

Duralie Coal CCC Meeting

Presentation – Company Report & Overview of Activities

May 2017

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Environment & Community Superintendent

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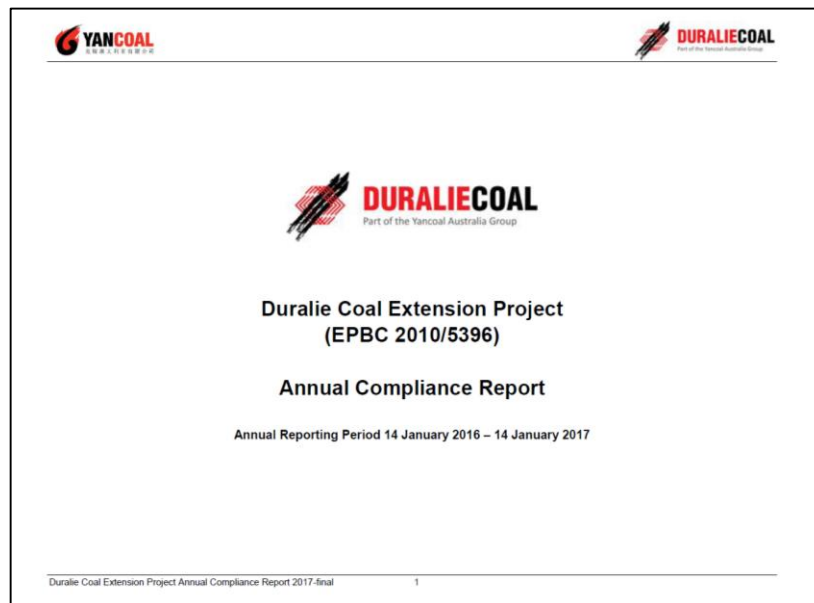
1. Progress at the Mine

Mining 1st Quarter 2017

- Overburden mined 1,098,000 BCM
- ROM Coal mined 173,000 tonnes
- Mining in Clareval & Weismantel continued.

2. Environmental Reporting & Regulators

Management Area	Project	Status
Reporting	<ul style="list-style-type: none"> EPBC (2010/5396) Annual Compliance Report 2017 	<ul style="list-style-type: none"> The annual compliance report for the EPBC (2010/5396) Approval was submitted to the Commonwealth Department of the Environment on 11 April 2017.
Regulator	<ul style="list-style-type: none"> EPA site inspection. Joint Agency Dams Compliance Audit. Environmental Management Plans EPA information requests 	<ul style="list-style-type: none"> A site inspection was undertaken on 7-Feb-2017. DCPL has received the final reports for the joint agency dams compliance audit of the Duralie mine site undertaken on 30-Aug-2016. Revisions of the Water Management Plan and Noise Management Plan have been prepared and submitted to DP&E. Plans will be made available on the Duralie Coal website. The EPA requested information from DCPL during April 2017 on two matters relating to dust and blast fume. DCPL provided responses to the EPA and have not yet received further correspondence.

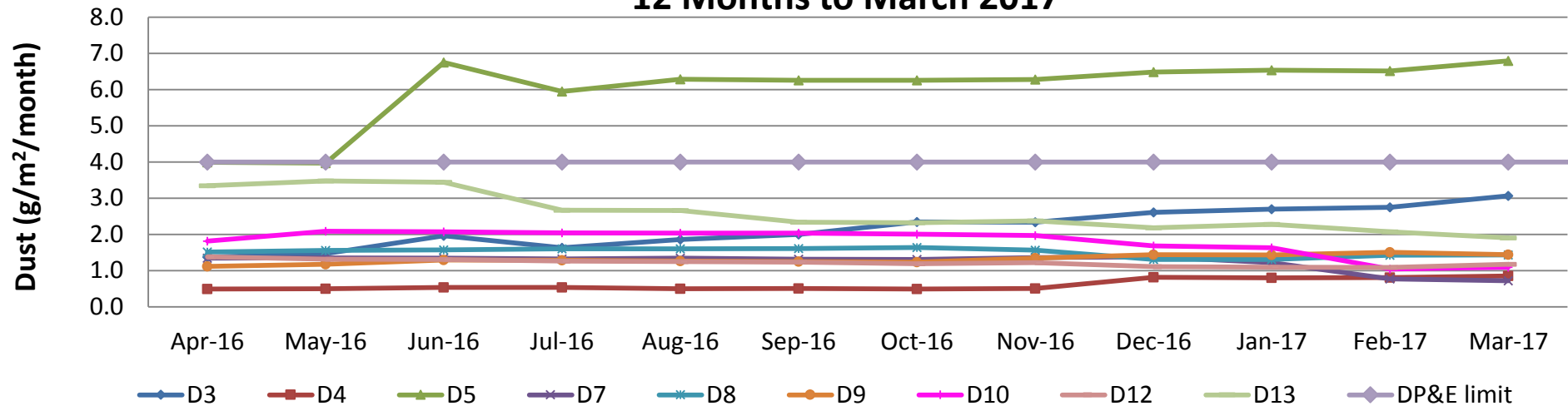


3. Environmental Management Plans & Monitoring

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

3a. Air Quality Management

**Duralie Dust Deposition - Annual Rolling Average
12 Months to March 2017**



- Jun-16** D3 – 6.4 Very High - 10% Dirt 0% Coal 20% Vegetation 20% Insects 50% Polysaccharide Slime.
D5 – 40.6 Very Heavy - 40% Dirt 0% Coal 20% Vegetation 20% Insects 20% Polysaccharide Slime
- Nov-16** D5 – 9.5 Very heavy - 40% Dirt, 0% Coal, 10% Vegetation, 0% Insects and 50% Polysaccharide slime.
- Dec-16** D8 – 5.7 Medium - 40% dirt, 0% coal, 20% vegetation, 10% insects, 30% polysaccharide slime.
- Mar-17** D3 – 4.1 Medium - 10% dirt, 0% coal, 10% vegetation, 30% insects and 50% polysaccharide slime.
D5 – 6.7 Heavy - 20% dirt, 0% coal, 10% vegetation, 10% insects, 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.

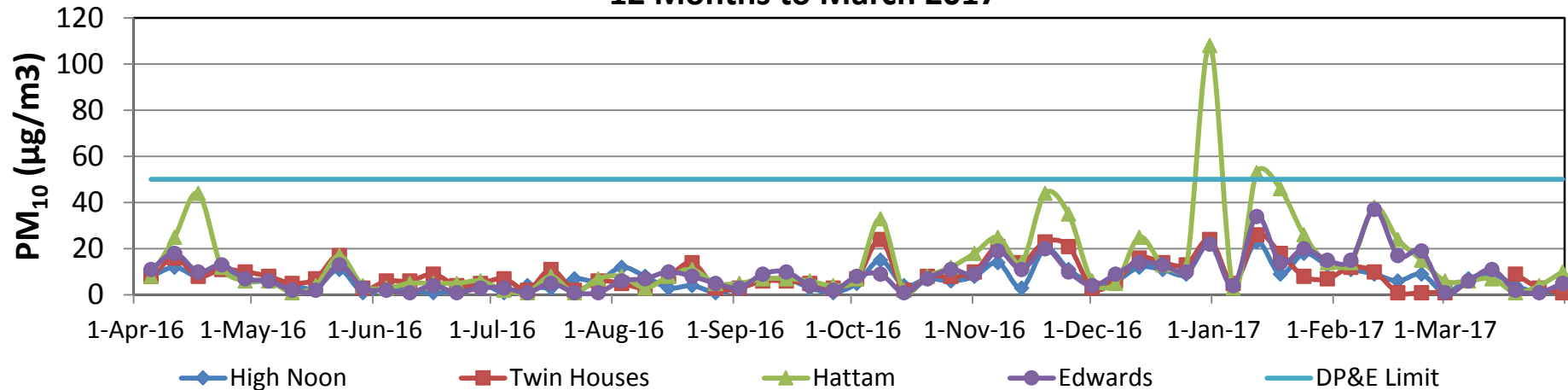
Contamination: Gelatinous material such as bird droppings

- High levels in D5 due to contamination of multiple samples from bird droppings.
- Due to frequent contamination of dust gauges the HVAS results should also be used when interpreting results.

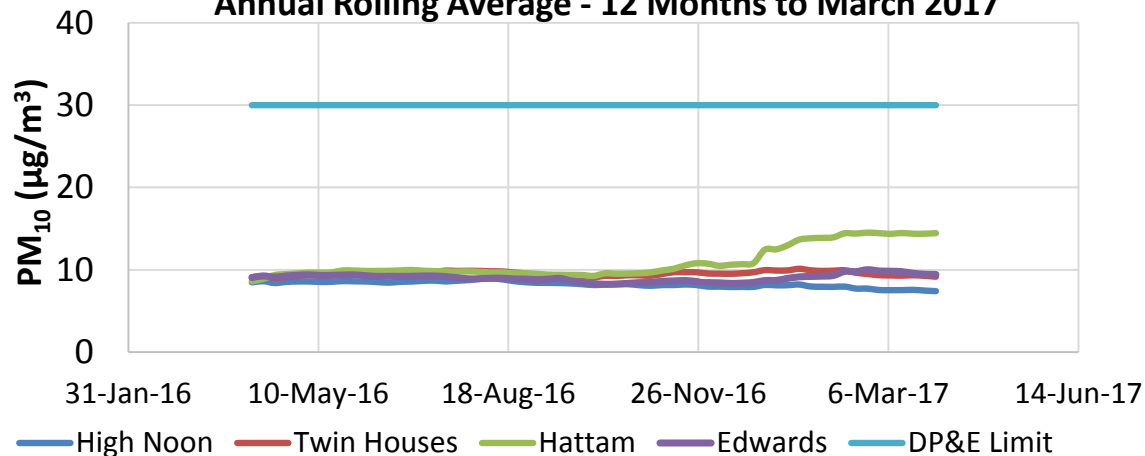


3a. Air Quality Management

**Duralie HVAS Monitoring (PM₁₀)
12 Months to March 2017**



**Duralie HVAS Monitoring (PM₁₀)
Annual Rolling Average - 12 Months to March 2017**



- All sites below DP&E limit. Typically low results during winter and higher during spring/summer.
- Two abnormal high results recorded at Hattam on 31 December 2016 and 12 January 2017. Investigation concluded not related to mine activities.
- 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"> One blast exceeded 115dB(L) or 5mm/s during the quarter. Total remains below 5% for the reporting period (ending 4-Sep-2017). Three blasts recorded minor levels of fume.

Location	Date	Time	Schultz (AB1)		Fisher-Webster (AAAB3)		Moylan (AAAB4)		Weismantel Inn		Overpressure Site Exceedence ¹	Overpressure "Cumulative Exceedence"	Monitored Blasts ¹	Fume Rating
		24hr	mm/s	dBL	mm/s	dBL	mm/s	dBL	mm/s	dBL	%			
Clareval Block 7	06-Jan-17	12:12:00	<0.22	<110.0	0.33	104.6	0.42	104.2	0.92	108.1	0.0%	0	19	Nil
Clareval Block 7	12-Jan-17	12:05:00	<0.22	<110.0	0.302	102.7	0.49	102.8	0.74	109.8	0.0%	0	20	Nil
Weismantel Strip 16	19-Jan-17	11:37:00	<0.22	<110.0	0.25	104.9	<0.22	<110.0	0.35	109.2	0.0%	0	21	Nil
Weismantel Strip 16	25-Jan-17	9:09:00	<0.22	<110.0	0.65	105.5	0.37	106.3	0.84	113.5	0.0%	0	22	1A
Clareval Block 7	02-Feb-17	11:46:00	<0.22	<110.0	0.55	103.0	0.38	102.0	1.03	106.5	0.0%	0	23	Nil
Weismantel Strip 16	10-Feb-17	10:36:00	<0.22	<110.0	<0.22	<110.0	0.27	111.8	0.84	121.4	0.0%	0	24	Nil
Clareval Block 7	17-Feb-17	11:30:00	<0.22	<110.0	0.32	99.1	0.32	104.2	0.68	109.8	0.0%	0	25	Nil
Weismantel Strip 16	24-Feb-17	14:53:00	<0.22	<110.0	0.65	107.1	0.32	109.6	0.75	115.4	0.0%	0	26	Nil
Weismantel Strip 16	03-Mar-17	15:22:00	<0.22	<110.0	0.65	105.1	0.38	104.6	1.00	114.2	0.0%	0	27	Nil
Weismantel Strip 16	08-Mar-17	11:42:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	0.36	112.5	0.0%	0	28	Nil
Weismantel Strip 16	14-Mar-17	15:02:00	<0.22	<110.0	0.51	106.6	0.31	117 ²	1.15	123.9	3.4%	1	29	Nil
Weismantel Strip 16	22-Mar-17	15:00:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	0.32	103.8	3.3%	1	30	2A
Weismantel Strip 16	29-Mar-17	15:09:00	<0.22	<110.0	0.67	103.3	0.27	106.0	1.14	114.7	3.2%	1	31	Nil
Clareval Block 7	05-Apr-17	11:37:00	<0.22	<110.0	<0.22	<110.0	<0.22	<110.0	0.63	104.2	3.1%	1	32	Nil
Weismantel Strip 16	13-Apr-17	11:37:00	<0.22	<110.0	0.49	106.2	0.26	106.0	0.86	114.7	3.0%	1	33	3A

• 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

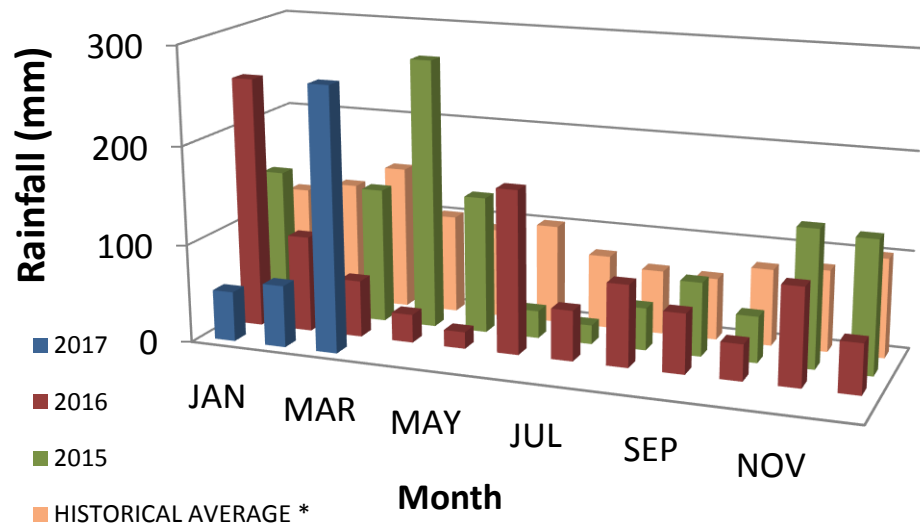
Management Area	Project	Status
Noise	<ul style="list-style-type: none">Routine Monitoring	<ul style="list-style-type: none">Routine quarterly monitoring of operations and train noise was undertaken in January 2017 and April 2017. Noise monitoring results have remained below the noise criteria. Typically 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 meteorological conditions or external noise sources.

3d. Water Management

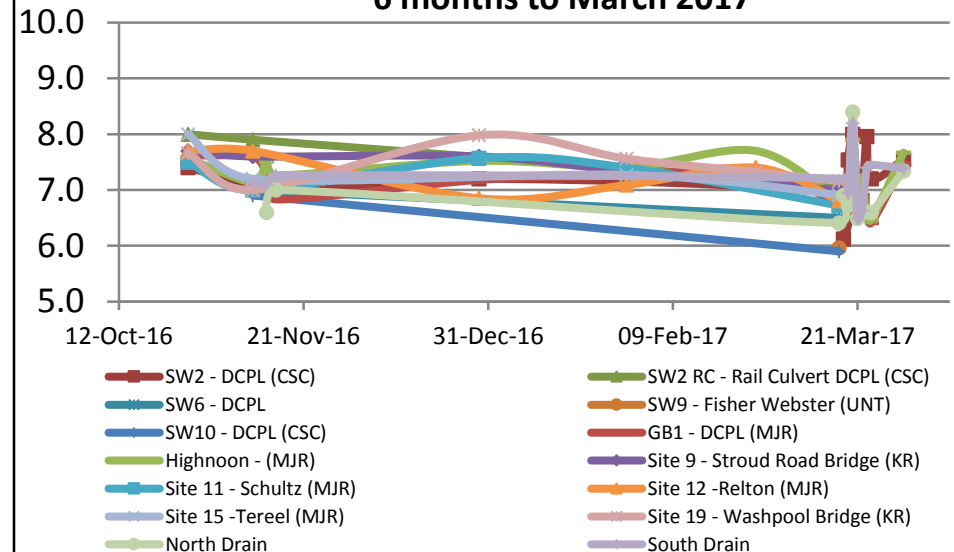
Management Area	Project	Status
Site Water Management	<ul style="list-style-type: none">Annual water balance review.	<ul style="list-style-type: none">A annual site water balance review has been completed for the 2016 calendar year. A summary is included in the annual review.
Surface Water	<ul style="list-style-type: none">Routine monitoringIrrigationAquatic ecology - Macroinvertebrates	<ul style="list-style-type: none">Well below average rainfall conditions through Summer 2016-17 followed by significant rainfall during Autumn 2017. Well above average rain days during Autumn 2017.Routine surface water monitoring completed. All sites generally within DEP water quality performance indicators. No obvious trending towards performance indicators.Irrigation activities have reduced during the quarter due to wet ground conditions. Evaporative spray use has continued.Macroinvertebrates monitoring was undertaken in February 2017. The monitoring continues to indicate negligible impacts associated with mining activities. The results reflected the hot dry summer and low flow condition.
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

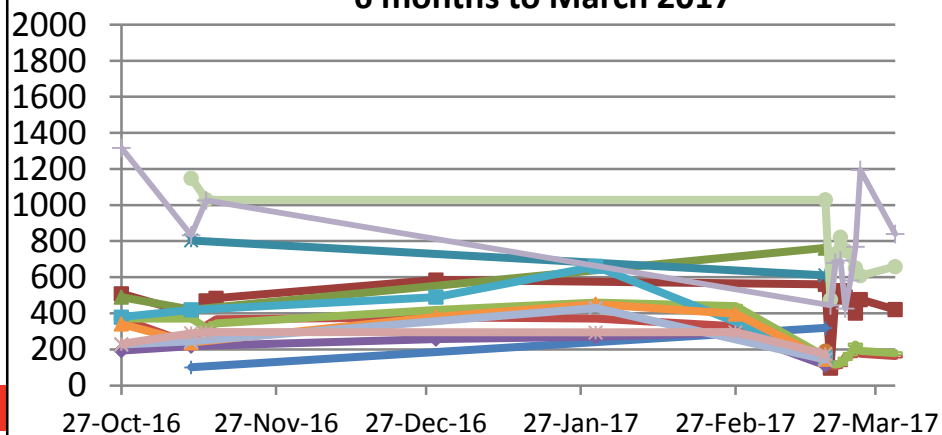
Duralie Mine Site - Monthly Rainfall



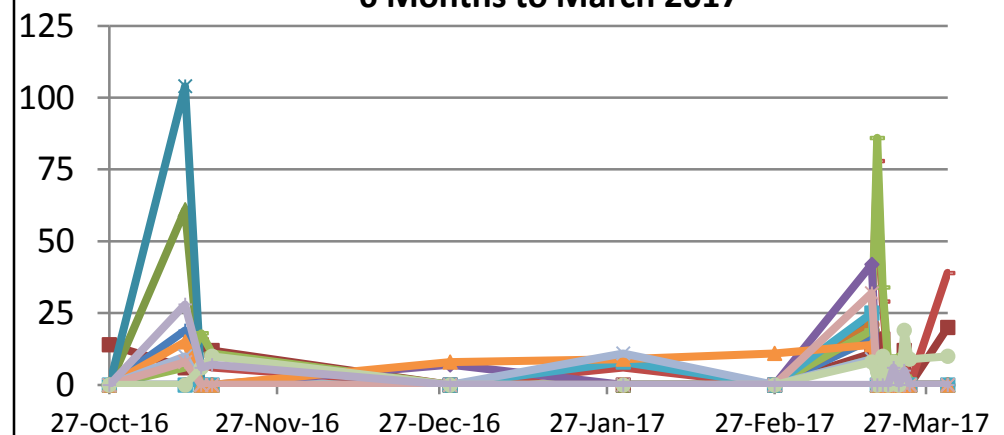
Duralie Surface Water Monitoring - pH
6 months to March 2017



Duralie Surface Water Monitoring - EC ($\mu\text{S}/\text{cm}$)
6 months to March 2017



Duralie Surface Water Monitoring - TSS (mg/L)
6 Months to March 2017



3e. Rehabilitation Management

Management Area	Project	Status
Waste emplacement	<ul style="list-style-type: none">• Rehabilitation maintenance• Western slopes	<ul style="list-style-type: none">• Good establishment of rehabilitation maintenance works undertaken in January 2017.• Initial establishment on the western slopes was slow due to hot dry conditions. Good establishment with high rainfall during Autumn 2017.
Weismantel Visual Bund	<ul style="list-style-type: none">• Rehabilitation	<ul style="list-style-type: none">• Good establishment of grass on visual bund at the north end of Weismantel.



Photo: Rehabilitation maintenance – Dec 2016



Photo: Rehabilitation maintenance – Apr 2017



Photo: New growth on western slopes –Apr 2017

3f. Biodiversity Management

Management Area	Project	Status
Biodiversity Offset	<ul style="list-style-type: none"> Revegetation works 	<ul style="list-style-type: none"> Approximately 50 hectares of alluvial flats along Johnsons Creek Rd were proposed for tube-stock planting in March 2017. The native tree and shrub tube-stock has been grown. Slashing was completed in March 2017. Due to the recent wet weather ground preparation works have not been possible and the tube stock planting has been postponed until ground conditions improve.
	<ul style="list-style-type: none"> Nest box program 	<ul style="list-style-type: none"> Quarterly monitoring of the nest boxes installed during 2016 has been undertaken during summer and autumn.
	<ul style="list-style-type: none"> Offset Area Vegetation monitoring 	<ul style="list-style-type: none"> Monitoring of the offset revegetation works and the remnant enhancement areas was undertaken in January 2017. The results of the monitoring will be included in the Annual Review 2017.



3f. Biodiversity Management

Management Area	Project	Status
Bushfire Management	• RFS Emergency Watertake	• Stratford Coal received a request from the RFS on 22-Feb-2017 for emergency watertake from the Stratford East Dam under Section 44 of the Rural Fires Act. Access was provided for the RFS.
	• Bushfire Management	• Bushfire hazard reduction has been undertaken through slashing of areas along Johnsons creek road, In the biodiversity offset area and surrounding the Duralie Mining lease.
Flora/Fauna	• Weed Control	• Weeds spraying has continued on Mining Leases, Offset areas and Yancoal property during summer and autumn 2017.
	• Feral Animal Monitoring	• A feral animal monitoring program was undertaken during April 2017 across the Stratford and Duralie Mining Leases and surrounding properties. The results of the monitoring will be included in the Annual Review 2017.
	• Wild Dog Control Program 2017	• A wild dog control program has commenced in April 2017 and will run for 4 weeks. The program includes trapping and shooting of wild dogs and foxes on the Stratford and Duralie Mining Leases and the biodiversity offset areas.

4. Community Complaints

Duralie Complaint Summary

Period: 1/1/2017 - 31/03/2017

Period: 3 Months

Total No. of Complaints: 2 (0 noise, 0 blast, 2 air quality, 0 other)

Total No. of Complainants: 2

Date/Time of Complaint	Complainant Location	Method of Complaint	Nature of Complaint	Investigation/Outcome
18/01/2017	No details	Community hotline	Visible dust	Complaint: "Fair bit of dust laying on the road". Declined to leave details or a name. Location not identified. <ul style="list-style-type: none">• Weather Conditions: Very hot day with NW winds. A strong southerly change arrived at 4:00pm. Conditions in the valley were generally hazy with visible dust not specifically related to mining.• No further action required.
7/02/2017 9:00hrs	4km North of Mine	Community hotline	Odour from mine	Complaint: "Bad sulfur smell early this morning" . The complainant declined a return call. <ul style="list-style-type: none">• The OCE was advised of the complaint. Heating had been present on the PAF dump on 6/2/2017 however the odours had not been strong. Gas monitoring had been undertaken directly on the PAF dump with no high levels recorded.• There were bushfires on the afternoon of 6/2/2017 and the presence of smoke had been noted.• Weather: There was a southerly change at 11pm on 6/2/2017 which may have contributed to some odours at the residence. DCPL continue to monitor heating and odours on the PAF emplacement area.

5. Community Programs

Management Area	Project	Status
Support Programs	Stratford Coal Education Support Fund 2017	<ul style="list-style-type: none"> A great response to the Education Support Program for 2017 was received again with a strong round applicants. The fund is now in it's 21st year and has contributed a total of over \$680,000 including \$31,400 in 2017. A presentation for the 2017 recipients of the Education Support Program was held at the Bucketts Way Motel on 15-Mar-2017. Support was provide to assist with the costs of education and training for 10 students, 3 businesses and 2 school based traineeships. Additionally two school based programs were provide funding.
Support Programs	Stratford Coal Community Support Program 2017	<ul style="list-style-type: none"> The Stratford Coal Community Support Program is running again in 2017. Applications for the program closed on 31 March 2017. The support program committee reviews all applications and a presentation will be held during May 2017 for the successful recipients.



Photo: Stratford Coal Education Support Program Presentation Night at the Bucketts Way Motel - Mar 2017.

5. Community Programs

Management Area	Project	Status
Community Engagement	<ul style="list-style-type: none">Landcare – Karuah River CatchmentGloucester High School Science & Engineering Day	<ul style="list-style-type: none">DCPL staff attended the Landcare meeting held in March 2017 held at The Branch.DCPL staff attended the Gloucester High School during March 2017 to assist with running activities at the science & engineering day.