

Duralie Coal CCC Meeting

Presentation – Company Report & Overview of Activities

August 2018

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Environment & Community Superintendent

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1. Progress at the Mine

Mining 2nd Quarter 2018

- Overburden mined 444,000 BCM
- ROM Coal mined 139,000 tonnes

- Mining continuing in Weismantel pit.
- Rehandle of PAF material to Clareval Pit.
- Bulk shaping of waste emplacements.

2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> Duralie Coal Mine Annual Review 2018 Independent Environmental Audit 2017 NPI & NGER Reporting 	<ul style="list-style-type: none"> The 2018 DCM Annual Review is currently being prepared and is due end of September 2018. Copies will be made available to the CCC members. 2017 Independent Environmental Audit report and recommendations is now available on the Duralie website. An update will also be provided in the Annual Review. The 2018 NPI and NGER reporting preparation has commenced.
Regulator	<ul style="list-style-type: none"> Environmental Management Plans EPL 11701 variation Resource Regulator site inspection. 	<ul style="list-style-type: none"> The Noise Management Plan was updated and approved in May 2018 with changes to the monitoring program. The Biodiversity Management Plan is currently being revised. EPL 11701 variation was approved in May 2018 and provided for a change to the activity scale. On 31 May 2018 the Resource Regulator undertook an unannounced site inspection as part of a state-wide compliance operation. The inspection focused on compliance with rehabilitation and mine closure planning commitments in the approved Mining Operations Plan. Observations/recommendations: <ul style="list-style-type: none"> Rehabilitation is progressing in accordance with the MOP commitments. Mine closure planning requirements are progressing in accordance with the MOP. Updates to be included in the Annual Review. Further development of completion criteria to demonstrate the success of mature rehabilitation.

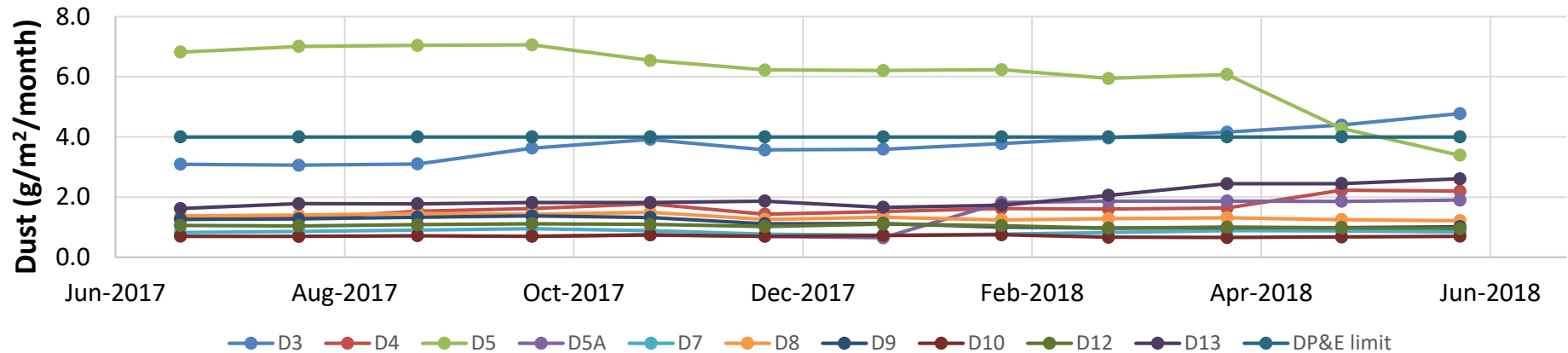
3. Environmental Management Plans & Monitoring

- 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

**Duralie Dust Deposition - Annual Rolling Average
12 Months to June 2018**



- Aug-17** D5 – 8.8 Very heavy - 30% dirt, 0% coal, 0% vegetation, 0% insects, 70% polysaccharide slime.
- Oct-17** D3 – 11.0 Very heavy - 30% dirt, 0% coal, 0% vegetation, 0% insects and 70% polysaccharide slime.
- Mar-18** D3 – 6.4 Very Heavy - 30% Dirt, 0% Coal, 0% Vegetation, 10% Insects, 60% Polysaccharide Slime. D13 – 5.2 Very Heavy - 30% Dirt, 0% Coal, 0% Vegetation, 0% Insects, 70% Polysaccharide Slime
- Apr-18** D13 – 4.9 Very Heavy - 50% Dirt, 0% Coal, 0% Vegetation, 0% Insects, 50% Polysaccharide Slime
- May-18** D3- 4.3 Heavy - 40% Dirt, 0% Coal, 0% Vegetation, 0% Insects, 60% Polysaccharide Slime. D4- 10.6 Very Heavy - 10% Dirt, 0% Coal, 0% Vegetation, 0% Insects, 90% Polysaccharide Slime
- Jun-18** D3 – 9.5 Very Heavy - 10% Dirt, 90% Polysaccharide Slime. D13 – 4.4 Very Heavy - 40% Dirt, 60% Polysaccharide Slime

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.

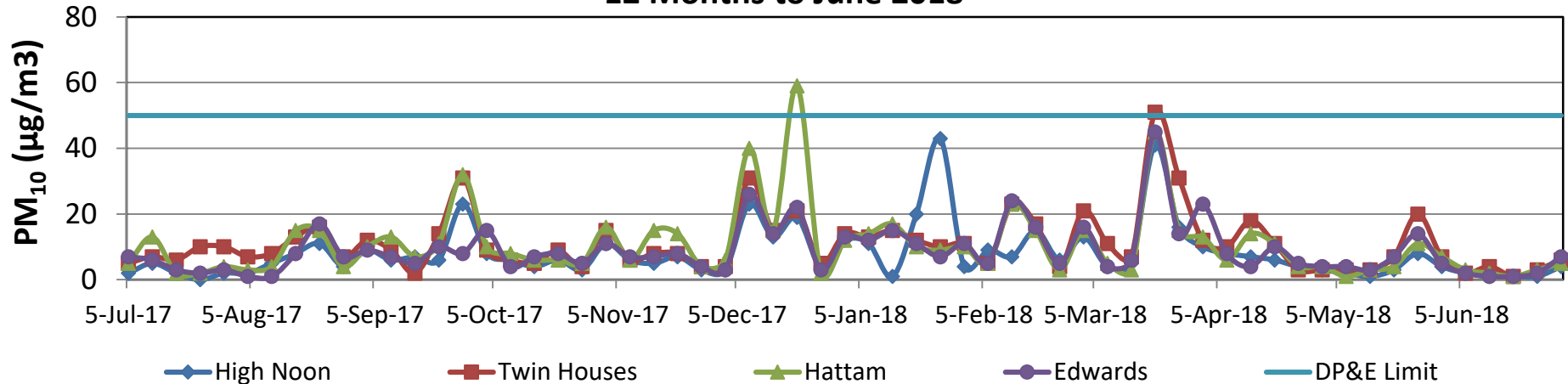
Contamination: Gelatinous material such as bird droppings

- High levels in D3 and D5 due to contamination of multiple samples. Additional site D5A installed for comparison.
- Due to frequent contamination of dust gauges the HVAS results should also be used when interpreting results.

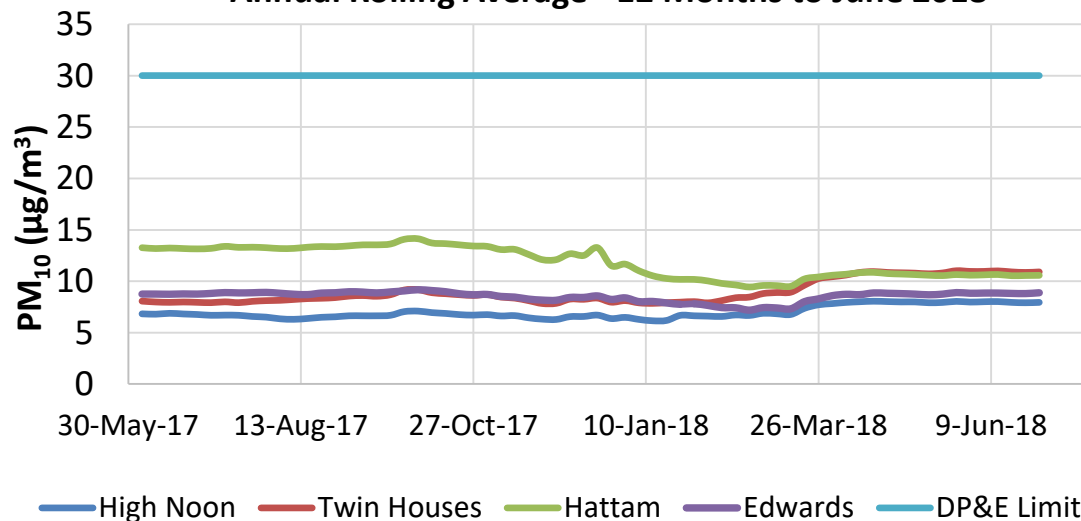


3a. Air Quality Management

**Duralie HVAS Monitoring (PM₁₀)
12 Months to June 2018**



**Duralie HVAS Monitoring (PM₁₀)
Annual Rolling Average - 12 Months to June 2018**



- All sites below DP&E limit. Typically low results during winter and higher during spring/ summer.
- Elevated results recorded at Hattam during December 2017 due to bushfire smoke.
- High results across all monitors on 20-Mar-18 due to hazy conditions across valley following a southerly change and prolonged dry weather.
- Flat trend over previous 12 months.
- 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"> No blasts exceeded 115dB(L) or 5mm/s during the quarter. Total remained below 5% for the reporting period (ending 4-Sep-2018). No blasts recorded any level of fume.

Location	Date	Time	Schultz (AB1)		Fisher-Webster (AAAB3)		Moylan (AAAB4)		Weismantel Inn	Overpressure Site Exceedance ¹	Overpressure "Cumulative Exceedance" ¹	Monitored Blasts ¹
		24hr	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	%		
Weismantel Strip 16	12-Apr-18	14:43:00	<0.22	<110.0	0.5	105.0	<0.22	<110.0	0.89	0.0%	0	23
Weismantel Strip 16	24-Apr-18	11:20:00	<0.22	<110.0	0.49	107.1	<0.22	<110.0	0.66	0.0%	0	24
Weismantel Strip 16	03-May-18	14:36:00	<0.22	<110.0	0.44	102.7	<0.22	<110.0	0.93	0.0%	0	25
Weismantel Strip 16	10-May-18	11:25:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	0.44	0.0%	0	26
Weismantel Strip 16	17-May-18	11:40:00	<0.22	<110.0	0.67	103.2	<0.22	<110.0	0.73	0.0%	0	27
Weismantel Strip 16	13-Jun-18	12:02:00	<0.22	<110.0	0.83	103.2	<0.22	<110.0	0.63	0.0%	0	28
Weismantel Strip 16	22-Jun-18	10:36:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	0.36	0.0%	0	29

- 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

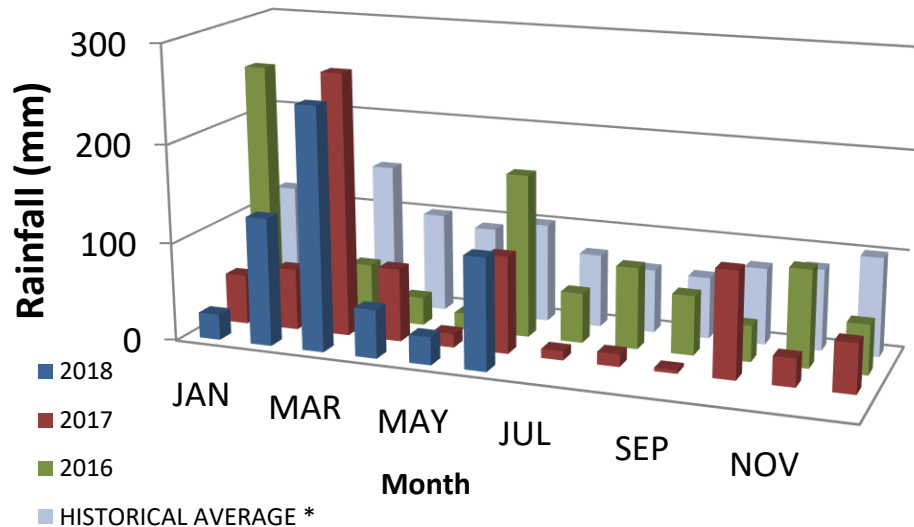
Management Area	Project	Status
Noise	<ul style="list-style-type: none">Routine Monitoring	<ul style="list-style-type: none">Routine quarterly monitoring of operations and train noise was undertaken in July 2018. Noise monitoring results have remained below the noise criteria. Typically the operations have been inaudible or slightly audible during the monitoring. Noise reports are made available on the Duralie Coal website.
	<ul style="list-style-type: none">Real-Time Noise Management	<ul style="list-style-type: none">Real-time noise monitoring profiles continue to be monitored and generally indicate no exceedence of the performance criteria due to mining operations. Occasional noise alarms were received during the quarter and were due to meteorological conditions or external noise sources.During Q4 2017 the operations reduce to day and evening shifts only with no night-time works. Use of the evaporative fans has also ceased.Operations have been ongoing in the Weismantel Pit.
	<ul style="list-style-type: none">Noise Management Plan	<ul style="list-style-type: none">The Noise Management Plan has been updated to amend the noise monitoring program during times when no operations are occurring.

3d. Water Management

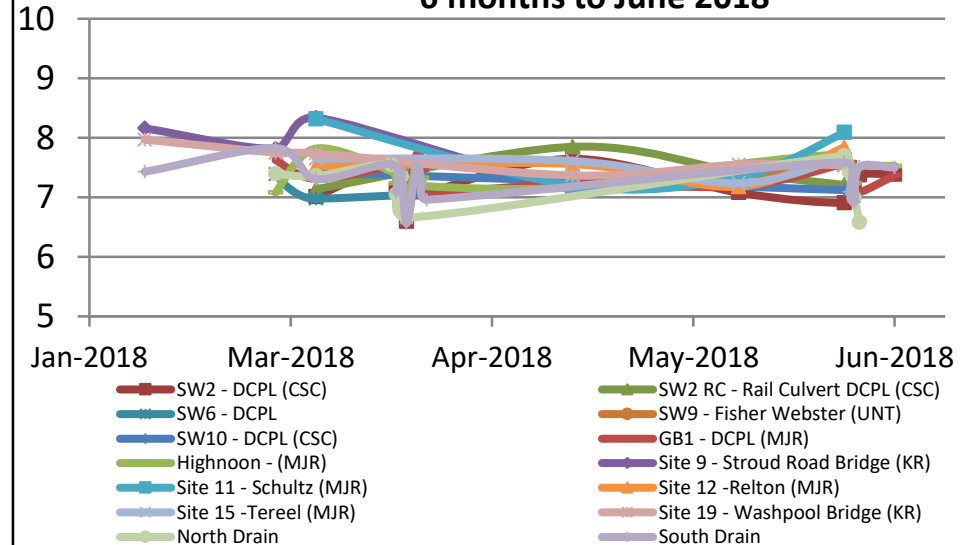
Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none">Annual water balance review.	<ul style="list-style-type: none">The annual water balance review for 2017 is has been finalised and will be included in the Annual Review.A revision of the final void water balance is being undertaken and verification of the groundwater model to confirm the predicted final void water level.
Surface Water	<ul style="list-style-type: none">Routine monitoringAquatic Ecology - Macroinvertebrates	<ul style="list-style-type: none">Sporadic and low rainfall conditions through Summer 2017/18 follow by a single large rain event in March 2018.Routine surface water monitoring completed. All sites generally within Duralie water quality performance indicators. No obvious trending towards performance indicators.Scheduled in September 2018
Groundwater	<ul style="list-style-type: none">Routine monitor	<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

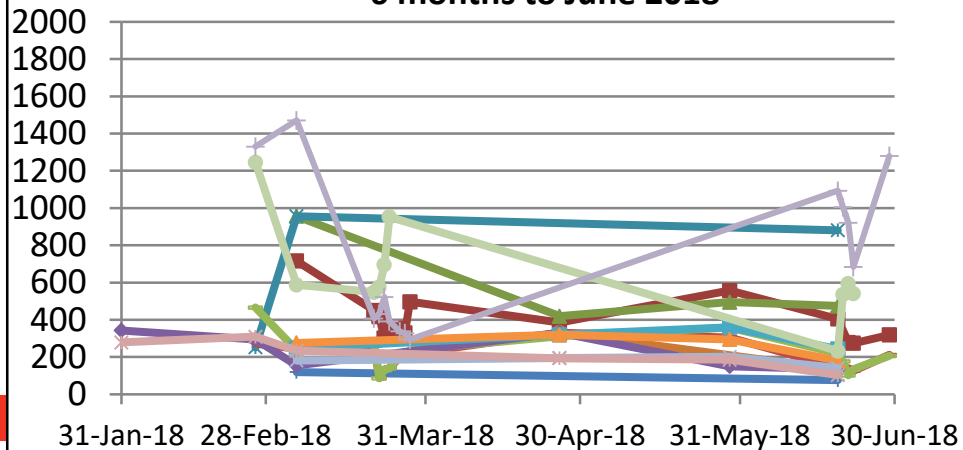
Duralie Mine Site - Monthly Rainfall



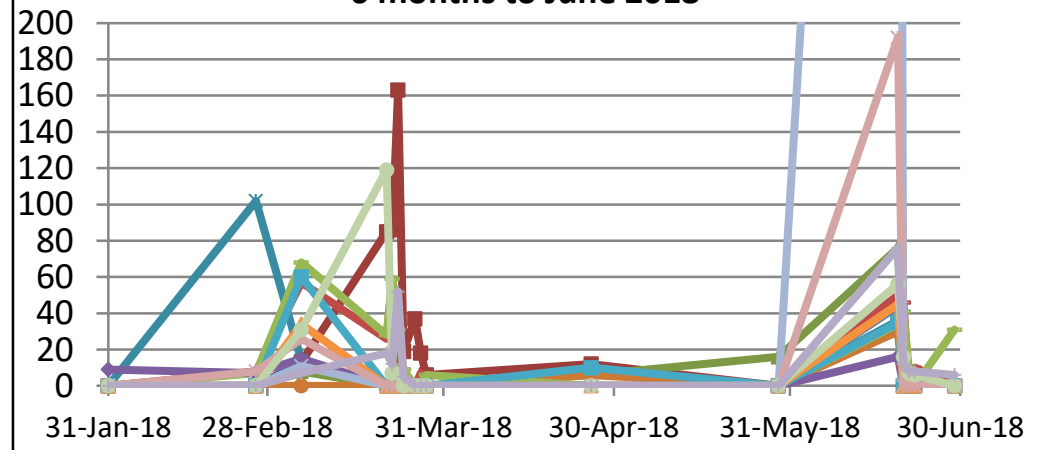
**Duralie Surface Water Monitoring - pH
6 months to June 2018**



**Duralie Surface Water Monitoring - EC ($\mu\text{S}/\text{cm}$)
6 months to June 2018**



**Duralie Surface Water Monitoring - TSS (mg/L)
6 months to June 2018**



3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitated Waste emplacements	<ul style="list-style-type: none">• Final landforms designs• Bulk Shaping• Rehabilitation Works	<ul style="list-style-type: none">• Final landform designs have been progressed for the waste emplacement areas in Clareval and Weismantel.• A D11 Dozer has continued bulk shaping works on the Weismantel waste emplacement. Approximately 60ha completed.• Rehabilitation of 30-40ha is planned to be completed in October 2018, including topsoil spreading, ground preparation and seeding.



Photo: Completed rehabilitation on the Weismantel waste emplacement Apr 2018.



Photo: Rehabilitation progress July 2018.

3e. Rehabilitation Management

Management Area	Project	Status
Rehabilitation Monitoring	<ul style="list-style-type: none"> Vegetation Monitoring - Ecosystem Function Analysis Fauna Monitoring 	<ul style="list-style-type: none"> Rehabilitation monitoring incorporating landscape function analysis and vegetation dynamics was undertaken in May 2018. The report is currently being finalised and a summary will be included in the Annual Review. Fauna monitoring in the rehabilitation and offset areas was undertaken during January 2018. The results found – <i>“A total of 124 species of vertebrate were recorded, comprising 8 frogs, 10 reptiles, 56 birds and 30 mammals, most of which were native. With the exception of reptiles, a similar number of frog, mammal and bird species were recorded at Mine Rehabilitation Area sites compared with Offset Area sites. Seven of the species detected are listed as threatened or migratory.”</i>



Photo: Koala in established rehabilitation recorded during fauna monitoring in Jan 2018.



Photo: Long-nosed Potoroo in rehabilitation area Jan 2018.

3f. Biodiversity Management

Management Area	Project	Status
BMP	<ul style="list-style-type: none"> Biodiversity Management Plan revision Annual Biodiversity Report 	<ul style="list-style-type: none"> A revision of the Biodiversity Management Plan has been prepared following the first 5 years of implementation. A recalculation of the Conservation bond has been prepared for the ongoing cost for the management of the biodiversity offset area. A summary of the work undertaken in relation to the biodiversity offsets in 2018 has been prepared and will be attached to the Annual Review 2018.
Biodiversity Offset	<ul style="list-style-type: none"> Revegetation works 	<ul style="list-style-type: none"> Preparation has commenced for further tubestock planting in the biodiversity offset area during Autumn 2018 including approximately 16,000 plants over 61 hectares. The native tree seed was propagated over summer 2017/18 by Cumberland Plain Seeds. Due to the slower than expected establishment of the tube-stock the planting has been postponed until September 2018.
Flora/Fauna	<ul style="list-style-type: none"> Fauna Monitoring 	<ul style="list-style-type: none"> Fauna monitoring in the rehabilitation and offset areas was undertaken during January 2018. The results found – <i>“A total of 124 species of vertebrate were recorded, comprising 8 frogs, 10 reptiles, 56 birds and 30 mammals, most of which were native. With the exception of reptiles, a similar number of frog, mammal and bird species were recorded at Mine Rehabilitation Area sites compared with Offset Area sites. Thirteen of the species detected are listed as threatened or migratory.”</i>
Bushfire Management	<ul style="list-style-type: none"> Bushfire Management 	<ul style="list-style-type: none"> No further bushfire management activities with the exception of slashing have been undertaken during Q2 2018.

3g. Mine Closure Planning

Management Area	Project	Status
Mine Closure Planning General	<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.
Rehabilitated Landforms	<ul style="list-style-type: none"> Landform design and stability 	<ul style="list-style-type: none"> Preparation of a geotechnical assessment and specifications for the final void design have commenced during Q1 2018 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 has commenced to ensure the balance incorporates the final landform design, surface water inflows and outflows to/from final void.
	<ul style="list-style-type: none"> Groundwater Model 	<ul style="list-style-type: none"> Post-mining groundwater model verification to incorporate final void design.
	<ul style="list-style-type: none"> Topsoil Resources 	<ul style="list-style-type: none"> A topsoil stockpile update has been prepared in 2018 to ensure adequate topsoil is available for rehabilitation.
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 has commenced. Auxiliary Dam 1 has been dewatered. Preparations have commenced for pumping mine water to the Clareval void.
Final land use	<ul style="list-style-type: none"> Potential final land use planning 	<ul style="list-style-type: none"> Draft plan prepared in 2017.

*Note: *Refer to Duralie Mining Operations Plan & Rehabilitation Management Plan Table 14 Mine Closure Planning Schedule.*

**Further detail on mine closure planning progress will be included in the Annual Review 2018.*



4. Community Complaints

Duralie Complaint Summary

Period: 1/04/2018 - 30/06/2018

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
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5. Community Programs

Management Area	Project	Status
Support Programs	Stratford Coal Community Support Program 2018	<ul style="list-style-type: none">• A presentation for the recipients of the 2018 Stratford Coal Community Support Program was held at the Stroud Country Club on 13 June 2018.• Since 2010, Stratford Coal has granted over \$500,000 to local community groups.• In 2018, over \$52,000 was shared across 20 local community organisations for projects in the areas of education, health, environment, infrastructure, arts, leisure and cultural heritage.
Community groups	Presentations	<ul style="list-style-type: none">• During May and June Stratford Coal was invited to give presentation to Advance Gloucester and the Gloucester Business Chamber at their general meetings.• Presentations were provided by representative from Stratford Coal which included a briefing on the proposed plans for the Stratford Extension Project and the Duralie Coal Mine.



Photo: Stratford Coal Community Support Program presentation night 13 June 2018.

5. Community Programs

Community Support Program 2018 Recipients	Project Description
Pure NRG	Defibrillators for Gloucester Schools
Ronald McDonald House and Mark Hughes Foundation	Massive Murray River Paddle - Ronald McDonald House and Mark Hughes Foundation
Gloucester RSL Sub Branch	Gloucester Cemetery Memorial refurbishment
Stroud Road Public School P&C Association	Classroom air-conditioning
Stroud Neighbourhood Children's Cooperative	Air-conditioning for playroom
Booral Rural Fire Brigade	Fire Hose Drying Rack
Gloucester Country Club	Stratford Coal Super Sevens Golf Competition 2018
Stroud Rodeo Association	2018 Stroud Rodeo and Campdraft
Stroud Show Association Inc.	2018 Stroud Show - Major Sponsor
Gloucester Mountain Man Triathlon Inc.	2018 Gloucester Mountain Man Tri Challenge
Gloucester Agricultural, Horticultural & Pastoral Assoc.	Gloucester Show 2018
Stroud Raiders Rugby League Club	Replacement training equipment damaged in Stroud floods
MidCoast Science & Engineering Challenge	MidCoast Science & Engineering Challenge 2018
Stroud Community Lodge Inc	Community and Resident Entertainment Program
Gloucester High School P & C Ass. Inc.	Senior Common Area Upgrade - landscaping and facilities
Barrington Public School	Classroom reading eggs and headphones.
Scout Association NSW Branch	New Scout group equipment
Stratford Public School	Sphero SPRK + Robotics
Stroud Road Community Hall & Progress Assoc	Stroud Road Spring "Bash 'n Bang" 2018
Stroud & District Country Club	Family Fun Day