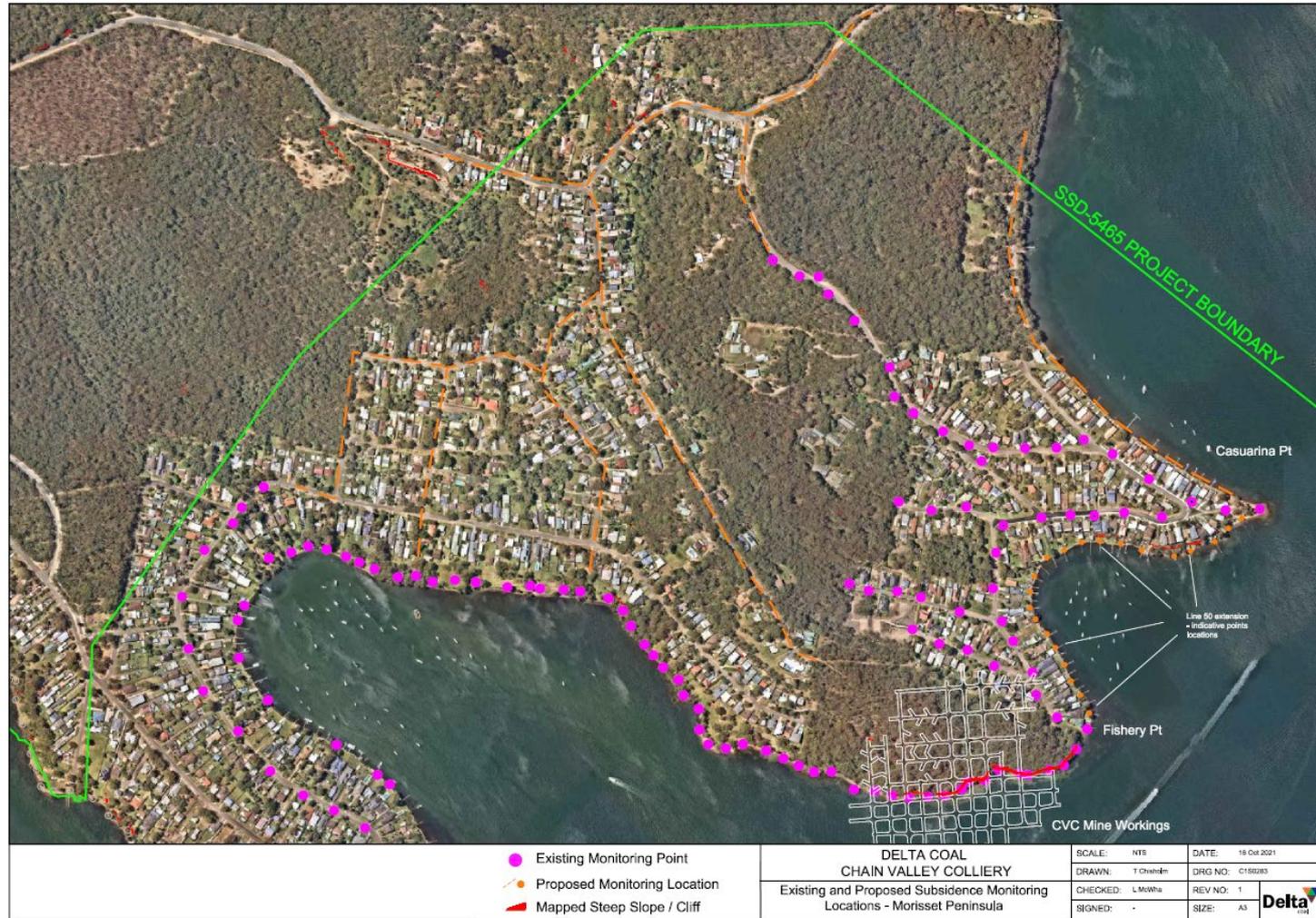
The maximum subsidence observed from the baseline survey was <500mm. The maximum predicted subsidence was 780mm for MWS2-MWS5.



SUBSIDENCE MONITORING CONT.



- Subsidence monitoring points installed on foreshore in-situ rock/trees in Brightwaters, Mirrabooka and Sunshine.
- Monitoring points installed and monitoring points remaining to be installed are shown on the adjacent figure.



ENVIRONMENTAL INCIDENTS / NON- COMPLIANCES

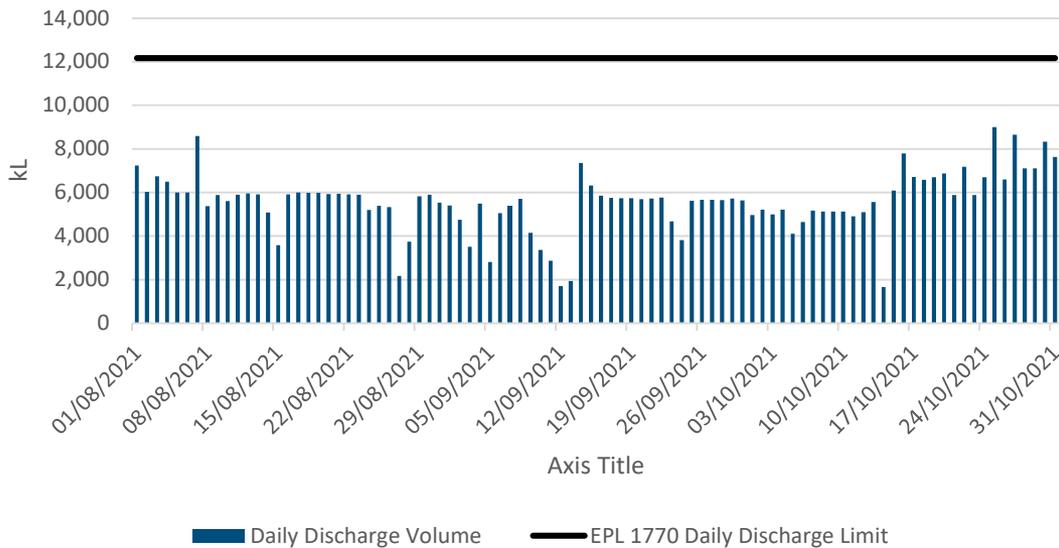


Date	Incident type	Incident Details	Corrective Actions
09.09.21 – 11.10.21	Depositional Dust technical non- compliance	<p>Technical non-compliance of depositional dust gauges DDG005 (gauge contamination) and DDG006 (broken gauge).</p> <p>DDG005 (CVC Vent Fan) Dust Gauge Composition:</p> <ul style="list-style-type: none"> Polysaccharide slime (60%), dirt (10%), vegetation (10%), sand (10%), insects (10%), coal (<5%). <p>DDG006 (CVC Vent Fan) Dust Gauge Composition:</p> <ul style="list-style-type: none"> Glass (70%), Insects (15%), polysaccharide slime (5%), dirt (5%), coal (5%). 	<p>Reported the technical non compliance.</p> <p>Obtain approval to substitute gauge DDG005 with DDG006 from DPIE (under-way).</p>

SURFACE WATER DISCHARGE – CHAIN VALLEY COLLIERY



Chain Valley Colliery – Surface Water Daily Discharge Volumes
1 Aug - 31 Oct 2021



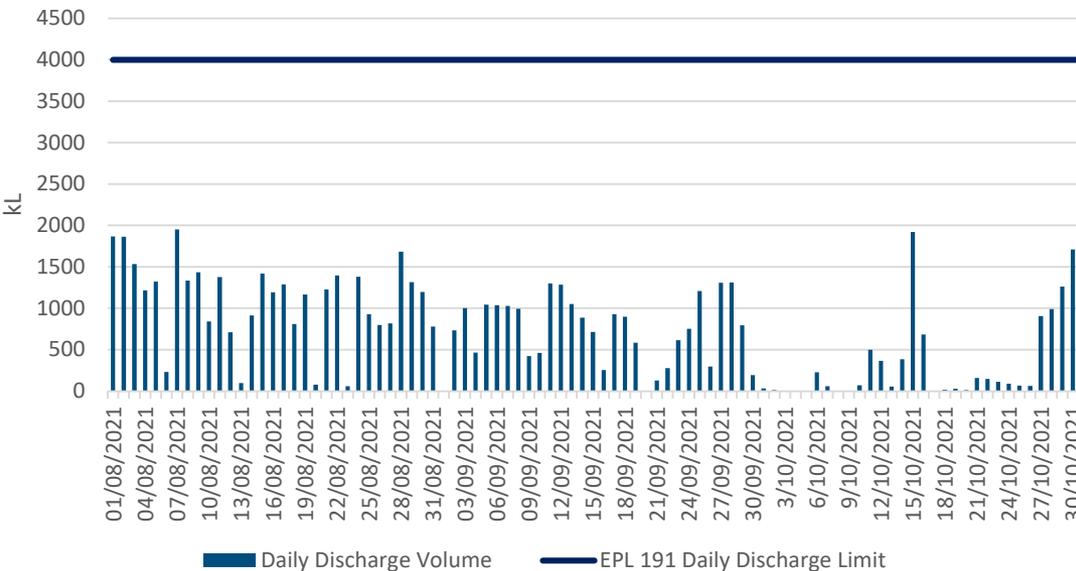
LDP1	Limits	Aug-2021	Sep-2021	Oct-2021
Faecal Coliforms (CFU/100ml)	200	60	7	40
Total Suspended Solids (mg/kg)	50	14	19	<5
pH (pH Units)	6.5-8.5	7.70	7.71	7.66

SURFACE WATER QUALITY – MANNERING COLLIERY



Manning Colliery Monthly Average Water Quality Results – Licenced Discharge Point 1

Manning Colliery – Surface Water Daily Discharge Volumes
1 Aug - 31 Oct 2021



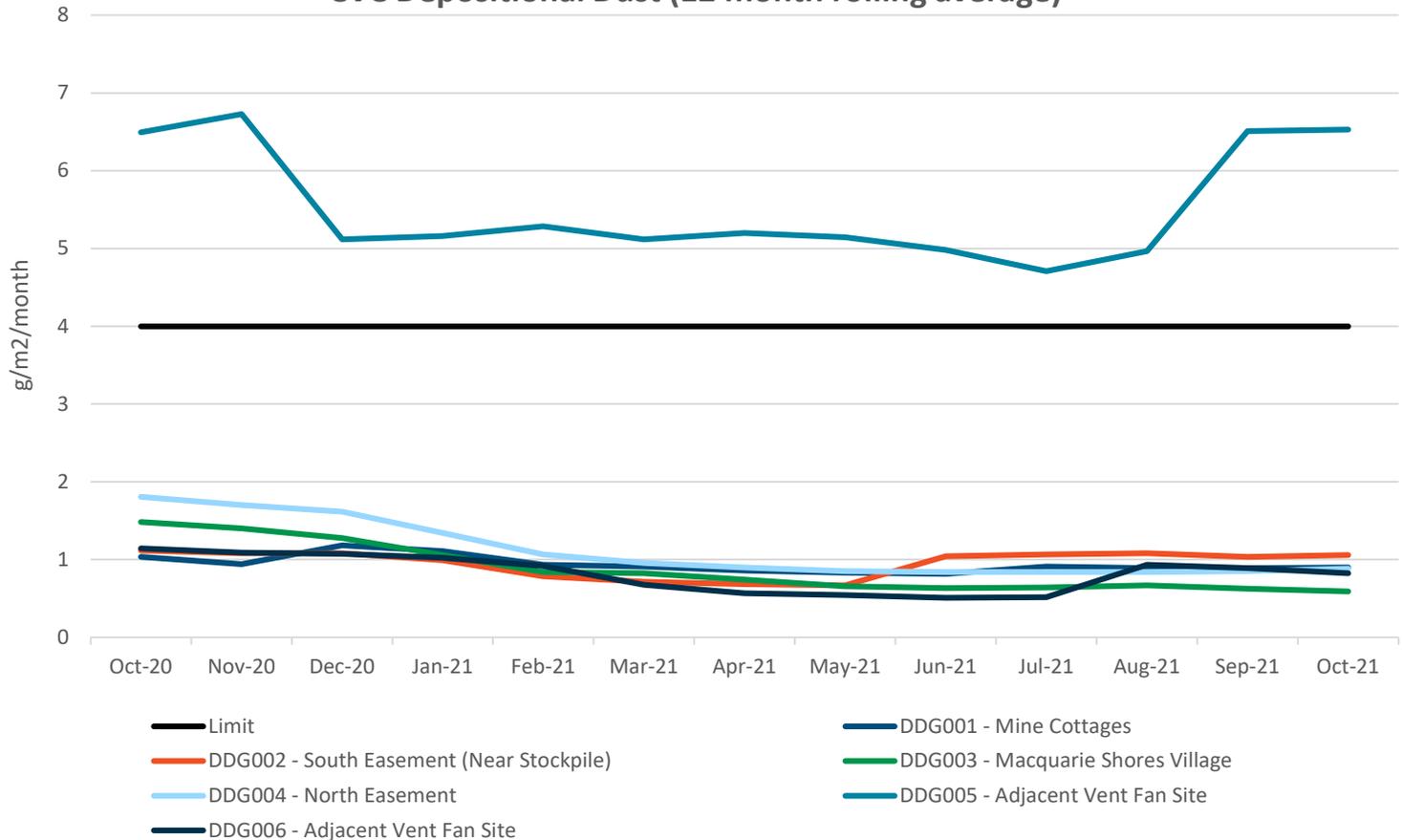
LDP1	Limits	Aug 2021 Average	Sept 2021 Average	Oct 2021 Average
Oil & Grease mg/L	10	<5	<5	<5
TSS mg/L	50	5.2 [^]	10 [^]	5.5 [^]
pH	6.5-8.5	7.83	7.99	8.1

[^] Where an analyte concentration is reported as less than the limit of quantitation (LOQ), the concentration is assumed at the LOQ for the purpose of determining an average value.

DEPOSITIONAL DUST – CHAIN VALLEY COLLIERY



CVC Depositional Dust (12 month rolling average)



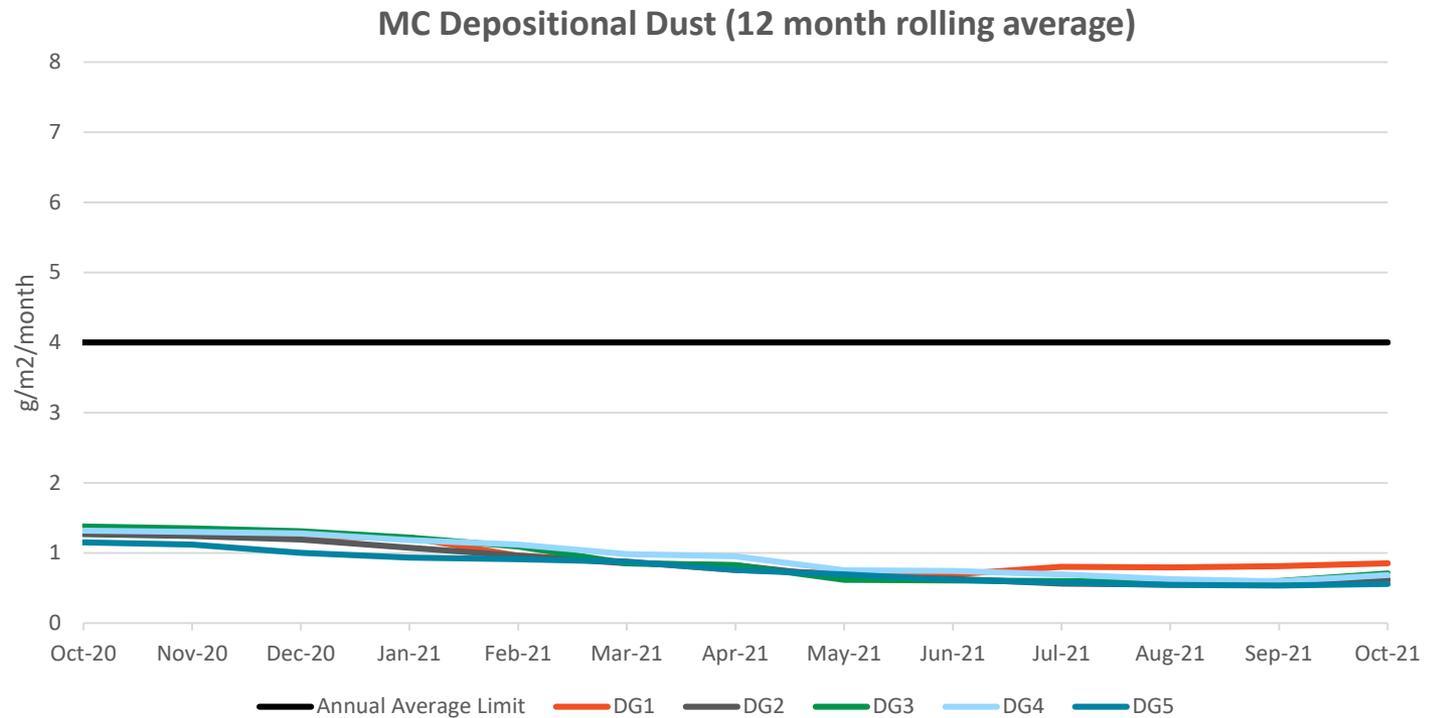
CVC depositional dust gauge locations are available in the CVC Air Quality Management Plan (available on the Delta Coal website).

Technical non compliance of DDG005 due to ongoing gauge contamination.

DEPOSITIONAL DUST – MANNERING COLLIERY

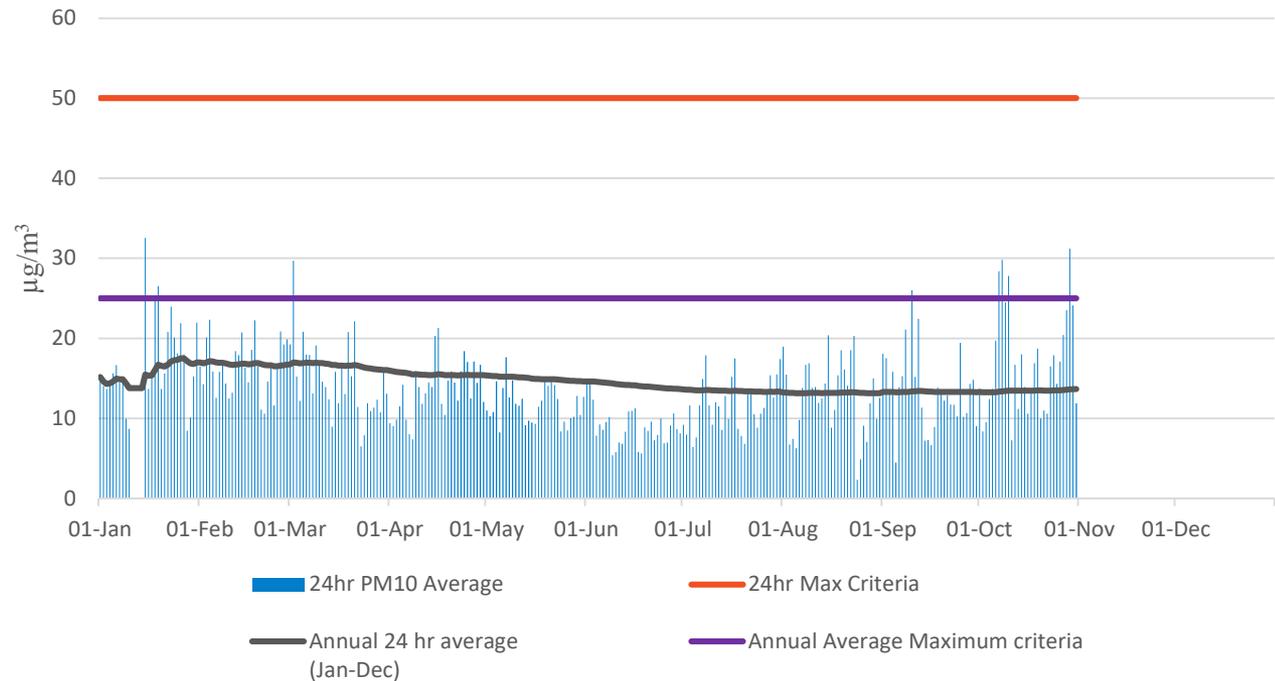


MC depositional dust gauge locations are available in the MC Air Quality Management Plan (available on the Delta Coal website).



Delta Coals tapered element oscillating microbalance (TEOM) PM10 monitor is located at the Mannering Park Sewage Treatment Plan. No exceedances of the average annual or 24hr criteria have been observed year to date.

PM10 Monitoring 2021



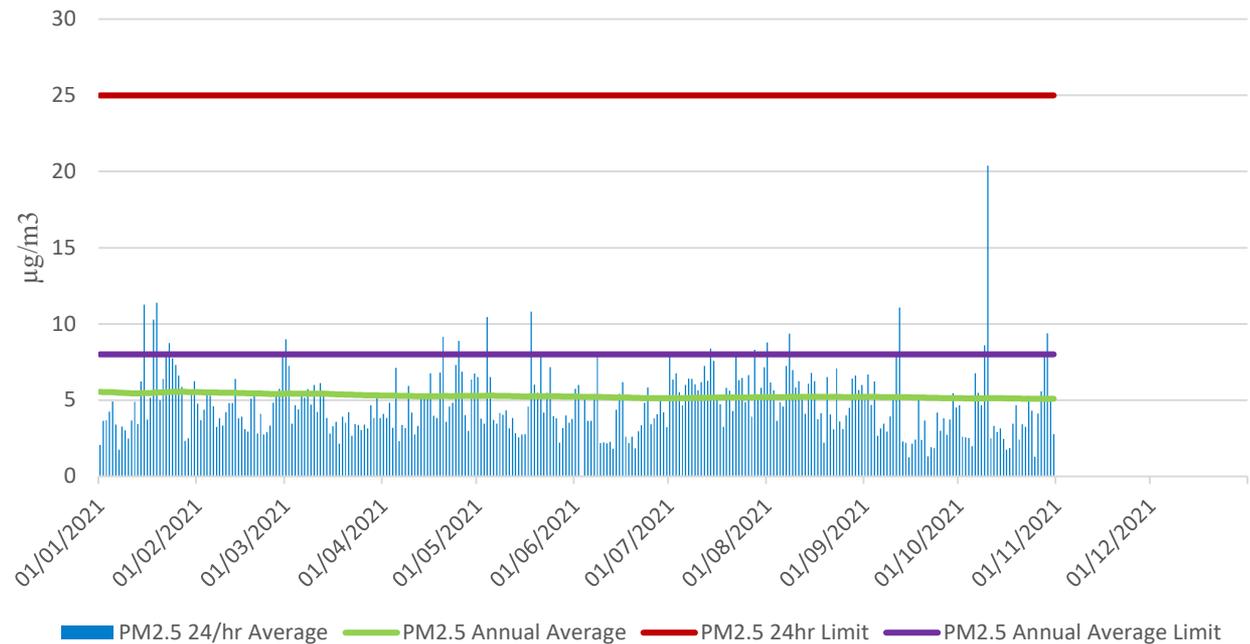
PM_{2.5} MONITORING



Delta Coal utilises Delta Electricity's Beta Attenuation Monitoring (BAM) PM_{2.5} continuous monitor located in Wye.

There have been no exceedances of the average annual limit or daily average PM_{2.5} limits recorded in the 2021 calendar year.

Wye (Delta Electricity) - PM_{2.5} Monitoring 2021



LAKE MACQUARIE BENTHIC COMMUNITIES SURVEY



Above: Benthos sampled within Lake Macquarie

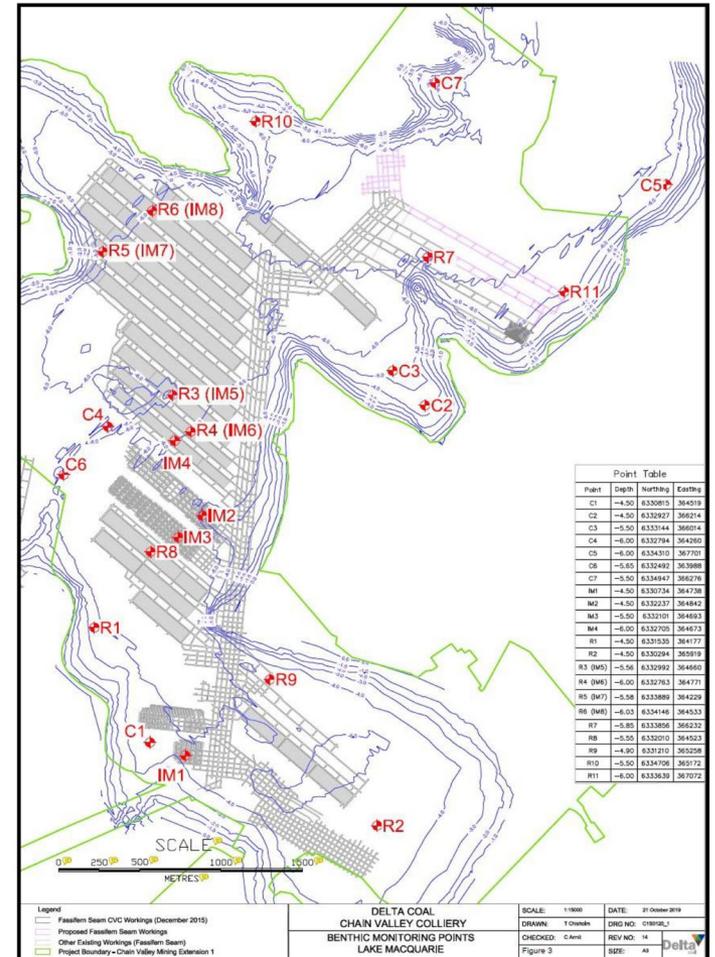
Delta Coal undertakes half-yearly benthic community surveys within potential impacted areas of Lake Macquarie. Samples of benthos are collected and analysed by volume and size.

In September 2021 a total of 2096 organisms greater than 1 mm in size were recorded comprising 13 species.

The results are an improvement from September 2019 and 2020 results where 815 and 1367 organisms were identified (respectively) comprising 12 species.

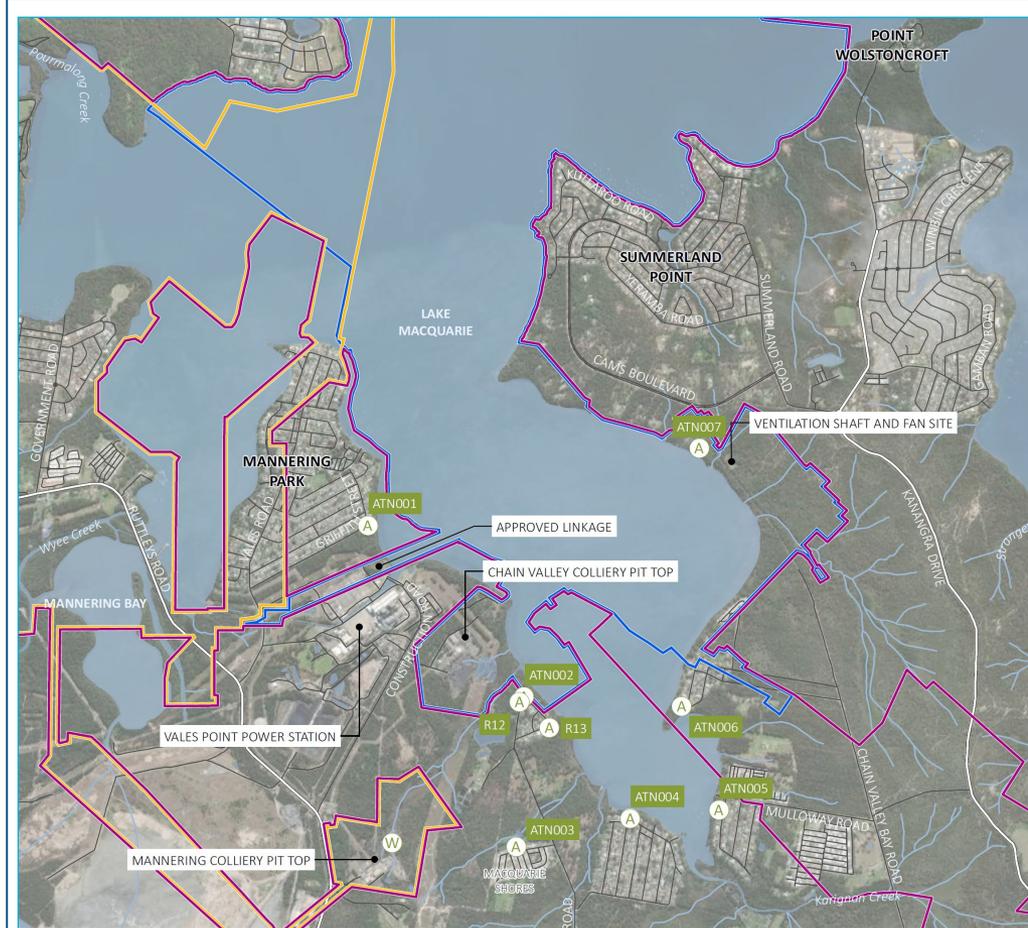
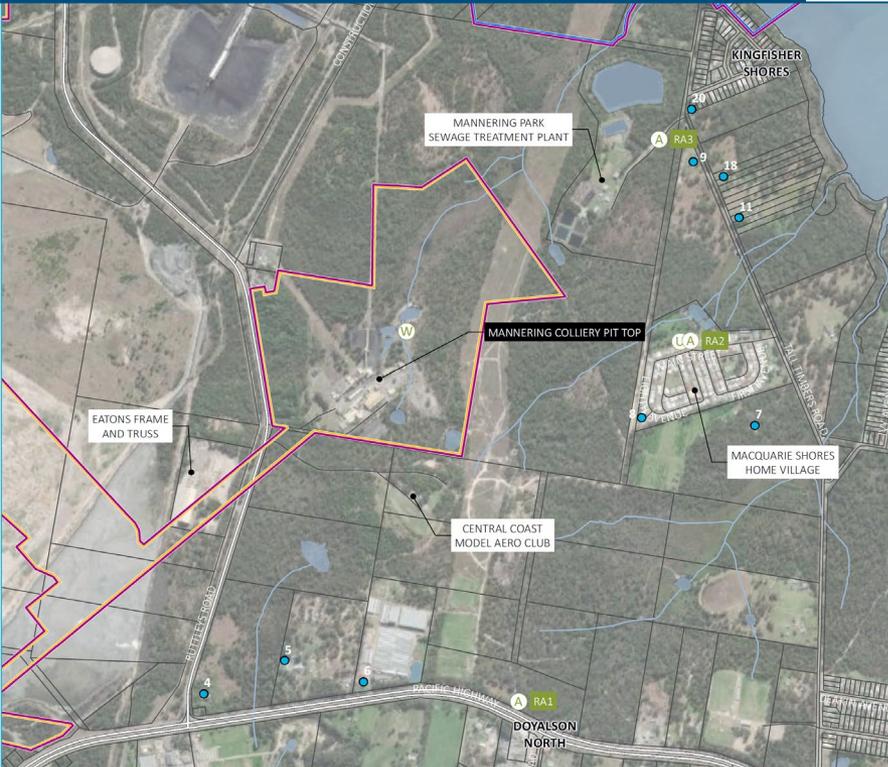
Reduced Dissolved Oxygen (DO) concentrations for prolonged periods of time in bottom waters have historically caused benthic community extinction events in Lake Macquarie. In September 2021 monitoring DO levels ranged from 84.6% to 101% saturation. Healthy aquatic environments typically have DO saturation ranges of 80 – 120 %. Few fish species tolerate prolonged exposure to DO levels below roughly 30-40% (source: 'Fish Kills in NSW FAQ's, NSW Department of Primary Industries - Fisheries, August 2011')

The report concluded that predicted subsidence of up to 780mm has, to date, had little to no discernible effect on the composition and abundance of organisms.



Above: Benthos Monitoring Points in Lake Macquarie

Noise Monitoring Locations



KEY

- Noise monitoring location
- Meteorological station
- Project area
- Mannering Coal project approval boundary (boundary offset for clarity)
- Chain Valley Colliery development consent boundary (boundary offset for clarity)

- Major road
- Minor road
- Watercourse/drainage line
- Waterbody

NOISE MONITORING MANNERING COLLIERY OCTOBER 2021



Mannering Colliery monthly noise monitoring locations are detailed in the Mannering Colliery Noise Management Plan (available on the Delta Coal website).

Date	Time	Location	Site Contributions, dB			Very Noise enhancing Met Conditions?	Noise Limits, dB		
			mod factor	LAEQ	LAMAX		LAEQ	LAMAX	
Mannering Colliery October 2021 Monitoring									
18-Oct	9:42 PM	RA1	N/A	<36	N/A	N	36	N/A	
18-Oct	10:00 PM	RA1	N/A	<36	<36	N	36	46	
18-Oct	9:15 PM	RA2	N/A	IA	N/A	N	40	N/A	
18-Oct	10:45 PM	RA2	N/A	<30	<38	N	40	45	
18-Oct	8:50 PM	RA3	N/A	IA	N/A	N	39	N/A	
18-Oct	10:22 PM	RA3	N/A	IA	IA	N	39	49	
Mannering Colliery September 2021 Monitoring									
23-Sep	6:36 PM	RA1	N/A	IA	N/A	N	36	N/A	
23-Sep	4:30 AM	RA1	N/A	IA	IA	N	36	46	
23-Sep	7:45 PM	RA2	N/A	IA	N/A	N	40	N/A	
23-Sep	3:00 AM	RA2	N/A	<40	<40	N	40	45	
23-Sep	4:00 AM	RA2	N/A	≤40	43	N	40	45	
23-Sep	5:00 AM	RA2	N/A	≤38	45	N	40	45	
23-Sep	6:00 AM	RA2	N/A	IA	IA	N	40	45	
23-Sep	6:56 PM	RA3	N/A	IA	NA	N	39	N/A	
23-Sep	3:30 AM	RA3	N/A	<39	≤39	N	39	49	
Mannering Colliery August 2021 Monitoring									
30-Aug	9:36 PM	RA1	N/A	≤36	N/A	N	36	N/A	
30-Aug	4:27 AM	RA1	N/A	IA	IA	N	36	46	
30-Aug	8:30 PM	RA2	N/A	IA	IA	N	40	N/A	
30-Aug	3:00 AM	RA2	N/A	39	40	N	40	45	
30-Aug	4:00 AM	RA2	N/A	<39	<39	N	40	45	
30-Aug	5:00 AM	RA2	N/A	<39	<39	N	40	45	
30-Aug	6:00 AM	RA2	N/A	IA	IA	N	40	45	
30-Aug	9:01 PM	RA3	N/A	<35	N/A	N	39	N/A	
30-Aug	3:30 AM	RA3	N/A	<39	<39	N	39	49	

NOISE MONITORING CHAIN VALLEY COLLIERY Q3 2021



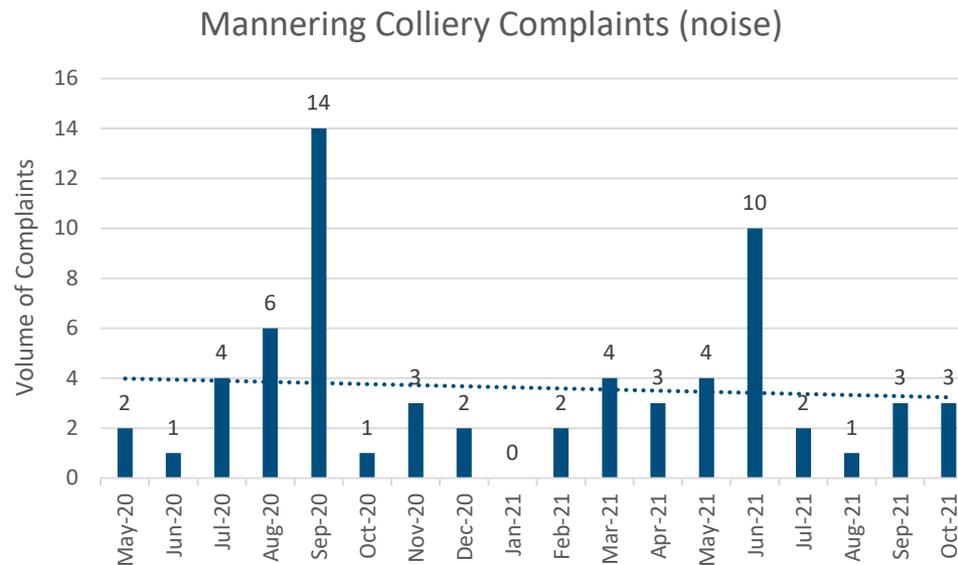
Chain Valley Colliery Q3 noise monitoring was considered an extended noise monitoring round, as required annually.

A total of 12 measurements (3 day, 3 eve and 3 night) were taken at each monitoring location.

Chain Valley Colliery Q3 2021 Monitoring					
Date	Time	Location	Noise Limits, dB		Q3 Compliance Status
			LAEQ	LAMAX	
17, 23-Sep	Day	ATN001	38	N/A	Compliant
23-Sep	Evening	ATN001	38	N/A	Compliant
24-Sep	Night	ATN001	38	45	Compliant
17-Sep	Day	ATN002	49	N/A	Compliant
23-Sep	Evening	ATN002	49	N/A	Compliant
23, 24-Sep	Night	ATN002	49	54	Compliant
17-Sep	Day	ATN003	36	N/A	Compliant
23-Sep	Evening	ATN003	36	N/A	Compliant
24-Sep	Night	ATN003	36	45	Compliant
17-Sep	Day	ATN004	35	N/A	Compliant
23-Sep	Evening	ATN004	35	N/A	Compliant
23-Sep	Night	ATN004	35	45	Compliant
17-Sep	Day	ATN005	35	N/A	Compliant
23-Sep	Evening	ATN005	35	N/A	Compliant
23-Sep	Night	ATN005	35	45	Compliant
17-Sep	Day	ATN006	37	N/A	Compliant
23-Sep	Evening	ATN006	37	N/A	Compliant
23-Sep	Night	ATN006	37	45	Compliant
17-Sep	Day	ATN007	46^	N/A	Compliant
23-Sep	Evening	ATN007	46^	N/A	Compliant
23-Sep	Night	ATN007	46^	46	Compliant
17-Sep	Day	R12	49	N/A	Compliant
23-Sep	Evening	R12	49	N/A	Compliant
23, 24-Sep	Night	R12	49	53	Compliant
17-Sep	Day	R13	43	N/A	Compliant
23-Sep	Evening	R13	43	N/A	Compliant
23, 24-Sep	Night	R13	43	49	Compliant

2021 Complaints (Jan -July)

- 1 community complaint in 2021 for Chain Valley Colliery (resident of Gwandalan suspected potential subsidence associated with circa 1970's Wallarah Colliery workings and was referred to the NSW Subsidence Advisory Board, no update has been received to date)
- 38 community complaints year to date for Mannering Colliery (noise complaints sourcing from a resident of Macquarie Shores Home Village)



CCC ENQUIRY

1. REVIEW OF POTABLE WATER USAGE

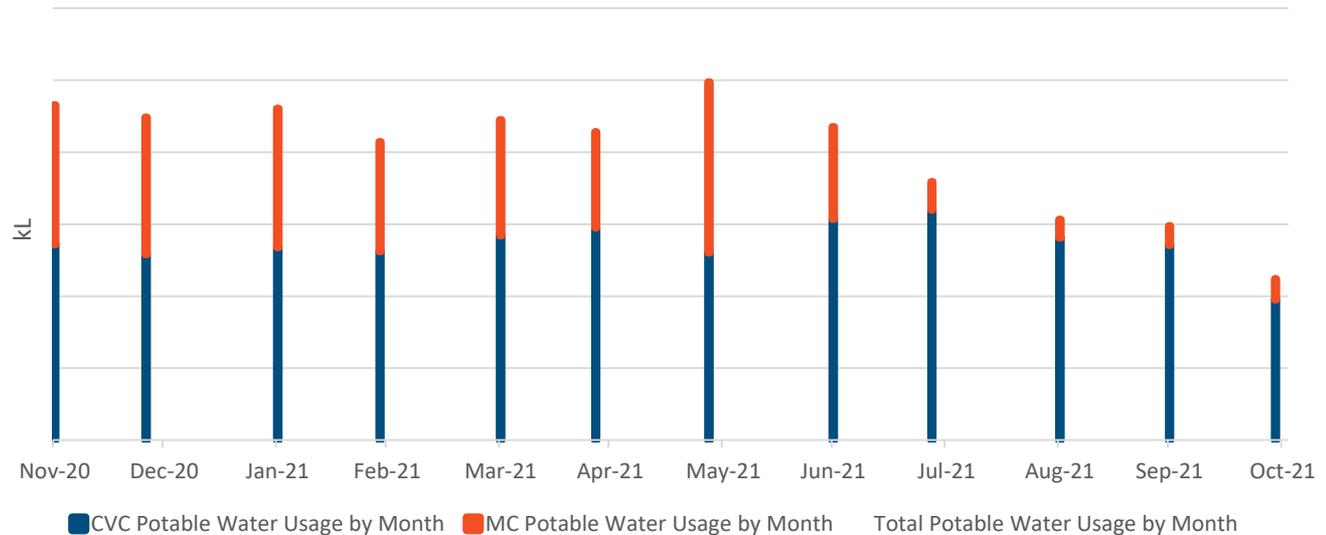


Over the last 12 months Delta Coals has reduced its monthly potable water usage.

MC and CVC potable water supply is linked underground to achieve adequate water pressure for dust suppression.

Delta Coal seeks to save and improve potable water usage where possible and consistently reviews potable water usage to identify potential improvements in usage.

CVC and MC Potable Water Combined (kL)



CCC Enquiry

2. Proposed depth of cover in the Eastern Mining Area



The proposed depth of mining (first workings only) in the Great Northern Seam per the geotechnical investigation for the Eastern Mining Area indicates a depth of cover ranging from 140m to 200m. The subsidence impact assessment will be available appended to the EIS when on public exhibition.



Chain Valley Colliery - Great Northern Seam Workings

170

Depth of Cover to Great Northern Seam (m)

DELTA COAL
CHAIN VALLEY COLLIERY
GREAT NORTHERN SEAM
DEPTH OF COVER

SCALE:	NTS	DATE:	24 November 2021
DRAWN:	G Lort	DWG NO:	CG00002.dwg
CHECKED:		REV NO:	0
SIGNED:		SUB:	AS



CCC ENQUIRY

3. REHABILITATION COST ESTIMATES



Delta Coal determines its rehabilitation cost estimates and security deposit held by the NSW Resources Regulator for Chain Valley Colliery and Mannering Colliery through the *NSW Resources Regulator – Rehabilitation Cost Estimation Tool*.

Delta Coal does not have a requirement to undertake progressive rehabilitation due to the nature of the operation.

Revisions to the NSW Resources Regulator Mining Lease conditions will require Delta Coal implement a Rehabilitation Management Plan by July 2022.

Chain Valley Colliery	CCL 706 (1973), CCL 707 (1973), ML 1051 (1906), ML 1052 (1906), ML 1308 (1906), MPL 1349 (1906), MPL 1389 (1906), MPL 1400 (1906), MPL 337 (1973), ML 1785 (1992)	\$11,449,000.00
Mannering Colliery	CCL 719 (1973), CCL 721 (1973)	\$6,261,000.00

Above: excerpts from NSW Resources Regulator – Assessed Deposits Table (<https://www.resourcesregulator.nsw.gov.au/environment/rehabilitation/rehabilitation-security-deposits>)

CCC ENQUIRY

4. MC RADIATA PINES

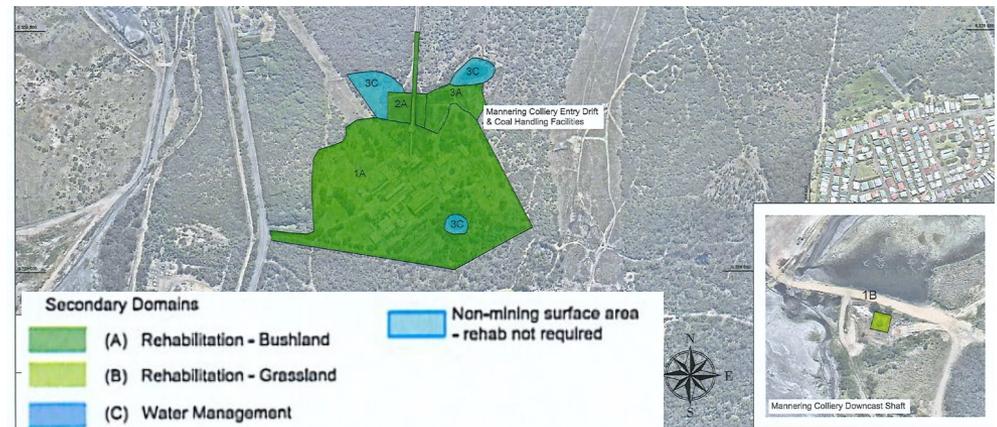
Following presentation of Delta Coal rehabilitation objectives in the August CCC meeting, a query was raised regarding the radiata pines at the front of MC and how this met MC rehabilitation objectives (i.e. portions of MC Domain 1A to Broad Leaf Scribbly Gum vegetation communities).

The vegetated portion containing radiata pine amongst other vegetation along Ruttley's Road within the MC site boundary is not identified as a domain for rehabilitation within the MOP, as this portion of the site is identified as a non-mining surface area (adjacent top figure).

Notably, Radiata Pine is not a listed noxious weed in NSW requiring control.



Above: MC current surface domains per the Delta Coal MOP
 Below: MC proposed rehabilitation domains per the Delta Coal MOP



EPL 1770 update / CVC Site Sever Connection



A variation to EPL 1770 was provided by the NSW EPA on the 30th September 2021.

Updates include:

PRP8 – CVC’s Sewer connection, was introduced to EPL 1770 in 2016, following faecal coliform exceedances. Following Variation to EPL 1770 in September 2021, the delivery date for PRP8 is now due by 22 August 2022, anticipated completion by March 2022.

Tenders were run through July/Aug 2021 and Rivers Construction were awarded the contract with the contract in October 2021.

PRP9 (added to EPL1770 in September Variation) – Upgrade administration building septic treatment system to a current best practice sewage management system. Due by 25 February 2022.

Other license conditions varied included:

- Alignment of licensed coal handling tonnages from 1.5 Mtpa to 2.1 Mtpa (per Development Consent SSD-5465);
- Updates to bunding condition to remove any drain valves; and
- Administrative updates to typographical errors and inconsistencies within the CVC’s Development Consent.



FIGURE 1.
The Proj

QUESTIONS

Next Meeting: Wednesday 16th February 2021