

Duralie Coal CCC Meeting

Presentation –
Company Report &
Overview of Activities

November 2021

Michael Plain
Environment & Community Superintendent

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1. Progress at the Mine

	Total Waste (BCM)	Total ROM Coal (T)
Q3 2021	322,000	45,000

Mining 3rd Quarter 2021

- Mining operations continued at Duralie in the Weismantel pit. Mining Operations will cease on 31 December 2021.
- Coal handling and riling is continuing and will cease on 31 December 2021.
- Rehabilitation works completed including partial bulk shaping and rehandle of the Clareval and Weismantel waste emplacements.

2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> Duralie Coal Mine Annual Review 2021 Duralie EPL 11701 Annual Return 2021 NPI and NGER reporting 2021 	<ul style="list-style-type: none"> The Duralie Coal Mine 2021 Annual Review was completed and submitted in September 2021. The AR was accepted by DPIE on 18 October 2021 and has now been distributed to the CCC members and placed on the Duralie Coal website. The Duralie EPL 11701 Annual Return 2021 was completed and submitted to the EPA in October 2021. The Annual Return is available on the EPA's public register. The NPI and NGER annual reporting requirements for the Duralie Coal Mine have been prepared and lodged with the relevant government agencies.
Regulator	<ul style="list-style-type: none"> Section 240 Notice – Closure Planning Mining Operations Plan & Rehabilitation Management Plan Environmental Management Plans – revision for closure 	<ul style="list-style-type: none"> The Resource Regulator issued DCPL a Section 240 notice on 31 August 2021 which includes directives for implementing a mine closure planning program and to develop a new rehabilitation management plan including final closure plan. The Rehabilitation Management Plan, including closure plan is due for submission on 30 June 2022. The current MOP establishes the rehabilitation and mine closure activities until December 2021. An extension to the current MOP to 30 June 2022 has been requested to allow for preparation of the new RMP. DCPL has prepared revisions of the Duralie Environmental Management Plans to reflect the current status of the DCM, and to describe anticipated mine closure activities and describe the change to environmental impacts, mitigation measures and monitoring programs at the DCM for the mine closure phase. The revised plans have been progressively submitted to DPIE for approval and will be made publicly available once approved.

3. Environmental Management Plans & Monitoring

- a) Air Quality Management
- b) Blast Management
- c) Noise Management
- d) Water Management
- e) Rehabilitation Management
- f) Biodiversity Management
- g) Mine Closure Planning

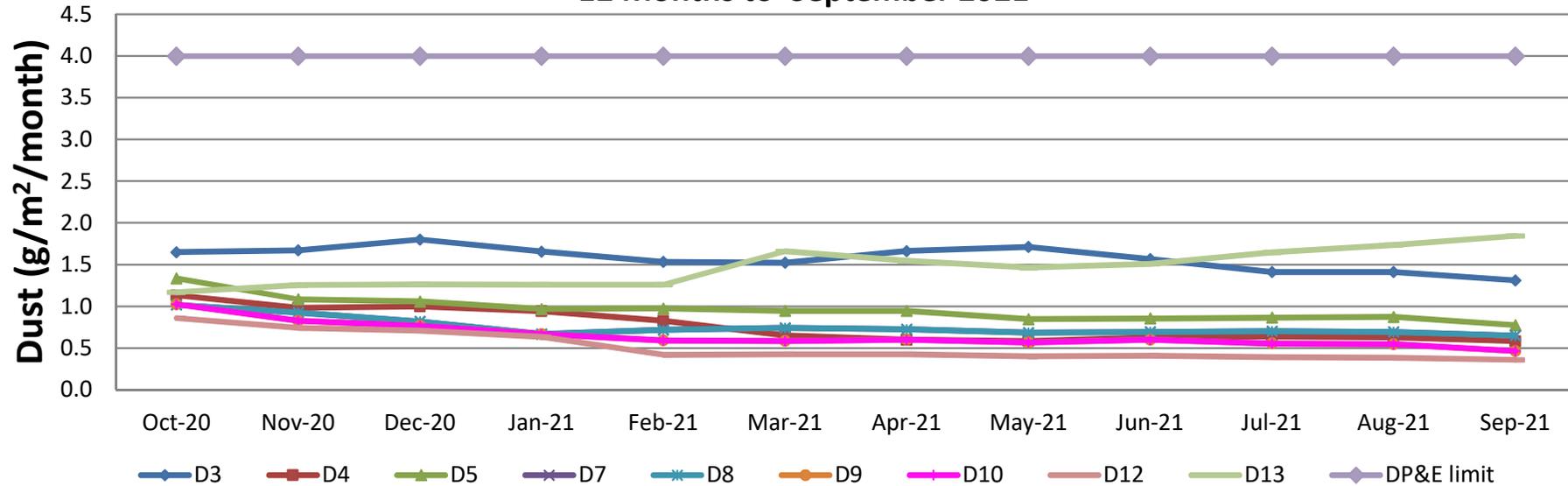


3a. Air Quality Management

Management Area	Project	Status
Air quality monitoring	<ul style="list-style-type: none">• Real-time air quality system• HVAS & dust gauge monitoring network.	<ul style="list-style-type: none">• The real-time air quality TEOM monitor on Martins Crossing Rd continues to operate.• General ambient PM10 dust levels have been very low throughout Autumn/Winter due to increased rainfall.• No triggers have been received relating to mining operations.

3a. Air Quality Management

Duralie Dust Gauge Monitoring - Annual Rolling Average
12 Months to September 2021



Sep-20 D3 Heavy - 20% Dirt, 80% Polysaccharide Slime

Jan-21 D13 Heavy deposition. 60% dirt and 40% Polysaccharide slime.

Mar-21 D5 Heavy - 50% Insects, 25% Vegetation, 20% Polysaccharide Slime and 5% Dirt.

Jun -21 D4 Heavy - 60% polysaccharide slime, 40% insects D9 Heavy - 20% polysaccharide slime, 40% insects

Aug -21 D3 Very heavy - 30% insects and polysaccharide slime, 20% dirt and vegetation, and <5% coal.

Guide to Descriptions used by Laboratory

Coal: Black sharp angled grains with glossy conchoidal fractures or dull with cellular features.

Dirt/Minerals: Subhedral to euhedral crystalline grains including fine sand, clay and other fine mineral particulates.

Insects: Whole insects such as spiders, ants, moths or outer parts of insects including wings, legs and exoskeletons.

Vegetation: Plant debris and algae including trichomes, decomposed organic matter and charred particulates showing characteristic cellular plant structures.

Polysaccharide Slime: Slimy gelatinous material including decomposed soft body parts of insects and vegetation.

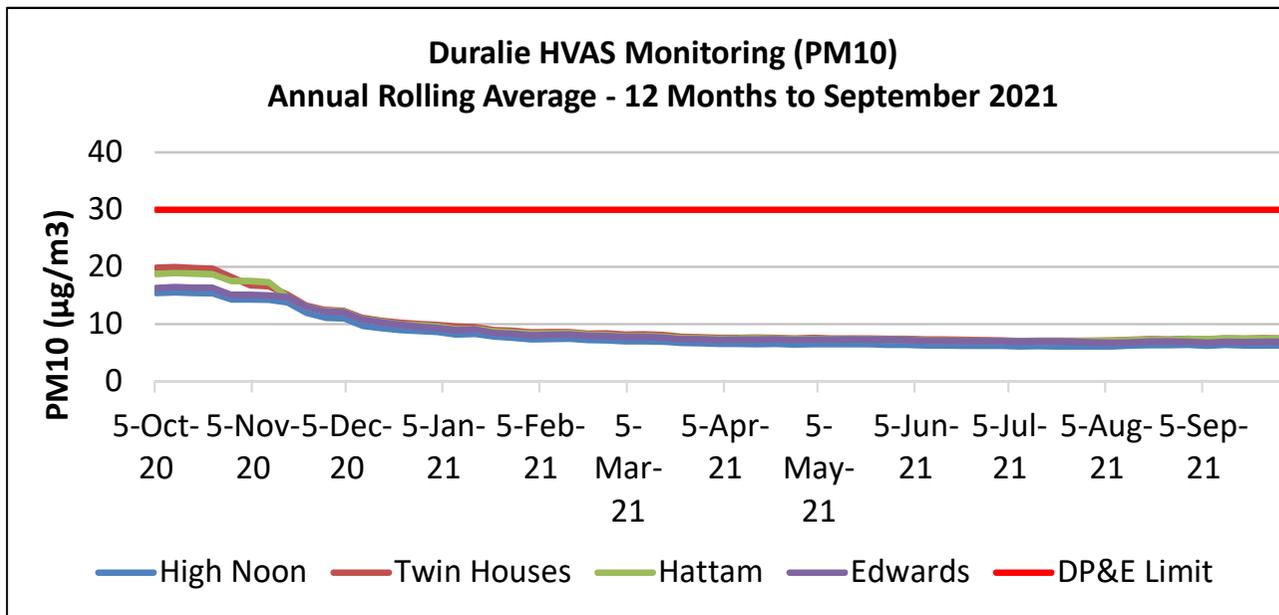
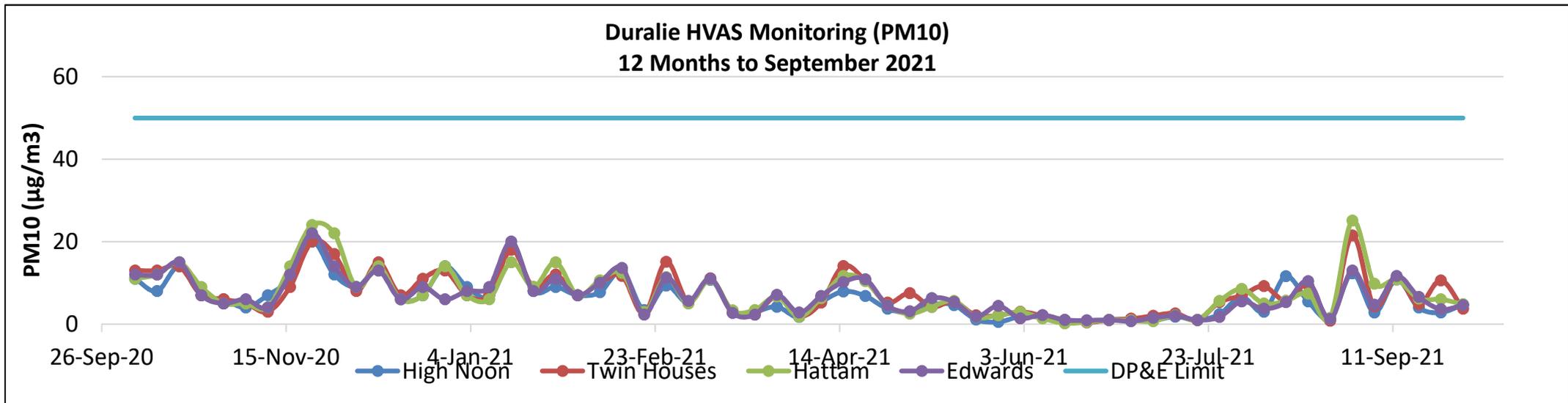
Copper Sludge: Blue-green subhedral to euhedral crystalline salts, commonly precipitated from the copper sulphate algacide solution.

Contamination: Gelatinous material such as bird droppings

- Due to frequent contamination of dust gauges the HVAS results should also be used when interpreting results.



3a. Air Quality Management



- All sites below DPIE limit. Typically low results during winter and higher during spring/summer.
- Steep decreasing trend during December 2020 due to elimination of bushfire affected results in 2019.
- HVAS results provide more reliable data compared to dust deposition results and should be referred to when interpreting dust emissions.

3b. Blast Management

Management Area	Project	Status
Blasting	<ul style="list-style-type: none"> Blast monitoring 	<ul style="list-style-type: none"> Blast activities at the DCM were completed on 09/09/2021. No further blasting will be undertaken at Duralie Coal Mine, with the exception of any blasting required for rehabilitation work.

Location	Date	Time	Schultz (AB1)		Fisher-Webster (AAAB3)		Moylan (AAAB4)		Weismantel Inn		Overpressure Site Exceedance ¹	Overpressure "Cumulative Exceedance" ¹	Ground Vibration Site Exceedance ¹	Ground Vibration "Cumulative Exceedance" ¹	Monitored Blasts ¹	Fume Rating
			24hr	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s						
Weismantel	10-Mar-21	13:22:00	<0.22	<110.0	<0.22	<110.0	0.12	102.4	<0.22		0.0%	0	0.0%	0	1	Nil
Weismantel	31-Mar-21	16:15:00	<0.22	<110.0	<0.22	<110.0	0.44	100.4	<0.22		0.0%	0	0.0%	0	2	Nil
Weismantel	30-Apr-21	13:04:00	<0.22	<110.0	<0.22	<110.0	0.06	104.6	<0.22		0.0%	0	0.0%	0	3	Nil
Weismantel	19-May-21	13:13:00	<0.22	<110.0	0.24	102.9	<0.22	<110.0	<0.22		0.0%	0	0.0%	0	4	Nil
Weismantel	13-Jul-21	11:56:00	<0.22	<110.0	0.37	110	0.25	109.1	1.14		0.0%	0	0.0%	0	5	Nil
Weismantel	25-Aug-21	13:01:00	<0.22	<110.0	0.31	105.7	0.06	101	1.21		0.0%	0	0.0%	0	6	Nil
Weismantel	09-Sep-21	12:59:00	<0.22	<110.0	0.04	112.4	0.12	111.2	<0.22		0.0%	0	0.0%	0	7	Nil

- Note: Blast Compliance: No more than 5% of total blasts for annual monitoring period to exceed an overpressure of 115 dBL or ground vibration of 5 mm/s. No blast is to exceed an overpressure of 120 dBL or ground vibration of 10 mm/s.*
- Note: Where no trigger is recorded the results indicate <0.22mm/s and <110.0dBL corresponding to the blast monitor settings.*

3c. Noise Management

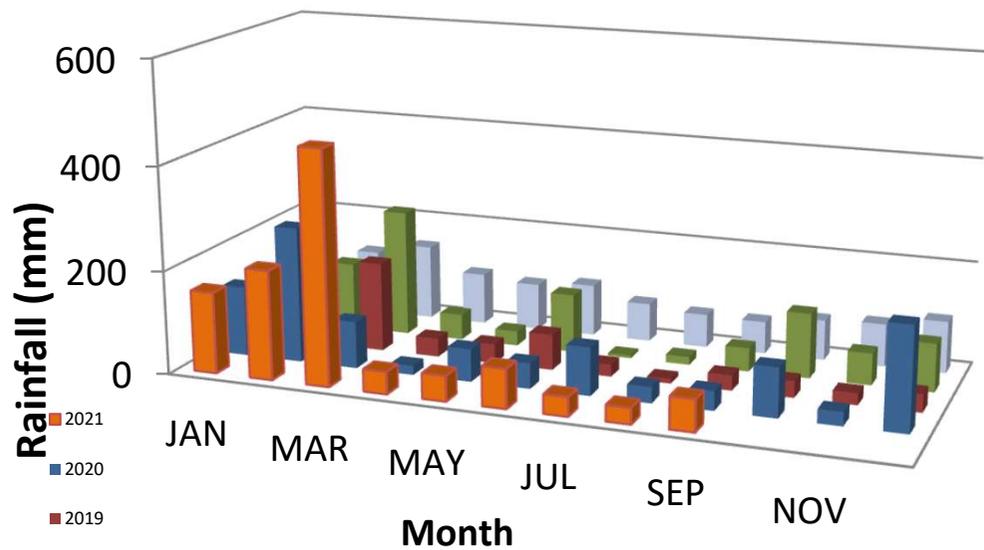
Management Area	Project	Status
Noise Monitoring	<ul style="list-style-type: none"> Routine Monitoring Sound power monitoring 	<ul style="list-style-type: none"> Routine quarterly noise monitoring of operations has continued in 2021, to monitor noise emissions from mining day works. Quarterly monitoring continued during Q3 2021. All results were compliant with noise criteria. Noise reports are made available on the Duralie Coal website. Sound power monitoring of the mobile plant fleet was undertaken in September 2021.
Noise Management Plan	<ul style="list-style-type: none"> Real-Time Noise Management 	<ul style="list-style-type: none"> Real-Time Noise Monitoring has continued in accordance with the Noise Management Plan requirements. The operating mining day shift (6:30am – 5:00pm) is operating for 1 hour within designated ‘night shift’ period as defined by EPL 11701. The integrated real-time noise management system analyses monitoring data from the noise units, the weather station and the inversion towers and records times when either the noise criteria is likely to be exceeded or when noise enhancing weather conditions are present. The system will then provide alarms to staff to implement additional noise mitigation measures where required. Noise emissions have generally been low and no noise related complaints have been received.

3d. Water Management

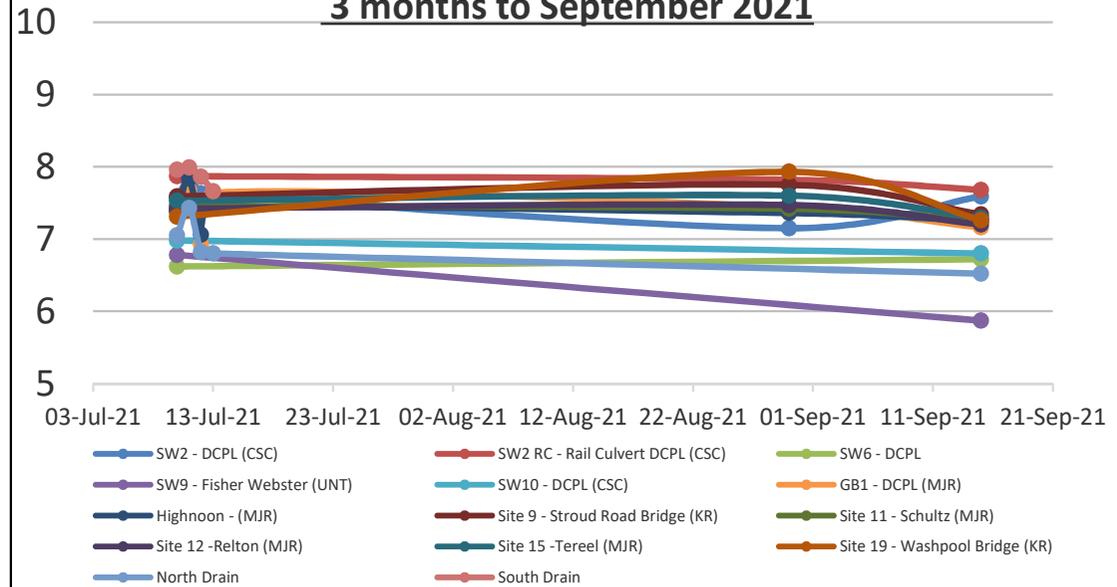
Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none"> Annual water balance review. 	<ul style="list-style-type: none"> The 2020 annual site water balance has been prepared. A summary has been included in the Annual Review 2020/21 and will be available on the Duralie Coal website.
Surface Water	<ul style="list-style-type: none"> Routine monitoring 	<ul style="list-style-type: none"> Average rainfall has been received during Q3 2021. Routine and event surface water monitoring has been completed. All sites generally within Duralie water quality performance indicators. No obvious trending towards performance indicators.
	<ul style="list-style-type: none"> Macro-invertebrates 	<ul style="list-style-type: none"> Macro-invertebrate monitoring was undertaken in September 2021 and continues to show no identified impacts from the Duralie mining operations on aquatic ecosystems.
	<ul style="list-style-type: none"> Irrigation 	<ul style="list-style-type: none"> No irrigation has been undertaken in the first flush irrigation areas since 2018.
Groundwater	<ul style="list-style-type: none"> Routine monitoring 	<ul style="list-style-type: none"> Routine monitoring has been completed and the results continue to indicate consistency with the model trends in the Environmental Assessment.

3d. Water Management

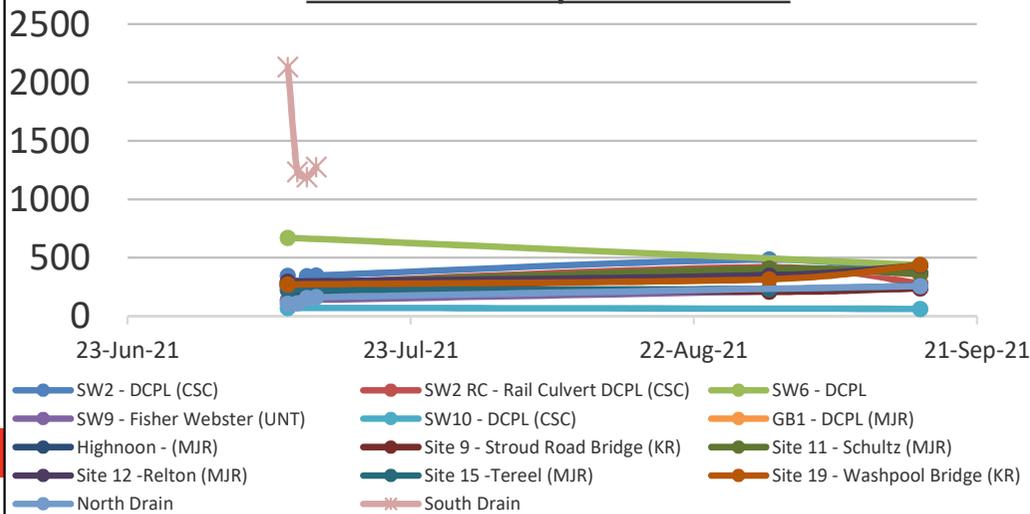
Duralie Mine Site - Monthly Rainfall



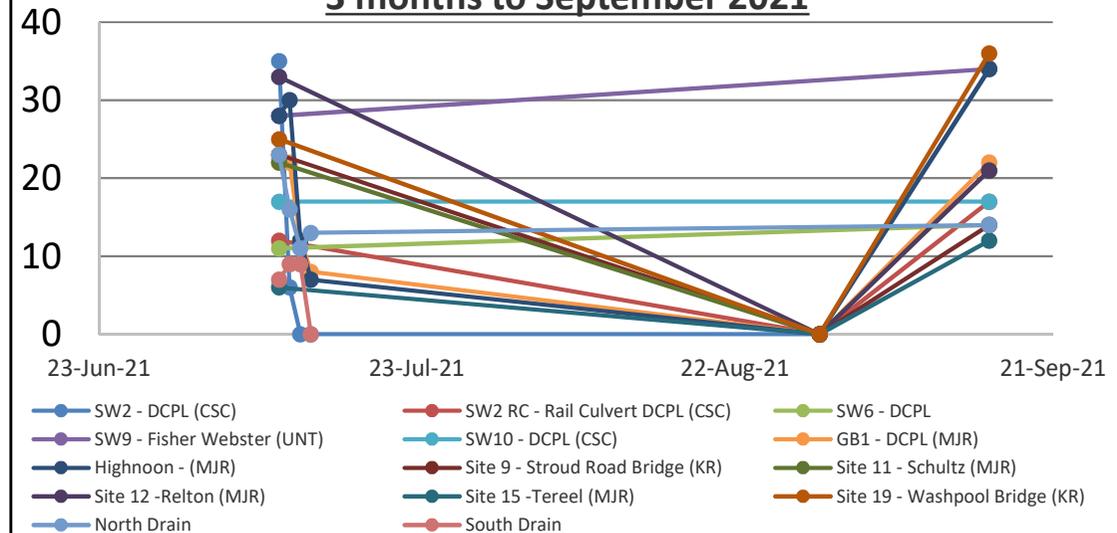
Duralie Surface Water Monitoring - pH
3 months to September 2021



Duralie Surface Water Monitoring - EC ($\mu\text{S}/\text{cm}$)
3 months to September 2021



Duralie Surface Water Monitoring - TSS (mg/L)
3 months to September 2021



3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitated Waste emplacements	<ul style="list-style-type: none">• Rehabilitation Works• Rehabilitation Planning• Rehabilitation maintenance	<ul style="list-style-type: none">• 17.3 hectares of bulk shaping, topsoiling and seeding has been completed in October 2021 to achieve final landform designs.• The next stages of rehabilitation will include rehandle and bulk shaping of the Clareval and Weismantels waste emplacement area.• Slashing of the Duralie pasture rehabilitation and removal of acacia regrowth was completed in Q2 2021.• Weed control in the established native rehabilitation was completed in June 2021 and will continue in 2022.



Photo: Topsoiling completed on the water fill point area, Taken October 2021



Photo: Completed bulk shaping and topsoiling at Weismantel waste emplacement, taken October 2021.

3f. Biodiversity Management

Management Area	Project	Status
Biodiversity Offset	<ul style="list-style-type: none">• Revegetation works• Vegetation Monitoring	<ul style="list-style-type: none">• 2021 Revegetation planting has been completed. Approximately 36,100 native tubestock over 114 hectares on the eastern side of Johnsons Creek Road have been planted during H1 2021 in the biodiversity offset area along Johnsons Creek Road.• Planning for the 2022 revegetation works has been completed. Works will target additional tubestock plantings to reach target vegetation densities and diversity for each VMU. Works are proposed for March 2022.• Annual vegetation monitoring within the biodiversity offset and enhancement areas was completed in February 2021. A summary of the monitoring is included in the DCM Annual Biodiversity Report and the Annual Review 2021. Both reports are available on the Duralie website.



3f. Biodiversity Management

Management Area	Project	Status
Flora/Fauna	<ul style="list-style-type: none"> Nest Box Program 	<ul style="list-style-type: none"> An additional 28 nestboxes were installed in the established Duralie native rehabilitation area during May 2021. Reporting will be included in the Annual Review 2021 Quarterly Nest box monitoring was undertaken during June 2021. A summary of the nest box progress will be included in the next Annual Review. Approximately 90% occupancy in the rehabilitation area in the first 12 months. The Annual monitoring of all nest boxes was undertaken in October 2021.
Weed Control	<ul style="list-style-type: none"> Weed spraying program 	<ul style="list-style-type: none"> Weed spraying has recommenced in October 2021. Areas targeted will include the Duralie Biodiversity Area and Duralie Mining Lease areas. Manual weed control works were undertaken in the Duralie native rehabilitation area in June 2021 targeting Tobacco bush, Privet and Lantana.
Fauna	<ul style="list-style-type: none"> Feral animal monitoring 	<ul style="list-style-type: none"> A feral animal survey was undertaken in August 2021. The results of the feral animal monitoring will be used to guide the implementation of ongoing feral animal control programs.



Map: Nest box locations on the Duralie rehabilitation area.



Photo: Wild dogs detected during 2020 wild dog trapping program.

3g. Mine Closure Planning

Management Area	Project	Status
Mine Closure Planning General	<ul style="list-style-type: none"> Closure timing 	<ul style="list-style-type: none"> Condition 5, Schedule 2 of Project Approval (08_0203) authorises mining operations to be carried at the DCM until 31 December 2021. Accordingly, DCPL is planning for the commencement of the mine closure phase (i.e. after the cessation of mining operations on 31 December 2021). Following the completion of mining operations (and the cessation of rail movements of ROM coal) on 31 December 2021, the Project Approval, ML1427 and ML 1646 then continue to be in force until DCPL rehabilitates the site in accordance with the conditions of the Project Approval and MLs to the satisfaction of DPIE and the Resources Regulator.
Mine Closure Planning General	<ul style="list-style-type: none"> Mine Closure Planning Program 	<ul style="list-style-type: none"> DCPL has established a Mine Closure Planning Program in the MOP in Section 8 and Table 13. IEEMA was engaged in June 2021 to assist preparing an updated Mine Closure Planning Program. The Mine Closure Planning Program is intended to provide a strategy and a description of all the works required to develop the Final Closure Plan The Mine Closure Planning Program will provide a higher level of detail than the current MOP Mine Closure Planning Program.
Closure Risk Assessment	<ul style="list-style-type: none"> Mine Closure Risk Assessment review 	<ul style="list-style-type: none"> A review of the Duralie Coal Mine Rehabilitation and Mine Closure Risk Assessment was undertaken in August 2021. The outcomes of the risk assessment will be used to develop an updated actions register which will form this basis of the Mine Closure Planning Program.
Mine Closure Planning General	<ul style="list-style-type: none"> Quarterly regulator progress meetings 	<ul style="list-style-type: none"> The Resources Regulator has requested quarterly meetings to be established between Duralie Coal and the Regulator during the develop of the Rehabilitation Management Plan, including closure plan, to provide progressive updates. The first meeting was held in September 2021 and the next meeting is scheduled in January 2022.
Rehabilitation Management Plan	<ul style="list-style-type: none"> Rehabilitation Management plan, including closure plan 	<ul style="list-style-type: none"> The Duralie Coal Mine Rehabilitation Management Plan, including closure plan is due for submission to the Resources Regulator prior to 30 June 2022.

3g. Mine Closure Planning

Note: *Refer to Duralie Mining Operations Plan & Rehabilitation Management Plan Table 13 Mine Closure Planning Schedule.

*Further detail on mine closure planning progress is included in the Annual Review 2020/21.

Management Area	Project	Status
Stakeholder and Community	<ul style="list-style-type: none"> Stakeholder engagement 	<ul style="list-style-type: none"> Communications with the community consultative committee (CCC) have been established regarding mine closure planning. This presentation will continue to be updated to provide relevant information through the CCC forum. The Mine Closure Planning Program includes requirements for the development of the following strategies: <ul style="list-style-type: none"> Stakeholder Consultation Strategy Community Engagement Strategy, including Socio-economic impact assessment Human Resources Strategy
Rehabilitated Landforms	<ul style="list-style-type: none"> Landform design and stability 	<ul style="list-style-type: none"> DCPL have continued to prepare the detailed final landform designs for the waste emplacement areas. Preparation of a geotechnical assessment and specifications for the final void design have continued to ensure the long-term void is safe and stable.
Final Voids	<ul style="list-style-type: none"> Water management and final void water balance 	<ul style="list-style-type: none"> Review of the final void site water balance completed in Q4 2020 to ensure the balance incorporates the final landform design, surface water inflows and outflows to/from final void. Further review work and remodelling is required.
	<ul style="list-style-type: none"> Groundwater Model 	<ul style="list-style-type: none"> Post-mining groundwater model verification completed in Q4 2020 to incorporate final void design. This work was undertaken in conjunction with the final void water balance. Further review work and remodelling is required.
Rehabilitation Resources	<ul style="list-style-type: none"> Topsoil Resources 	<ul style="list-style-type: none"> A topsoil stockpile update was undertaken in June 2021 to ensure adequate topsoil is available for rehabilitation. The use of topsoil continues to be tracked. The rehabilitation resources register will be updated throughout closure.
Water Management	<ul style="list-style-type: none"> Mine Water Dams 	<ul style="list-style-type: none"> Preparation of a strategy for decommissioning of the mine water dams was completed in February 2021. DCPL has engaged an independent dams engineer to assist with preparing plans for the decommissioning of the prescribed dams. Consultation with NSW Dam Safety is ongoing. Auxiliary Dam 1 has been dewatered and decommissioning and rehabilitation was completed in Q1 2020. Dewatering of AD2 to the Clareval void commenced in September 2021.

3g. Mine Closure Planning

Note: *Refer to Duralie Mining Operations Plan & Rehabilitation Management Plan Table 13 Mine Closure Planning Schedule.

*Further detail on mine closure planning progress is included in the Annual Review 2019/20.

Management Area	Project	Status
Coal Shaft Creek	<ul style="list-style-type: none"> CSC reconstruction 	<ul style="list-style-type: none"> Re-construction of the lower reaches of Coal Shaft Creek is required following the completion of mining activities. A conceptual Coal Shaft Creek Reconstruction Plan was prepared in 2012. A consultant has been engaged to prepared the detailed design for the reconstruction of Coal Shaft Creek. Removal of the ROM coal stockpile in the CSC corridor has been completed. Bulk shaping of the final creek landform has commenced.
Infrastructure	<ul style="list-style-type: none"> Infrastructure Decommissioning & Demolition Strategy 	<ul style="list-style-type: none"> The mine closure planning program includes consideration for infrastructure decommissioning including: <ul style="list-style-type: none"> Identify and remove/demolish all non-active infrastructure which is not required for the remainder of processing activities. Undertake consultation to confirm any alternative use for retained infrastructure (i.e. rail loop, haul roads, access tracks and dams) post-mining. The further development of the detailed decommissioning and demolition plan will be prepared during the next reporting period and included in the Final Closure Plan.
Environmental Management Plans, Monitoring & Maintenance	<ul style="list-style-type: none"> EMP reviews for closure stage 	<ul style="list-style-type: none"> DCPL has prepared revisions of the Duralie Environmental Management Plans to reflect the current status of the DCM, and to describe anticipated mine closure activities and describe the change to environmental impacts, mitigation measures and monitoring programs at the DCM for the mine closure phase. The revised plans have been progressively submitted to DPIE for approval and will be made publicly available once approved. DCPL will refine its monitoring and maintenance programs in consultation with the relevant government agencies during the mine closure planning phase. Post-closure maintenance activities will continue until the specific completion criteria has been met and confirmation has been received from the relevant authority.
Final land use	<ul style="list-style-type: none"> Potential final land-use planning 	<ul style="list-style-type: none"> The target post-mining land uses are defined in the MOP and shown in Figure 4 of the MOP.

4. Community Complaints

Duralie Complaint Summary

Period: 01/06/2021 - 30/9/2021

Period: 3 Months

Total No. of Complaints: 0 (0 noise, 0 blast, 0 air quality, 0 other)

Total No. of Complainants: 0

Date/Time of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Investigation/Outcome



5. Community Programs

Management Area	Project	Status
Support Programs	Stratford Coal Community Support Program	<ul style="list-style-type: none"> The Stratford Coal Community Support Program is running again in 2022. Applications will be open until 30 November 2021. Applications forms are available on the Duralie Coal website.
	Stratford Coal Education Support Fund	<ul style="list-style-type: none"> The Stratford Coal Education Support Fund will be running again during 2021 and applications are available from Gloucester High School, MidCoast Council Gloucester office or the Stratford Coal website. Applications will open in December 2021 and close on 31 January 2022.

em POWERING COMMUNITY SUPPORT

Yancoal Community Support Program call for applications
 Stratford Duralie Coal Mine is a proud and active member of the Local community. Yancoal's 2022 Community Support Program offers community groups the opportunity to apply for funding to support projects, events and initiatives that help make a genuine positive difference to Gloucester, Stroud and District.

If you have a project or idea with the potential to benefit others across the areas of health, community, environment, arts, culture, education or training, please visit:
www.stratfordcoal.com.au or www.duraliecoal.com.au

NEED FUNDING TO HELP IMPROVE OUR LOCAL COMMUNITY?

Yancoal Community Support Program
 Applications close on 30th November 2021

YANCOAL AUSTRALIA GROUP

