

# Duralie Coal CCC Meeting

Presentation –  
Company Report &  
Overview of Activities

November 2022

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# 1. Progress at the Mine

	Total Waste (BCM)	Total ROM Coal (T)
Q3 2022	0	0

## Mining 3<sup>rd</sup> Quarter 2022

- Mining operations were completed at Duralie in the Weismantel pit. Mining Operations ceased on 21<sup>st</sup> December 2021.
- Coal handling and railing is completed and ceased on 21<sup>st</sup> December 2021.
- Preparations for recommencement of bulk material rehandle and shaping commenced in October 2022.

# 2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> <li>Duralie Coal Mine Annual Review 2022</li> <li>Duralie EPL 11701 Annual Return 2022</li> <li>NPI and NGER reporting 2022</li> </ul>	<ul style="list-style-type: none"> <li>The 2022 Duralie Coal Mine Annual Review was submitted to DPIE in September 2022. Once reviewed by the Department the Annual Review will be distributed to the CCC members and placed on the Duralie Coal website.</li> <li>The Duralie EPL 11701 Annual Return 2022 was completed in October 2022. The Annual Return will be made available on the EPA's public register.</li> <li>The NPI and NGER annual reporting requirements for the Duralie Coal Mine were lodged with the relevant government agencies.</li> </ul>
Regulator	<ul style="list-style-type: none"> <li>Mining Operations Plan &amp; Rehabilitation Management Plan</li> <li>Environmental Management Plans – revision for closure</li> </ul>	<ul style="list-style-type: none"> <li>Duralie has prepared and submitted a new Rehabilitation Management Plan (RMP) and Mine Closure Plan to the Resource Regulator to comply with the Resource Regulators new planning and reporting standards. The new RMP is available on the Duralie Coal Website.</li> <li>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.</li> <li>The revised plans have been progressively submitted to DPIE for approval, approved plans have been made public on the Duralie Coal Website.</li> </ul>

# 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



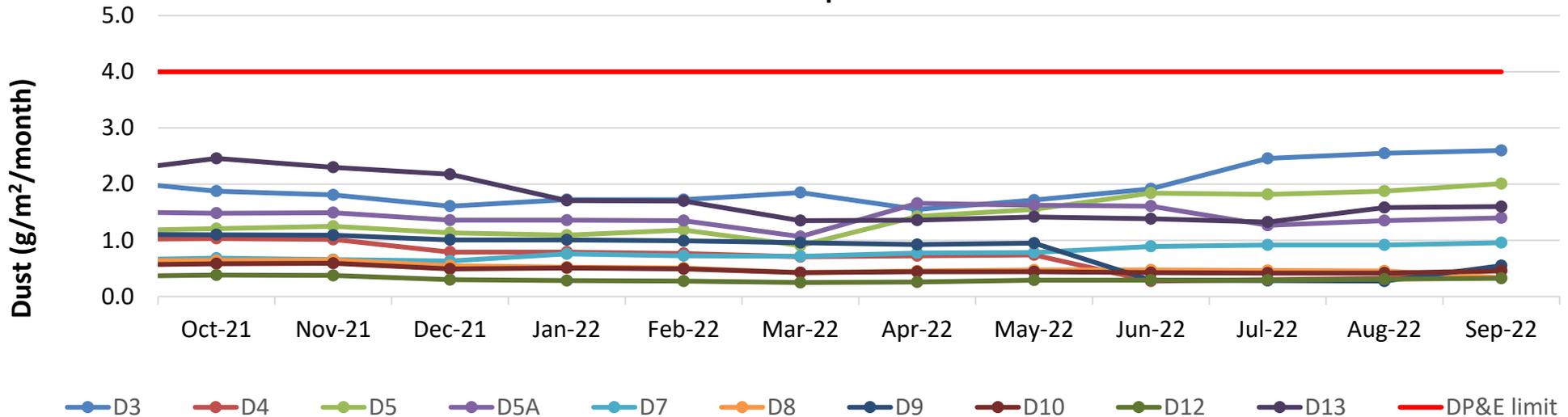
# 3a. Air Quality Management

Management Area	Project	Status
Air quality monitoring	<ul style="list-style-type: none"><li>• Real-time air quality system</li><li>• HVAS &amp; dust gauge monitoring network.</li></ul>	<ul style="list-style-type: none"><li>• The real-time air quality TEOM monitor on Martins Crossing Rd continues to operate.</li><li>• General ambient PM10 dust levels have been very low throughout 2022 due to increased rainfall.</li><li>• No triggers have been received relating to mining operations.</li></ul>



# 3a. Air Quality Management

**Duralie Dust Deposition - Annual Rolling Average  
12 Months to September 2022**



Jul-22 D3 Very heavy - 60% dirt, 30% insects and 5% sand and %5 vegetation.

Aug-22 D3 Very heavy - 60% polysaccharide slime, 30% vegetation and 10% insects.

#### 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.

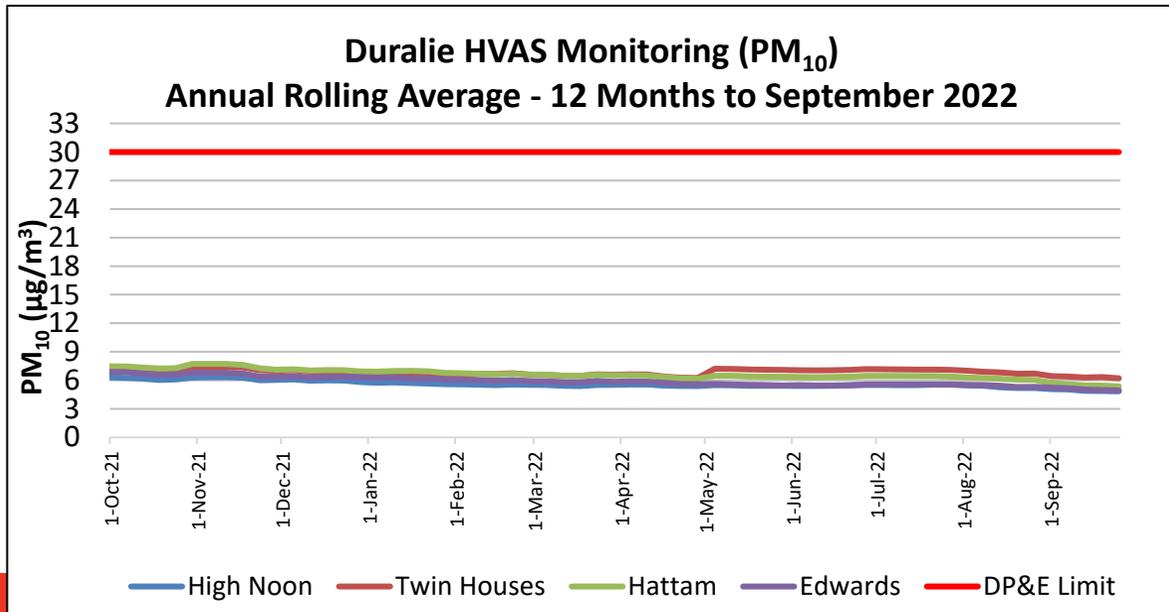
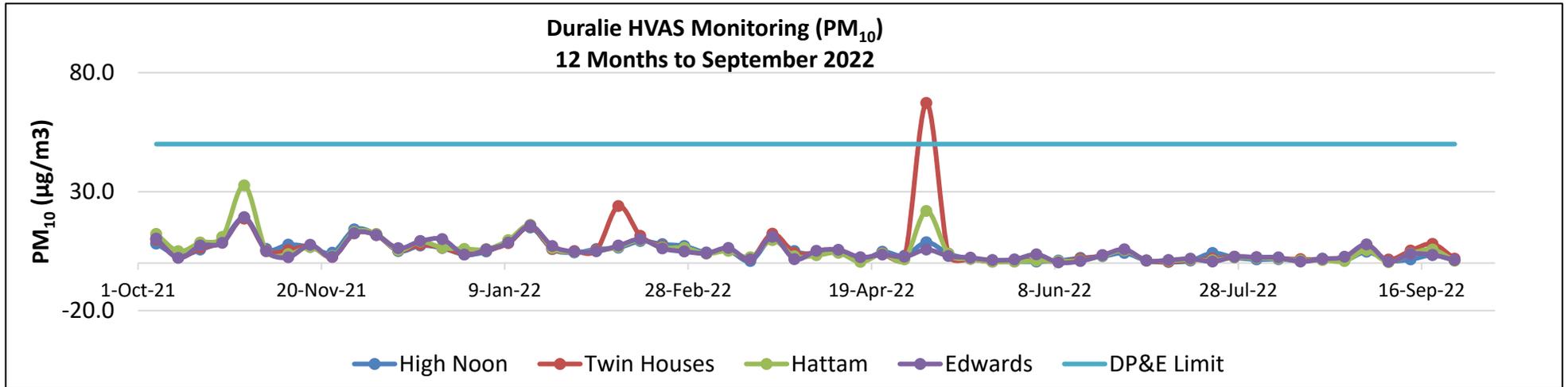
**Copper Sludge:** Blue-green subhedral to euhedral crystalline salts, commonly precipitated from the copper sulphate algacide solution.

**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



- High result at Twin Houses in May 2022 due to traffic diversion
- All sites below DPIE limit. Typically low results during winter and higher during spring/summer.
- HVAS results provide more reliable data compared to dust deposition results and should be referred to when interpreting dust emissions.
- Elevated dust levels observed on the 4<sup>th</sup> May 2022 attributable to Bucketts Way traffic being diverted past dust gauges on Johnsons Creek Rd.

# 3b. Blast Management

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



# 3c. Noise Management

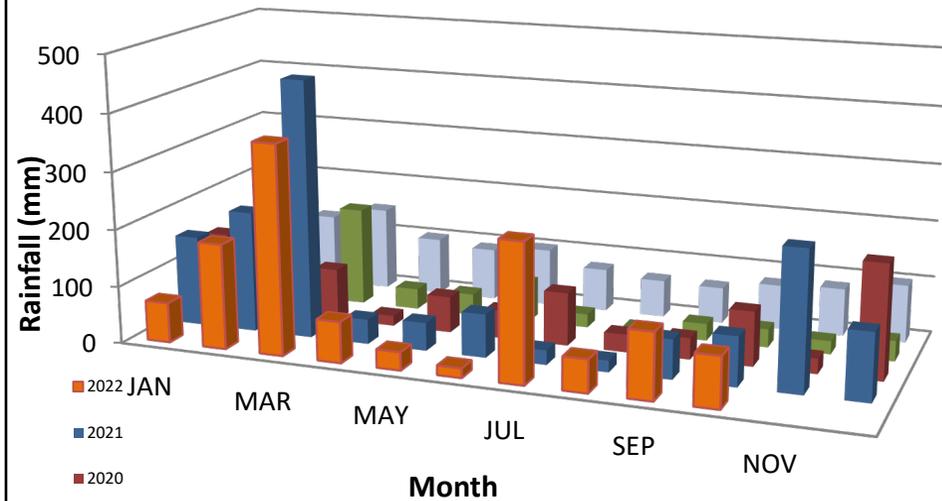
Management Area	Project	Status
Noise Monitoring	<ul style="list-style-type: none"><li>• Routine Monitoring</li><li>• Sound Power Monitoring</li></ul>	<ul style="list-style-type: none"><li>• Following completion of mining in Q4 2021, routine quarterly monitoring of operations was not required in 2022 at the Duralie Mine.</li><li>• Routine quarterly monitoring will recommence with the recommencement of bulk earth works in November 2022</li><li>• Noise reports are made available on the Duralie Coal website.</li><li>• Sound power monitoring of the mobile plant fleet is scheduled to be undertaken in Q4 2022</li></ul>
Noise Management Plan	<ul style="list-style-type: none"><li>• Real-Time Noise Management</li></ul>	<ul style="list-style-type: none"><li>• Real-time noise monitoring has been reinstalled in October 2022 in anticipation of recommencement of operation at DCM.</li></ul>

# 3d. Water Management

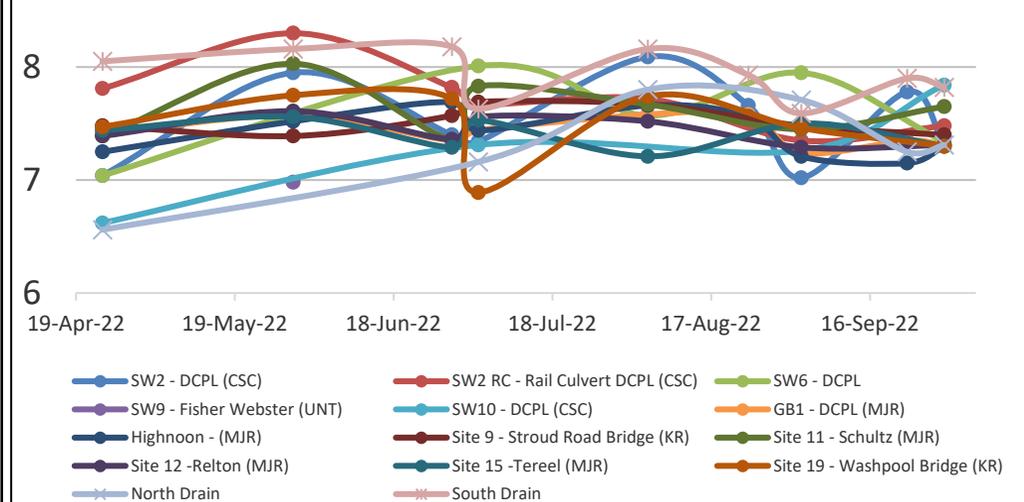
Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none"><li>Annual water balance review.</li></ul>	<ul style="list-style-type: none"><li>The 2021 annual site water balance has been prepared. A summary has been included in the Annual Review 2021/22 and is now available on the Duralie Coal website.</li></ul>
Surface Water	<ul style="list-style-type: none"><li>Routine monitoring</li></ul>	<ul style="list-style-type: none"><li>Above average rainfall has been received during Q3 2022.</li><li>Routine and event surface water monitoring has been completed. All sites generally within Duralie water quality performance indicators. No obvious trending towards performance indicators.</li></ul>
	<ul style="list-style-type: none"><li>Irrigation</li></ul>	<ul style="list-style-type: none"><li>No irrigation has been undertaken in the first flush irrigation areas since 2018.</li></ul>
Groundwater	<ul style="list-style-type: none"><li>Routine monitoring</li></ul>	<ul style="list-style-type: none"><li>Routine monitoring has been completed and the results continue to indicate consistency with the model trends in the Environmental Assessment.</li></ul>

# 3d. Water Management

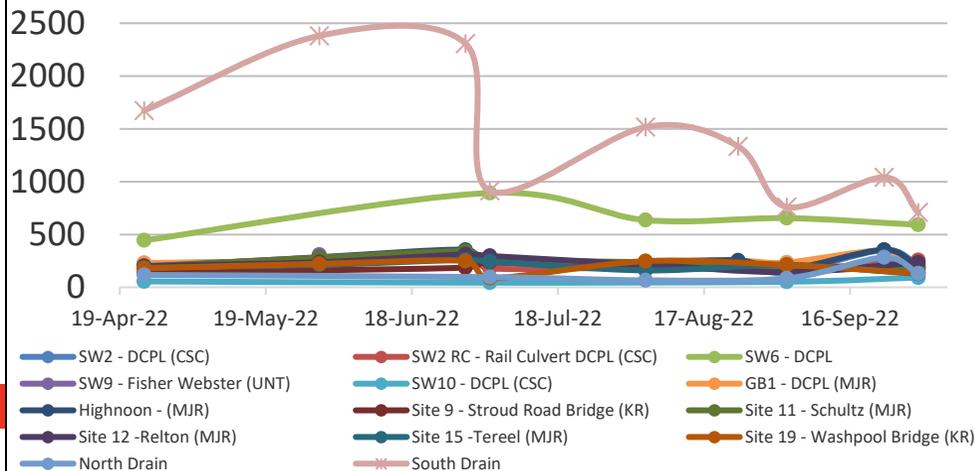
### Duralie Mine Site - Monthly Rainfall



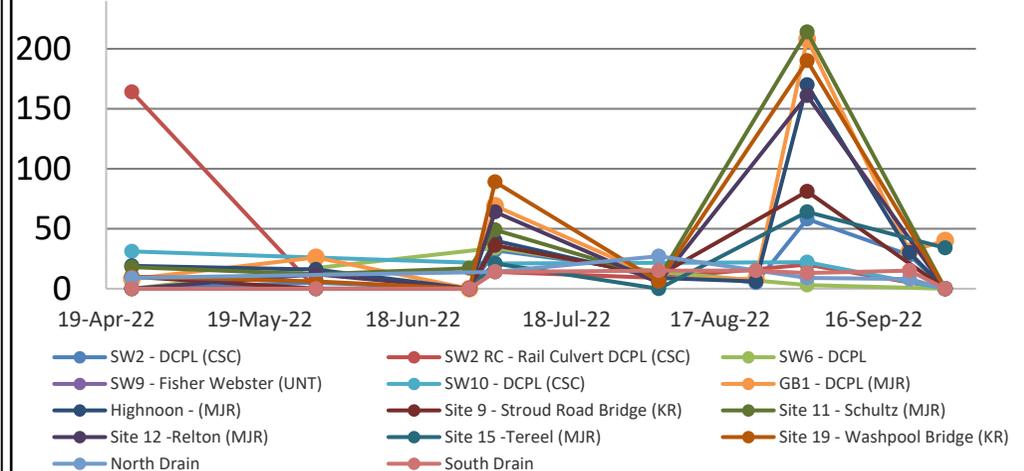
### Duralie Surface Water Monitoring - pH 6 months to September 2022



### Duralie Surface Water Monitoring - EC (µS/cm) 6 months to September 2022



### Duralie Surface Water Monitoring - TSS (mg/L) 6 months to September 2022



# 3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitated Waste emplacements	<ul style="list-style-type: none"> <li>Rehabilitation Planning</li> <li>Rehabilitation Maintenance</li> </ul>	<ul style="list-style-type: none"> <li>The next stages of rehabilitation will include rehandle and bulk shaping of the Clareval and Weismantel waste emplacement area. Works scheduled to commence November 2022.</li> <li>Slashing of the Duralie pasture rehabilitation and removal of Acacia regrowth was completed in September 2022.</li> <li>Weed control in the established native rehabilitation was completed in August 2022.</li> </ul>
Rehabilitation Monitoring	<ul style="list-style-type: none"> <li>Vegetation Monitoring - Ecosystem Function Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Rehabilitation monitoring was undertaken during April 2022. The report concluded that the revegetation works is on track to establish the desired woodlands and pasture.</li> </ul>



Photo: Weismantel waste emplacement area to be rehandled and shaped, Taken October 2022



Photo: Clareval waste emplacement area to be rehandled and shaped, Taken October 2022.



# 3f. Biodiversity Management

Management Area	Project	Status
Biodiversity Offset	<ul style="list-style-type: none"> <li>Revegetation works</li> <li>Vegetation Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Due to above average persistent rainfall, Q2 2022 Duralie planting program has been postponed until late 2022. The 2022 planting program is designed to reach target vegetation densities and diversity for each Vegetation Management Unit (VMU).</li> <li>Annual vegetation monitoring within the biodiversity offset and enhancement areas was completed in April 2022. The report concluded that planted areas within the planted areas of the biodiversity areas are growing but will require more time to mature to reproductive age.</li> </ul>



Map: 2022 Proposed planting areas, Duralie Biodiversity Offset.

# 3f. Biodiversity Management

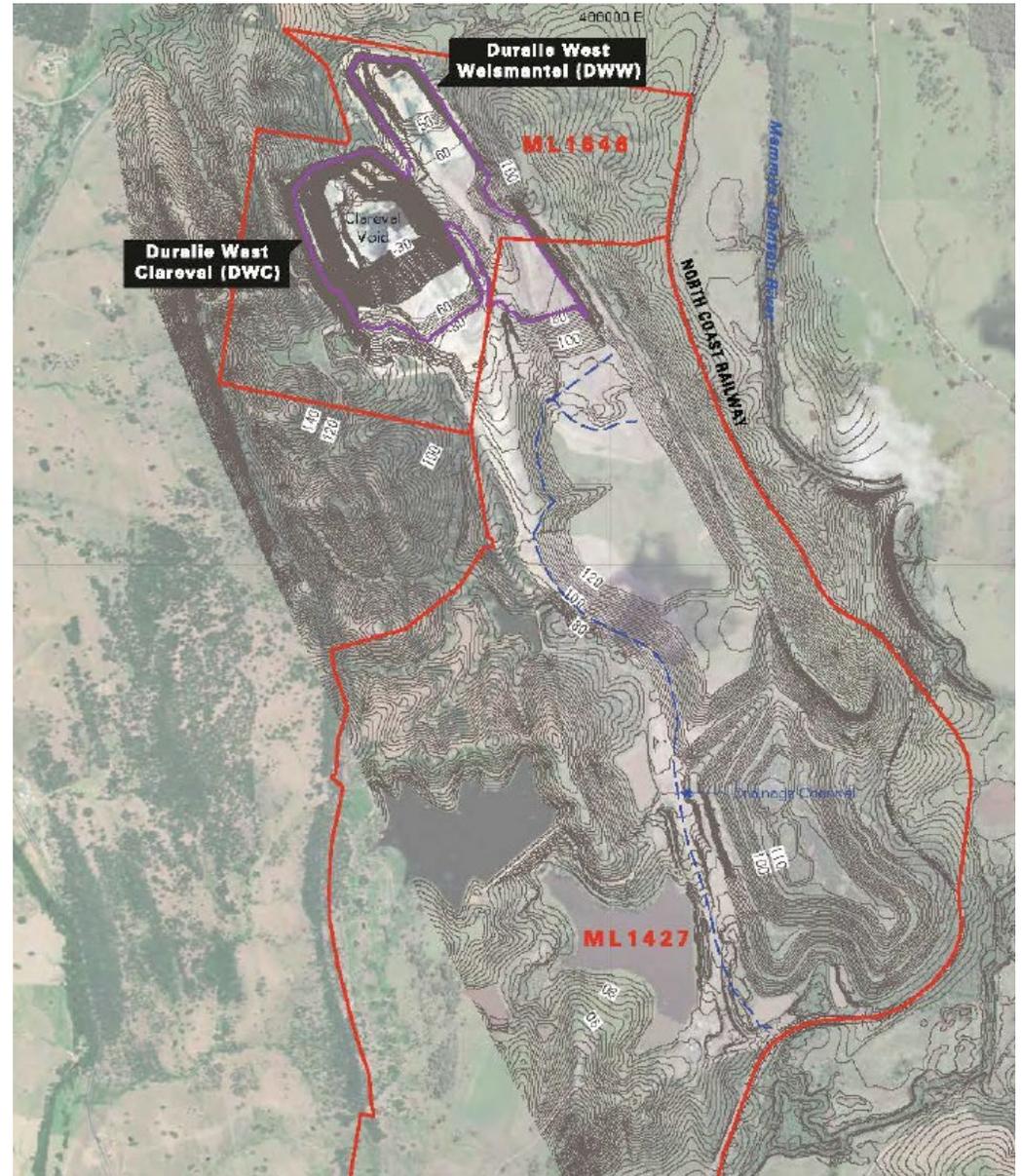
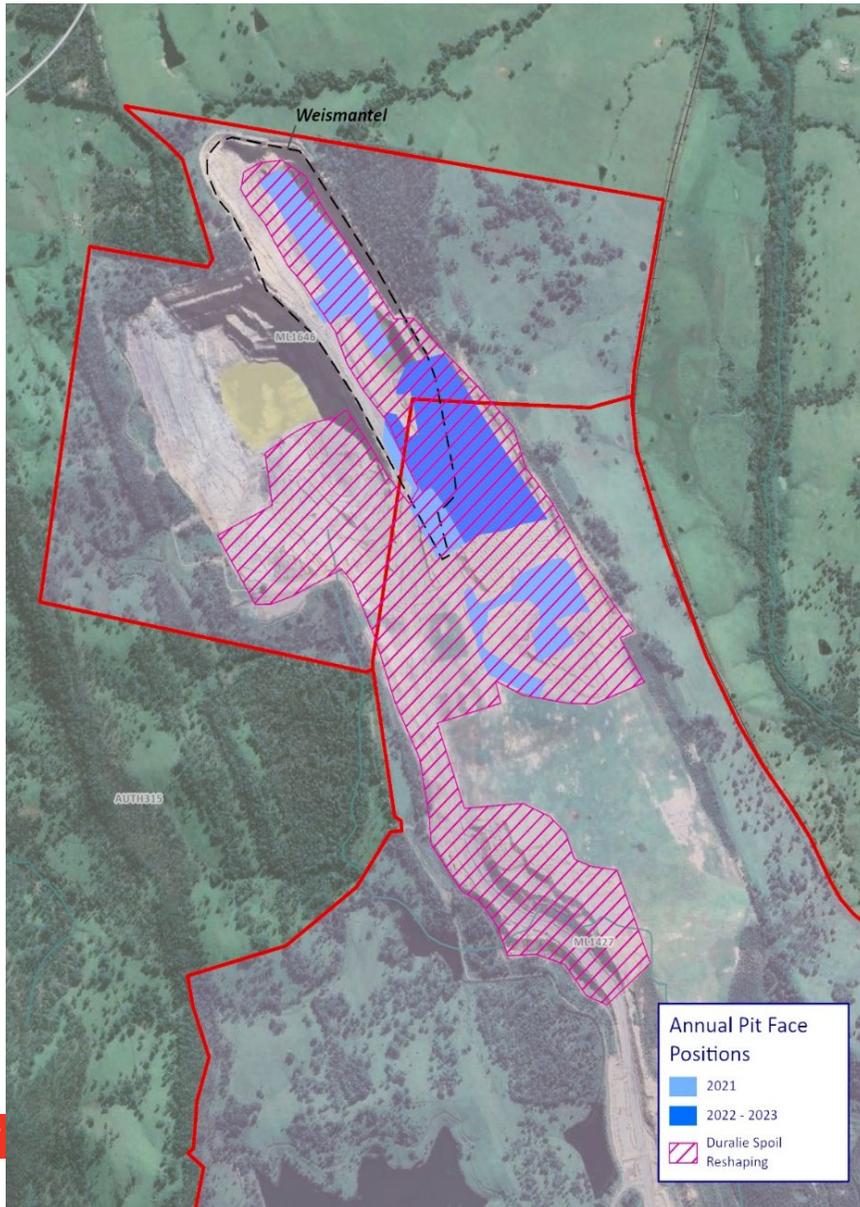
Management Area	Project	Status
Flora/Fauna	<ul style="list-style-type: none"> <li>Nest Box Program</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of damaged and unsuccessful boxes in the Southern offset was conducted in Q3 2022.</li> <li>The Annual monitoring of all nest boxes was commenced in October 2022.</li> </ul>
Weed Control	<ul style="list-style-type: none"> <li>Weed Spraying Program</li> </ul>	<ul style="list-style-type: none"> <li>Weed spraying is due to commence in the Duralie Biodiversity Area and Duralie Mining Lease areas in early November targeting Blackberry, Crofton weed, Tobacco bush, Privet and Lantana.</li> <li>Weed spraying has been impacted by unfavourable weather conditions, limiting the amount of area covered throughout the past 2 years.</li> </ul>
Fauna	<ul style="list-style-type: none"> <li>Feral Animal Monitoring</li> <li>Feral Animal Control</li> </ul>	<ul style="list-style-type: none"> <li>A feral animal survey was undertaken in August 2021. The results of the feral animal monitoring report recommended that control measures for Wild Dogs, Foxes, Feral Cats, and/or European Rabbits to be undertaken as part of DCMs feral animal control works.</li> <li>The DCM feral animal control program targeting feral cats, wild dogs and foxes has been postponed to Autumn 2022 due to wet weather conditions limiting the serviceable areas within the DCM footprint and surrounding land holdings.</li> </ul>

# 3g. Mine Closure

## Mine Closure Progress

- Duralie PAF rehandle, bulk shaping and rehabilitation recommences November 2022.
- Two crews operating Monday to Friday on Day and Afternoon shift for approximately 8 months.
- Project Approval 08\_0203, ML 1427 and ML 1646 continue to be in force until DCPL rehabilitates the site in accordance with the conditions of the Approval and MLs to the satisfaction of DPIE and the Resources Regulator.

# 3g. Mine Closure Planning



# 3g. Mine Closure Planning

Management Area	Project	Status
Mine Closure Planning General	<ul style="list-style-type: none"> <li>Mine Closure Planning Program</li> </ul>	<ul style="list-style-type: none"> <li>DCPL has established a Mine Closure Planning Program in the Duralie Coal Mine Rehabilitation Management Plan (RMP).</li> <li>IEMA was engaged in June 2021 to assist preparing an updated Mine Closure Planning Program and continue to assist with closure planning.</li> <li>The Mine Closure Planning Program is intended to provide a strategy and a description of all the works required to develop the Detailed Mine Closure Plan.</li> </ul>
Rehabilitation Management Plan	<ul style="list-style-type: none"> <li>Rehabilitation Management Plan, including closure plan</li> </ul>	<ul style="list-style-type: none"> <li>The RMP, including the updated closure planning program was submitted to the Resources Regulator in June 2022.</li> <li>The RMP is available on the Duralie Coal website</li> </ul>
Closure Risk Assessment	<ul style="list-style-type: none"> <li>Mine Closure Risk Assessment review</li> </ul>	<ul style="list-style-type: none"> <li>A review of the Duralie Coal Mine Rehabilitation and Mine Closure Risk Assessment was undertaken in August 2021.</li> <li>The outcomes of the risk assessment have been used to develop an updated actions register which forms the basis of the Mine Closure Planning Program. This risk assessment will be updated again in early-mid 2023 to ensure risks have been considered in the planning process.</li> <li>A post closure public safety risk assessment will be undertaken over coming months.</li> </ul>
Mine Closure Planning General	<ul style="list-style-type: none"> <li>Quarterly regulator progress meetings</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly meetings with The Resources Regulator have continued between Duralie Coal and the Regulator during the development of the Rehabilitation Management Plan, including closure plan and also to provide progressive updates on the status of closure planning at Duralie Coal</li> <li>The next meeting is scheduled to occur in Q4 2022.</li> </ul>
Environmental Management Plans, Monitoring & Maintenance	<ul style="list-style-type: none"> <li>EMP reviews for closure stage</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>The revised plans have been progressively approved by DPIE and are publicly available on the Duralie Coal website.</li> <li>DCPL will refine its monitoring and maintenance programs in consultation with the relevant government agencies during the mine closure planning phase.</li> <li>Post-closure monitoring and maintenance activities will continue until the specific completion criteria has been met and confirmation has been received from the relevant authority.</li> </ul>

# 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"> <li>Stakeholder engagement</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>The Mine Closure Planning Program includes requirements for the development of the following strategies:               <ul style="list-style-type: none"> <li>Stakeholder Consultation Strategy</li> <li>Socio-economic impact assessment</li> <li>Human Resources Strategy</li> </ul> </li> <li>HR and Stakeholder strategies have been prepared.</li> <li>The Socio-economic impact assessment is currently in progress.</li> </ul>
Rehabilitated Landforms	<ul style="list-style-type: none"> <li>Landform design and stability</li> </ul>	<ul style="list-style-type: none"> <li>DCPL have finalised the detailed final landform designs for the site. These are presented in the RMP.</li> <li>Preparation of a geotechnical assessment and specifications for the final void design have continued to ensure the long-term void is safe and stable.</li> <li>Detailed design of landforms and drainage will be finalised in 2023.</li> </ul>
Final Voids	<ul style="list-style-type: none"> <li>Water management and final void water balance</li> </ul>	<ul style="list-style-type: none"> <li>Void closure criteria have been prepared and are detailed in the RMP.</li> <li>Review of the final voids site water balance models is currently being finalised to ensure the balance incorporates the updated final landform design, surface water inflows and outflows and recently updated groundwater modelling.</li> <li>This work is ongoing and will form an important part of the closure program.</li> </ul>
	<ul style="list-style-type: none"> <li>Groundwater Model</li> </ul>	<ul style="list-style-type: none"> <li>Post-mining groundwater model verification has been finalised and the data is being used in the final voids water balance. Additional work may be required to inform the closure project at a later time.</li> </ul>
Rehabilitation Resources	<ul style="list-style-type: none"> <li>Topsoil Resources</li> </ul>	<ul style="list-style-type: none"> <li>A topsoil stockpile update was undertaken in July 2021 and confirmed adequate topsoil is available for rehabilitation. The rehabilitation resources register will continue to be updated throughout mining operations and closure.</li> </ul>

# 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
Water Management	<ul style="list-style-type: none"> <li>Mine Water Dams</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Auxiliary Dam 1 has been dewatered and decommissioning and rehabilitation was completed in Q1 2020.</li> <li>Dewatering of AD2 to the Clareval void commenced in September 2021, however this has been delayed due to recent wet weather.</li> </ul>
Coal Shaft Creek	<ul style="list-style-type: none"> <li>CSC Reconstruction</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>A consultant has been engaged to prepare the detailed design for the reconstruction of Coal Shaft Creek. This work is due at the end of 2022.</li> <li>Removal of the ROM coal stockpile in the CSC corridor has been completed.</li> <li>Coal Shaft Creek reconstruction and decommissioning of the dams on site is intended to be completed during 2023.</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>Infrastructure Decommissioning &amp; Demolition Strategy</li> </ul>	<ul style="list-style-type: none"> <li>The mine closure planning program includes consideration for infrastructure decommissioning including:                             <ul style="list-style-type: none"> <li>Identify and remove/demolish all non-active infrastructure which is not required for the remainder of closure activities.</li> <li>Undertake consultation to confirm any alternative use for retained infrastructure (i.e. rail loop, haul roads, access tracks and dams) post-mining.</li> </ul> </li> <li>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.</li> </ul>
Final land use	<ul style="list-style-type: none"> <li>Potential final land-use planning</li> </ul>	<ul style="list-style-type: none"> <li>The target post-mining land uses are defined in the new RMP and shown in Figure 4 of the RMP.</li> </ul>

# 4. Community Complaints

## Duralie Complaint Summary

Period: 20/04/2021 - 27/10/2022

Period: 6 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"> <li>• Applications are open for the 2023 Stratford Coal Community Support Program. Applications close on 4<sup>th</sup> of November 2022.</li> <li>• Applications forms are available on the Stratford Coal website.</li> </ul>
	Stratford Coal Education Support Fund	<ul style="list-style-type: none"> <li>• The Stratford Coal Education Support Fund will be running again during 2022 and applications are available from Gloucester High School or the MidCoast Council Gloucester office.</li> <li>• Applications will open in December 2022 and close on 31 January 2023.</li> </ul>



## NEED FUNDING TO HELP IMPROVE OUR LOCAL COMMUNITY?

### Yancoal Community Support Program call for applications

Stratford Duralie Coal Mine is a proud and active member of the Local community. Yancoal's 2023 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](http://www.stratfordcoal.com.au) or [www.duraliecoal.com.au](http://www.duraliecoal.com.au)

Applications close  
on 4th November 2022



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