

# Duralie Coal CCC Meeting

Presentation –  
Company Report &  
Overview of Activities

May 2021

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Environment & Community Superintendent

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# 1. Progress at the Mine

	Total Waste (BCM)	Total ROM Coal (T)
Q1 2021	190,600	0

## Quarter 1 2021

- Mining operations re-commenced at Duralie during in February 2021.
- Blasting recommenced in February 2021.
- PAF rehandle continued.
- First coal mined in April 2021. Railing proposed July 2021.
- Rehabilitation works are planned to be continued in 2021 with bulk shaping of the waste emplacement.

# 2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> <li>Duralie Coal Mine Independent Environmental Audit</li> <li>EPBC Approval Annual Compliance Report</li> </ul>	<ul style="list-style-type: none"> <li>3-yearly audit undertaken in December 2020 by Ken Holmes of Barnett &amp; May. The audit report has been finalised and submitted in March 2021. Copies will be made publicly available following confirmation from DPIE.</li> <li>The EPBC 2020 Annual Compliance Report has been prepared and submitted in March 2021. The report is available on the Stratford Coal website.</li> </ul>
Regulator	<ul style="list-style-type: none"> <li>Mining Operations Plan &amp; Rehabilitation Management Plan</li> <li>Environmental Management Plans</li> <li>Regulator Inspections</li> </ul>	<ul style="list-style-type: none"> <li>The current MOP establishes the rehabilitation and mine closure activities until December 2021. A new MOP will be prepared during 2021 and be provided for consultation with regulatory agencies and the CCC.</li> <li>The Pollution Incident Response Management Plan has been updated and submitted to the EPA.</li> <li>A revision of Duralie Environmental Management Plans will be prepared progressively during 2021. The revised plans will reflect the current status of the DCM and the ongoing mining, rehabilitation and mine closure requirements.</li> <li>DPIE conducted a site inspection on 20 April 2021. The purpose of the inspection was to provide a general update on the Duralie operations.</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

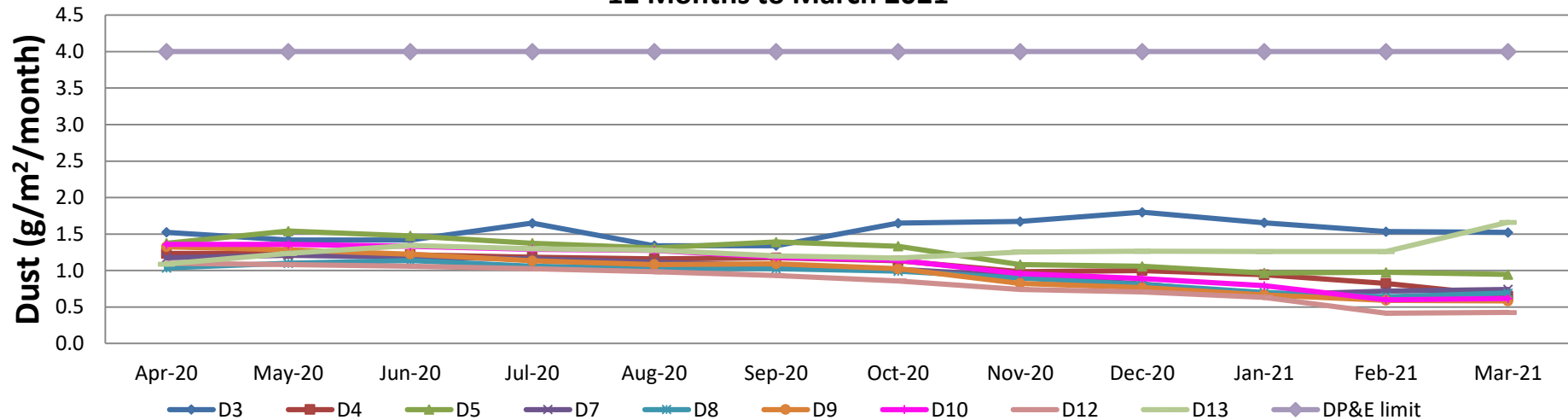


# 3a. Air Quality Management

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 summer/autumn due to increased rainfall.</li></ul>

# 3a. Air Quality Management

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



- Jun-20 D3 Very Heavy - 10% Dirt, 90% Polysaccharide Slime
- Aug-20 D3 Very Heavy - 40% Dirt, 10% insects, 50% Polysaccharide Slime
- 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.

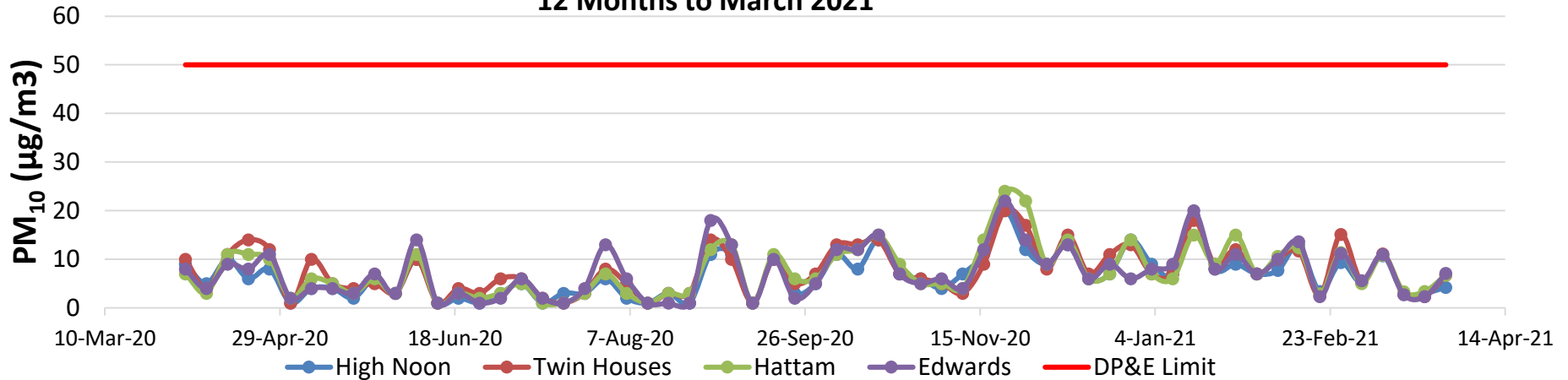
Guide to Descriptions used by Laboratory

**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 algaecide solution.  
**Contamination:** Gelatinous material such as bird droppings

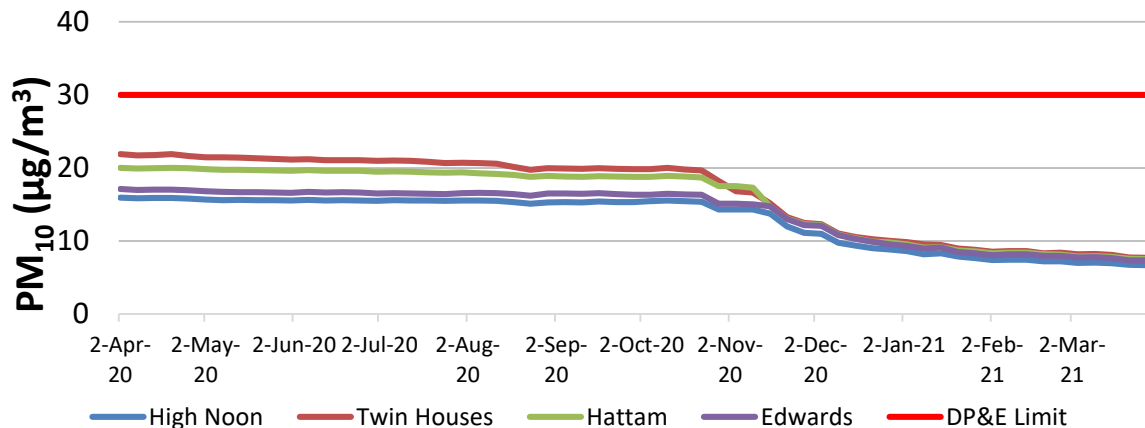
- Due to frequent contamination of dust gauges the HVAS results should also be used when interpreting results.

# 3a. Air Quality Management

**Duralie HVAS Monitoring (PM<sub>10</sub>)  
12 Months to March 2021**



**Duralie HVAS Monitoring (PM<sub>10</sub>)  
Annual Rolling Average - 12 Months to March 2021**



- All sites below DP&E 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"> <li>Blast monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Blast activities at the DCM were recommenced on 17/3/2021</li> <li>Blasting will be undertaken in discrete periods during 2021 with only a limited number of blasts required.</li> </ul>

Location	Date	Time	Schultz (AB1)		Fisher-Webster (AAAB3)		Moylan (AAAB4)		Weismantel Inn		Overpressure Site Exceedance <sup>1</sup>	Overpressure "Cumulative Exceedance" <sup>1</sup>	Ground Vibration Site Exceedance <sup>1</sup>	Ground Vibration "Cumulative Exceedance" <sup>1</sup>	Monitored Blasts <sup>1</sup>	Fume Rating
			mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	dBL	%		%			
		24hr														
Weismantel Strip 16	17-Mar-21	13:22:00	<0.22	<110.0	<0.22	<110.0	0.52	101.7	<0.22	<110.0	0.0%	0	0.0%	0	1	Nil
Weismantel Strip 16	31-Mar-21	16:15:00	<0.22	<110.0	<0.22	<110.0	0.44	100.4	<0.22	<110.0	0.0%	0	0.0%	0	2	Nil
Weismantel Strip 16	30-Apr-21	13:04:00	<0.22	<110.0	<0.22	<110.0	0.06	104.6	<0.22	<110.0	0.0%	0	0.0%	0	3	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

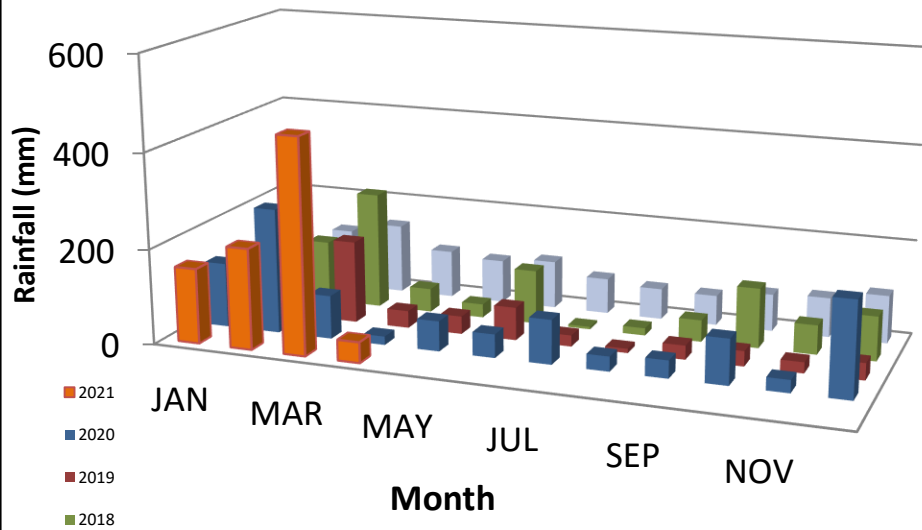
Management Area	Project	Status
Noise Monitoring	<ul style="list-style-type: none"><li>Routine Monitoring</li></ul>	<ul style="list-style-type: none"><li>Quarterly monitoring continued during Q1 2021. All results were compliant with noise criteria.</li><li>Noise reports are made available on the Duralie Coal website.</li><li>Routine quarterly noise monitoring of operations has continued in 2021, to monitor noise emissions from mining day works.</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 recommenced in accordance with the Noise Management Plan requirements.</li><li>The operating mining day shift (6:30am – 5:00pm) is operating for 1 hour within designated 'night shift' period as defined by EPL 11701.</li><li>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.</li></ul>

# 3d. Water Management

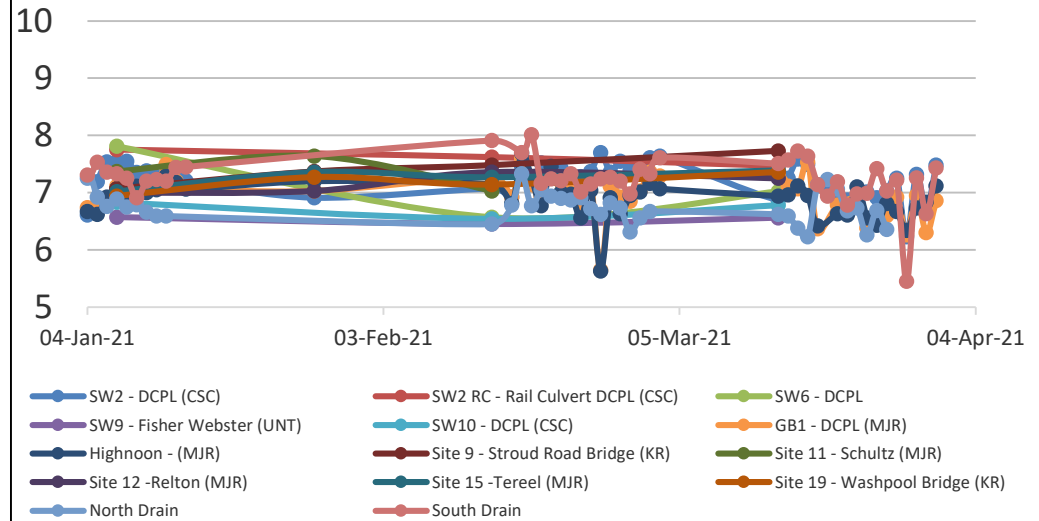
Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none"> <li>Annual water balance review.</li> </ul>	<ul style="list-style-type: none"> <li>The 2020 annual site water balanced has been prepared. A summary will be included in the Annual Review 2020/21 and will be available on the Duralie Coal website.</li> </ul>
Surface Water	<ul style="list-style-type: none"> <li>Rainfall events</li> <li>Routine monitoring</li> </ul>	<ul style="list-style-type: none"> <li>A major rainfall event occurred on 20 March 2021. Water transfers and monitoring was conducted as required. As a result of the rain event a spill of VC1 occurred. Regulatory reporting has been completed as required.</li> <li>Above average rainfall has been received during Summer/Autumn 21.</li> <li>Multiple high flow rain events occurred during summer 2020/21.</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> <li>Irrigation has continued on the PAF waste emplacement area as part of the PAF rehandling works.</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

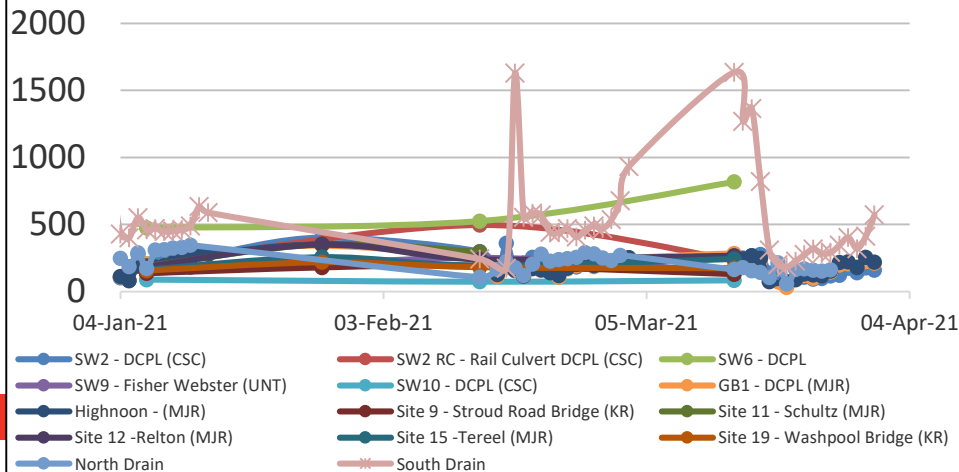
### Duralie Mine Site - Monthly Rainfall



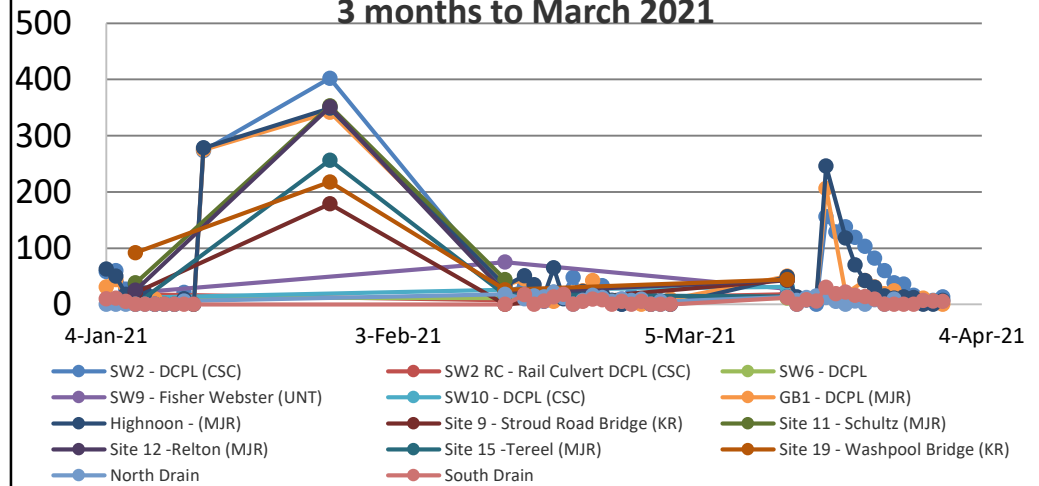
### Duralie Surface Water Monitoring - pH 3 months to March 2021



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



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



# 3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitated Waste emplacements	<ul style="list-style-type: none"> <li>Rehabilitation Works</li> <li>Rehabilitation Planning</li> <li>Rehabilitation maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Currently rehabilitation works involve bulk shaping to achieve final landform designs. Bulk shaping near the water fill point area has been completed during Q1 2021.</li> <li>The next stages of rehabilitation will include bulk shaping of the Clareval waste emplacement area.</li> <li>Slashing of the Duralie pasture rehabilitation and removal of acacia regrowth was completed in H2 2020. Slashing of the AD1 rehabilitation was also completed.</li> <li>Weed control in the established native rehabilitation was completed in November 2020.</li> <li>Further slashing of the Duralie pasture rehabilitation is scheduled in Q2 2021.</li> </ul>



Photo: Complete rehabilitation at Weismantel waste emplacement and Duralie Haul Rd, taken May 2021.



Photo: Completed rehabilitation at Weismantel waste emplacement, taken May 2021.



**DURALIE COAL**  
Part of the Yancoal Australia Group

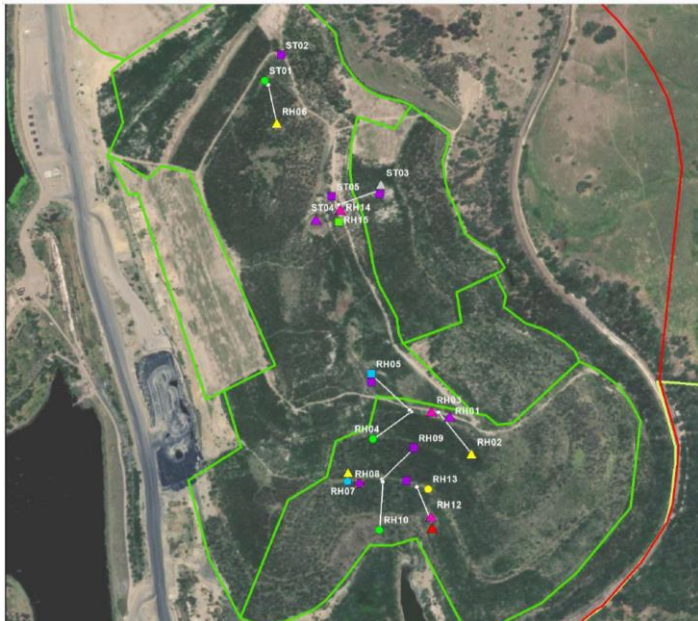
# 3f. Biodiversity Management

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>• 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.</li><li>• 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. Both reports are available on the Duralie website.</li></ul>



# 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>Annual Nest box monitoring was undertaken during November 2020 including the new nest boxes in the rehabilitation area . 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.</li> <li>Further nestbox installations are proposed in the Duralie rehabilitation area. Works were delayed due to weather conditions during March 2021 and will now be completed in May.</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 recommenced in the Duralie Biodiversity Area and Duralie Mining Lease areas in October 2020. Weed spraying has continued through to May 2021 in the Biodiversity Offset area and Mining Lease areas targeting Blackberry, Crofton weed, Tobacco bush, Privet and Lantana.</li> </ul>



15 17 May 2021 Map: Nest box locations on the Duralie rehabilitation area.



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



# 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
Mine Closure Planning General	<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> </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 continued to prepare the detailed final landform designs for the waste emplacement areas.</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> </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>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.</li> <li>Further review work is required.</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 completed in Q4 2020 to incorporate final void design. This work was undertaken in conjunction with the final void water balance.</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 2020 to ensure adequate topsoil is available for rehabilitation. The use of topsoil continues to be tracked.</li> </ul>
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>Preparations have commenced for pumping mine water to the Clareval void.</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.</li> <li>Removal of the ROM coal stockpile in the CSC corridor has been completed. Bulk shaping of the final creek landform has commenced.</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
Environmental Management Plans	<ul style="list-style-type: none"><li>• EMP reviews for closure stage</li></ul>	<ul style="list-style-type: none"><li>• During 2021 the EMPs will be progressively reviewed and updated as required, to reflect the current stage of operations and the ongoing rehabilitation and mine closure requirements.</li><li>• Identify post-closure environmental monitoring and maintenance requirements.</li><li>• Prepare detailed performance and completion criteria for mine closure.</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>• Draft plan prepared in 2017.</li></ul>



# 4. Community Complaints

## Duralie Complaint Summary

Period: 01/01/2021 - 30/4/2021

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"> <li>The presentation night for Stratford Coal Community Support Program for 2021 was held on Thursday, 29<sup>th</sup> April 2021 at the Stroud Country Club. Stratford Coal has granted over \$84,000 in funding to support 21 local community organisations across the Gloucester and Stroud region, aiming to make a positive difference to the community.</li> </ul>
	Stratford Coal Education Support Fund	<ul style="list-style-type: none"> <li>The presentation night for Stratford Coal Education Support Fund for 2021 was held on Wednesday, 31<sup>st</sup> March 2021 at the Avon Valley Inn. The Education Support fund continues to provide much needed funding for the next generation of young apprentices and tertiary students.</li> <li>The Stratford Coal Education Support Fund will be running again during 2021 and applications are available from Gloucester High School or the MidCoast Council Gloucester office.</li> </ul>

