DONALDSONCOAL

Part of the Yancoal Australia Group

ABN: 87 073 088 945

Annual Review

Donaldson Coal Mine

1 November 2016 – 31 October 2017

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TITLE BLOCK

Name of Operation	Donaldson Coal Mine
Name of Operator	Donaldson Coal Pty Limited
Development consent / project approval #	DA 98/01173 and 118/698/22
Name of holder of development consent / project approval	Donaldson Coal Pty Limited
Mining Lease #	ML 1461
Name of holder of mining lease	Donaldson Coal Pty Limited
Water licence #	20BL168123
Name of holder of water licence	Donaldson Coal Pty Limited
MOP/RMP start date	16/05/2014
MOP/RMP end date	16/05/2021
Annual Review start date	1/11/2016
Annual Review end date	31/10/2017

I, Phillip Brown, certify that this audit report is a true and accurate record of the compliance status of the Donaldson Coal Mine for the period 01 November 2016 to 31 October 2017 and that I am authorised to make this statement of behalf of DONALDSON COAL PTY LIMITED.

Note.

a) *The Annual Review is an 'environmental audit' for the purposes of section 122B (2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.*

b) *The Crimes Act 1900 contains other offences relating to false and misleading information: Section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); Section 307A, 307B and 307C (false or misleading application/information/documents – maximum penalty 2 years imprisonment or $22,000, or both).*

Name of authorised reporting officer	Phillip Brown
Title of authorised reporting officer	Environment and Community Superintendent
Signature of authorised reporting officer	
Date	25 January 2018

CONTENTS

Page

CONTENTS

APPENDICES

FIGURES

CONTENTS

Page

TABLES

1. STATEMENT OF COMPLIANCE

The compliance status of relevant approvals was reviewed for the reporting period (see Appendix 3) and is summarised in **Table 1.1**. It was determined that there was one non-compliance during the reporting period. The non-compliance recorded during the reporting period has been ranked per the risk matrix included in **Table 1.2**.

Table 1.1 Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	Yes / No
Development Consent (combined DA 98/01173)	Yes
Mining Lease 1461	No

Table 1.2 Non-compliances

Relevant Approval	Condition #	Condition Description (summary)	Compliance Status	Comment	Where Addressed in Annual Review
ML 1461	(44) Labour/ Expenditure	the lease holder shall during each year of the term of the authority: a. Ensure that at least 22 workers are efficiently employed on the subject area or b. Expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than $385,000. c. The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure of labour required.	Non-compliant	The Company has ceased operations and not met the required employment or expenditure. The Company will formally apply to DRE to suspend this requirement until lease relinquishment is being sought.	Section 11

Compliance Status Key

Risk level	***Colour code***	***Description***
High	*Non-compliant*	*Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.*
Medium	*Non-compliant*	*Non-compliance with:* • *potential for serious environmental consequences, but is unlikely to occur; or* • *potential for moderate environmental consequences, but is likely to occur.*
Low	*Non-compliant*	*Non-compliance with:* • *potential for moderate environmental consequences, but is unlikely to occur; or* • *potential for low environmental consequences, but is likely to occur.*
Administrative non-compliance	*Non-compliant*	*Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).*

2. INTRODUCTION

2.1 OVERVIEW OF OPERATIONS

The Donaldson Coal Mine (the mine) was an open cut coal mining operation located ~23km from the Port of Newcastle, north of John Renshaw Drive and west of Weakleys Drive. The mining lease is contained within the Cessnock and Maitland Local Government Areas. A locality plan and aerial photograph showing the location of the mine in a regional context is attached as **Appendix 1** of this report.

The mine commenced operation on 25th January 2001, following approval by the then Minister of Urban Affairs and Planning (now known as the Department of Planning and Environment) in 1999.

The first load of coal was railed from the mine on the 26th March 2001. Up to the 31st October 2013, approximately 13,002,548 tonnes of coal had been railed to both Hunter Valley power stations and international customers, through the Port of Newcastle.

Mining operations at the mine were completed in April 2013. Progressive rehabilitation activities have been undertaken throughout the operation of the mine and a final rehabilitation project commenced in May 2013. This involved removal of roads, excavation of contaminated material, decommissioning of the fuel storage area, buildings and other surface infrastructure, reshaping surfaces to the final landform, topsoil spreading, drainage line construction and seeding with local tree and shrub species. The rehabilitation works at the mine were completed in March 2014.

2.2 SCOPE AND FORMAT

This Annual Review for the Donaldson Coal Mine has been compiled by Donaldson Coal Pty Limited (the “Company”). Donaldson Coal Pty Limited is a fully owned subsidiary of Yancoal Australia Limited.

This is the second Annual Review submitted for the mine, following Annual Environmental Management Reports, and is applicable for the period 1 November 2016 to 31 October 2017 (“the reporting period”).

This Annual Review generally follows the format and content requirements identified in the NSW Department of Planning and Environment (DPE) *Annual Review Guideline* dated October 2015.

2.3 KEY PERSONNEL CONTACT DETAILS

Donaldson Coal Pty Ltd owns the mining operation and is the holder of the current mining lease. Donaldson is also the mining operator. **Table 2.1** outlines the site personnel responsible for the various aspects of the operation during the reporting period.

Table 2.1 Site Personnel

Position	Site Personnel
Operations Manager, Donaldson Coal	Mr Aaron McGuigan
Environment and Community Superintendent, Donaldson Coal	Mr Phillip Brown

The following contacts have been provided for the Donaldson Coal Operations Manager, Mr Aaron McGuigan, and the Environment and Community Superintendent, Mr Phillip Brown.

Table 2.2 Contact Details

Donaldson Coal Mine 1132 John Renshaw Drive BLACKHILL NSW 2322	PO Box 2275 GREEHILLS NSW 2323
Phone: (02) 4015 1100	Community Hotline (24hrs): 1800 111 271
Fax: (02) 4015 1159	
e-mail:	donaldson@doncoal.com.au
Internet:	www.doncoal.com.au

A 24-hour Environmental Hotline (Tel: 1800 111 271) is maintained by the Company. Details of calls are taken by the Environment & Community Superintendent for further actioning, if required.

3. APPROVALS

Table 3.1 provides a current list of statutory instruments in effect, including the date of grant of all leases, subleases, consents, approvals and licenses. It also includes information relating to the current Mining Operations Plan (MOP). Details of amendments to the MOP are described below.

Table 3.1 Donaldson Coal Mine – Approvals, Leases and Licences

Approval/Lease/Licence	Issue / Approval Date	Expiry Date	Details / Comments
Mining Lease (No. 1461)	22/12/1999	22/12/2020	A copy of the mining lease is available for review at the Donaldson Coal office.
Mining Operations Plan	16/05/2014	16/05/2021	Amended MOP as approved by the DTI DRE.
Development Consent (combined DA 98/01173 and 118/698/22)	14/10/1999 26/08/2005 24/06/2011	March 2011 31/12/13	• Certain conditions of the consent will continue to operate after the consent for mining operations has lapsed. • Variation to Development consent for modification to mining area. • Variation to Development Consent for extension of time for mining to be completed.
Environment Protection Licence (No. 11080).	13/09/2000	Not Applicable	Anniversary date 13 September Current licence version dated 2 December 2011.
Bore Licence (No. 20BL168123)	18/04/14	17/04/19	Issued to cover groundwater extraction as a result of the active mining area. The Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources 2016 commenced in 2016. However the bore licence has not yet been converted by Water NSW to a Water Access Licence and Water Supply Works Approval. Advice from Water NSW indicates that the existing licence should continue to be implemented in its current form until the new licence is issued.
Water Supply Works Approval (20WA211590	01/08/09	31/07/22	Issued for the works associated with the open cut mining pits as located within the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009.*

4. OPERATIONS SUMMARY

4.1 MINING OPERATIONS

Coal mining activities ceased in April 2013 and all mining equipment was removed from site. No coal mining was undertaken during the reporting period or is planned during the next reporting period. **Table 4.1** presents a summary of the production statistics.

Table 4.1 Production Summary

Material	Approved limit (specify source)	Previous reporting period (actual)	This reporting period (actual)	Next reporting period (forecast)
Waste Rock / Overburden	No longer applicable	0	0	0
ROM Coal / Ore		0	0	0
Coarse Reject		0	0	0
Fine Reject (Tailings)		0	0	0
Saleable Product		0	0	0

4.2 OTHER OPERATIONS DURING THE REPORTING PERIOD

During the reporting period no exploration, land preparation or construction activities were undertaken. Additionally, no coal processing or transportation activities were undertaken within ML1461 during the reporting period.

Environmental monitoring activities continued throughout the reporting period including surface water, ground water, flora and fauna and rehabilitation monitoring. Results of this monitoring is summarised in Sections 6 and 7.

Rehabilitation activities were completed in March 2014 with no further rehabilitation work occurring during the reporting period.

4.3 NEXT REPORTING PERIOD

The activities proposed for 2017/2018 will principally involve continued monitoring and, if required, maintenance activities in accordance with the approved MOP for Closure. The following provides a summary of the planned activities.

Exploration

The Company currently does not intend to undertake any drilling within ML1461 during the 2017/2018 reporting period.

Mining

No further mining will be undertaken.

Rehabilitation

All rehabilitation works have previously been completed. Any rehabilitation works during the 2017/2018 reporting period will relate to ongoing maintenance, principally erosion and sediment control and vegetation establishment.

Monitoring

The following monitoring will be undertaken during the next reporting period.

- Surface water – ongoing surface water quality monitoring in accordance with the site EPL and Water Management Plan. Monitoring will be undertaken by CBased Environmental.
- Groundwater – ongoing groundwater level and quality monitoring will be undertaken by CBased Environmental.
- Flora and Fauna – Kleinfelder Australia Pty Ltd will continue to undertake annual flora and fauna surveys and reporting.

Community Consultation and Liaison

The 24-hour environmental hotline will be maintained and a register retained of any complaints received.

5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

The 2015/2016 Annual Review was forwarded to the then Department of Planning and Environment, Resources and Energy DRE (now known as the Department of Planning and Environment, Division of Resources and Geoscience, DRG) and the DPE on 29 January 2016. A site inspection was undertaken by DRE officers and feedback was received from the DRE dated 7 March 2016. The Annual Review was considered to satisfy the requirements of the relevant conditions of ML1461.

Feedback from DPE was received on 18 December 2017 and stated that the document 'generally complies with DA98/01173 and DA118/698/22'. No further actions were required.

Table 5.1 summarises the actions arising from the previous Annual Review.

Table 5.1 Actions from the previous Annual Review

Action required from previous Annual Review	Requested by	Action taken by the Operator	Where discussed in Annual Review
Weed Management – Presence of lantana and pampas grass	DRG	Weed management activities were conducted during the reporting period.	Section 6.6.1
Continue to monitor spindly woodland development – Assess the need for tree thinning.	DRG	Woodland tree densities were surveyed during rehabilitation monitoring activities.	Section 8.2

6. ENVIRONMENTAL PERFORMANCE

6.1 SUMMARY OF ENVIRONMENTAL PERFORMANCE

A summary of environmental performance for the principal environmental aspects is provided in **Table 6.1**. Further detail regarding specific environmental aspects is also provided in the following subsections.

Table 6.1 Environmental performance

Aspect	Approval criteria / EIS prediction	Performance during the reporting period	Trend/key management implications	Implemented/proposed management actions
Noise	DA Condition 15 – approved noise limits range from 35dB(A) to 50dB (A).	No complaints.	Implies management measures are currently adequate.	No additional management action required.
Blasting	DA Condition 24 – Overpressure 115dB(A) and max 120dB(A) -Vibration 5mm/s and max 10mm/s	No blasts undertaken.	Implies management measures are currently adequate.	No additional management action required.
Air Quality	DA Condition 37 Annual Average TSP 90ug/m^3 & deposited dust 4g/m^2/month.	One complaint was received regarding regional dust.	Air Quality monitoring results imply management measures are currently adequate.	No additional management action required.
Biodiversity	DA Condition 70 – Provision of compensatory habitat.	Compensatory habitat area recorded increased fauna species diversity. Floral diversity remained similar to the previous period. Biomass indicators indicate healthy vegetation. Tetratheca Juncea number remain stable since 2014.	Findings to date have indicated that there have been no significant impacts on floristic or fauna diversity within the Donaldson Bushland Conservation Area over the past 15 years.	Proposed hazard control burn to promote Tetratheca Juncea habitat within the Bushland Conservation Area.
Heritage	DA Condition 81-86 – Aboriginal Heritage Conservation Area & Management Plan	No heritage items identified or disturbed during the reporting period. No complaints or other management issues.	Implies no specific management actions were necessary.	No additional management action required.

6.2 METEOROLOGICAL MONITORING

Abel operates a weather station onsite. Figure 6.1 presents the monthly windroses for the reporting period whilst **Table 6.2** provides the monthly rainfall data.

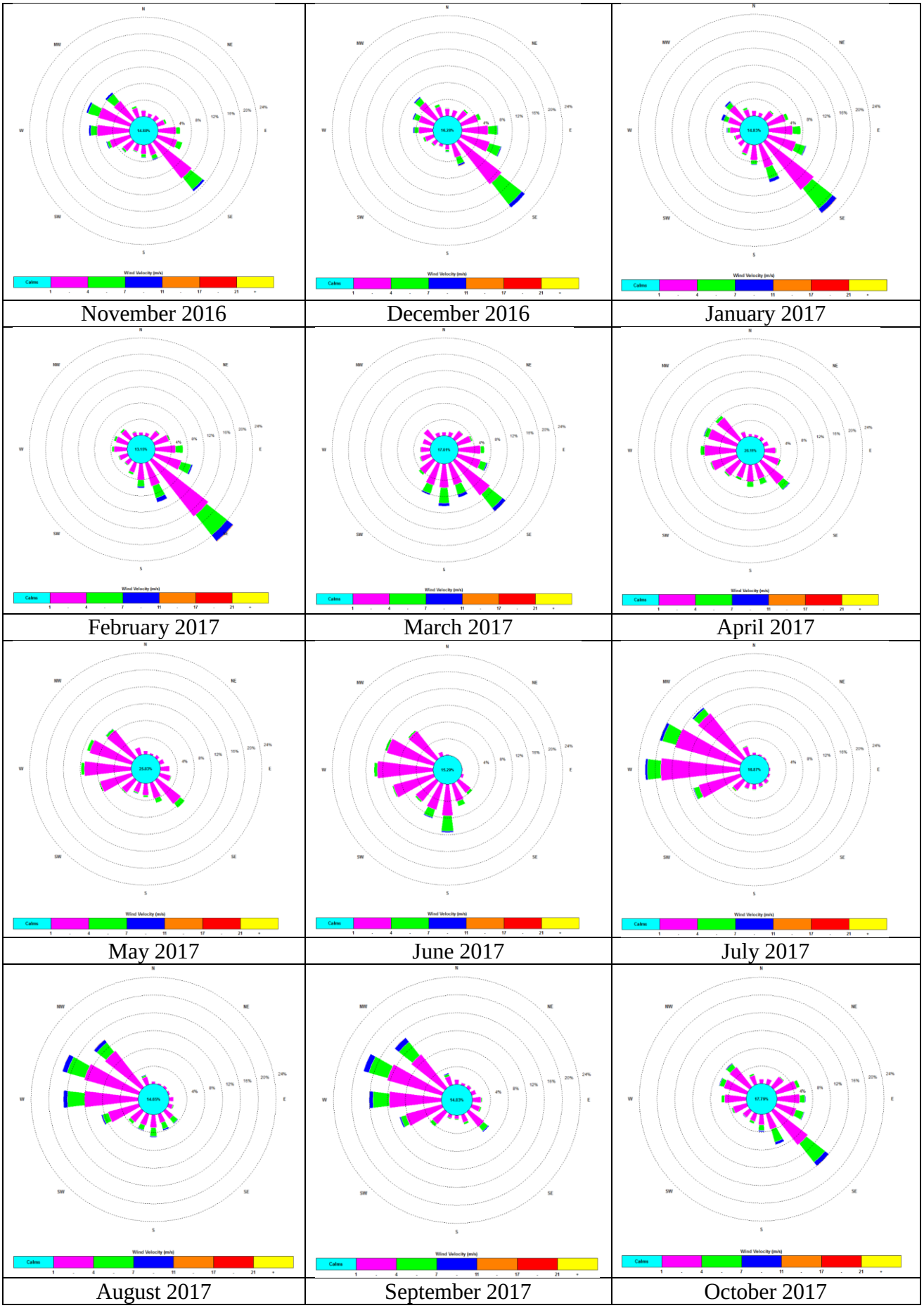


Figure 6.1 Monthly Windroses 2016/17

Average Monthly Rainfall (mm)													
Period	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2000	61	32	279	146	45	24	27	31	33	47	106	32	863
2001	46	169	193	114	244	3.4	63	22	12	31	91	38	1026.4
2002	48	281	184	66.4	62.1	30	30	21	17.4	18.8	56.2	149.2	964.1
2003	6	90	22.2	77	135	13.2	43	27.4	0	63.2	137.6	39	653.6
2004	86	176.6	80	33.6	17.4	9.4	15.4	43.1	61.2	136	77.4	69.8	805.9
2005	64.4	95.8	127.8	57.4	61.8*	56.8	7.2	0.8	37	84	22.8	9.6	625.4
2006	29.8	47.4	63.6	4.6	7.8	43.8	42.6	49.2	162.4	25.4	37.8	35.6	550
2007	13.4	88	102	86	60	301	17	79.6	19.8	17.2	163.8	49.5	997.3
2008	153.4	154.3	46	237.6	2.2	122.9	30	28.5	195.3	62.2	73.3	62.6	1168.3
2009	11.3	97.7	136.5	157.2	125.7	75.7	32.1	1.8	29.2	59.8	51.4	62	840.4
2010	0	52.1	83.9	37.1	89.4	112.8	65.3	38.5	26.4	80.6	171.1	39.9*	797.1
2011	26	34.5	65.6	137.9	98.8	152	129	49	103	100	171.9	75.9	1143.6
2012	96.1	207	137.6	114.7	11.8	172.3	53.8	26.6	18.7	5.7	21.8	1.2	867.3
2013	1	100	64.2	65.8	59.8	63.8	71.8	9.6	21.8	27	261.8	2.6	1094
2014	15.6	108.3	112.8	99.3	44.3	31.4	24.6	104	42.4	55	38.4	133.4	809.5
2015	167	48	73.3	412	89.4	44.6	17.9	30.6	56.8	59	69.8	103.8	1172.2
2016	430.8	26	78	31.8	13.4	113	44.2	74.2	60	43.8	**44.5**	**41.8**	1001.5
2017	**66.9**	**71.7**	**150.4**	**94.5**	**12.7**	**128.5**	**3.2**	**6**	**12.6**	**77.7**			
Average	73.5	104.4	111.1	109.6	65.8	83.2	39.8	35.7	50.5	55.2	93.9	56.6	904.7

6.3 NOISE

As mining ceased in April 2013, no operational noise monitoring was undertaken during the reporting period. Based on the absence of activities and community complaints, no specific noise management measures were required and no further improvements are necessary. No further monitoring is currently proposed.

6.4 BLASTING

No blasting was undertaken during the reporting period.

6.5 AIR QUALITY

Donaldson operates the following dust monitoring equipment:

- One High Volume Air Sampler (HVAS) measuring TSP;
- Two HVAS measuring PM_{10};
- One continuous Dustrak monitors measuring PM_{10}; and,
- Ten Depositional Dust Gauges measuring insoluble solids.

The locations of dust monitoring equipment are outlined in **Appendix 1**. It is noted that measurements taken at any of these locations will include all background air pollution relevant to those locations, as well as any contribution occurring from the mine.

Environmental Management

The Donaldson Air Quality Management Plan (Holmes Air Sciences, 2007) details the range of measures employed by Donaldson to control airborne dust. As there was no operational activities occurring during the reporting period and the majority of the site has been rehabilitated, no specific air quality management measures were required throughout the reporting period.

Environmental Performance

One dust complaint was received during the 2016/17 Annual Review reporting period. On the 9th of October 2017 a complaint was received from a resident of Avalon Estate who was concerned that over the past 4 years there had been an increase in coal dust at their property. This 4-year period coincided with the cessation of mining activities, and rehabilitation of Donaldson mine.

A review of the dust monitoring data for the period suggests that there has been no significant change in the regional dust levels as a result of activities at the Donaldson Coal Mine compared to the previous reporting period. Seasonal variations are evident and in some cases high readings have been recorded on the Dustrak, HVAS and the Depositional Dust Gauges. These high events have been attributed to activities adjacent to the monitoring site or regional effects (other than mining) including, but not limited to, non-mine related use of dirt roads, bushfires, regional dust storms and lawn mowing.

A summary of the air quality monitoring data for the 2016/17 Annual Review reporting period is provided in **Tables 6.3** to **6.7** and **Figures 6.2** to **6.5**.

Depositional Dust Gauges

Results were recorded at nine (9) dust gauges over the 12 month period. Results were generally obtained with acceptable levels of contamination from other sources, such as insects, bird droppings and vegetation. A summary of the results is presented in **Table 6.3**.

Table 6.2 Depositional Dust Monitoring Results 2016-2017

Sample Site	No. Samples Required	No. samples collected and analysed	Maximum Insoluble Solids (g/m^2/month)	Minimum Insoluble Solids (g/m^2/month)	Annual Average Insoluble Solids (g/m^2/month)
DG1	12	12	1.0	0.2	0.49
DG2	12	12	11	0.4	2.22
DG3	12	12	3.6	0.4	1.43
DG4	12	12	8.3	0.4	1.57
DG7	12	12	6.2	0.4	1.45
DG8	12	12	1.9	0.7	1.23
DG9	12	12	1.7	0.6	1.14
DG11	12	12	1.6	0.5	1.03
DG12	12	12	6.0	0.7	1.54

During the reporting period, all gauges were in compliance with the Donaldson Air Quality Management Plans targeted air quality goals, with annual average insoluble solid results for each gauge below the Annual Average criteria of $4g/m^2$/month. Given that all mining and earthmoving activities have been completed at the Donaldson Coal Mine, results are indicative of the background environment inclusive of other local or regional sources. Figure 6.2 shows the historical average annual rolling averages for each

depositional dust gauge. Results are generally similar to or slightly higher than the previous year's results and indicate no major increase in dust emissions.

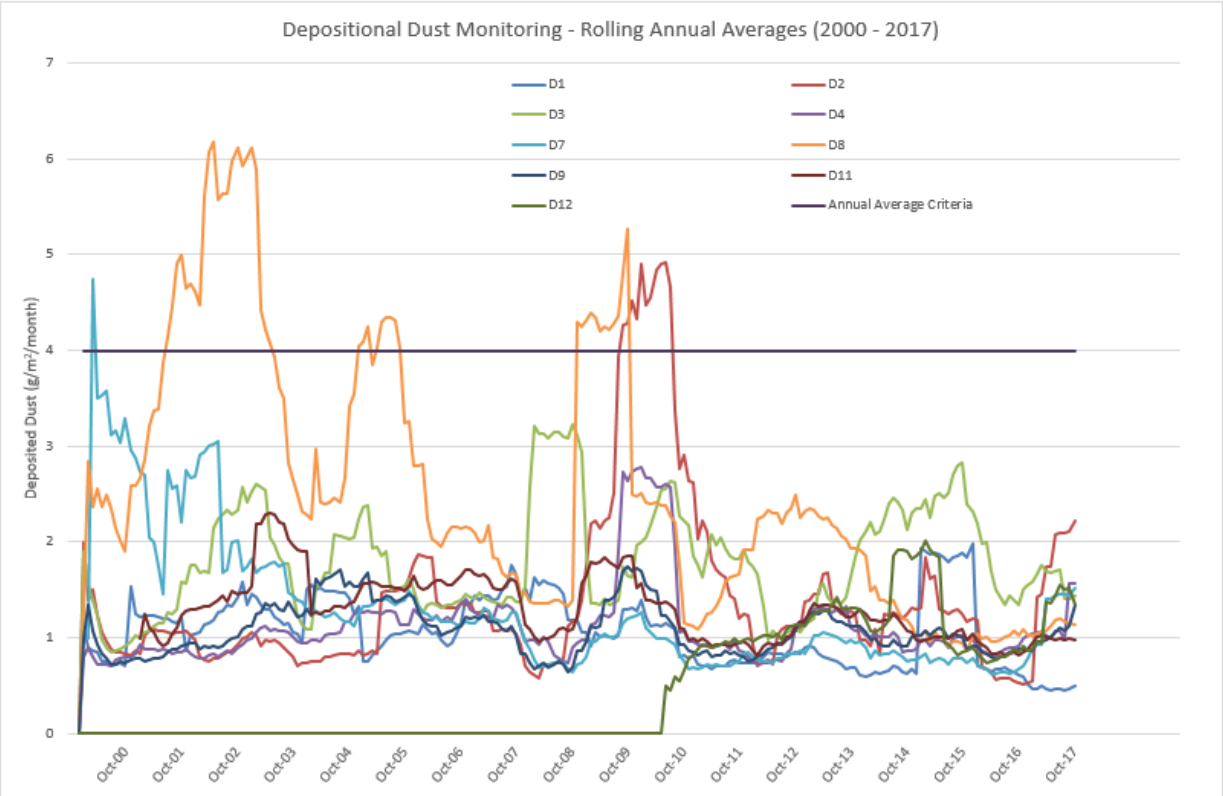


Figure 6.2 Deposited Dust Monitoring 2016 to 2017

High Volume Air Samplers

This section outlines the results of the high volume air samplers located at Blackhill Primary School and the Beresfield Golf Course. Two sets of measurements have been performed during the reporting period, PM_{10} (particulate matter of diameter less than 10 μm) and TSP (total suspended particulate matter). **Table 6.4** displays the data capture rate for the three high volume air sampler units during the period.

Table 6.3 High Volume Air Sampler Data Capture Rate

Monitoring Location	Data Capture Rate (%)
Blackhill Primary School (PM_{10})	100
Blackhill Primary School (TSP)	100
Beresfield Golf Course (PM_{10})	100

PM_{10}

The annual average PM_{10} at both monitoring sites was below the annual average maximum criteria of 30μg/m^3. The annual average PM_{10} at the Beresfield Golf Course and at the Blackhill Primary School was higher when compared to the previous 2015/16 Annual Review reporting period. A summary of PM_{10} results is displayed in **Table 6.5**.

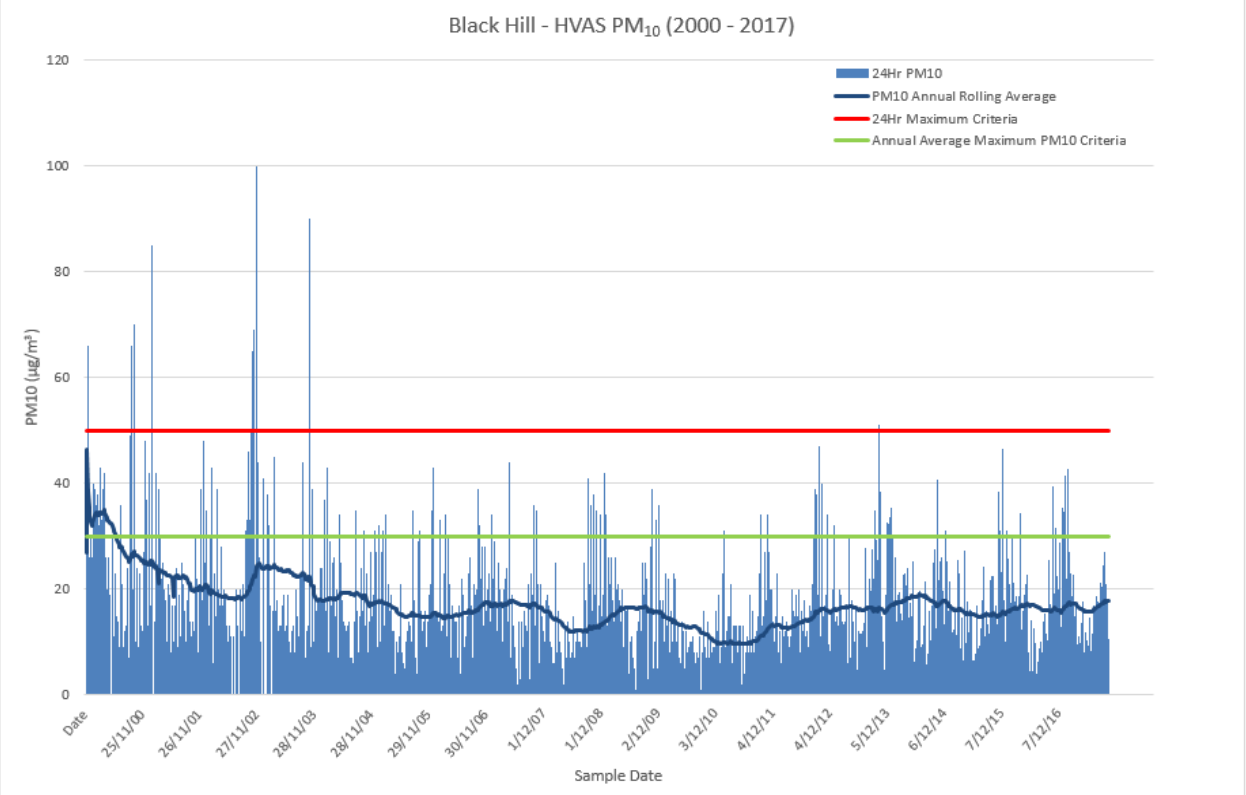
During the 2016/17 reporting period, there was one occasion where PM_{10} measurements exceeded the 24-hour NEPM maximum criteria of 50μg/m^3. On the 7th of November

2016, the PM_{10} 24 hour average at the Beresfield Golf Course recorded 52.4µg/m^3. This high level coincided with elevated levels within the region, with all 5 Newcastle EPA PM_{10} monitors recording a daily average of between 65µg/m^3 and 108µg/m^3.Further up the Hunter Valley Singleton NW recorded a daily average of 61µg/m^3.

The Beresfield Golf Course is located East of the rehabilitated Donaldson Open Cut operation. The dominant wind direction on the 7th of November was from the South and there were no operational activities occurring at Donaldson on this day.

Table 6.4 PM_{10} Monitoring Results (High Volume Air Sampler) – 2016/2017

Sample Site	No Samples Required	No samples collected and analysed	Maximum PM_{10} Value (µg/m^3)	Minimum PM_{10} Value (µg/m^3)	Mean PM_{10} Value (µg/m^3)
Blackhill Primary School	61	61	42.60	1.50	17.69
Beresfield Golf Course	61	61	52.40	2.90	20.12



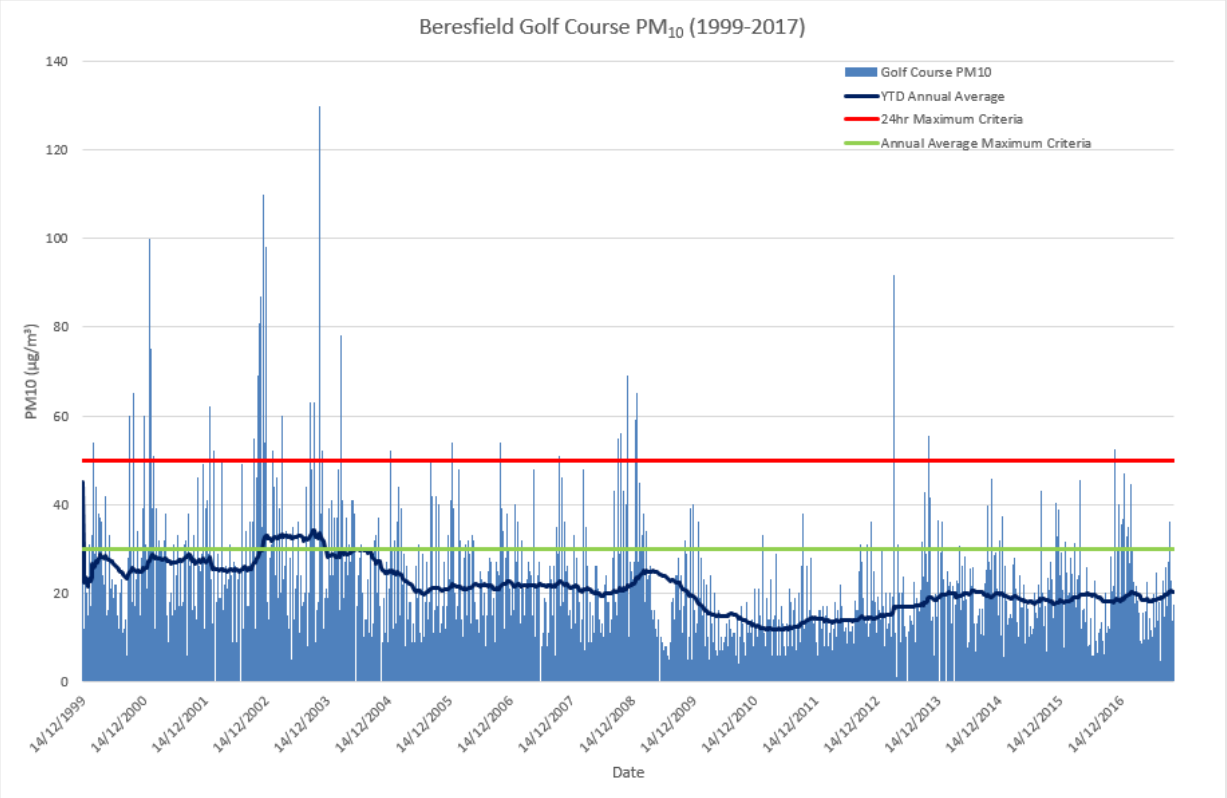


Figure 6.3 HVAS Results – PM10 (2000 to 2017)

Total Suspended Particles

The annual average TSP result at Blackhill Primary School (36.00 µg/m^3) was well below the annual average criteria of 90µg/m^3. While there are no specified criteria for a 24-hr TSP maximum in the development consents or Environment Protection License, all TSP results were well below the US EPA short term good air quality criteria of 260µg/m^3. TSP results are displayed in **Table 6.6** with the results since the commencement of monitoring shown in **Figure 6.4**.

The results recorded during this reporting period are slightly higher when compared to the corresponding measurements of the 2015/16 Annual Review reporting period. As there were no dust producing activities occurring throughout the reporting period, this continues to indicate that Donaldson has a low contribution to measured TSP. The ratio of the average PM_{10} to TSP over the 2016/17 Annual Review reporting period was 49%, which is consistent with the previous reporting period.

TSP was not modelled and no predictions were made in the EIS. However as can be seen in **Figure 6.4**, TSP levels have consistently been well below relevant criteria.

Table 6.5 TSP Monitoring Results (High Volume Air Sampler) – 2016/2017

Sample Site	No Samples Required	No samples collected and analysed	Maximum TSP Value (µg/m^3)	Minimum TSP Value (µg/m^3)	Mean TSP Value (µg/m^3)
Blackhill Primary School	61	61	84.20	7.20	36.00

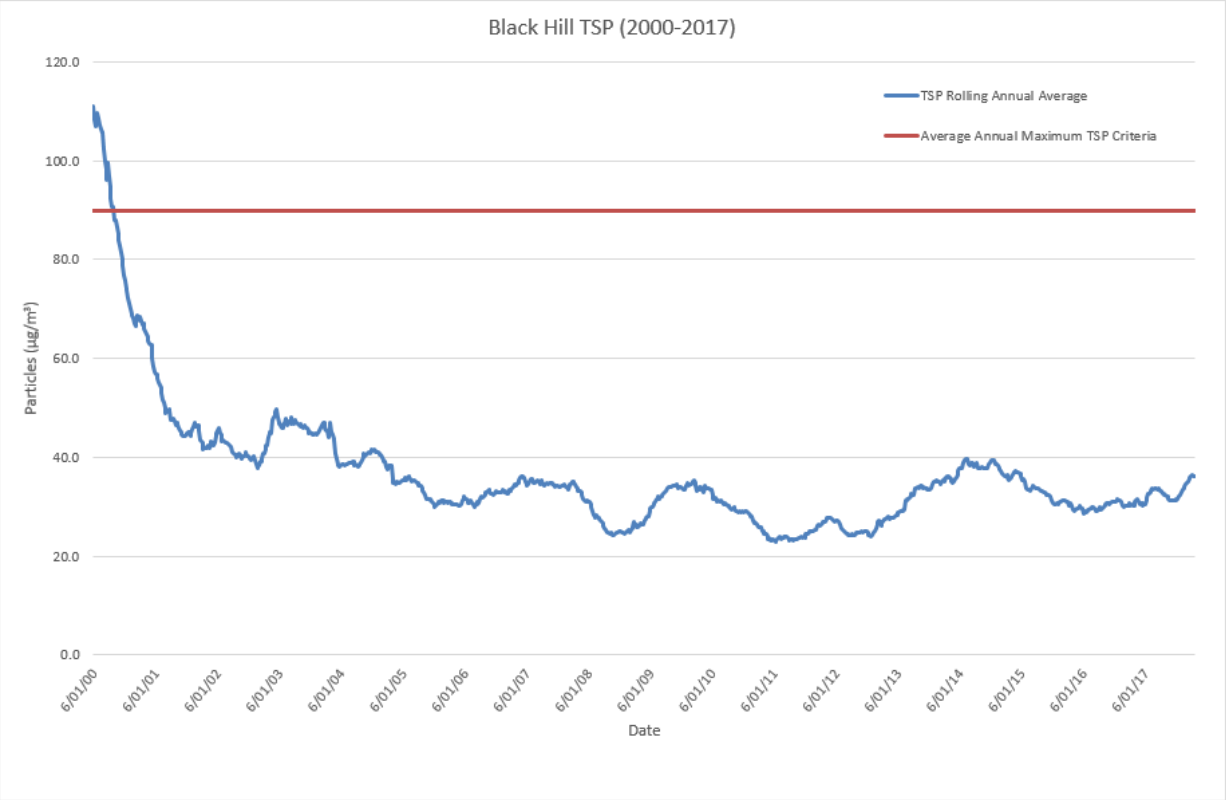


Figure 6.4 HVAS Results – TSP (2000 to 2017)

Dustrak Monitor

Donaldson operates one continuous Dustrak air quality monitor at Blackhill Primary School.

Table 6.7 summarises the Dustrak monitoring data for the reporting period. The measurement of PM_{10} by optical methods (such as the Dustrak monitors) is known to be particularly sensitive to rainfall or high humidity events. Monthly inspections of the Dustrak monitor and regular servicing of the instrument assist with reducing occasions when the measurements become unstable or drift from sensible values.

At the start of the reporting period, the Dustrak monitor experience a malfunction within the unit. When compared to the HVAS unit at the same location, as well as other regional PM_{10} data, the Dustrak data was excessively high for a period from the start of November 2017 to early February 2017. This period of erroneous data has been excluded from the monitoring results in **Figure 6.5**.

Table 6.6 Dustrak Results – 2016/2017

Site	Data collection	Days Sampled	Highest 24-hour average PM_{10}	Annual average PM_{10}	Lowest 24-hour average PM_{10}
Blackhill Primary School	Continuous	268	41.4	11.2	1.6
Note: Data in this table is for the annual reporting period 1 November 2016 to 31 October 2017 as reported by RCA Laboratories.					

The results from Dustrak monitoring are similar to those obtained from the PM_{10} High Volume Air Sampler at the Blackhill Primary School. The annual average was below the maximum NEPM annual average criteria of 30 $\mu g/m^3$ and all 24hr results were below the 24-hour NEPM maximum criteria of 50$\mu g/m^3$.

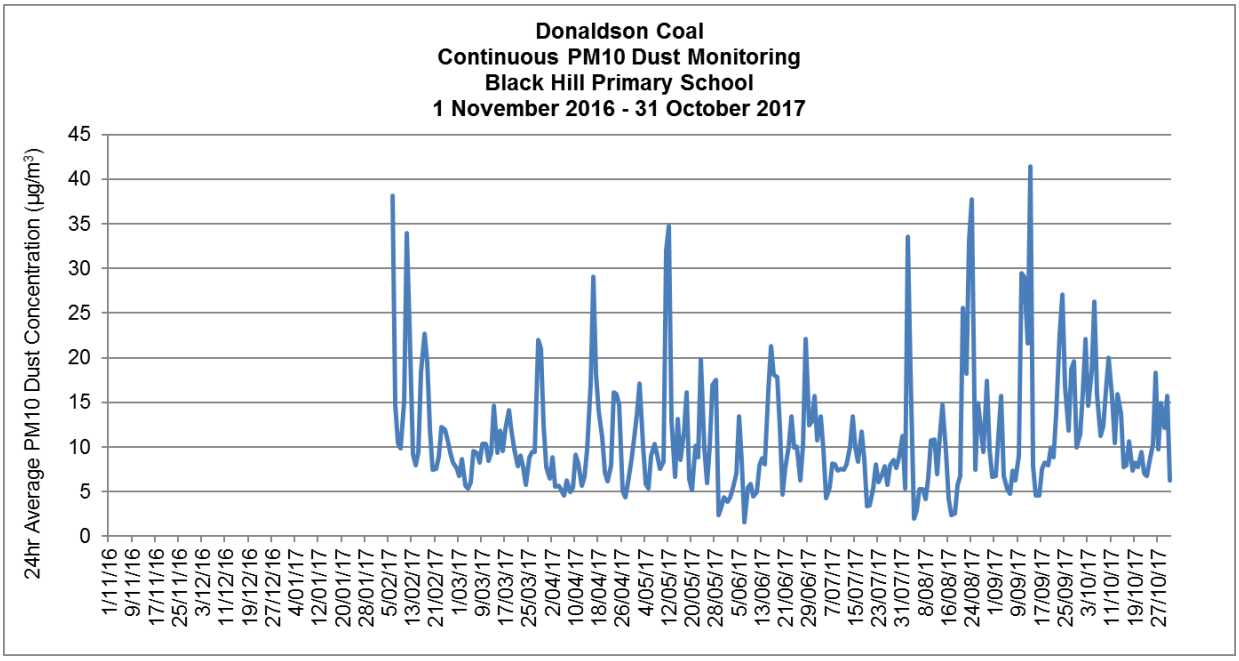


Figure 6.5 Results of Dustrak Continuous Monitoring

Reportable Incidents

No reportable air quality incidents were recorded during the 2016/17 Annual Review reporting period.

6.6 BIODIVERSITY

During the reporting period, biodiversity values have principally been managed through the ongoing implementation of the flora and fauna monitoring program for the disturbance area and compensatory habitat area. These management measures are outlined in detail within the 'Flora and Fauna Management Plan' (dated May 2007) prepared for the mine.

6.6.1 Flora

Environmental Management

Flora monitoring has been conducted through several flora surveys throughout the reporting period. Surveys have been conducted in the Bushland Conservation Area (BCA), Rehabilitation and on Tetratheca Juncea.

Annual flora quadrat monitoring has been conducted in the BCA since 2001. In 2016 nine 20 x 20m quadrats were monitored for species richness, density, floristic composition and biomass parameters. Quadrat monitoring occurs in late spring, early summer each year and aims to monitor the influence of mining activities on flora around the mine site.

Regular inspections for weeds were also undertaken during the reporting period. Weed control measures were undertaken during the reporting period and included Pampas Grass, Mother of Millions and Lantana. The primary means of controlling these weeds was through herbicide use and manual removal.

Management and monitoring of flora within rehabilitation areas is discussed in **Section 8.2.**

Environmental Performance

The following extract is from the '2016 Annual Flora and Fauna Monitoring' report and summarises results from the flora surveys.

> *'The 2016 flora survey results show that the floristic composition of the monitoring sites are similar to the previous year, with an overall increase in plant species richness and structural components since the baseline survey in 2001. This trend is indicative of a dynamic plant community with high recruitment from the seed pool, normally an indicator of a healthy, regenerating native plant community. While the species composition recorded in each quadrat has changed slightly over the entire survey period, the number of species identified within each quadrat has remained relatively consistent over time. These minor changes are most likely due to fluctuations in flowering times, particularly of annual herbaceous and orchid species, most likely caused by variation in climatic conditions and/or the life cycle of the species.*
>
> *All biomass variables examined (i.e. basal area, height, foliage projective cover (FPC) and stand volume), have shown consistent and substantial increases over the last 16 years since the baseline survey in 2001. The regression analyses also confirmed that the relationship between time and increases in FPC and stand volume were highly significant indicating that the community biomass has increased substantially across time with no significant year-to-year variation from 2001 to 2016.*
>
> *Overall findings of the 2016 monitoring event conclude that there have been no significant negative impacts on floristic diversity within the Donaldson Bushland Conservation Area (BCA) over the last 16 years.'*

There are no proposed improvements to the management of flora in the BCA in the next reporting period**.**

Tectratheca Juncea

There was one species of threatened flora identified during the EIS, *Tetratheca Juncea* (Black-eyed Susan). As a result a Tetratheca Juncea Management Plan was developed by (Gunninah, 2000a). The aim of the plan is to provide a comprehensive program for the *Tetratheca Juncea* population in the south western portion of the mine site.

A survey and identification report (Gunninah, 2000b) was completed, which located the boundaries of the population and defined the limit of the conservation precinct. Subsequent works during 2001 and 2002 has extended the boundary and up to an additional two hundred (200) plants have been found during routine monitoring and vegetation characterisation.

In addition, approximately four hundred (400) plants have been discovered during routine pre-clearing surveys and monitoring episodes. A large proportion of these plants

fall outside of the active mine area, adding further conservation significance to the area(s) identified and managed by Donaldson as the Tetratheca Juncea Conservation Area (TJCA) (as discussed below).

In 2005, a design was developed for the experimental translocation of *Tetratheca Juncea* from the planned mine disturbance area. The relocation is a management technique addressed in the Tetratheca Juncea Management Plan (Gunninah 2000a).

The experimental design for the translocation was based on a study currently being conducted in the Gwandalan area (Ecobiological, 2005). The ongoing monitoring of the translocated plants will focus on collecting data and information about the circumstances under which the plants are growing. Each plant and each recipient site has been photographed following translocation and will be photographed every twelve months for 5 years. The plants were monitored and watered on a weekly basis for 6 weeks post planting to help ensure maximum initial survival and will be inspected twice per year for the five-year period.

Environmental Management

The following control measures are employed at the mine in order to ensure a high level of conservation for the threatened plant species *Tetratheca Juncea*:

- The protection of 650ha of bushland around the mine to conserve habitat;
- The reduction of the proposed mining footprint and the establishment of a conservation precinct protecting a known population of *Tetratheca Juncea*;
- Ongoing mapping and management protocols; and,
- Pre-clearing surveys by a qualified biologist prior to any clearing activities.

General flora monitoring undertaken at the mine has included:

- Woody debris survey;
- Flora quadrant monitoring;
- Biomass assessment;
- Floristic identification;
- Foliage projective cover assessment; and,
- Tree height and basal area assessment.

Environmental Performance

A baseline report was completed in January 2003 by Barker Harle. This report describes the implementation of the Tetratheca Juncea Management Plan and includes baseline information for use in subsequent reports. Subsequent monitoring and reporting is undertaken on an annual basis.

The following is an excerpt from the findings of the 'Annual Survey of the Tetratheca *juncea* Conservation Area 2016' (Kleinfelder, 2017).

> *"The monitoring data continues to show a declining population since monitoring began in 2001, up to 2014, with a small recovery in the last two years. It is too early to say whether this recovery indicates that the population is becoming stable. Evidence points to Tetratheca juncea being out-competed by other ground species. Overall, this report builds on previous reports in demonstrating that the TjCA population would benefit from a fire. This would both reduce the current level of competition and provide more nesting areas for tunnelling native bee pollinators.*

However, despite the lack of burning, this long-term monitoring program is providing invaluable data about the dynamics of a Tetratheca juncea population.'

Reportable Incidents

No reportable flora related incidents were recorded during the 2016/17 Annual Review period.

6.6.2 Fauna

Several species of threatened fauna were identified during the EIS and supplementary reports, including both the areas proposed for mining and the immediate environs. They include the following:

- The Powerful Owl;
- The Masked Owl;
- The Barking Owl;
- Sooty Owl;
- Varied Sittella;
- Yellow-bellied Sheathtail Bat;
- Eastern Bent-wing Bat;
- Eastern Freetail Bat;
- Eastern Cave Bat;
- Greater Broad-nose Bat;
- Little Bent-winged Bat;
- Southern Myotis;
- Little Lorikeet;
- Squirrel Glider.
- Eastern False Pipistrelle

Environmental Management

To ensure a high level of conservation for the threatened fauna species found on the site, the following measures have been taken:

- The protection of 650ha of bushland around the mine to conserve habitat;
- Ongoing survey and management protocols;
- Routine annual quadrant monitoring,
- Placement of nest boxes in the Bushland Conversation Area to replace nesting sites destroyed by clearing;
- Ongoing and progressive rehabilitation of disturbed areas.

The following fauna monitoring activities were undertaken during the 2016/17 reporting period:

- Small mammal trapping;
- Insectivorous bat harp trapping;
- Insectivorous bat call recording;
- Owl call playback;
- Spotlighting;
- Bird surveys; and,
- Nest box monitoring.
- Amphibian and reptile surveys

These monitoring activities were carried out during summer and winter surveys, as well as a recolonisation survey of the rehabilitated areas at the mine.

Environmental Performance

The following extract is from the '2016 Annual Flora and Fauna Monitoring' report and summarises results from the fauna surveys.

> *'The 2016 survey detected a total of 98 fauna species consisting of 58 bird, five arboreal and seven terrestrial mammal, 17 bat, seven amphibian and four reptile species. Six of the bat species are listed as threatened under the NSW Threatened Species Conservation Act 1995. The fauna survey results were found to be similar to previous years with no significant decrease or increase in species richness following the 2016 survey. Two threatened owl species, Sooty Owl (Tyto tenebricosa) and Masked Owl (Tyto novaehollandiae) were detected in 2016. The Sooty Owl had not been recorded since the baseline surveys in 2001.*
>
> *Nest box surveys in 2016 (winter and summer average) saw 60.5% of all available boxes showing signs of use (both actual animals present and evidence of usage). Nest box utilisation continues to trend down as more boxes are becoming unavailable largely due to aging materials. Utilisation also appears lower in 2016 as a number of new nest boxes have been installed which are gradually being inhabited over several years. The number of unavailable nest boxes (due to broken lids, termite infestation, or box decay) continues to increase with 14% currently uninhabitable and a further 22% requiring urgent repair or replacement. Maintenance of the nest boxes should occur in 2017 to ensure that nesting resources are available for arboreal fauna in the area and for comparability of data between years.'*

Reportable Incidents

No reportable Fauna related incidents were recorded during the 2016/17 reporting period.

6.7 HERITAGE

The following section outlines the commitment made by Donaldson for the protection of cultural and natural heritage of the area. A copy of a plan along with a summary table showing the known Aboriginal Cultural heritage sites is attached as **Appendix 2** of this report.

To date thirty-one (31) sites of Aboriginal Cultural Heritage have been identified on property owned by Donaldson. None of these sites were in areas that were impacted on by site activities during the 2016/17 Annual Review period.

No European heritage sites have been identified at the mine.

Archaeological Studies

The mine has been the subject of four archaeological studies since 1998. During each study the principal aims have been to:

- Consult and involve the Aboriginal Community at every stage of the investigation and to provide continuous opportunities for the Aboriginal Community (through the LALC) to participate in the interpretation and decision making process;

- Identify and record by field survey the material evidence of Aboriginal cultural heritage or locations of potential evidence with the land owned by Donaldson;
- Assess the archaeological significance and understand the Aboriginal significance of material evidence of Aboriginal cultural heritage of the study area; and,
- Assess the impacts of the mine on Aboriginal Cultural Heritage.

Management

In accordance with Conditions 84, 85 and 86 of the Development Consent, Donaldson has prepared an Aboriginal Sites Management Plan for the mine. Separate plans were produced for each year of operation at the mine. This provided a better opportunity to address specific issues for each year as well as an opportunity to review and address the management of Aboriginal Sites both inside the mine impact area and within associated bushland areas surrounding the mine.

The following control measures have been employed at the mine in order to ensure that reasonable duty of care is taken to ensure sites of Aboriginal cultural significance are not knowingly disturbed or destroyed:

- The MLALC is actively involved in the management of Aboriginal Sites at Donaldson; and,
- Representatives of the Lands Council are invited on site to monitor clearing and topsoil stripping activities.

Performance

Donaldson and MLALC enjoy a good working relationship and to date there have been no complaints or incidents recorded in relation to the management of sites of Aboriginal cultural heritage.

Reportable Incidents

No reportable incidents were recorded during the 2016/17 reporting period.

7. WATER MANAGEMENT

7.1 SURFACE WATER

The Water Management Plan (Perrens, 2000) details the measures employed by Donaldson to ensure protection of surface water on and around the mine site. Surface water monitoring has been ongoing since June 2000. A plan showing the location of the water monitoring sites is provided in **Appendix 1**. Routine sampling and analysis is undertaken at six (6) permanent surface water stream monitoring locations, when in flow. Opportunistic samples are also taken from various other locations around the mine area as required (sediment dams and mine water storage dams). The surface stream water monitoring sites include:

- Four Mile Creek Upstream (EM1);
- Four Mile Creek Downstream (EM2);
- Scotch Dairy Creek Upstream (EM3);
- Scotch Dairy Creek Downstream (EM4);
- Weakley's Flat Creek Downstream (EM5); and
- Weakley's Flat Creek Upstream (EM6).

Samples collected from the six existing stream sites are analysed for Electrical Conductivity (EC), pH, Total Dissolved Solids (TDS), Total Suspended Solids (TSS) and Sulfates (SO_4), on a monthly basis. A full suite analysis is also carried out on a quarterly basis and includes analysis for Electrical Conductivity (EC), pH, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), Sulfates (SO_4), Calcium (Ca), Magnesium (Mg), Sodium (Na), Potassium (K), Chloride (Cl), Fluoride (Fl), Arsenic (As), Aluminium (Al), Barium (Ba), Cadmium (Cd), Cobalt (Co), Copper (Cu), Chromium (Cr), Iron (Fe), Manganese (Mn), Lead (Pb), Zinc (Zn), Total Alkalinity as $CaCO_3$, Turbidity, Nitrates and Phosphates (total).

In addition to the physical and chemical water quality work, biological monitoring (macroinvertebrates), has been ongoing as part of the environmental impact assessment. The program consists of:

- A pre-mining baseline survey;
- A construction survey; and
- Twice yearly operational surveys.

Two monitoring surveys were completed during the 2016/17 reporting period, during May 2017 and September 2017.

Environmental Management

The following control measures are employed at Donaldson to ensure an appropriate level of protection to surface water on and around the mine site:

- Minimal disturbance;
- Source separation in order to separate water of differing quality;
- Collection and containment of mine water for dust suppression; and,
- Grey water and sewerage is treated by bio-cycle technology.

In addition to these measures, inspections of drainage channels and structures were undertaken throughout the reporting period. No stabilisation or remedial works were required.

Environmental Performance

There were no water-related complaints or incidents during the 2016/17 reporting period.

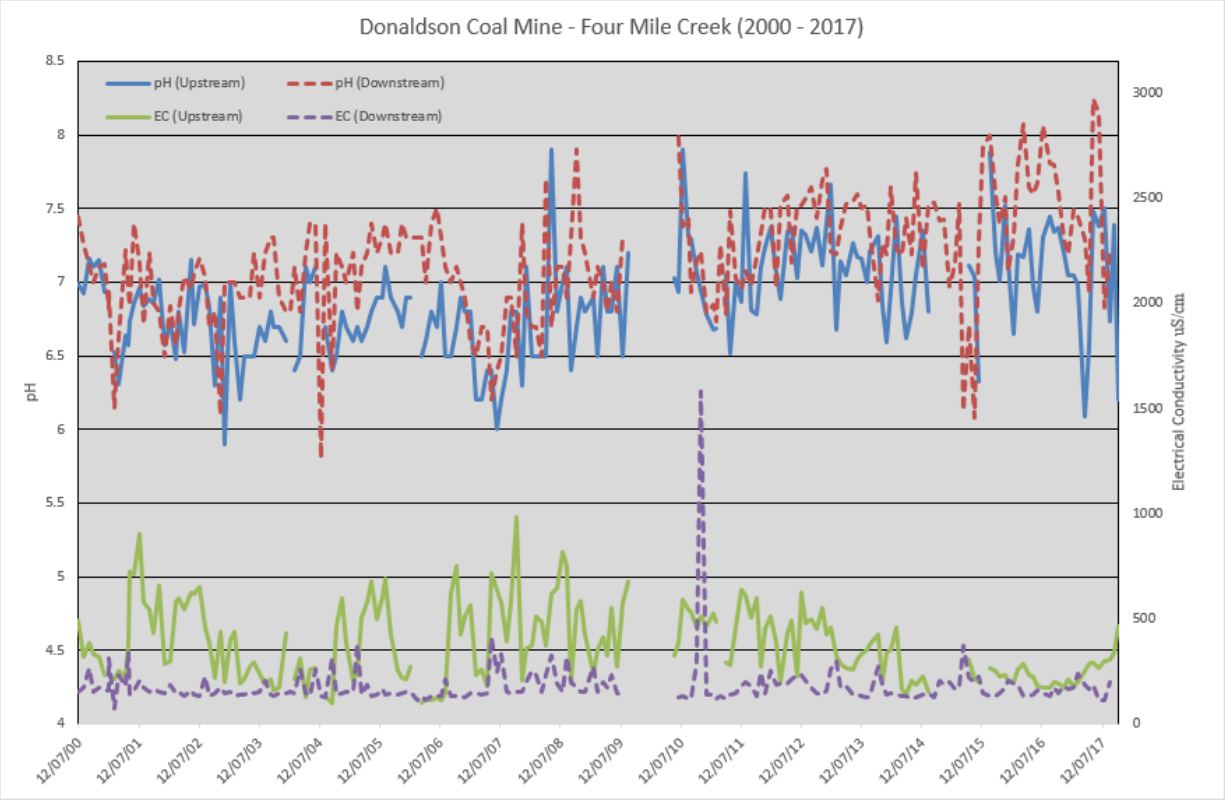
Chemical and Physical Monitoring

A summary of three key parameters, required by the EPA Environmental Protection Licence, for the reporting period as well as the pre-mining baseline is included in **Table 7.1**. Monitoring results for pH and EC since the year 2000 are also presented graphically in **Figure 7.1** to assist in identifying trends.

Table 7.1 Summary of Surface Water Quality Monitoring Results – 2016/2017

Sample Site	Pre-mining	2016		2017									
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Rainfall (mm)													
-	-	44.5	41.8	66.9	71.7	150.4	94.5	12.7	128.5	3.2	6.0	12.6	77.7
pH													
FMCU	*6.70 - 7.44*	7.2	7.05	7.05	6.98	6.09	6.55	7.48	7.38	7.5	6.73	7.39	6.2
FMCD	*6.40 - 7.73*	7.62	7.29	7.19	7.49	7.45	7.29	6.94	8.24	8.15	6.83	7.22	8.15
SDCU	*5.90 - 6.81*	6.92	6.98	6.79	6.93	5.46	5.83	6.91	7.58	7.25	7.49	6.09	7.46
SDCD	*5.80 - 6.80*	6.58	6.55	6.63	Dry	5.72	5.56	7.6	6.82	6.49	6.97	6.42	6.62
WFCU	*6.60 - 7.49*	7.04	7.14	7.33	7.42	6.83	6.92	5.65	7.22	7.45	7.39	7.43	7.39
WFCD	*6.40 - 7.28*	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Electrical Conductivity (µS/cm)													
FMCU	*265 – 522*	175.1	213.9	181.7	198.3	252.9	289	291	267	298	303	340	468
FMCD	*120 - 265*	145.2	176.6	164.4	173.2	241	186.6	168.6	186	110.1	110.8	202.3	225
SDCU	*71 - 200*	236	250.3	257	306	306	253	270	197.8	219	222	245.5	285
SDCD	*145 - 270*	89	129.7	125.9	Dry	226.4	243	266	164.8	204.9	195.3	212.1	244
WFCU	*200 - 310*	171.2	219.4	189.4	175.2	314	243	253	234	157.2	116.9	132.3	156.8
WFCD	*230 - 546*	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Total Suspended Solids (mg/L)													
FMCU	*32 - 180*	8	30	22	23	8	6	<5	8	14	122	<5	23
FMCD	*2 - 32*	<5	<5	9	5	9	<5	<5	5	<5	86	<5	<5
SDCU	*9 – 47*	17	30	41	48	8	6	26	9	11	19	19	52
SDCD	*12 - 1283*	17	12	65	Dry	10	6	20	14	15	14	18	6
WFCU	*1 – 3*	<5	<5	15	11	12	<5	18	9	<5	15	<5	8
WFCD	*3 - 17*	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry

Mean monthly pH values for stream-monitoring locations were generally comparable to the pre-mining pH levels. The pH of Scotch Dairy Creek Upstream and Downstream, Four Mile Creek Upstream and Weakley's Flat Creek Upstream all recorded pH levels below the ANZECC Guideline recommended minimum pH of 6.5 on at least one occasion during the reporting period. All sites remained below the ANZECC Guideline recommended maximum pH of 9.0. This is consistent with pre-mining pH levels. There are no obvious trends in pH with fluctuations generally consistent between upstream and downstream results. As such, it appears that the activities of the mine in this reporting period have not affected the pH of the surrounding stream environments.


Donaldson Coal Mine - Four Mile Creek (2000 - 2017)
pH (Upstream)
pH (Downstream)
EC (Upstream)
EC (Downstream)
pH
Electrical Conductivity uS/cm
8.5
8
7.5
7
6.5
6
5.5
5
4.5
4
3000
2500
2000
1500
1000
500
0
12/07/00
12/07/01
12/07/02
12/07/03
12/07/04
12/07/05
12/07/06
12/07/07
12/07/08
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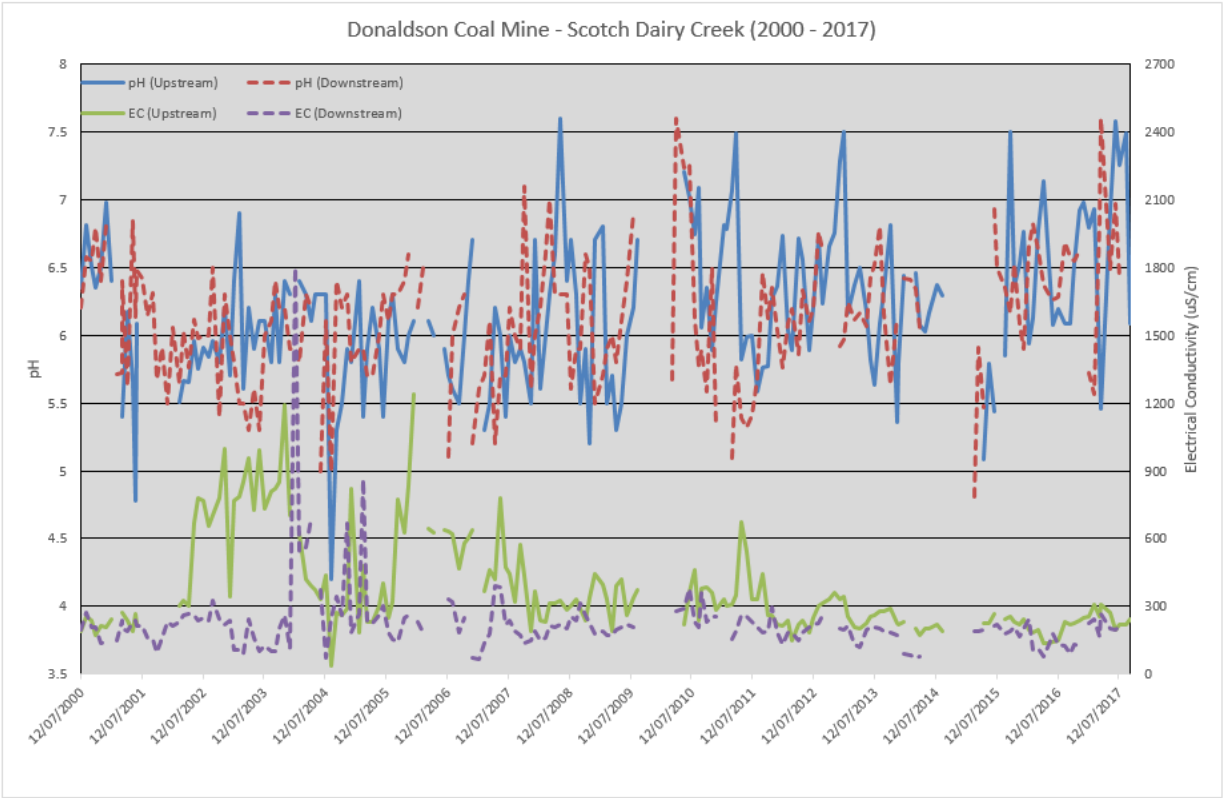
Donaldson Coal Mine - Scotch Dairy Creek (2000 - 2017)
pH (Upstream)
pH (Downstream)
EC (Upstream)
EC (Downstream)
pH
Electrical Conductivity (uS/cm)
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
2700
2400
2100
1800
1500
1200
900
600
300
0
12/07/2000
12/07/2001
12/07/2002
12/07/2003
12/07/2004
12/07/2005
12/07/2006
12/07/2007
12/07/2008
12/07/2009
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12/07/2014
12/07/2015
12/07/2016
12/07/2017

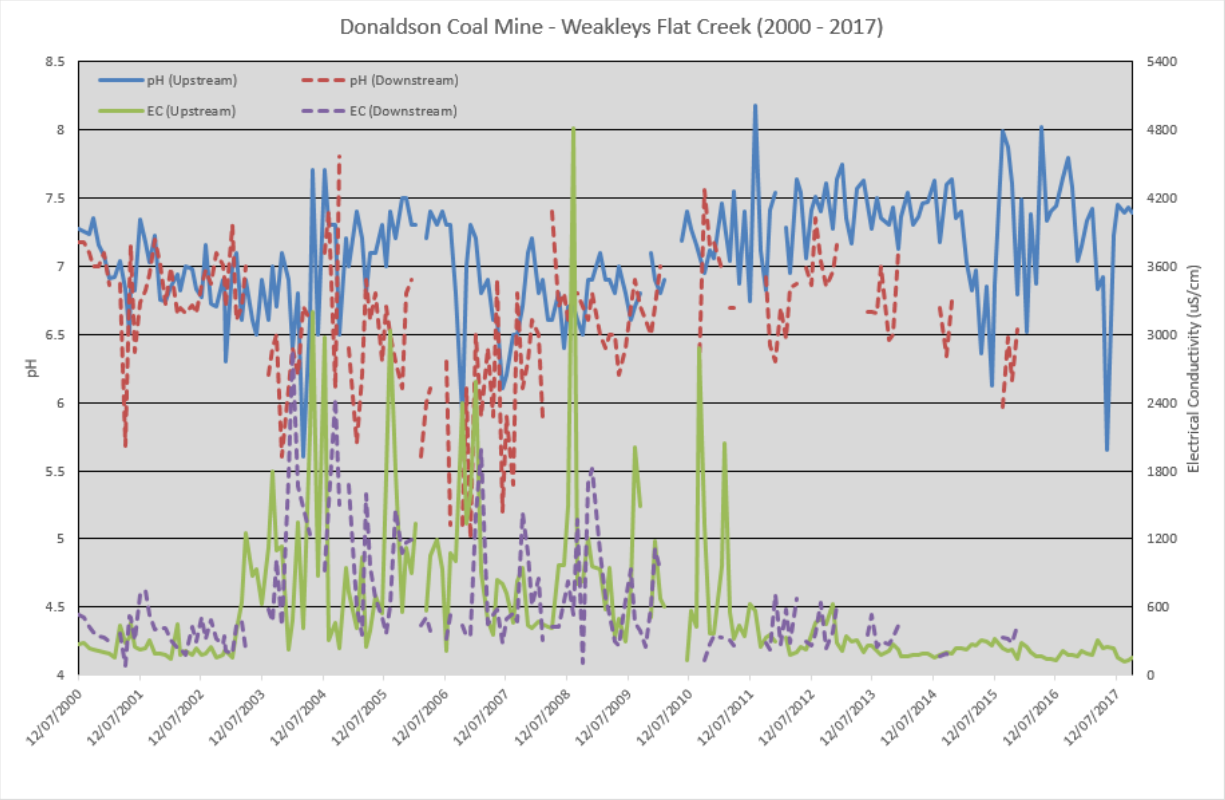


Figure 7.1 Surface Water Monitoring – 2000 to 2017

During the reporting period, the mean EC values were similar to the pre-mining values being slightly higher or lower at each site. Since monitoring commenced in the year 2000, at the Four Mile Creek and Scotch Dairy Creek sites, with a few exceptions, the EC at the downstream sites has been consistently lower or similar to the upstream sites (see **Figure 7.1**). No downstream samples for Weakleys Flat Creek were able to be collected during the reporting period due to dry conditions. However, previous monitoring results show that both the upstream and downstream EC levels vary to a substantially greater extent than the Four Mile and Scotch Dairy Creek sites. Overall, the available results suggest that the mine is having a negligible impact on the EC of surface waters in the surrounding area.

During the reporting period, the annual mean TSS values at monitoring locations were generally similar to the respective pre-mining levels. There were 3 occasions when TSS recorded above the standard criteria of 50mg/L. This included TSS in August 2017 at Four Mile Creek of 122mg/L upstream and 86mg/L downstream. The other occasion was in January 2017 where Scotch Dairy Creek Downstream recorded 65mg/L. These results are consistent or lower than pre-mining TSS levels. These results suggest that the mine is having a negligible impact on the TSS of surface waters in the surrounding area.

Biological Monitoring

Assessment of stream fauna is used to assess areas of environmental stress through the diversity of the macroinvertebrate population and the presence of pollutant sensitive or pollutant tolerant species. Macroinvertebrate monitoring was undertaken in autumn (May 2017) and spring (September 2017) by Niche Environment and Heritage. Six sites are targeted on the three major tributaries traversing the mine site. **Tables 7.2** and **7.3** include the results.

The streams in the study area tended to show moderate diversity of fauna indicative of fair water quality. However, all sites were populated by several pollutant sensitive families of invertebrates.

Table 7.2 Macroinvertebrate Monitoring Diversity and Signal Index - 2017

Site number	Number of Taxa		SIGNAL2		SIGNAL2 weighted	
	Autumn	Spring	Autumn	Spring	Autumn	Spring
SDCU	19	20	3.05	4.35	2.45	4.03
SDCD	10	11	4.10	3.38	5.13	3.82
WFCU	9	22	3.44	4.24	3.07	4.41
WFCD	10	12	3.70	3.45	4.33	4.17
FMCU	11	15	4.36	3.79	4.57	4.19
FMCD	22	9	4.14	3.88	3.61	4.32

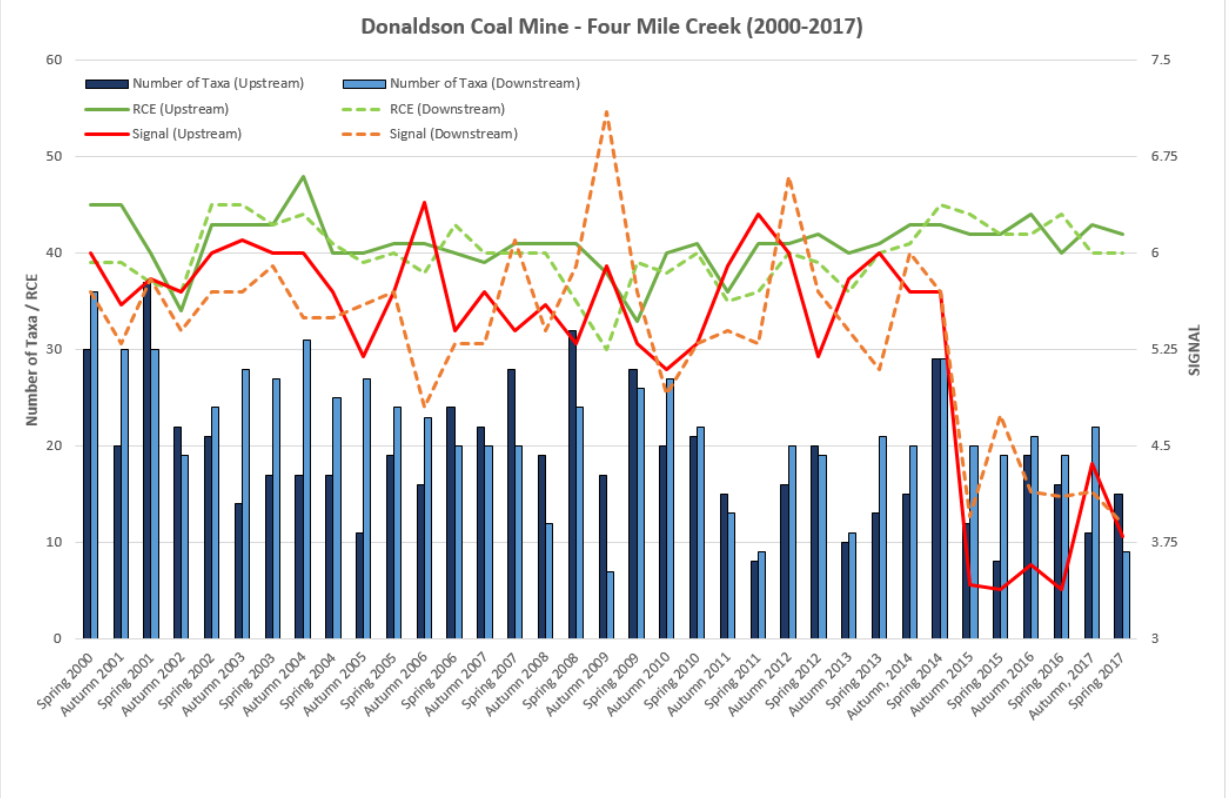
At each site a detailed field observation sheet was completed covering riparian (stream bank) vegetation, stream geomorphology, visual characteristics and odour. A Riparian Channel Environmental (RCE) ranking was calculated following the assessment which evaluates the condition of the:

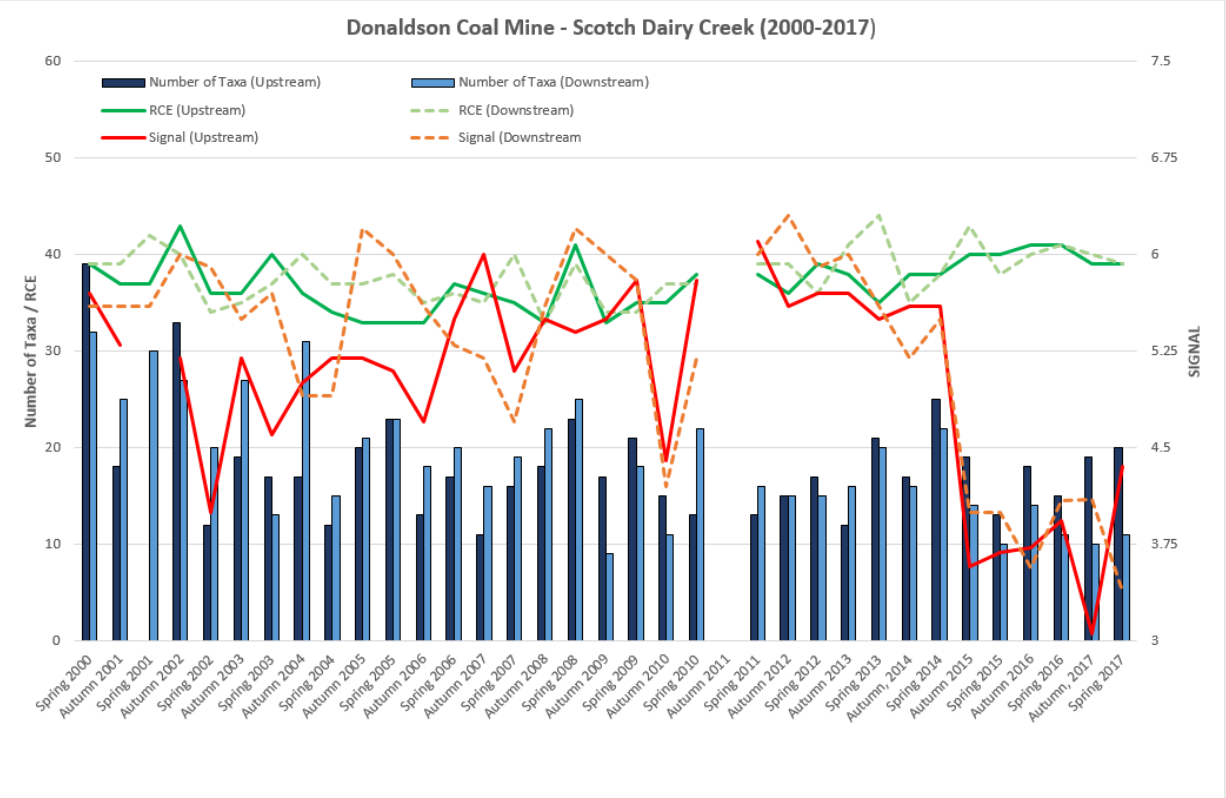
- Adjacent land;
- Banks;
- Channel & bed (includes in-stream vegetation and algae); and
- Riparian vegetation.

The following **Table 7.3** shows the RCE inventory scores of each site. An RCE score greater than 40 indicates a stream considered to be in good condition with potential for higher biodiversity values. RCE Scores of 20-40 indicate a stream is in moderate condition and below 20 indicates that the stream is in very poor condition.

Table 7.3 RCE Rankings - 2017

Site	Scotch Dairy Creek upstream	Scotch Dairy Creek downstream	Weakleys Flat Creek upstream	Weakleys Flat Creek downstream	Four mile creek upstream	Four mile creek downstream
RCE Score **Autumn**	39	40	43	39	43	40
RCE Score **Spring**	39	39	42	39	42	40


Donaldson Coal Mine - Four Mile Creek (2000-2017)
Number of Taxa (Upstream)
Number of Taxa (Downstream)
RCE (Upstream)
RCE (Downstream)
Signal (Upstream)
Signal (Downstream)
Number of Taxa / RCE
SIGNAL
0
10
20
30
40
50
60
3
3.75
4.5
5.25
6
6.75
7.5
Spring 2000
Autumn 2001
Spring 2001
Autumn 2002
Spring 2002
Autumn 2003
Spring 2003
Autumn 2004
Spring 2004
Autumn 2005
Spring 2005
Autumn 2006
Spring 2006
Autumn 2007
Spring 2007
Autumn 2008
Spring 2008
Autumn 2009
Spring 2009
Autumn 2010
Spring 2010
Autumn 2011
Spring 2011
Autumn 2012
Spring 2012
Autumn 2013
Spring 2013
Autumn, 2014
Spring 2014
Autumn 2015
Spring 2015
Autumn 2016
Spring 2016
Autumn, 2017
Spring 2017


Donaldson Coal Mine - Scotch Dairy Creek (2000-2017)
Number of Taxa (Upstream)
Number of Taxa (Downstream)
RCE (Upstream)
RCE (Downstream)
Signal (Upstream)
Signal (Downstream
Number of Taxa / RCE
SIGNAL
0
10
20
30
40
50
60
3
3.75
4.5
5.25
6
6.75
7.5
Spring 2000
Autumn 2001
Spring 2001
Autumn 2002
Spring 2002
Autumn 2003
Spring 2003
Autumn 2004
Spring 2004
Autumn 2005
Spring 2005
Autumn 2006
Spring 2006
Autumn 2007
Spring 2007
Autumn 2008
Spring 2008
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Autumn 2010
Spring 2010
Autumn 2011
Spring 2011
Autumn 2012
Spring 2012
Autumn 2013
Spring 2013
Autumn, 2014
Spring 2014
Autumn 2015
Spring 2015
Autumn 2016
Spring 2016
Autumn, 2017
Spring 2017

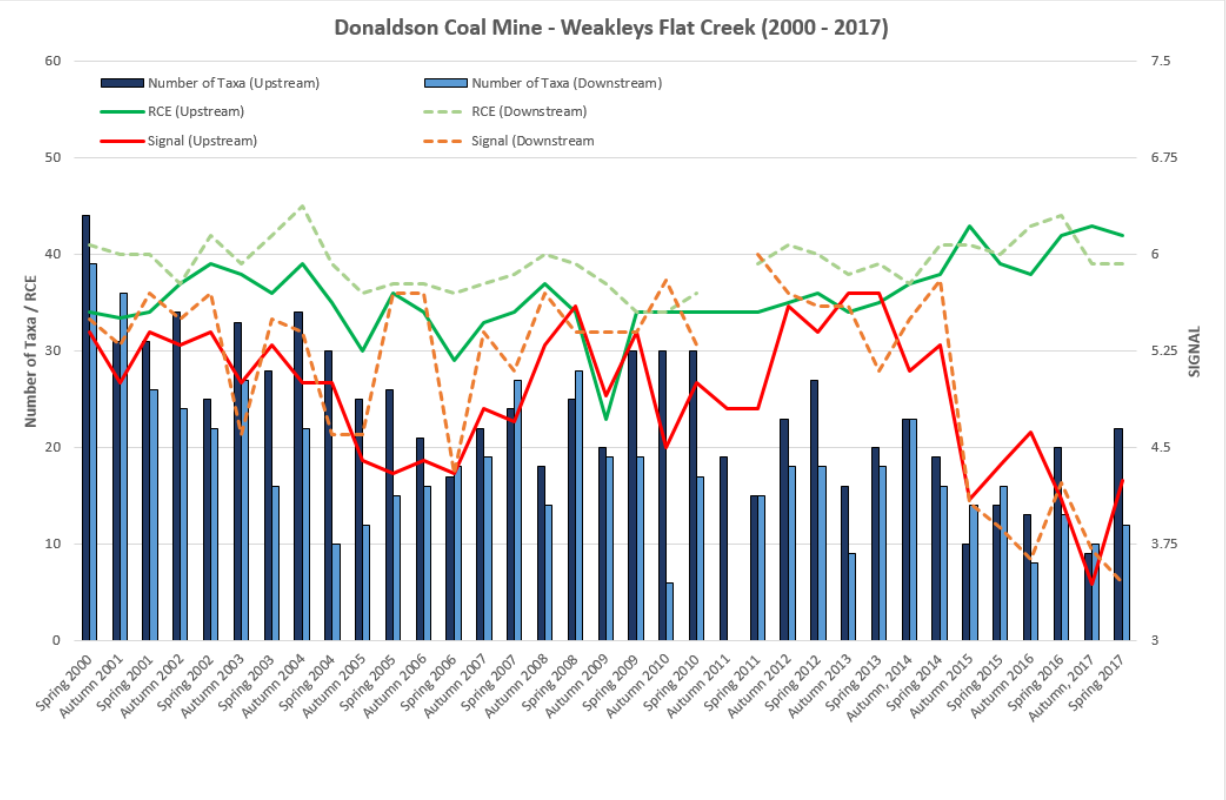


Figure 7.2 Biological Monitoring 2000 – 2017

The Aquatic Monitoring Report of Spring 2017 concluded that;

> *'Sites downstream of Donaldson Coal operations were found to have good riparian and channel morphology. The macroinvertebrate community is in reasonable health despite some low-moderate SIGNAL scores. The water level was low and there was lack of flow which is characteristic of ephemeral streams. Invertebrates that inhabit these streams are generally pollution tolerant and as such the invertebrates using these environments are adapted to extremes in water/habitat availability. Water quality was consistent with what would be expected for ephemeral streams in the area. There appears to be no further changes in stream health since previous monitoring that are likely a result of Donaldson Coals operations.'*

Reportable Incidents

No reportable incidents were recorded during the 2016/17 reporting period.

7.2 GROUNDWATER

The Water Management Plan (Perrens, 2000) details the measures employed by Donaldson to ensure protection of groundwater on and around the mine site.

Groundwater monitoring has been ongoing since June 2000. The groundwater monitoring locations at the mine were reviewed by the (then) DEC (EPA) as part of the EPL license review. There are now seven (7) current monitoring sites, the locations of which are provided in **Appendix 1**.

Environmental Management

The groundwater piezometers are monitored to determine impacts on both Standing Water Levels (SWL) and groundwater quality. A regional site was included in the monitoring program, REG DPZ1. It is located in Avalon Estate approximately 1.2km to the north of the mine.

Samples collected from the seven (7) bores are analysed for Electrical Conductivity (EC), pH, Total Dissolved Solids (TDS), Total Suspended Solids (TSS) and Sulfates (SO_4), on a monthly basis. A full suite analysis is also carried out on a quarterly basis and includes analysis for Electrical Conductivity (EC), pH, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), Sulfates (SO_4), Calcium (Ca), Magnesium (Mg), Sodium (Na), Potassium (K), Chloride (Cl), Fluoride (Fl), Arsenic (As), Aluminium (Al), Barium (Ba), Cadmium (Cd), Cobalt (Co), Copper (Cu), Chromium (Cr), Iron (Fe), Manganese (Mn), Lead (Pb), Zinc (Zn), Total Alkalinity as CaCO3 and Turbidity.

The standing water level of each of the monitoring wells is measured each month, as metres below ground level.

Environmental Performance

There were no groundwater-related complaints received by Donaldson during the reporting period. In addition, monthly water monitoring results were routinely reviewed to determine whether there were any changes as a result of activities at the mine.

A summary of the three key parameters required by the EPL (pH, EC and the Standing Water Level) for the 2016/17 reporting period as well as the pre-mining baseline is included in **Table 7.4**.

Standing Water Levels

REGDPZ-1: Regional control bore located in strata well below the Donaldson Seams. Shows gentle change in SWL in response to long-term rainfall pattern, declining gradually from 2000 to 2005 (a period of below average rainfall), and rising gradually from 2007 to 2013 (a period of slightly above average rainfall). Since 2013 the SWL has been relatively stable.

DPZ3: Located in the open cut area and screened in coal measures below Donaldson Seam. An unexplained rise in water level was recorded from 2004 to 2010 followed by a decline which was a response to mining from the Donaldson Open Cut. Over the past 12 months there has been general trend of a lowering SWL.

DPZ6: Showed drawdown during latter stages of the Donaldson Open Cut and then more pronounced drawdown once development of the Abel Underground South Mains started

in April 2008. A partial recovery was subsequently evident during 2013 to 2016, probably due to recovery within in the completed Donaldson Open Cut.

DPZ8: Screened in Donaldson and Big Ben Seams. Responded to mining in the Donaldson Open Cut in 2007 and then slight post-mining recovery. Water level steady since 2014.

DPZ10: Screened in the Beresfield Seam. and shows modest open cut mining effect from 2001 to 2006, then modest recovery, and more recent response to Abel Underground mining from 2011. SWL remained steady in the 2016-17 reporting period.

DPZ13: Screened in Donaldson Seam overburden, and showed no response to open cut mining, but clear response to Abel Underground mining from early 2012. Groundwater level has remained consistent since 2013.

Table 7.4 Summary of Groundwater Monitoring Results – 2016/2017

Sample Site	Pre-mining	Site Average[1]	2016		2017									
			Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
pH														
REG DPZ-1	*NA*	*5.54*	5.36	5.21	5.23	5.19	5.12	5.18	5.4	5.58	5.45	5.6	5.68	5.62
DPZ3	*5.99 - 6.96*	*6.51*	6.75	6.64	6.82	6.64	6.6	6.68	6.55	6.67	6.5	6.73	6.7	6.83
DPZ6	*NA*	*6.56*	6.83	6.57	6.93	6.68	6.62	6.6	6.69	6.54	6.53	6.75	6.63	6.51
DPZ8	*5.46 - 5.66*	*4.75*	3.01	2.9	2.99	2.77	2.8	2.99	2.89	3.51	3.02	3.00	2.77	3.28
DPZ10	*6.48 - 6.97*	*6.72*	6.83	6.71	6.91	6.9	6.75	6.79	6.82	6.52	6.42	6.88	6.68	6.64
DPZ13	*6.67 - 7.22*	*6.99*	7.09	6.98	7.02	6.87	6.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Electrical Conductivity (µS/cm)														
REG DPZ-1	*NA*	*1465*	1837	1877	1867	1852	1547	1504	1576	1550	1622	1597	1682	1825
DPZ3	*10200 - 11350*	*6884*	11160	12040	12280	12220	10890	2540	11000	8460	10390	10310	10870	11850
DPZ6	*NA*	*3026*	2550	2502	2469	2163	2470	2219	2350	1720	2230	2130	2250	2340
DPZ8	*1690 - 1820*	*2360*	2780	2800	2432	2452	2470	2400	2590	1910	1840	2470	2600	2820
DPZ10	*3670*	*3468*	3400	3410	3430	3350	3420	3170	3270	2980	3070	2990	3210	3310
DPZ13	*12200 - 13750*	*10938*	4200	4520	4260	4250	4560	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Standing Water Level (m below natural ground surface)														
REG DPZ-1	*NA*	*30.67*	20.43	20.51	20.56	20.61	20.67	20.58	20.6	20.64	20.58	20.58	20.60	20.70
DPZ3	*12.05 - 11.51*	*11.07*	9.87	9.92	9.97	10.05	10.13	10.25	10.26	10.35	10.36	10.5	10.38	10.68
DPZ6	*NA*	*29.66*	33.06	33.62	32.8	33.38	32.86	33.16	33.66	33.28	33.24	32.96	33.92	33.33
DPZ8	*24.35*	*27.92*	30.37	30.41	30.44	30.36	30.41	29.53	30.41	30.44	30.41	30.45	30.48	30.44
DPZ10	*12.40*	*13.35*	13.36	13.43	13.49	13.58	13.59	13.53	13.45	13.38	13.31	13.32	13.56	13.43
DPZ13	*7.01 - 7.25*	*12.04*	24.96	24.93	24.96	24.95	24.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1. Since monitoring commenced at that site. N/A = Not Accessible

Water Quality

Salinity varies over a wide range from bore to bore, but within each bore, salinity generally is quite stable over time. Some of the monitored bores have reported occasional outliers of significantly lower salinity (EC and TDS) which are likely due to ingress of rainwater temporarily lowering the salinity in the bore. This is particularly apparent at bores DPZ3 and DPZ6.

A downward trend in EC is observed at bores DPZ6 and DPZ13, starting in 2010 or 2011, which could be due to enhanced recharge following drawdowns in the coal measures as a result of open cut mining. The downward trend has levelled out from the start of 2015.

Conversely, a rise in EC was observed at DPZ8, starting in 2008 or 2009, which is almost certainly related to open cut mining. However, the EC in DPZ8 has not continued rising, having stabilised at about 1000µS/cm EC higher than pre-2008.

Apart from the EC rise in DPZ8 in 2008, the monitoring has not indicated any rising trend in salinity in any bore, apart from the regional control bore REGDPZ1, which is unrelated to any mining activity, and is probably a result of increased urbanisation.

Likewise, although there are some pH variations from bore to bore, the monitoring has generally reported consistent pH values at individual bores over the past 2-4 years. In the past, both DPZ3 and DPZ8 show changes in pH that are probably related to mining or associated activities.

The pH values reported from DPZ3 were generally in the range 6.5 to 7.0 until around 2006, when the pH started to be more erratic, and more frequent lower pH values than previously, possibly indicating slightly more acidic conditions. Since around May 2006, pH values at DPZ3 have been generally in the range 5.2 to 7.2, but with medium and average values of 6.45 and 6.50 respectively, only slightly lower than pre-mining average and median values of 6.66 and 6.70 respectively.

The pH values reported from DPZ8 were generally in the range 5.0 to 6.5 until late 2007, when the pH started to be more erratic, and generally much lower than previously, indicating more acidic conditions. Water levels in DPZ8 dropped sharply in September 2007, at the same time that EC increased noticeably and pH started to be erratic and eventually fell to a much lower level. Since February 2009, pH values at DPZ8 have been generally in the range 3.0 to 4.5 albeit with a number of higher outlier values, but significantly lower than the pre-mining levels.

This is most likely due to the open cut exposing sulphides or other acid-forming minerals present in the coal seams or interburden strata to oxidation, leading to the reduction in pH at the time that mining reached the vicinity of this bore. This is an expected outcome given the nature of the geology, of which some strata are known to be net acid producing, and the predicted drawdown resulting from mining operations.

Reportable Incidents

No reportable incidents were recorded during the 2016/17 reporting period.

8. REHABILITATION

8.1 REHABILITATION PERFORMANCE DURING THE REPORTING PERIOD

Assorted infrastructure has been removed from site as part of the final rehabilitation project during the 2013/14 reporting period. This included the removal of fuel storage tanks, traffic control boom gates and a number of bitumen and dirt roads. No additional infrastructure was removed during the 2016/2017 reporting period. Other rehabilitation works previously completed, as outlined in the Mine Closure Plan for Donaldson Open Cut, include the following.

- Excavation of waste rock and contaminated material to the west pit;
- Reshaping of the land surface to as near as possible to natural topography;
- Spreading of topsoil on reshaped surfaces;
- Spreading of a seed mix of local tree and shrub species, as well as fast growing, sterile groundcovers which grow rapidly to provide erosion control, of the remaining 27.7 ha of rehabilitated area.

The West Pit and Square Pit have been made safe and left for use by the Abel Underground Mine who will be responsible for its ongoing management.

No further areas remain to be rehabilitated as part of the Donaldson Coal Mine operation and no additional rehabilitation works were undertaken during the 2016/2017 reporting period.

Figure 8.1 shows the final landform and current revegetation status. A summary of the total area of rehabilitation is provided in **Table 8.1.**

Table 8.1 Rehabilitation Summary (Cumulative)

Mine Area Type	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	Year 15 (ha)	Year 16 (ha)	Year 17 (ha)
Total mine footprint	307.3	307.3	307.3
Total active disturbance	77.3[1]	77.3[1]	77.3[1]
Land being prepared for rehabilitation	0	0	0
Land under active rehabilitation	230	230	230
Completed rehabilitation	0	0	0

Notes:
1. Includes 60.2ha for the Square Pit and West Pit and 17.1ha for other retained infrastructure. These areas are not being actively mined, however, final rehabilitation is not planned until future land use options are finalised.

The areas shown in **Table 8.1** are consistent with the approved MOP which states:

- the total 'active disturbance' would total ~78ha at both the beginning and end of the MOP term (comprising retained infrastructure areas, the Square Pit and West Pit); and
- 'land under active rehabilitation' would total ~230ha at both the beginning and end of the MOP term (comprising 220ha of revegetated land and 10ha of water management).

As outlined in within the approved MOP, the 'active disturbance' which includes both the Square Pit and West Pit, and the water management areas are planned to be transferred

to the Abel mining lease during the MOP term for ongoing mining uses, including stockpiling and receipt of washery rejects. These uses were detailed in the 2013 modification (MOD3) of Project Approval 05_0136 for the Abel mine. Until this transfer is undertaken the rehabilitation security for these areas will continue to be held against Mining Lease 1461 issued for the Donaldson Coal Mine.

8.2 REHABILITATION MONITORING

Assessments of rehabilitation performance were conducted by Global Soil Systems in July 2017 and Kleinfelder in December 2016 forming part of an ongoing assessment. The monitoring undertaken by Global Soil Systems includes one control plot in the remnant bushland (Plot 1) and six monitoring plots in the rehabilitated areas of the mine (Plots 2 to 7). The plots have been established for between 9 and 13 years. The monitoring techniques employed in the rehabilitation assessment were:

- General assessment of vegetation;
- 2m x 2m quadrat survey of plant numbers, vegetation cover and groundcover;
- 20m x 10m quadrat survey of tree/shrub numbers, canopy cover measurement, tree health and new plant species;
- Analysis of soil samples for pH, EC, nitrogen, potassium, phosphorus, sulphur, major cations, major anions, cation exchange capacity, exchangeable sodium percentage and total organic carbon;
- 50m erosion transect; and
- Photographic record of plots.

The monitoring undertaken by Kleinfelder includes a total of four monitoring plots, including one control plot, four nesting box plots and three general fauna monitoring plots. Monitoring commenced in 2008. The monitoring techniques employed in the rehabilitation assessment include:

- nest box occupancy rates;
- survey for presence of terrestrial mammals, bats, birds, amphibians and reptiles; and
- survey of woody debris.

The results of these assessment have been compared with the completion criteria adopted by Donaldson. These criteria cover soil quality, vegetation, growth rates, species diversity and stem densities. The assessment found that several of the rehabilitated areas have already met the completion criteria and that all rehabilitated areas assessed are on track to meet the required completion criteria. A summary of the results and outcomes of the surveys compared to the completion criteria are provided in **Table 8.2**.

Table 8.2 Status of Monitoring Against Completion Criteria – 2016/17

Feature	Completion Criteria	Current Status
General	Stable landform.	All monitoring plots were observed to be 'stable' with no signs of significant erosion.
	Effective drainage.	The rehabilitated areas are effectively drainage without pooling water.
	Resilience to drought episodes in rehabilitated area.	No signs of drought stress have been noted with trees considered healthy.
Flora	Re-establishment of a dense and diverse mixture of local native understory and overstorey vegetation species, specifically four overstorey and four understorey species in each monitoring plot.	Plot 1 = 11 understory & 6 overstorey species. Plots 2 to 7 = 6 to 14 understorey and 5 to 10 overstorey species.
	Limited presence of weeds.	Generally no to minimal weeds were observed in each plot.
	Tree/shrub densities of 3000 stems/ha after 5 years and 1000 stems/ha after 15 years.	Plot 1 = 5,950. Plots 2 to 7 range from 2,800 to 14,700.
	Evidence of natural regeneration in at least four species.	Natural recruitment was observed in most plots and evidence of flowering and seed production in some eucalypts and acacias.
Fauna	Reinvasion of rehabilitated area by native fauna.	The similarity of fauna diversity between the rehabilitation quadrats and the analogue site has increased from 20% similarity in 2011 to greater than 40% in 2016. These results show that the rehabilitation areas are moving towards the remnant forest.
Soil Loss	Minimal erosion and soil movement, specifically soil loss from less than 40t/ha/year	Plot 1 = -10t/ha, Plot 2 = -20t/ha, Plot 3 = +30t/ha, Plot 4 = +10t/ha, Plot 5 = +30t/ha, Plot 6 = +20t/ha, Plot 7 = +20t/ha.
Soil Quality	Soil pH to be no lower than 10% of analogue plot pH after 5 years.	Plot 1 (analogue) – pH 4.8 Plots 2 to 7 – pH 4.7 to 5.4
	Conductivity of replaced soil to be below 900uS/cm after 5 years	EC for all plots ranged from 28 to 63uS/cm.
	Surface layer to be free of any hazardous material to a depth o fat least 1m.	There has been no evidence of hazardous material following deep ripping.
	Runoff water conductivity to be less than 1 000uS/cm after 5 years.	Internal monitoring of the retained on-site sediment dams confirms ECs generally ranging between 100 and 200uS/cm.
	Soil nitrogen and phosphorous levels to be within 20% of levels in analogue site after 5 years.	The phosphorous levels within all plots were the similar to the analogue site. All plots recorded higher levels of phosphorous than the previous year. All plots had nitrogen levels above the criteria.
Pollution	Soil should not be a source of pollutants. Quality of water leaving the site to be in accordance with EPL requirements.	No non-compliance with EPL 11080 surface water quality requirements have been recorded and internal due diligence monitoring within the on-site sediment dams confirms that all measured ECs and the majority of pH and total suspended solid results during the reporting period would be compliant with discharge criteria.
Source: GSS (2017), Kleinfelder (2016), Donaldson Coal.		

Natural recruitment was also evident in most plots and particularly older plots where canopy thinning, as a result of Acacia die back and the 2015 April severe storm, has resulted in more light reaching the forest floor. While some of these species appear to have originated from sown species other plants appear to have originated from re-spread topsoil and from introduction through natural vectors such as birds, wind etc. In

all sites there was evidence of flowering and seed production in some eucalypt species as well as Acacias although there is currently only minimal evidence of second generation eucalypts. The need to conduct thinning in areas of the rehabilitation has been reviewed with a decision made not to conduct thinning as natural thinning due to Acacia die back continues.

8.3 ACTIONS FOR THE NEXT REPORTING PERIOD

8.3.1 Rehabilitation

The primary activity planned to occur in the next reporting period is the monitoring and maintenance of the final rehabilitation project at Donaldson Coal mine, as outlined in the Mine Closure Plan for Donaldson Open Cut. The West Pit and Square Pit will continue to be made safe and left for use by the Abel Underground Mine who will be responsible for its ongoing management.

8.3.2 Monitoring

Rehabilitation monitoring required to be undertaken at Donaldson Coal mine under the development consent and other regulatory documents will continue to be carried out in the 2017/18 reporting period.

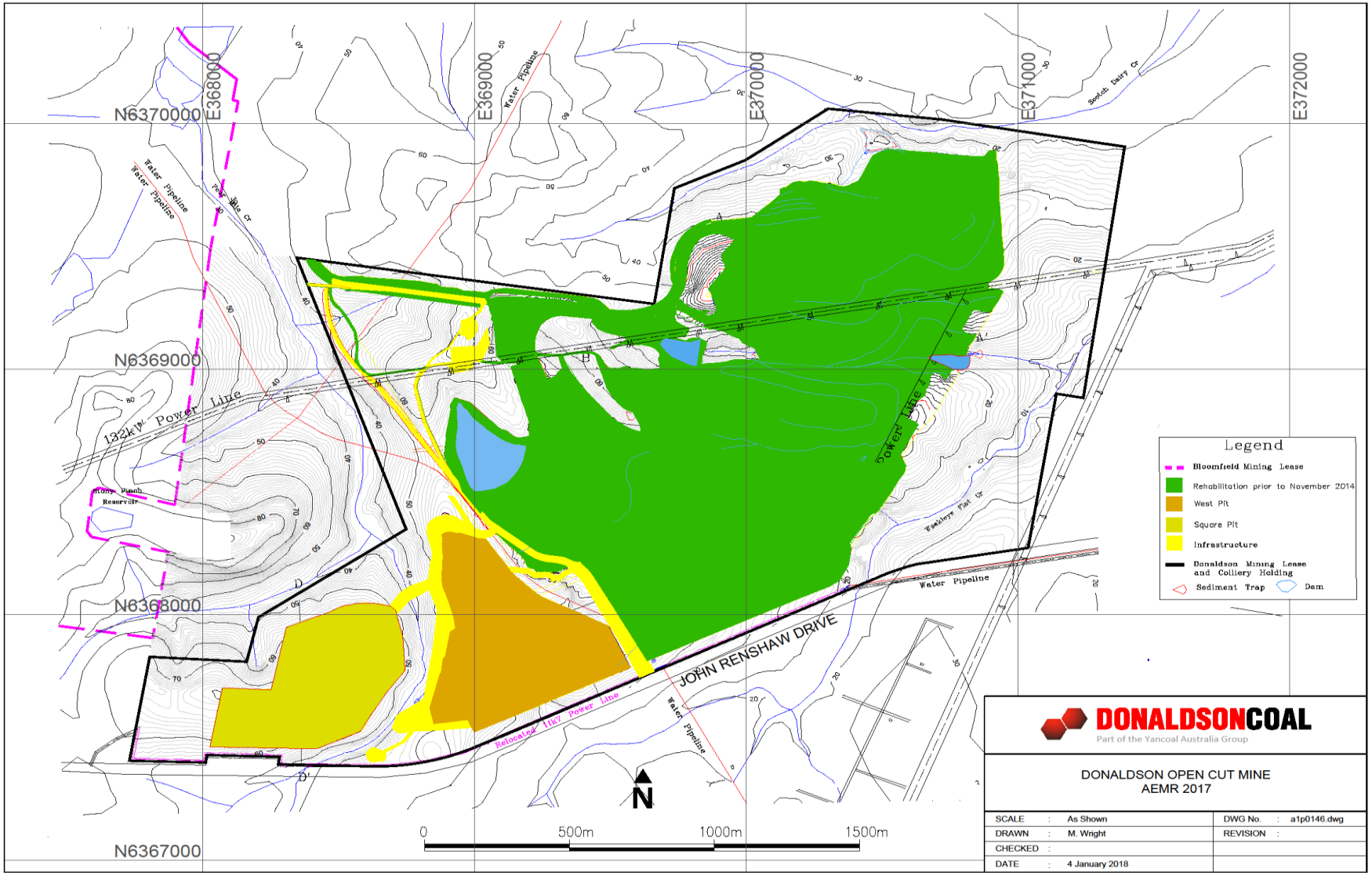


Figure 8.1 Status of Rehabilitation

9. COMMUNITY

One complaint was received during the 2016/2017 reporting period. This complaint occurred via email on the 9th of October 2017, from a resident of Avalon Estate who was concerned that over the past 4 years there had been an increase in coal dust at their property. This period coincided with the cessation of mining activities, and rehabilitation of Donaldson mine. There were no complaints in the previous reporting period. Given that coal mining activities have ceased, no specific actions from complaints are currently deemed necessary.

In accordance with the conditions of the mine's development consent, the Company established a community consultative committee for the mine. The last committee meeting was held on 7 August 2013. No meetings were held during the reporting period and further meetings are currently deemed unnecessary.

No other specific community engagement activities relating to the mine were undertaken during the reporting period.

10. INDEPENDENT AUDIT

No independent audit was undertaken during the reporting period. The last independent environmental audit of the mine was undertaken in March 2015. The audit found a high degree of compliance and identified the conditions of the development consent which were considered to remain active following the completion of mining. These remaining conditions have been treated as 'recommendations' and the status of these conditions outlined within the 2014/2015 AEMR and further updated in **Table 10.1**.

Table 10.1 2015 Independent Audit Recommendations & Status Update

Cond No.	Development Consent Condition	Comment	Update
63(xiv)	**Biological Monitoring** The Applicant shall prepare and implement a detailed monitoring program for groundwater and surface water (xiv) monitoring of macro-invertebrates and vegetation in accordance with protocols developed for the Hunter SIGNAL biological assessment criteria, with an assessment of inflows to the wetlands.	The biological monitoring will continue in accordance with Development Consent condition 63(xiv) "for a period of at least five years after the completion of mining, or other such period as determined by the Director- General."	Monitoring to be undertaken for period of 5 years from completion of mining (i.e. until April 2018).
69	**Tetratheca juncea Management Plan** The Plan shall be consistent with the Flora and Fauna Management Plan and include measures for fire management.	The ongoing control measures employed at the Donaldson Coal Mine site ensure a high level of conservation for the *Tetratheca juncea*.	The *Tetratheca juncea* area is contained within the Bushland Conservation Area (BCA). Refer to comment below.
72(ii) & (iii)	**Bushland Conservation Area Management**	Donaldson Coal Pty Ltd will retain management and ownership of the land for a	The BCA is currently being managed in

Cond No.	Development Consent Condition	Comment	Update
	(ii) retain management and ownership of the land for a minimum of 36 years from the commencement of construction, unless other arrangements are agreed in accordance with Condition 73; and (iii) prepare and implement a Management Plan for that area in consultation with OEH and to the satisfaction of the Director-General, during the period in which the Applicant is responsible for management.	minimum of 36 years from the commencement of construction, unless other arrangements are agreed in accordance with Development Consent condition 73.	accordance with the BCA Management plan and will be maintained for the period as per Condition 73 (i.e. until January 2037 or as agreed).
78	**Rehabilitation** The Flora and Fauna Management Plan shall also include a Rehabilitation Plan that details the measures to be undertaken to progressively rehabilitate disturbed areas of the mine to replicate the original vegetation cover that existed before mining occurred. The Applicant shall be responsible for the management and monitoring of the rehabilitated mine site until such time as the Director-General agrees that restoration has been successful.	The Rehabilitation Plan is included in the Mining Operations Plans (MOP) and amendments for the Donaldson Coal Mine. The current MOP is for May 2014 to May 2021. Recommendation: As the reporting on the Mining Operations Plan is required under the Mining Lease, the rehabilitation progress and monitoring will be reported to the DRE and it is recommended that approval be sought from DPE to submit this MOP report to DPE to satisfy this condition.	Currently the Annual Reviews are provided to both DRE and DPE and will continue to be provided.
114	**ANNUAL ENVIRONMENTAL MANAGEMENT REPORT** The Applicant shall prepare and submit an Annual Environmental Management Report (AEMR) throughout the life of the mine to the satisfaction of the Director-General. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the Conditions of this Consent, and other licences and approvals relating to the mine.	The preparation of the Annual Environmental Management Report for the Donaldson Coal Mine will be required unless an exemption is obtained from the Director-General/Secretary of DPE. *Recommendation:* It should be considered that reporting on the rehabilitation progress, the biological monitoring and bushland conservation area could be achieved by submitting the expert consultant reports and placing the reports on the Donaldson Coal website.	The Company is continuing to prepare the full Annual Review, however, this recommendation will be further considered in future reporting periods.

11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

During the reporting period there were no:

- reportable incidents or exceedances; or
- official cautions, warning letters, penalty notices or prosecution proceedings.

One non-compliance was recorded against the conditions of ML 1461 relating to minimum employment or expenditure within the lease area. This requirement can be varied by the Minister at any time. Therefore, the Company will formally apply to DRE to suspend this requirement.

12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

In the next reporting period Donaldson will consult with relevant departments to review current monitoring requirements and update relevant management plans.

The last independent environmental audit occurred in 2015. As the audits are required every 3 years, the next audit is due in the 2017/18 reporting period. Donaldson will liaise with relevant departments regarding specific requirements they may have for this audit.

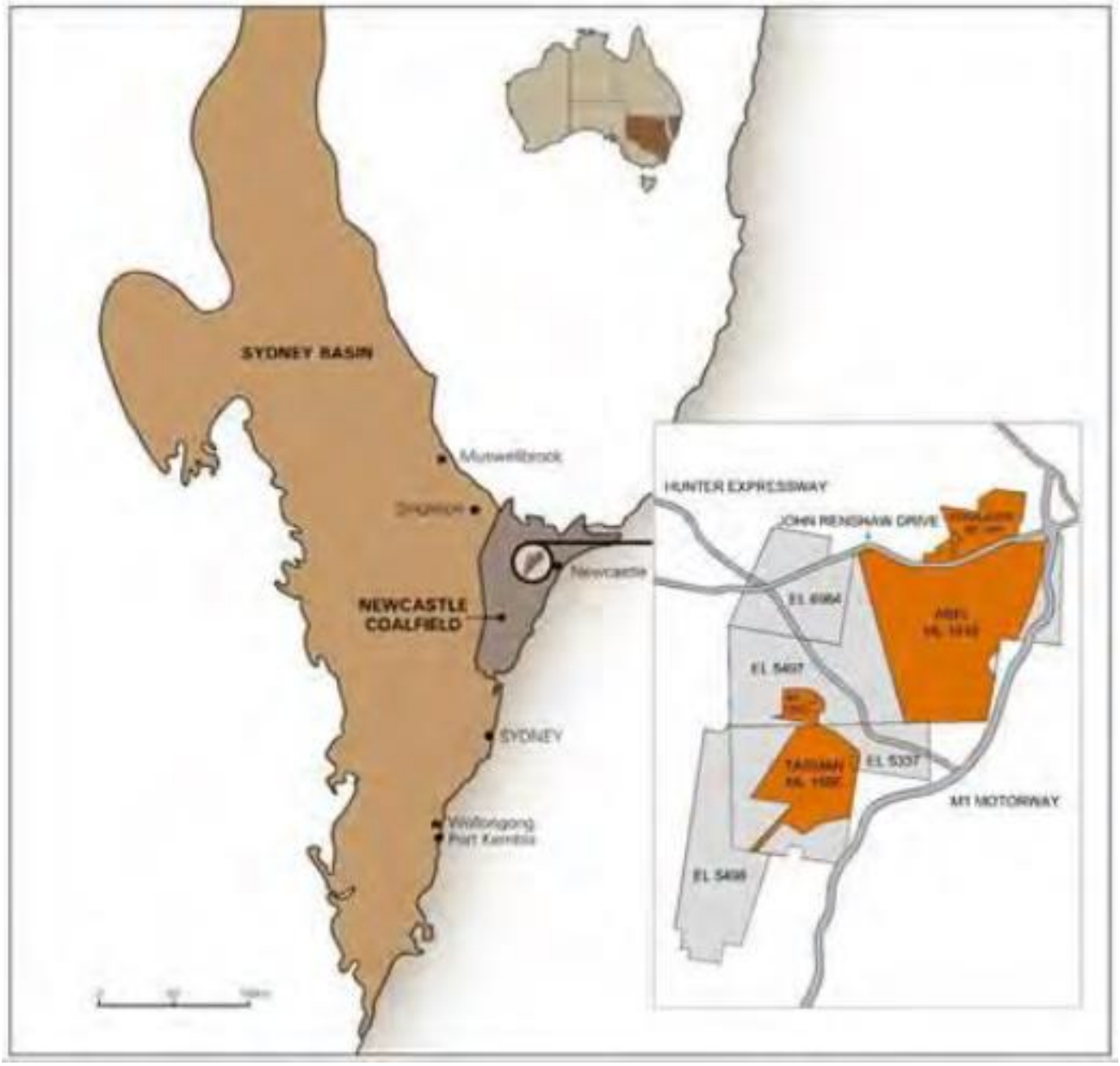
No other specific measures are currently deemed necessary to improve environmental or community performance.

As outlined in Section 4.3, a range of monitoring, including surface water, groundwater, flora and fauna and rehabilitation monitoring are planned during the next reporting period. This monitoring represents a continuation of standard monitoring practices.

Appendices

Appendix 1

Site Locality Plan and Monitoring Locations



Locality Plan


Y:\Jobs 531 to 1000\737\Reports\73719_Annual Review 2016_Abel\CAD\737AEMR.dwg DOCAR-07.06.2017-4:42 PM
TN
MN
ML1461
John Renshaw
Drive
SCALE 1:35 000 (A4)
500 0 500 1000 1500m
Base Photo Source: Nearmap - Date: 20 November 2015
DONALDSON COAL MINE:
REGIONAL CONTEXT


DONALDSON COAL MINE:
DUST DEPOSITION GAUGE LOCATIONS,
HVAS AND DUSTTRAK LOCATIONS
REFERENCE
Mining Lease Boundary (ML1461)
Deposited Dust Gauge
HVAS
Dust Trak
ML1461
John Renshaw Drive
D1
D2
D3
D4
D7
D8
D9
D10
D11
D12
TN
MN
SCALE 1:50 000 (A4)
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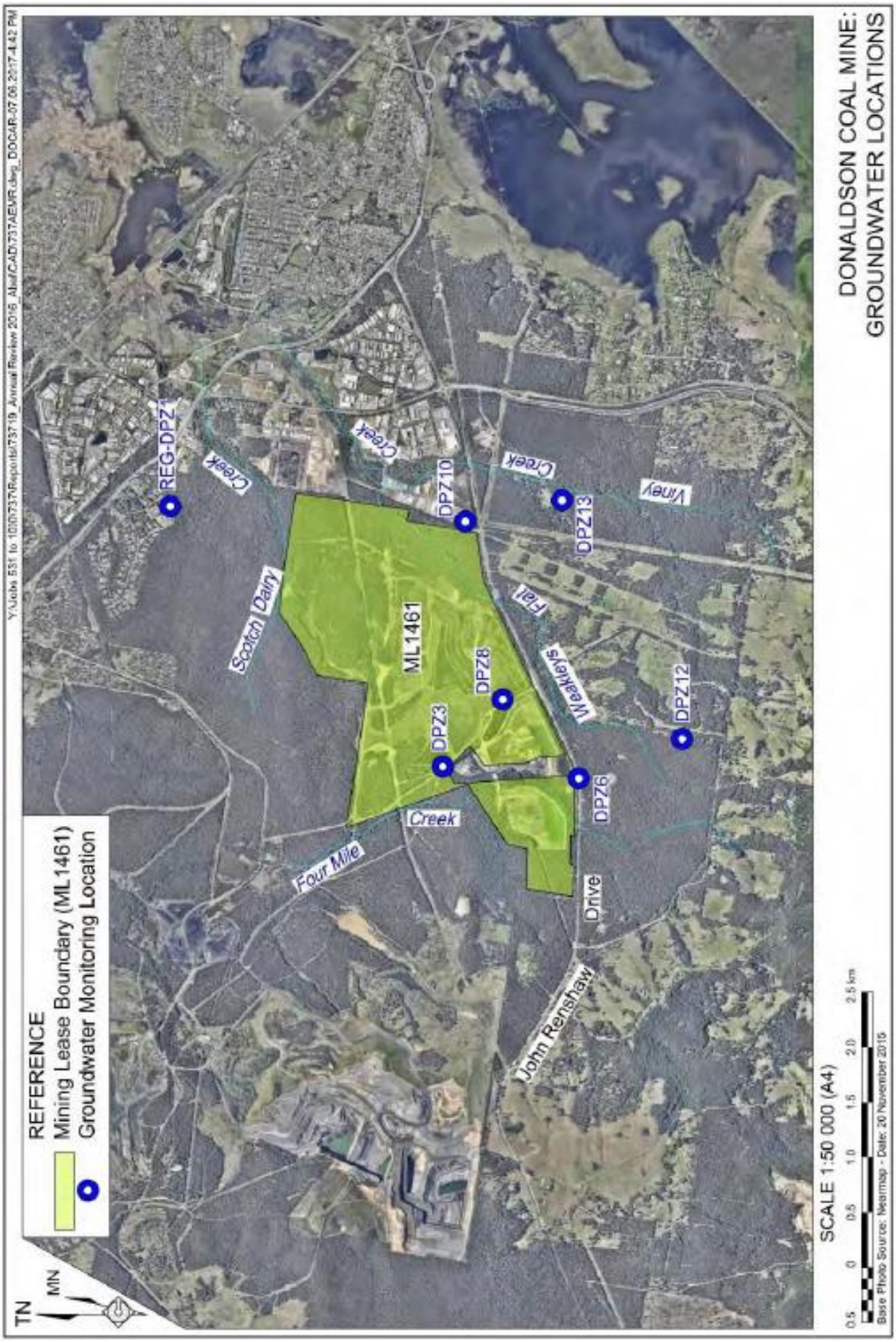
Base Photo Source: Nearmap - Date: 20 November 2015


DONALDSON COAL MINE:
SURFACE WATER MONITORING LOCATIONS
REFERENCE
Mining Lease Boundary (ML1461)
Surface Water Monitoring Location
TN
MN
SCALE 1:50 000 (A4)
Base Photo Source: Nearmap - Date: 20 November 2015
ML1461
SDCU
SDCD
WFCU
WFCD
FMCU
FMCD
Scotch Dairy Creek
Four Mile Creek
Flat Creek
Wakehurst Drive
John Renshaw Drive
Viney Creek


DONALDSON COAL MINE:
GROUNDWATER LOCATIONS
REFERENCE
Mining Lease Boundary (ML1461)
Groundwater Monitoring Location
ML1461
REG-DPZ1
DPZ10
DPZ13
DPZ8
DPZ3
DPZ6
DPZ12
Scotch Dairy Creek
Four Mile Creek
Weakleys Flat
Vinney Creek
John Renshaw Drive
TN
MN
SCALE 1:50 000 (A4)
0.5 0 0.5 1.0 1.5 2.0 2.5 km
Base Photo Source: Nearmap - Date: 20 November 2015

Appendix 2
Description and Location of Known Aboriginal Sites

Site Name	Recorder	Location	Description	Comments
Bushland Conversation Area				
FMC3	Effenberger (1997)	368300E 6368900N Bank of Four Mile Creek	Artefact scatter (5 artefacts), one axe grinding groove	
FMC4	Effenberger (1997)	368250E 6368650N Lower slope above Four Mile Creek	Artefact scatter (2 artefacts)	
FMC5	Effenberger (1997)	368500E 6368700N Lower slope above Four Mile Creek	Artefact scatter (2 artefacts)	
FMC6	Effenberger (1997)	368400E 6366100N Upper slope above Four Mile Creek	Artefact scatter (4 artefacts)	
FMC7	Effenberger (1997)	367600E 6366500N Crest between Four Mile Creek and a major tributary	Artefact scatter (3 artefacts)	
FMC8	Effenberger (1997)	367600E 6366850N Upper slope above tributary of Four Mile Creek	Scarred tree	
WFC1	Effenberger (1997)	371200E 6369200N Lower slope above Weakleys Flat Creek	Artefact scatter (3 artefacts)	
ISF3	Umwelt (1998)	368750E 6367650N Lower slope above Four Mile Creek	Isolated find	
ISF4	Umwelt (2001)	370550E 6368625N Mid slope above Weakleys Flat Creek	Isolated find	
Four Mile Creek 1 (38-4-139)	Brayshaw (1985)	368130E 6367020N Bank of Four Mile Creek	Artefact scatter (19 artefacts)	
Four Mile Creek 2 (38-4-140)	Brayshaw (1985)	367820E 6366880N Terrace of Four Mile Creek	Artefact scatter (10 artefacts)	
CA1	Umwelt (2001)	370658E 6368051N Mid slope, south of Weakleys Flat Creek	Isolated find	
CA2	Umwelt (2001)	371132E 6369039N Lower slope, north west of Weakleys Flat Creek	Artefact scatter (2 artefacts)	
CA3	Umwelt (2001)	370985E 6370511N Lower slope above a tributary of Scotch Dairy Creek	Isolated find	
CA4	Umwelt (2001)	369568E 6370040N Mid slope above Scotch Dairy Creek	Isolated find	
CA5	Umwelt (2001)	368391E 6366747N Mid slope, east of Four Mile Creek	Isolated find	
CA6	Umwelt (2001)	368229E 6366592N Lower slope above a tributary of Four Mile Creek	Isolated find	

Site Name	Recorder	Location	Description	Comments
CA7	Umwelt (2001)	367617E 6366456N Mid slope above Four Mile Creek	Isolated find	
CA8	Umwelt (2001)	370746E 6369747N Lower slope, south of Scotch Dairy Creek	Isolated find	
DMS2	Umwelt (2002)	370966E 6368184N Mid slope, south of Weakleys Flat Creek	Artefact scatter (2 artefacts)	
DMS4	Umwelt (2002)	368649E 6368181N Mid slope, east of Four Mile Creek	Isolated find	
DMS5	Umwelt (2002)	370665E 6368177N Mid slope, south of Weakleys Flat Creek	Isolated find	
DMS6	Umwelt (2002)	370809E 6369721N Mid slope, south of Scotch Dairy Creek	Scarred tree	
Mine Impact Area				
ISF1	(Effenberger 1997)	370500E 6369100N Lower slope above small tributary of Weakleys Flat Creek	Isolated find	Consent to Destroy granted (2002)
ISF2	(Effenberger 1997)	369800E 6368950N Lower slope above tributary of Weakleys Flat Creek	Isolated find	Consent to Destroy granted (2002)
ISF5	Umwelt (2001)	370275E 6368626N Mid slope above Weakleys Flat Creek	Isolated find	Application being prepared for consent to remove
ISF6	Umwelt (2001)	370305E 6368600N Mid slope above Weakleys Flat Creek	Isolated find	Application being prepared for consent to remove
Ironbark 2 (38-4-339)	Ruig (1993)	369190E 6367890N Upper slope above tributary of Weakleys Flat Creek	Isolated find	
DMS1	Umwelt (2002)	369734E 6369122N	Isolated find	Consent to Destroy granted (2002)
DMS3	Umwelt (2002)	369090E 6367962N Mid slope above Four Mile Creek	Isolated find	

Appendix 3
Compliance Review

Condition	Minister's Conditions of Consent (MCoA)	Compliance		Comments/Notes
		Yes	No	
OPERATION OF DEVELOPMENT				
1	(1) Applicant shall carry out the development of the: Development application DA98/01173, dated 13 Feb 1998, lodged with Maitland City Council and DA 118/698/22 dated 19 Feb 1998, lodged with Cessnock City Council and the accompanying Environmental Impact Statement (EIS) dated 10 Feb 1998 and prepared by PPK Environment and Infrastructure, as modified by reports in Schedule 4; Submissions to the Commission of Inquiry by the applicant; Statement of Environmental Effects titled Modification to the approved mining area at the Donaldson Open Cut Cola Mine, Beresfield, dated 10 Nov 2004, and prepared by GSS Environmental; Conditions of this consent. (2) If there is any inconsistency between the above, either the conditions of this consent or the most recent document shall prevail to the extent of the inconsistency. (3) Unless otherwise specifically stated, the conditions of consent do not apply to lot 131 DP 234203 (owned by Steggles Limited at the date of this consent), provided the Deed of Agreement between Steggles Limited and the Applicant is in effect.	YES		The Donaldson Coal project has been developed generally in accordance with the EIS (PPK 1998) and the SEE (GSS 2004), with the mine pits and rehabilitation conducted in accordance with the Mining Operations Plan approved by DPI-Mineral Resources.
2	Except as expressly provided by the Statement of Environmental Effects, dated 10 November 2004, the development shall be restricted as follows: (i) the mine plan in the EIS shall be reduced such that no mining shall be undertaken in any area identified in accordance with these Conditions as a Conservation Area. This includes the Tetratheca Juncea Conservation Area (Condition 68); and (ii) the Applicant shall not clear any land or erect any structures within any Conservation Area without obtaining any further development approval from the Director-General.	YES		The mining area is delineated on the mine plans with the Conservation Area that surrounds the disturbed area of the mine managed for the protection of the vegetation and habitat value. The relocation of the 11kV power line required clearing a small area of the Bushland Conservation Area on the western end of the site and rehabilitation of the existing power line easement. The clearing and rehabilitation of these areas and the adjustment to the boundaries of the Bushland Conservation Area were approved by DoP in Nov 2006.

Condition	Minister's Conditions of Consent (MCoA)	Compliance		Comments/Notes
		Yes	**No**	
3	(1) Subject to (2) the approved hours of operation are as follows:	YES		
	(2) The Applicant shall submit a report to the D-G's satisfaction demonstrating that the noise limits in Condition 15 can be met while rail loading of coal is occurring during the period from 6pm to 10pm. If that report does not demonstrate that the noise limits can be met to the D-G's satisfaction, then the hours of operation for rail loading of coal shall be restricted to 7am to 6pm.	YES		
4	The Applicant shall comply with any order of the D-G to cease activities causing serious or irreversible environmental concerns, until those concerns have been addressed to the satisfaction of the D-G.	-		Not activated.
COMMENCEMENT AND DURATION				
5	(1) To ensure the employment benefits of this development are realised without delay, the Applicant shall commence mining within two years of the date of this Consent. This does not remove the obligation of the Applicant to comply with any other requirement listed in the Conditions of this Consent. (2) To minimise potential delays to development on adjoining lands, consent for mining shall lapse 11 years from commencement of mining.	YES		Mining commenced on 25 January 2001 (i.e. within 2 years of granting of the Consent) therefore this condition was complied with. Extension of time approved by Department of Planning.
6	The Applicant shall notify the Director-General and the Councils in writing of the dates of commencement of: (i) construction works, (ii) mining, and (iii) coal processing operations, 14 days prior to the commencement of such works.	YES		Donaldson Coal provided written Notification to the Director-General and Councils prior to commencement of construction works, mining and coal processing operations.
7	No construction or mining shall commence until: (i) the relevant compliance reports in Condition 121 have been completed to the satisfaction of the Director-General; and (ii) the Applicant provides evidence to the Director-General of an agreement with the adjoining Bloomfield mine for the use of rail loading infrastructure.	YES		(i) Compliance Reports for construction and mining were prepared and submitted to DUAP prior to commencement of the activities on the site in 2001.

ENVIRONMENTAL OFFICER				
8	The Applicant shall employ an Environmental Officer, whose qualifications are suitable to the Director-General, throughout the life of the mine. The Environmental Officer shall: (i) be responsible for the preparation of the Environmental Management Strategy and environmental management plans; (ii) be responsible for considering and advising on matters specified in the Conditions of this Consent and compliance with such matters; (iii) be responsible for receiving and responding to complaints; (iv) facilitate an induction and training program for all persons involved with construction activities, mining and environmental management activities; and (v) have the authority and independence to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.	YES		Phillip Brown was employed as Environmental Manager in May 2003 and Planning NSW was notified on 7 April 2003 as required by MCoA 8.
9	The Applicant shall notify the Director-General, EPA, DLWC, DMR, NPWS, Councils and the Community Consultative Committee (Conditions 107-110) of the name and contact details of the Environmental Officer upon appointment and upon any changes to that appointment.	YES		The Director-General, EPA, DLWC, DMR, NPWS, Councils and the Community Consultative Committee were notified 30 May 2003 by letter of the appointment of Phillip Brown.
ENVIRONMENTAL MANAGEMENT STRATEGY				
10	The Applicant shall prepare an Environmental Management Strategy (the Strategy) for the development, providing a strategic context for environmental management. All environmental management plans required by the Conditions of this Consent shall be consistent with the Strategy. The Strategy shall be prepared in consultation with the relevant authorities and the Community Consultative Committee and to the satisfaction of the Director-General, prior to commencement of construction.	YES		The Environmental Management Strategy was prepared in May 2000 for the Donaldson Mine for construction of the mine and mining operations. Revision of the EMS occurred to integrate the requirements of the Donaldson Mine and the mining contractor to provide a single EMS for the project occurred in 2002. Review and revision of the EMS has occurred as management plans for the Donaldson Coal operations are revised and an integrated Environmental Management Strategy to include the Tasman and Abel Coal projects was approved by DoP on 26 February 2008.

11	The Strategy shall cover the area of mining, the haul road and rail loading facility, and the Conservation Areas. The Strategy shall include: (i) statutory and other obligations which the Applicant is required to fulfil during construction and mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies; (ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management; (iii) overall environmental management objectives and performance outcomes, during construction, mining and decommissioning of the mine; (iv) overall ecological and community objectives and a strategy for restoration and management;	YES		The Environmental Management Strategy prepared for the Donaldson Mine included sections addressing each of the elements of ISO14001 and the requirements of MCoA 11.
12	The Applicant shall make copies of the Environmental Management Strategy available to Councils, EPA, DLWC, NPWS, DMR and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		Copies of the Environmental Management Strategy and revisions prepared for Donaldson Coal projects have been made available.
ENVIRONMENTAL MONITORING AND REVIEWING				
13	(1) Except as provided in (2), the Applicant shall provide six-monthly monitoring reports on all environmental monitoring required under this Consent for the first three years of the project and for any further period as may be determined necessary by the Director-General. The reports shall contain interpretations of the monitoring data, and summarise exceedances and action taken. The Applicant shall make copies of the monitoring reports available to the Director-General, DLWC, EPA, DMR, Councils and the Community Consultative Committee, and to NPWS where relevant. (2) Noise monitoring reports shall be provided six-monthly for the life of the mine, unless the Director-General, on the advice of the independent noise expert (Condition 48) requires more frequent reports.	YES		Monitoring Reports including all noise, blasting, air quality, surface and groundwater, indigenous heritage, flora and fauna, employment statistics, community consultation and complaints, were prepared six monthly and provided to the relevant authorities listed in MCoA 13 (1) between 2001 and 2004. DIPNR approved the reporting of monitoring an annual basis on 1 April 2004. All monitoring data and reporting has occurred in the AEMR's since 2004.
14	All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only accredited laboratories shall be used for laboratory analysis.	YES		Quality assurance/Quality Control information and data is included in the laboratory reports from the NATA registered laboratory, with the monitoring data. All sampling and analysis has been conducted by Ecowise Environment NATA or AS/NZS ISO 17025 registered laboratories, as from 23 May 2002.

<table>
<tr><td colspan="5">NOISE AND VIBRATION</td></tr>
<tr><td colspan="5">Noise Limits</td></tr>
<tr><td>15</td><td>Except as may be expressly provided by a DEC licence under the POEO Act 1997, or unless subject to a negotiated agreement in accordance with Condition 23, the Applicant shall ensure that the noise emission from construction or mining operations, when measured or computed at the boundary of any dwelling not owned by the Applicant, shall not exceed the following limits:
<table><tr><td colspan="3">Location LA10(15 minute) noise limits (dB(A))</td></tr><tr><td></td><td>Daytime</td><td>Night-time</td></tr><tr><td>Beresfield (residential)</td><td>45</td><td>35</td></tr><tr><td>Steggles Poultry Farm</td><td>50</td><td>40</td></tr><tr><td>Ebenezer Park</td><td>46</td><td>41</td></tr><tr><td>Black Hill Area</td><td>40</td><td>38</td></tr><tr><td>Buchanan/Louth Pk</td><td>38</td><td>36</td></tr><tr><td>Ashtonfield Area</td><td>41</td><td>35</td></tr><tr><td>Thornton Area</td><td>48</td><td>40</td></tr></table>Table 2: Noise Limits</td><td>YES</td><td></td><td>Quarterly Noise Surveys have been conducted by SLR Consulting and include both attended and unattended monitoring. Results of the monitoring and data are summarised and reported in the AEMR’s.

Attended noise survey results generally identified that noise levels contributed by Donaldson Mine operations do not exceed noise emission goals for any of the periods. The mine operations were recorded as inaudible at each of the monitoring sites for the majority of the attended monitoring periods.</td></tr>
<tr><td colspan="5">Noise Management</td></tr>
<tr><td>16</td><td>Prior to 31 October 2005, the Applicant shall prepare a Noise Monitoring Program for the development in consultation with the DEC, and to the satisfaction of the Director-General, which includes a noise monitoring protocol for evaluating compliance with the criteria in condition 15.</td><td>YES</td><td></td><td>The Mine Noise Monitoring Plan was forwarded to DoP and DEC in Oct 2005 and a final revised copy submitted on 27 Dec 2005 for approval. The Plan was approved by DoP on 22 Jan 2007.</td></tr>
<tr><td>17</td><td colspan="4">Deleted</td></tr>
<tr><td>18</td><td colspan="4">Deleted</td></tr>
<tr><td>19</td><td colspan="4">Deleted</td></tr>
<tr><td>20</td><td>In the event that a landowner or occupier considers that noise or vibration from the project at their property is in excess of the relevant criteria set out in this Consent, the Applicant shall, upon receipt of a written request and at its own expense immediately undertake direct discussion with the landowners or occupiers affected to determine their concerns. Independent investigations of the noise complaints shall be carried out if the matter is not resolved within six weeks, in accordance with Conditions 48-53</td><td>Not activated.</td><td></td><td>No request for acquisition by any land owners due to noise or vibration impact had been initiated prior to April 2007.</td></tr>
<tr><td colspan="5">Noise Acquisition</td></tr>
<tr><td>21</td><td>If noise monitoring or independent noise investigations indicate that noise from construction or operation of the mine at the boundary of a dwelling, or within 30 metres of the dwelling where the boundary is more than 30 metres</td><td>Not activated</td><td></td><td>.</td></tr>
</table>

<table>
<tr><td></td><td>from the dwelling, is in excess of the noise limits set out in this Consent under adverse weather conditions and if appropriate noise control measures cannot be achieved on the mine site, the landowner may request the Applicant in writing to acquire the whole of the property or such part of the property requested by the landowner where subdivision is approved.

Note: Adverse weather conditions means the presence of winds up to 3 metres per second, and/or temperature inversions of up to 4 degrees Celsius per 100 metres.</td><td></td><td></td></tr>
<tr><td>22</td><td>Any such request shall be referred to the Director-General for determination in consultation with the independent expert. If the Director-General determines acquisition is necessary, the Applicant shall acquire the property in accordance with Conditions 54-55.</td><td>Not activated</td><td></td></tr>
<tr><td colspan="4">Negotiated Agreements</td></tr>
<tr><td>23</td><td>If monitoring or independent investigations indicate that noise or dust from the mine is in excess of the criteria set out in this Consent and the affected landowner does not wish to be acquired, the Applicant shall, if requested by the affected landowner, enter into a negotiated agreement. Where a negotiated agreement is required, the Applicant shall, within the time period specified by the Director-General:

(i) appoint an independent facilitator, approved by the Director-General;

(ii) negotiate a package of benefits for the landowner, which may include undertaking noise reduction measures on the property or at the dwelling(s) or compensation;

(iii) pay all reasonable costs of the process; and

(iv) report to the Director-General and the EPA on the agreement reached.</td><td>Not activated</td><td>No requirement for a negotiated agreement with any land owners.</td></tr>
<tr><td colspan="4">BLASTING</td></tr>
<tr><td colspan="4">Blasting Criteria</td></tr>
<tr><td>24</td><td>The Applicant shall ensure that the airblast over pressure level from blasting at the development does not exceed the criteria in Table 3, and the ground vibration level does not exceed the criteria in Table 4, at any residence on privately owned land or noise sensitive location as defined in the EPA’s Industrial Noise Policy.

<table><tr><td>Airblast overpressure (db(Lin Peak)</td><td>Allowable exceedance</td></tr><tr><td>115</td><td>5% of total number of blasts in a 12 month period</td></tr><tr><td>120</td><td>0%</td></tr></table>Table 3: Airblast Overpressure Impact Assessment Criteria

<table><tr><td>Peak Particle Velocity mm/s</td><td>Allowable exceedance</td></tr><tr><td>5</td><td>5% of total number of blasts in a 12 month period</td></tr></table></td><td>YES</td><td>No blasting occurred during the 2016/2017 Annual Review period.</td></tr>
</table>

	10 | 0% Table 4: Ground Vibration Impact Assessment Criteria			
Blasting Design and Management				
25	(1) The Applicant shall not blast within 500 metres of an occupied residence.	YES		(1) There are no residential properties within 500 metres of the mining operations.
	(2) The Applicant shall not blast within 500 metres of private lands unless there is a written agreement between the Applicant and the landowner/occupier(s) to the satisfaction of the Director-General that guarantees the safety of persons who might use those lands.	YES		None identified during this period.
	(3) The Applicant shall not blast within 500 metres of public lands unless public access to those areas is prevented at times of blasting.	YES		(3) An Agreement between Donaldson Coal and the RTA was signed in 2004 and a Road Occupancy Licence obtained in 2006 in relation to any short-term closure of John Renshaw Drive during blasting operations within 500 metres the public road. The Road Occupancy Licence with the RTA has been extended each six months since 2006, to allow Donaldson Coal to effect short-term road closures (of no greater than 10 minutes) when blasting was to occur at the mine within 500m of the pubic road.
	(4) The Applicant shall not blast within 500 metres of a public road unless the road is closed with the prior written agreement of the Regional Traffic Committee (or in the absence of the Regional Traffic Committee, the Director-General). A copy of any such agreement shall be supplied to the Director-General within 14 days of the agreement. If determined necessary by the Regional Traffic Committee, the Applicant shall prepare a Traffic Study to identify upgrading of the surrounding road system commensurate with the additional traffic volumes. The Study shall be prepared in consultation with Councils and the RTA, and to the satisfaction of the Regional Traffic Committee. All recommended traffic management measures and road infrastructure upgrading are to be undertaken at the Applicant's expense prior to any closure of John Renshaw Drive. If the study identifies the need for acquisition to enable the works to be undertaken, acquisition shall occur in accordance with the acquisition procedures established under this Consent.	YES		An Agreement between Donaldson Coal and the RTA was signed in 2004 and a Road Occupancy Licence obtained in 2006 in relation to any short term closure of John Renshaw Drive during blasting operations that are within 500 metres the public road. Donaldson Coal have applied for and received an Extension from RTA for closure of John Renshaw Drive (Main Road 588) during blasting events at the Donaldson Mine.
	(5) The 500 metre distance may be reduced by the Director-General if a risk analysis undertaken by the Applicant to the Director-General's requirements indicates a lesser distance provides an appropriate level of safety.	Not activated at the time of this audit.		

26	The Applicant shall prepare and implement a Blast Management Plan in consultation with DMR and Councils, prior to the commencement of blasting (including trial blasting). The Applicant shall make copies of the Blast Management Plan available to the independent noise expert (Condition 48), EPA, DMR, Councils and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		Blast Management Plan was developed for the Donaldson Mine in consultation with the DMR and Maitland City Council, Cessnock City Council, and Newcastle City Council, prior to the commencement of blasting at the Donaldson Mine and copies of the Plan were distributed to the relevant authorities and the CCC. The Blast Management Plan was revised in 2007 and approved by DoP.
27	The Blast Management Plan shall: (i) provide details of any proposed trial blasting;			(i) The Blast Management Plan 2001 addresses Trial Blasting in Section 6.2.
	(ii) identify a monitoring program, including locations and justification for selection of locations such as the Steggles Black Hill poultry operations and areas of old underground mine workings;	YES		(ii) The Blast Management Plan 2001 Section 8 addressed the Monitoring Program for the specified areas.
	(iii) detail measures to ensure that air blast overpressure and vibration monitoring and control is generally carried out in accordance with the recommendations of Australian Standard AS-2187-1993 (or its latest version) and in terms of ANZECC Guidelines;	YES		The Blast Management Plan 2001 addresses Monitoring Procedures, in Section 8. The monthly Blast Monitoring and Assessment Reports by Hunter Acoustics address the quality control and monitor the data collection and recording.
	(iv) detail methods to measure weather data as soon as practicable prior to blasting and from that data predict whether noise levels are likely to be increased above the levels expected under prevailing meteorological conditions;	YES		The Blast Management Plan 2001 addresses Meteorological Data Collection in Section 7.2 and Table 9.4.1. The meteorological station located at the Donaldson Mine provides continuous records of the prevailing weather conditions and this data is available immediately prior to blasting.
	(v) detail measures to be taken to minimise disruptions from blasting, including any road closures agreed in accordance with Condition 25, and management of impacts on local traffic and pedestrian movements;	YES		(iii) The Blast Management Plan 2001 addresses minimisation of disruptions caused by blasting in Section 7.3.

				John Renshaw Drive road closure only occurs for a maximum of 10 minutes at the time of any blast in accordance with the RTA Road Occupancy Licence,
	(vi) specify procedures for ensuring that the occurrence of concurrent blasts with the adjoining coal mine operators is avoided; and	YES		The Blast Management Plan 2001 addresses timing of blasts in Section 7.4.
	(vii) identify procedures for notifying landowners/occupiers within 2 km of the site of the general blasting program and for notifying landowners or occupiers within 500m of blasting events (or any reduced area approved by the Director-General under Condition 25(5)) prior to blasting occurring.	YES		The Blast Management Plan addresses Notification of blasting events to land owners in Section 7.5. Blast notification is provided to landowners within 2km of the blast area. Newcastle Fairfax and the chicken farms are advised prior to each blast.
28	The Applicant shall not blast if weather conditions indicate that air blast overpressure levels are likely to be exceeded at residences not owned by the Applicant.	YES		The meteorological station located at the administration building at the Donaldson Mine provides continuous weather data and wind speed. Suitability of meteorological conditions is checked prior to each blast.
29	The Applicant shall report on blasting practices (including any trial blasting), weather data and the results of blast emissions monitoring in the six-monthly environmental monitoring reports and in the AEMR.	YES		Blast monitoring data and meteorological conditions were reported in the Monthly Monitoring Reports prepared by Hunter Acoustics and the blast monitoring results are reported in the AEMR's.
30	The Applicant shall revise the Blast Management Plan as necessary and provide an updated Plan five years after commencement of mining to the Director-General, the independent noise expert, EPA, DMR, Councils and the Community Consultative Committee.	YES		The Blast Management Plan was revised and submitted to the DoP on 16 July 2007. Approval from DoP was received on 17 July 2007.

Blasting Impacts				
31	Prior to the commencement of blasting, the Applicant shall undertake baseline structural surveys of all buildings and structures within 1.5 kilometres of blasting locations, unless it can be demonstrated to the satisfaction of the Director-General in consultation with DMR that surveys of certain properties are unnecessary because blasting damage is unlikely to occur to those properties. In conducting these structural surveys, the Applicant shall ensure that: (i) the surveys are carried out by a technically qualified person, as agreed in consultation with the Director-General and relevant landowners; and (ii) a copy of any inspection report (including video or photographs, if requested), certified by the person who undertook the inspection, is supplied to the relevant property owner within 14 days of receipt of same.	YES		Two consultants - Burke Engineering Services and Geoff Craig & Associates, were offered to building owners for the structural survey reports in 2000. All the required surveys of residences had been conducted when blasting commenced at the mine site, except for buildings on the Steggles property (as per a commercial agreement with Steggles). The survey of ABAKK House at the western end of the property was carried out later when the Donaldson Mine operations progressed to the west. Donaldson Coal corresponded with ABAKK Pty Ltd in 2007 in relation to three dwellings and infrastructure that would be within 1500m of the area of blasting at the Donaldson Mine and arranged for structural inspections. A copy of the structural survey reports were provided to the property owners for each residence/structure.
32	In the event that a landowner or occupier considers that blast emissions from the development may have affected the material condition of their property, the landowner may make a written request to the Director-General for an independent dilapidation assessment. If the Director-General, in consultation with the DMR, is satisfied that an independent investigation is required, the Applicant shall ensure: (i) the survey is carried out by a technically qualified person, as agreed in consultation with the Director-General and the relevant landowners or occupiers; and (ii) a copy of any inspection report (including video or photographs, if requested), certified by the person who undertook the inspection, is supplied to the relevant property owner within 14 days of receipt of same.	Not activated at the time of the environmental audit.		No requests for structural surveys have been received during this reporting period.
33	Where a dilapidation assessment concludes that structural damage has occurred as a result of blast emissions, the Applicant shall undertake immediate preventative and/or remedial measures at its expense.	YES		No dilapidation assessments have been requested during this reporting period.
Newcastle Herald's Printing Facilities at Holmwood Business Park				

34	Prior to commencement of mining, the Applicant shall: (i) conduct ambient vibration monitoring adjacent to (on the floor) and if required, on the most vibration-sensitive component of the printing facilities in order to establish both the levels of ambient vibration generated by the operation of the Printing Facility itself and that of any other nearby vibration sources; (ii) provide a detailed report on the monitoring procedures and the monitoring results and findings to the Newcastle Herald upon completion of the survey; (iii) meet with Herald representatives to discuss the results of the survey and determine whether the initially agreed limit of 0.3 mm/s is appropriate; and (iv) design initial blasting for compliance with a peak particle velocity vibration criterion of 0.3 mm/s adjacent to or on the Printing Facility, unless a more appropriate limit is mutually agreed.	YES		Blast Vibration Assessment was conducted for the Newcastle Fairfax Printing facility in 2001. The report results established the ambient vibration levels at the site. Discussions with Fairfax in 2001 resulted in an agreement that the vibration criteria be 3 mm/s ppv. Correspondence in relation to the 3mm/s ppv was received by Donaldson and DUAP advised of the change on 18 December 2001.
35	The Applicant shall monitor the impacts of blasting on the Printing Facility throughout the life of the mine, at a mutually agreed location in or adjacent to the Printing Facility during every blast. The Applicant shall provide results of the monitoring to the Newcastle Herald and provide a summary in the AEMR.	YES		There were no blasts during this reporting period that required monitoring at the Fairfax facility.
Hunter Water Corporation Pipelines				
36	The Applicant shall ensure that blasting is undertaken in a manner that protects the Hunter Water Corporation pipeline, to the satisfaction of the Hunter Water Corporation.	YES		Consultation with HWC resulted in agreement of a peak particle velocity of 100mm/sec at the pipeline. Historically, vibration monitoring has been conducted for each blast at monitors located along the pipeline corridor. No blasting occurred during this reporting period.
AIR QUALITY				
Air Quality Criteria				
37	The Applicant shall take all practical steps to manage the mine's operations so that the ambient air quality goals for total suspended particles (TSP) of 90ug/m3 (annual average) and the dust deposition goal of 4gm/m2 (annual average) are not exceeded as a result of the development when monitored at any monitoring location specified in the Air Quality Management Plan.	YES		The air quality results reported for the Donaldson Mine are compliant with the criteria in MCoA 37. The dust deposition criteria of 4gm/m2 and the TSP goal of 90ug/m3 have not been exceeded during this reporting period.

Air Quality Management				
38	The Applicant shall prepare and implement an Air Quality Management Plan, containing strategies to manage the mine's contribution to dust deposition, TSP, PM10 and PM2.5 to the satisfaction of the Director-General, prior to the commencement of construction. The Applicant shall make copies of the Air Quality Management Plan available to the independent expert (Condition 48), EPA, Councils and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		The Air Quality Management Plan for the Donaldson Mine was finalised in November 2000 and presented to the CCC on 13 November 2000. The Air Quality Management Plan was reviewed in 2007 by Holmes Air Services and no revision was required.
39	The Air Quality Management Plan shall: (i) identify potential sources of dust deposition, TSP and fine particulates (PM10 and PM2.5) and specify appropriate monitoring intervals and locations. The purpose of the monitoring is to evaluate, assess and report on these emissions and the ambient impacts with the objective of understanding the mine's contribution to levels of dust deposition, TSP and fine particulates in ambient air around the mine site;	YES		(i) Air Quality Management Plan addresses potential sources of dust emissions and presents an appropriate monitoring program in Section 2. The monitoring program was implemented and the results of the dust deposition, TSP, PM10 and DustTrak recording are presented in the AEMR's section 3.2.
	(ii) provide the mine's monitoring plan having regard to local meteorology and the relevant Australian Standards, identifying the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements;	YES		(ii) Air Quality Management Plan addresses the monitoring plan in Section 5.
	(iii) provide the design of any modelling or other studies, including the means for determining the contribution to dust deposition, TSP and fine particulates from the development;	YES		(iii) Air Quality Management Plan addresses modelling and other studies in Section 5.
	(iv) provide details of dust suppression measures for all sources of dust from the development (including the haul road and the rail loading site);	YES		(iv) Air Quality Management Plan addresses dust suppression measures in Section 6.
	(v) provide details of actions to ameliorate impacts if they exceed the relevant criteria; and	YES		Air Quality Management Plan addresses amelioration and mitigation measures for dust control in Section 7.
	(vi) provide the design of the reactive management system intended to reduce the day-to-day impacts of dust and fine particulates due to the mine's operation.	YES		Air Quality Management Plan addresses dust management procedures in Section 7.2, 7.4 and 7.5.

40	The Applicant shall ensure the prompt and effective rehabilitation of all disturbed areas as soon as practicable to minimise the generation of dust.	YES		Rehabilitation has progressively occurred on disturbed land at the Donaldson Mine overburden and backfill areas to minimise generation of wind blown dust, with revegetation established using local indigenous species.
41	The Applicant shall cease offending work at such times when the hourly average wind speed exceeds 5 metres per second and the operations are resulting in visible dust emissions blowing in a direction so as to cross onto public roads or lands not owned by the Applicant.	YES		The meteorological station installed at the Donaldson Mine site provides continuous reading of wind speed. Results are available instantly on computer at the Donaldson Mine site offices. Wind speed above 5 m/s triggers a response to stop work at the mine site until wind conditions return to below 5 metres/sec.
42	The Applicant shall revise the Air Quality Management Plan as necessary and provide an updated Plan five years after commencement of mining and to the Director-General, independent air quality expert (Condition 48), EPA, Councils and the Community Consultative Committee.	YES		The Air Quality Management Plan and monitoring program was reviewed by Holmes Air Services in 2007 and it was concluded that the plan was adequate and did not require to be updated. The DoP accepted that the Air Quality Management Plan did not require revision following the review by Holmes Air Services.
Air Quality Monitoring				
43	The Applicant shall install, maintain and continuously operate a meteorological station in accordance with the relevant Australian Standards and to the satisfaction of the EPA. The meteorological station shall be installed within six weeks of the date of this consent and remain for the life of the mine. The Applicant shall analyse and report the meteorological data on a monthly basis to adequately characterise the site, and shall use the data collected by the wind monitoring and recording station to determine when and how the mine operation is to be modified in accordance with the Air Quality Management Plan and the Conditions of this Consent.	YES		Meteorological station installed at the Donaldson Mine site office in December 2000. Meteorological data is collected continuously and analysed monthly.
44	The Applicant shall install, maintain and operate dust deposition gauges in accordance with the relevant Australian Standards and to the satisfaction of the EPA. The dust deposition gauges shall be installed and operational within six weeks of the date of this consent and the Applicant shall determine the dust deposition rate in grams/m2/month in each calendar month so that any increases in dust deposition rates can be presented in the AEMR.	YES		Nine (9) dust deposition gauges have been installed on the Donaldson Mine site, in accordance with Australian Standard. Dust deposition is analysed monthly and the data is presented by CBased Environmental in a monthly report to Donaldson Coal..

45	(1) The Applicant shall install, maintain and operate an air quality monitoring network in accordance with the relevant Australian Standards and to the satisfaction of the EPA. The network shall be installed and operational within six weeks of the date of this consent and in each calendar year the Applicant shall determine the concentrations of TSP in g/m3 (annual average) and fine particulates (PM10 and PM2.5) in g/m3 (24 hour average and annual average) so that the contribution of the mine to regional ambient air quality can be presented in the AEMR. (2) The Applicant shall also participate in (and if appropriate contribute reasonable funds to) regional air quality studies conducted by or on behalf of the EPA or the Director-General.	YES		(1) See MCoA 44 above. All air quality meteorological data is stored on the air quality database at the Donaldson Mine site. High Volume Air Samplers (HVAS) have been installed at the Black Hill School and Beresford Golf Course for collection of TSP, PM10 and PM2.5 particulates. (2) No approach has been made to Donaldson Mine in relation to regional air quality studies during this reporting period.
Air Quality Acquisition				
46 - 47		Not activated.		
INDEPENDENT MONITORING OF NOISE, VIBRATION OR DUST				
48-53		Not activated		
ACQUISITION PROCEDURE				
54-55		Not activated.		
INDEPENDENT VALUATION				
56-59		Not activated.		
WATER				
Water Management				
60	The Applicant shall prepare and implement a Water Management Plan in consultation with DLWC, Councils, EPA and the Hunter Catchment Management Trust, and to the satisfaction of the Director-General, prior to the commencement of construction. The Applicant shall make copies of the Water Management Plan available to the EPA, DLWC, DMR, Councils, the Hunter Catchment Management Trust and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		The Water Management Plan 2000 was developed in consultation with the EPA, DLWC, Councils, Hunter Catchment Management Trust and to the satisfaction of the Director-General, prior to the commencement of construction. The Water Management Plan was reviewed in 2005 and a revision of the Plan occurred in 2008.
61	The Water Management Plan shall include but not be limited to: (i) management of the impacts of the development on the quality and quantity of surface and groundwater, including water in dirty water dams and clean water diversion dams;	YES		(i) The Water Management Plan addresses the management of impacts of the development on the quality and quantity of surface and ground water in Section 3.

	(ii) stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;			(ii) The Water Management Plan addresses the management of impacts of the development on the quality and quantity of surface and ground water, in Section 3.3 and 3.4.
	(iii) stormwater management facilities designed to at least a 1:10 year storm design criteria;			(iii) The Water Management Plan addresses the stormwater management issues, in Section 3.3.
	(iv) identification of any possible adverse effects on water supply sources (both surface and groundwater) of landowners or occupiers from the development, and implementation of mitigation measures as necessary;			(iv) The Water Management Plan addresses possible adverse effects of the development on water supply sources, in Section 5.
	(v) identification of the fresh quality groundwater zones within the DA area and appropriate protection strategies;			(v) The Water Management Plan addresses the quality of groundwater zones within the DA area, in Section 6.
	(vi) management of the impacts of the development on the quality and quantity of groundwater within 2 kilometres of the boundary of the DA area, with particular attention to mobilisation of salts and contingency plans for managing any adverse impacts;			(vi) The Water Management Plan addresses the management of impacts on the quality and quantity of groundwater within 2km of the DA area, in Section 3 and 6.
	(vii) management of the impacts of the development on the quality and quantity of surface water discharged, including scheduling of mining operations to minimise the area excised from the catchment draining to Woodberry Swamp at any one time;			(vii) The Water Management Plan addresses the management of impacts on the quality and quantity of surface water discharged from the Donaldson Mine site, in Section 5.
	(viii) identification of a defined buffer zone between the mine pit and Four Mile Creek and measures to minimise the risk of blast-induced fractures in the buffer zone to prevent saline seepage from the rehabilitated landform toward Four Mile Creek in the post-mining period;			(viii) The Water Management Plan addresses the buffer zone and protection Four Mile Creek in Section 5.2.2
	(ix) procedures for the maintenance of drainage systems and water management structures; and			(ix) The Water Management Plan addresses the procedures for maintenance of drainage systems and water management structures in Section 4.2.
	(x) development of a strategy for the decommissioning of water management structures, including dirty water dams and clean water diversion dams, and long term management of the final void.			(x) The Water Management Plan addresses the strategy for decommissioning of the water management structures in Section 4.3.

62	The Applicant shall revise the Water Management Plan as necessary and provide an updated Plan five years after commencement of mining to the Director-General, EPA, DLWC, DMR, Councils, the Hunter Catchment Management Trust and the Community Consultative Committee.	YES		The Water Management Plan was reviewed in 2005 and Tasman Mine requirements included. The Plan was further revised in 2008 to include the Abel Mine water management.

Water Monitoring				
63	The Applicant shall prepare and implement a detailed monitoring program for groundwater and surface water in consultation with the Department, DPI, and the Hunter-Central Rivers Catchment Management Authority, throughout the life of the mine and for a period of at least 5 years after the completion of mining, or other such period as determined by the D_G. The results of the monitoring shall be included in the AEMR (Conditions 114-116). The monitoring program shall contain: details of proposed monitoring sites, frequency and parameters to be tested; pre-mining baseline data; monitoring of surface water quality to detect any changes in ambient water quality between the mine site and the wetlands; monitoring of macroinvertabrates and vegetation in accordance with the protocols developed by the Hunter SIGNAL biological assessment criteria, with an assessment of inflows to the wetlands; monitoring of stream bank and bed stability; monitoring of the volume and quality of water transfer between the Donaldson and Bloomfield operations; and a program for replacement of any monitoring bores destroyed by the development.	YES		(i) Water Quality Management Plan section 5.9 (ii) Water Quality Management Plan section 3. (iii) Water Quality Management Plan section 5.9 and 7 (iv) monitoring locations located upstream and downstream in the three creeks, using SIGNAL and OZRIVER assessment criteria. (v) Macro-invertebrate surveys include bank and bed stability. (vi) Continuous metering of water transfer volumes between the Donaldson and Bloomfield operations occurs.
64	Prior to 31 October 2005, the Applicant shall revise, and then implement any necessary changes in the monitoring program for groundwater and surface water to the satisfaction of the Director-General.	YES		The Water Management Plan was revised in 2005 under the Notification of Modification condition with comments received from DLWC and DoP and response from Peter Dundon & Associates.
Water Supply				
65	On request of a landowner whose water supply from licensed bore holes or springs has been determined by DLWC at any time to have been affected by the project, the Applicant shall replace lost water supply with water of an equivalent quality and quantity to meet the landowner's requirements, to the satisfaction of DLWC.	Not activated at the time of this environmental audit.		
EROSION AND SEDIMENT CONTROL				

66	The Applicant shall prepare and implement an Erosion & Sediment Control Plan for the development (including the haul road and the relocation of utilities and services) to the satisfaction of DLWC and submit the Plan to the EPA as part of applications for a licence under the Protection of the Environment Operations Act. The Plan shall be prepared prior to the commencement of work in the relevant areas. The Applicant shall make copies of all Erosion & Sediment Control Plan available to D-G, Councils and the CCC within 14 days of approval.	YES		Erosion and Sediment Control Plan was submitted to the EPA on 4 May 2000 as part of the application for Environment Protection Licence No. 11080. A review of the Erosion and Sediment Control Management Plan was conducted in 2005 following the DPI-MR inspection in May 2005, and the Plan revised.
67	The Erosion and Sediment Control Plan(s) shall include consideration and management of erosion and sedimentation of watercourses and water bodies, including Woodberry Swamp.	YES		The Erosion and Sediment Control Plan addresses the management of erosion and sedimentation of watercourses and water-bodies on the Donaldson Mine site, in Sections 4. Control of erosion and monitoring of water quality of watercourses and water bodies on the mine site and to the boundaries of the Donaldson property, results in management of impact from the mine on downstream habitats (e.g. Woodberry Swamp). Monitoring also includes assessment of bank and bed stability as part of the macroinvertabrate survey reports.
FLORA AND FAUNA				
Tetratheca Juncea Conservation Area				

68	Prior to the commencement of construction, the Applicant shall: (i) undertake a survey of potential Tetratheca Juncea habitat in the southwest portion of the site. The survey shall: (a) be undertaken by a suitably qualified botanist, with the assistance of a suitably qualified surveyor, both approved by the Director-General; (b) re-examine the outcomes of previous surveys; (c) be undertaken between the months of August and December (inclusive); (d) record the location of Tetratheca Juncea clumps on the ground using suitable tags and by using either theodolite and electronic measuring equipment or differential GPS; (e) investigate the occurrence of any native sonicating bee habitat within 500 metres of the Tetratheca Juncea population; and	YES		(i) Figures 1 and 2 of the Tetratheca Juncea Management Plan show the Southwest Conservation Area. (a) a T. Juncea survey of the Conservation Area was undertaken by Gunninah Environmental Consultants and the areal survey of the area was conducted by a qualified surveyor. (b) The results of previous T. Juncea surveys were assessed and collated with the current data for the preparation of the maps and T. Juncea Management Plan. (d) T. Juncea clumps have been located using GPS and surveyed onto the site maps in the T.Juncea Management Plan. (e) Bee habitat is discussed in Section 5.2.2 of the T. Juncea Management Plan.
	(ii) establish a Conservation Area for the Tetratheca Juncea based on the findings of the survey. The Conservation Area shall include a 50 metre buffer. The boundaries of the Conservation Area shall be surveyed and marked by a suitably qualified surveyor, with the assistance of a botanist, using either a theodolite and electronic measuring equipment or differential GPS. No clearing, construction or mining shall commence until the boundary of the Conservation Area has been approved by the Director-General.			(ii) The southwest Conservation Area has been established with a 50 metre buffer to the closest area that may become part of the mine operations (see Figure 1 from the Flora and Fauna Management Plan). The area is pegged but not fenced.

69	The Applicant shall prepare a Management Plan for the Tetratheca Juncea Conservation Area in consultation with NPWS and to the satisfaction of the Director-General, prior to commencement of construction. The Plan shall be consistent with the Flora and Fauna Management Plan (Conditions 76-79); and include measures for fire management. The Applicant shall clearly mark the boundary of the Conservation Area and make provision for signage which specify that no dumping, clearing or other works are permitted in the Conservation Area. Such signage shall be replaced as required. The Applicant shall make copies of the Tetratheca Juncea Management Plan available to NPWS, Councils and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		NPWS provided correspondence advising they were satisfied that the T Juncea Management Plan in November 2000. The property boundary of the Conservation Area is fenced along John Renshaw Drive and the T.Juncea areas are pegged but not fenced or signed. (The presence of a fence or signage around the specific areas of T.Juncea would highlight their location and result in unwanted attention and possibly vandalism to the area). The current status of the Conservation Area indicates that there is no intrusion of work areas or other disturbance to the T.Juncea locations. Weekly surveillance of the Conservation Area is conducted. A biologist monitors the T.Juncea areas to keep records of the status of growth and flowering.
BUSHLAND AREA				
70	Within six months of this Consent, or as otherwise agreed by the Director-General, the Applicant shall identify a bushland area(s) in the region that will adequately compensate for the impact of the mine on biodiversity, provide compensatory habitat and be managed for the primary purposes of conservation. The area shall be identified in consultation with NPWS and Councils and be to the satisfaction of the Director-General. Identification of the bushland area(s) shall include:	YES		See below
	(i) a detailed assessment of the current characteristics and ecological values of existing ecosystems affected by the mine, including the habitat of threatened species identified in the EIS as possibly occurring in the area and the Spotted Gum Ironbark community; (ii) identification of conservation objectives to be achieved by the establishment of the bushland area(s), with reference to the Regional Biodiversity Strategy and the principles of Ecologically Sustainable Development;	YES		(i) A detailed assessment of the current flora and fauna and habitat values of the mine site was conducted by Barker Harle in 2001. (ii) The Bushland Area Management Plan was

	(iii) consideration of alternative locations within the region, including, but not limited to, the land proposed as compensatory area in the EIS (i.e. land adjoining the mine site); (iv) a detailed assessment of appropriate boundaries, size and shape of the bushland area(s), in relation to the characteristics, values and objectives; (v) consideration of appropriate management options necessary to protect the conservation values; and (vi) consideration of opportunities to incorporate cultural heritage conservation into the bushland area(s).			prepared and submitted to the Director-General in 2005 for approval. The Plan included identification of conservation objectives. (iii) NPWS provided Donaldson Mine with a number of compensatory bushland areas to consider in 2001. Donaldson assessed inclusion of land around the mining lease, and have established the Conservation Area for bushland protection, within the mine lease area.
71	In identifying the bushland area(s), the following broad criteria shall be applied: (i) a ratio of 2:1 in terms of compensatory area to the area to be directly impacted by mining and associated infrastructure; (ii) the vegetation communities and habitat values of the bushland area(s) are to be broadly representative of the area which will be subject to mining and contain a similar suite of fauna species; (iii) the location of the bushland area(s) will aim to consolidate existing reserves in the lower Hunter Area; and (iv) reserve design criteria, including edge-to-area ratio, size and connectivity shall be taken into account.	YES		(i) The Donaldson owned property around the mine area has been retained as a buffer and compensatory conservation area. (ii) The compensatory area of bushland is adjacent to and surrounds the mining area and is representative of the vegetation communities and habitat present on the disturbed areas. (iii) The compensatory area around the Donaldson Mine is contiguous with the Ironbark-Spotted Gum vegetative corridors in the Maitland area.
72	Upon approval of the identified bushland area(s) by the Director-General, the Applicant shall: (i) secure care, control and management of the bushland area(s) prior to the commencement of mining; (ii) retain management and ownership of the land for a minimum of 36 years from the commencement of construction, unless other arrangements are agreed in accordance with Condition 73; and	YES		(i) The bushland area around the mine operations is owned by Donaldson Mine and managed as part of the overall land management strategies. (ii) See above.

	(iii) prepare and implement a Management Plan for that area in consultation with NPWS and to the satisfaction of the Director-General, during the period in which the Applicant is responsible for management. The Management Plan shall be consistent with the Flora and Fauna Management Plan (Conditions 76-79) and consider the integration of cultural conservation objectives and management. The Applicant shall make copies of the Management Plan available to NPWS and the Community Consultative Committee within 14 days of approval by the Director-General. For the purposes of the Conditions of this Consent, the bushland area(s) approved by the Director-General shall be known as the Bushland Conservation Area until the completion of the period referred to in Condition 72(ii) and any Conditions relating to Conservation Areas shall apply to that area during that period. The Management Plan referred to in Condition 72(iii) shall be referred to as the Bushland Conservation Area Management Plan.	YES		(iii) The Bushland Conservation Area Management Plan was developed in consultation with the NWPS and the Plan submitted to the Director-General on 31 October 2005. (Refer to MCoA 74).
73	The Applicant shall undertake negotiations with the NPWS and Councils to reach agreement on the long term tenure and management status of the Bushland Conservation Area. These negotiations must commence within six months of commencement of construction.	YES		Donaldson Coal provided information on the management of the proposed bushland conservation area to NPWS in May 2001 and undertook consultation and negotiations with the authorities. A Draft Plan of Management for the Bushland Conservation Area was presented to the D-G in February 2005 and the Plan revised and submitted to the D-G in October 2005.
74	Prior to 31 October 2005, the Applicant shall revise the Bushland Conservation Area Management Plan to compensate for the extension of the disturbance area in the vicinity of Weakleys Flat Creek, to the satisfaction of the Director-General, and provide an updated Plan to the DEC, Councils, and the Consultative Committee.	YES		The Draft Bushland Conservation Area Management Plan was revised in October 2005 and submitted to DIPNR by 31 October 2005. In November 2005 the DoP released the Draft Lower Hunter Regional Strategy (LHRS) which identified some of the Donaldson land and adjoining lands as inter-modal freight facility, and vegetation corridors for future conservation, the most significant of which was the Stockton to Watagan Range corridor that encompasses part of the Donaldson land. Studies by DEC during 2006 in preparation for the Draft Lower Hunter Conservation

				Plan (LHCP), which was to be released together with the final LHRS, identified parts of the Donaldson land for conservation reserve and bio-banking investment (NAPS Map). The identified conservation land does not align exactly with the Donaldson Bushland Conservation Area. Donaldson, along with other Lower Hunter major landowners, was formally requested by DEC to consider dedication of lands for conservation in the reserve system prior to announcement of the final LHRS and Draft LHCP. Donaldson presented a formal proposal to DEC in late 2006, and discussions with DEC are continuing for a major portion of the Donaldson land to be dedicated as conservation reserve or nominated as Bio-banking investment area. The likely outcome of the intensive investigations described above is that some 400-500 hectares of the Donaldson land may be placed in permanent conservation (via either the reserve system or bio-banking) and the remainder of the land will be zoned consistent with the final LHRS (yet to be finalised).
Flora and Fauna Management				

75	The Applicant shall bear the reasonable costs of the appointment by the Director-General of an independent flora and fauna expert(s) to assist in the implementation of the Conditions of this Consent. The independent expert(s) shall: (i) be selected in consultation with the applicant; (ii) assess and advise the D-G on the proposed Conservation Areas and Management Plans; (iii) assess and advise the D-G on the proposed bushland area(s); (iv) assess and advise the D-G on the proposed Flora and Fauna Management and the Rehabilitation Plan; (v) assess and advise the Director-General on the monitoring of flora and fauna management and rehabilitation.	Planning NSW - condition of approval		Robert Payne was commissioned as an independent flora and fauna expert by Director-General to assess and advise on the flora and fauna management for the Donaldson Mine proposed conservation areas and flora and fauna management plans.
76	The Applicant shall prepare and implement a Flora and Fauna Management Plan for the mine site (in addition to the management plans for specific Conservation Areas), in consultation with DLWC, NPWS and Councils, and to the satisfaction of the Director-General, prior to the commencement of construction. The Applicant shall make copies of the Flora and Fauna Management Plan available to DLWC, NPWS, Councils and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		The Flora and Fauna Management Plan was prepared and approved by DUAP in December 2000. The Flora and Fauna Management Plan was implemented for the Donaldson Mine site and the Plan reviewed in 2007. The flora and fauna monitoring programs have been conducted and results summarised in the AEMR's.
77	The Flora and Fauna Management Plan shall include but not be limited to: (i) additional surveys to more precisely identify the distribution of known and potential nest and roost trees for owl species. The surveys shall: (a) be undertaken by a person experienced in the identification of owl nest and roost trees, approved by the Director-General; and (b) record the location of known and potential nest and roost trees on the ground by marking the tree and by using either theodolite and electronic measuring equipment or differential GPS;	YES		(i)(a) Additional surveys of owl habitat were conducted by Rod Kavanagh on the Donaldson Mine site during Sept - Oct 2000. The Kavanagh Report is included in Appendix F and G of the Flora and Fauna Management Plan.
	(ii) a vegetation map delineating major vegetation communities, topographic features and the location of threatened species habitats, including potential and known owl nest and roost trees;			(ii) Figures 3 and 4 in the Flora and Fauna Management Plan present vegetation communities and locations of threatened species habitats on the Donaldson Mine site.

	(iii) details of measures to manage the impacts of the development, including: (a) restoration of degraded areas; (b) management of invasive weeds and feral animals; (c) establish an appropriate hazard reduction regime in keeping with the ecological values of the area; (d) revegetation and provision of compensatory areas of equivalent ecological and habitat value where necessary; and (e) strategies to provide increased security for existing habitats and communities;			(iii)(a) Degraded area restoration procedures are presented in the Rehabilitation Plan Dec 2000 section 4.3.7. (iii)(b) Weed management and feral animal control are presented in the Rehabilitation Plan sections 5.2 and 5.3. (iii)(c) Hazard reduction addressed in the Rehabilitation Plan section 5.4, and the Bushfire Management Plan. (iii)(d) See comments on MCoA 71 to 74. (iii)(e) Protection strategies for existing habitats and communities include pre-clearing surveys of all areas to be disturbed, fenced perimeter of the mine lease area, and the Flora and Fauna Management Plan section 4.1 and 4.2.
	(iv) details of measures to manage the impacts of environmental management on flora and fauna, including the impact of erosion and sediment control measures and hazard reduction burning;			(iv) The priorities for action in relation to protection of flora and fauna are outlined in section 4.3.1 (Erosion and Sediment Control) and section 4.3.6 (Bushfire Management Regime) of the Flora and Fauna Management Plan.
	(v) priorities for action and a timetable for all works outlined in the Plan; and			(v) The priorities for action in relation to protection of flora and fauna are outlined in section 4.4 of the Flora and Fauna Management Plan.

	(vi) a program to monitor flora and fauna impacts on undisturbed portions of the mining lease area and downstream environments (such as the Woodberry Swamp). The program shall extend for the life of the mine and for a period thereafter as approved by the Director-General, and include: (a) justification for monitoring intervals and locations; (b) monitoring of the presence and persistence of native flora and fauna species over time, particularly threatened species; and (c) monitoring the effectiveness of management measures.			(vi) Section 5 (Monitoring and Reporting) of the Flora and Fauna Management Plan describes the proposed monitoring programs. A detailed survey and reporting of the flora and fauna on the Donaldson Mine site was conducted during Sept and Oct 2001 by Barker Harle. The quadrants used for the surveys were recorded and the report provides a detailed quantitative description of the flora and fauna species present within the boundaries of the Donaldson property. As the Donaldson property has no boundary with the Woodberry Swamp the surveys did not extend to the Woodberry Swamp. There are a large number of developments downstream of Donaldson that have the potential to affect the environment of the swamp. The surveys to the boundary of the Donaldson property will specifically identify potential impacts from the mine activities.
78	The Flora and Fauna Management Plan shall also include a Rehabilitation Plan that details the measures to be undertaken to progressively rehabilitate disturbed areas of the mine to replicate the original vegetation cover that existed before mining occurred. The Applicant shall be responsible for the management and monitoring of the rehabilitated mine site until such time as the Director-General agrees that restoration has been successful.	YES		The Rehabilitation Plan was included in the Mining Operations Plan (MOP) for the June 2006 to May 2012 period for the Donaldson Mine. The Rehabilitation Management Plan is now Appendix 3 of the Landscape Management Plan 2008.
79	The Applicant shall revise the Flora and Fauna Management Plan as necessary and provide an updated Plan five years after commencement of mining to the Director-General, NPWS, Councils and the Community Consultative Committee.	In progress		The Flora and Fauna Management Plan was reviewed by Ecobiological in March 2007 and a Revised Flora and Fauna Management Plan submitted to DoP on 17 July 2007. DoP approved the revised Plan on 25 July 2007.

80	The Applicant shall participate in (and if appropriate, contribute such reasonable funds as determined by the Director-General in consultation with NPWS) research into the Powerful Owl and Masked Owl habitat requirements in the region, and the habitat requirements and lifecycle of Tetratheca Juncea.	YES		Donaldson Mine supported projects by the University of Newcastle with financial and technical help for: Deborah Landenberger - 2 year Honours project 'Defining the Niche of T. Juncea'; and Adam Blundell with Rod Kavanagh during 2002-2003 for 'Comparing Ecology of Powerful Owl in Disturbed and Undisturbed Environments'. Both these projects have been completed.
HERITAGE				
Heritage Statutory Requirements				
81	Prior to commencement of construction, the Applicant shall: (i) comply with the statutory requirements of NPWS in relation to works affecting Aboriginal sites; and (ii) undertake a targeted archaeological survey of the slopes component within the mining impact area in cooperation with the Aboriginal community. Any Aboriginal sites located will be recorded, the significance of the sites assessed, and management strategies for the sites identified.	YES		Management of the aboriginal heritage sites occurs in accordance with the Aboriginal Sites Management Plan and the status of management is reported in the Annual Return.
82	If, during the course of construction, the Applicant becomes aware of any heritage or archaeological material, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the Heritage Office, and the Local Aboriginal Land Councils. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.	YES		Section 90 Consents to Destroy under the National Parks and Wildlife Act , were obtained for Aboriginal artefact areas DMS1 on 22 April 2000 and ISF1 and ISF2 on 3 May 2000. No further Section 90 Consents have been required since that time.

Aboriginal Heritage Management				
83	Prior to commencement of construction, the Applicant shall establish an Aboriginal Conservation Area along Four Mile Creek and tributaries in accordance with a plan approved by the Director-General. The plan shall include: (i) identification of an appropriate boundary and the basis on which the boundary has been selected; (ii) a map at a scale of 1:1000 or larger which clearly delineates the Conservation Area boundary and specific features; and (iii) documentation of consultations with NPWS and Aboriginal community groups in relation to the definition of the Conservation Area.	YES		(i) A 50 metre buffer along Four Mile Creek as an Aboriginal Conservation Area (ACA) has been established by Donaldson Coal. The ACA boundary is shown in Figure 2.3 of the Aboriginal Sites Management Plan. (ii) Maps of the Four Mile Creek Conservation Area and other Conservation Areas (1:1000 scale) have been prepared by Donaldson Coal for the Donaldson Mine area. (iii) Consultation with the Mindaribba Aboriginal Local Land Council was held during the preparation of the Aboriginal Sites Management Plan. NPWS consultation and correspondence was available on file.
84	The Applicant shall prepare and implement an Aboriginal Sites Management Plan in consultation with the Aboriginal community, Councils and NPWS, and to the satisfaction of the Director-General, prior to the commencement of construction. The Applicant shall make copies of the Aboriginal Sites Management Plan available to the Director-General, Aboriginal community, Councils and the Community Consultative Committee within 14 days of approval by NPWS.	YES		An Aboriginal Sites Management Plan was prepared prior to commencement of mining operations in 2000, with Supplementary Plans prepared for Years 2 to 5 of the operations. The Aboriginal Sites Management Plan has been submitted to the relevant authorities within 14 days of approval by the NPWS. The Aboriginal Sites Management Plan has not required revision since 2005.

85	The Management Plan shall include, but not be limited to: (i) documentation of consultation with the relevant Aboriginal community groups to identify any outstanding concerns they may have with the project and a clear statement about how these concerns will be addressed, including any action to be taken; (ii) identification of conservation objectives for the site as a whole and for the Conservation Area specifically; (iii) a program to monitor the impacts of the development on the Conservation Area, including justification for monitoring locations and intervals; (iv) strategies to achieve conservation objectives, including an access policy; (v) the provision of fencing to permit faunal movement and the removal of fencing within six months of completion of mining; (vi) further investigations; and (vii) long term management requirements upon completion of mining.	YES		(i) Consultation with the Mindaribba Aboriginal Local Land Council is addressed in the Plan with relevant correspondence attached in Appendix 1 of the Plan. (ii) Conservation objectives are addressed in section 1.3 of the Aboriginal Sites Management Plan. (iii) Monitoring of the Conservation Area is outlined in section 2.1 and 3 of the Aboriginal Sites Management Plan. The location of the monitoring datum points are illustrated in Figure 2.4 of the Plan. (iv) Strategies to achieve the conservation objectives are outlined in section 2 of the Aboriginal Sites Management Plan. (v) The boundary of the Mining lease area and the Donaldson owned land is fenced. (vi) The mining lease area was re-surveyed for Year 2 to 5 of the mining operations. Ongoing monitoring and surveys will occur prior to disturbance of any new areas required for mining.
86	The Applicant shall revise the Aboriginal Sites Management Plan as necessary and provide an updated Plan five years after commencement of mining to the Director-General, NPWS, Councils and the Community Consultative Committee.	YES		The Aboriginal Sites Management Plan was subjected to annual review until 2005 and amendments to the Plan made by Umwelt as required. The Plan has not required revision since 2005.
WASTE				

87	The Applicant shall prepare and implement a Waste Management Plan in consultation with EPA, DMR and the Hunter Waste Planning and Management Board, and to the satisfaction of the Director-General, prior to commencement of construction. The Applicant shall make copies of the Waste Management Plan available to Councils and the Community Consultative Committee within 14 days of approval by the Director-General.	YES		The Waste Management Plan was prepared prior to commencement of construction of the mine. The Plan was submitted to DUAP and approved on 10 October 2000. Copies of the Waste Management Plan were distributed to the Councils and the CCC, within 14 days of approval by the Director-General.
88	The Waste Management Plan shall include, but not be limited to the management of the mine site to prevent dumping of waste; and the management and treatment of Potentially Acid Forming waste.	YES		Management of waste streams including overburden, coarse rejects material and fine reject material is included in section 7 of the Waste Management Plan. The management and treatment of potential acid forming (PAF) material is addressed in the geotechnical report and there is ongoing assessment of PAF material to ensure application of best practice management options.
89	The Applicant shall meet the requirements of Councils, EPA and Hunter Water Corporation with respect to water and sewer.	YES		Potable water for use on the mine site is supplied from the Hunter Water Corporation. There is no discharge to sewer from the site operations. All ablutions are connected to onsite biocycle systems.
VISUAL AMENITY				
Landscaping				
90	The Applicant shall provide a minimum of 50 metres of landscaping between the outer edge of the bund wall and the edge of John Renshaw Drive. The 50 metres may include landscaping within the road verge if agreed by Cessnock Council.	YES		The Landscape Management Plan has been implemented with revegetation of the 50m strip along the power-line

				easement between John Renshaw Drive and the earthern bund on the edge of the high-wall of the open cut.
91	The Applicant shall, within three months of the date of this Consent, or within such further period as Councils may require, submit for the Councils' approval a detailed Landscaping Plan covering all land within the proposed mining area (including the haul road and transmission line easements) and road reserve along the frontage to John Renshaw Drive. The Applicant shall engage a suitably qualified person to assist in the landscaping plan.	YES		The Landscape Management Plan was reviewed and revised in March 2008. The 2008 Landscape Management Plan is an integrated plan for all the Donaldson Coal projects (i.e. the Donaldson Mine, Tasman Mine and Abel Mine). The 2008 Plan has the Rehabilitation Management Plan, Final Void Management Plan and Integrated Mine Closure Plan appended to provide an overall strategy for the mines.
92	The Landscaping Plan shall be consistent with the Environmental Management Strategy and include: (i) provision for the establishment of trees and shrubs and the construction of mounding or bunding along the planned highwall and any other areas identified as necessary by the Councils for the maintenance of satisfactory visual amenity and the re-establishment of flora and fauna habitats and corridors;	YES		The Landscape Management Plan 2000 addresses the establishment of trees and shrubs for visual amenity and re-establishment of flora and fauna corridors in Section 4.3.
	(ii) appropriate erosion control and sediment control practices for earthworks associated with the landscaping;			The Landscape Management Plan 2000 addresses erosion and sediment control in Section 4.3 and refers to the Erosion and Sediment Management Plan.
	(iii) details of the visual appearance of all buildings, structures, facilities or works (including paint colours and specifications). Buildings and structures shall be designed and constructed so as to present a neat and orderly appearance and to blend as far as possible with the surrounding landscape; and			The Landscape Management Plan 2000 addresses the visual appearance of buildings, structures, facilities and works in Section 4.0.
	(iv) details, specifications and staged work programs to be undertaken, including a maintenance program of all landscape works, building materials and cladding.			The Landscape Management Plan 2000 addresses the staged work programs for maintenance program of all landscape works, building materials and cladding in Section 4.2

93	The Applicant shall implement the approved Plan in accordance with Councils' requirements and make copies available to the Community Consultative Committee within 14 days of approval by Councils.	YES		Copies of the Landscape Management Plan 2000 were provided to the CCC following approval by the Councils 9 March 2000. The revised Landscape Management Plan was submitted to the CCC in 2008.
94	The Applicant shall plant screening vegetation on properties at higher elevation and with views across the mine site in the Black Hill area if requested in writing by the landowner, within three months of that request. The species, density and location of the plantings shall be determined in consultation with the landowner.	Condition not activated at the time of the audit.		
95	The Applicant shall lodge a landscaping bond with Cessnock Council, to a maximum of $10,000 at any one time, for landscaping during the life of mine. This bond does not affect rehabilitation works covered by the Mining Act.	YES		Landscaping bond of $10,000 lodged with the Cessnock City Council on 19 April 2007.
Lighting				
96	The Applicant shall screen or direct all onsite lighting and vehicle lights away from residences and roadways to the satisfaction of Councils. All screening to be completed prior to commissioning of the coal preparation plant and associated facilities.	YES		Lighting from the mine activities has not given rise to complaints. No lighting is used on high points of the overburden emplacement areas at night and no light scatter occurs to roadways or residential areas from the Donaldson Mine operations.

HAZARDS, RISKS AND SAFETY				
97	The Applicant shall: (i) provide adequate fire protection works on site. This shall include one fully equipped fire fighting unit on standby and hazard reduction works at a time determined by the relevant Council, with particular attention to boundaries of adjoining land holdings;	YES		(i) Fire fighting equipment on includes a 38,000L water cart with capability for fire fighting. Meetings have been held between Donaldson Mine and the Cessnock City Council / Thornton Fire Brigade in relation to access to the mine site in case of fire. Donaldson Coal will make equipment available if required at short notice to construct fire-breaks or access to reach the seat of any fire on Donaldson property.
	(ii) submit an annual report on fire management activities to the local Bush Fire Management Committee; and	YES		(ii) A Bushfire Management Plan for the areas owned by Donaldson Coal was prepared in 2004 and submitted to the Rural Fire Service for review. Following a site inspection the RFS provided comments and the Plan was updated and finalised. A report on controlled burn-off at the Donaldson site was forwarded to the RFS for inclusion in the Bush Fire Management Committee folder in Oct 2005. Hazard burning is conducted on the Donaldson Mine site and reported to the Bushfire Management Committee by the RFA. Mechanical works along the southern and eastern sections of the Avalon Estate at Thornton is also carried out annually.

	(iii) ensure that all dangerous goods and materials stored on site are stored in accordance with the relevant Australian standards.	YES		(iii) The fuel farm facility that is at the Abel site is approved as a storage facility for hazardous materials under Workcover requirements. Storage of lubricants and waste oil is in drums and small above ground tanks that are less than the volume required to be notified under the Occupational Health and Safety (Dangerous Goods) Regulation 2005.
UTILITIES AND SERVICES				
98	The Applicant shall consult with affected service authorities and make arrangements satisfactory to those authorities for the protection or relocation of utilities and services (such as transmission lines and pipelines) at the Applicant's expense, prior to any existing utilities or services being affected by mining activity. Relocation of utilities and services shall be conducted in accordance with the relevant Management Plans and the Erosion and Sediment Control Plan(s).	YES		The Energy Australia 11kV power-line was relocated along an easement adjacent to the John Renshaw Drive boundary of the mine lease, in 2002. Part of the Hunter Water Corporation water pipeline was relocated for the progression of the Donaldson Mine, in accordance with the MOP. Telstra lines off the new intersection on John Renshaw Drive were relocated in 2006.
TRANSPORT AND ACCESS				
99	Prior to commencement of construction, or as otherwise agreed by the Councils, the Applicant shall design, construct and seal the private haul road and access road to the satisfaction of the Councils, and with consideration of the impact on the fragmentation of fauna habitat and fauna movement.	YES		The internal haul road was constructed from Donaldson Mine to Bloomfield CPP and Coal Loader in 2001. Cessnock City Council advised it did not require to approve the road construction as it was an internal haul road. The Flora and Fauna Management Plan included pre-clearing protocol, road design and general measures covering erosion and sediment control, removal of weeds and rubbish, and incident reporting that were applied to the construction of the road.

100	No coal shall be hauled on public roads.	YES		All coal from the Donaldson Mine is transported to the Bloomfield CPP by the internal road and the product coal is transported by rail from the Bloomfield Coal Loader to Newcastle. No coal is transported on public roads.
101	The Applicant shall carry out intersection improvements as determined necessary by the Regional Traffic Committee as a result of the development and by such times as directed by the Regional Traffic Committee.	YES		A Development Application was submitted to the Cessnock City Council for the John Renshaw Drive intersection in Nov 2001. The Hunter Regional Traffic Committee considered the DA and recommended a number of changes, and the plan was amended and re-submitted to the Council. The Council re-exhibited the DA and granted consent in July 2003. The intersection from John Renshaw Drive to the Donaldson Mine access road was completed in accordance with the consent.
102	If closure of John Renshaw Drive is agreed by the Regional Traffic Committee under Condition 25(4), the Applicant shall: (i) pay $20,000 to Cessnock City Council to upgrade the alignment and surface of the unsealed western end of Black Hill Road; (ii) provide a water cart and apply water to the unsealed western end of Black Hill Road to the requirements of Cessnock City Council prior to each closure of John Renshaw Drive for blasting; and (iii) prepare a Traffic Management Plan for the approval of the RTA in relating to the closure of John Renshaw Drive during blasting.	YES		The $20,000 contribution was provided to the Cessnock City Council in November 2004 for the upgrade of the western end of Black Hill Road. The improvements to Black Hill Road were completed by Cessnock City Council. The improvement of the Black Hill Road intersection with a John Renshaw Drive turning lane, was under construction at the time of this audit (i.e. April 2010). Donaldson has a current Road Occupancy Licence for the closure of John Renshaw Drive during blasting.

103	The Applicant shall provide for signalling of the Bloomfield rail loop to the satisfaction of Freight Corp prior to the commencement of mining.	YES		Freightcorp correspondence provided options for implementation of safe working procedures for the rail loop to satisfy MCoA 103. Bloomfield upgraded the rail system alarm signals on the Entry road to the mines, from the old key system. The management of trains on the loop has been upgraded with implementation of safe work practices.
INITIAL COAL WASHING				
104	Upon commencement of coal extraction, the Applicant shall initially make use of the coal preparation plant (CPP) at the adjoining Bloomfield coal mine for up to two years from commencement of mining or such other period as approved by the Director-General. This will allow the Applicant to: (i) trial the washing of Donaldson coal to assist in the determination of its washing characteristics; and (ii) commence the earliest possible coal extraction at Donaldson, and hence hasten project completion.	YES		Approval for the ongoing use of the Bloomfield CPP is now in place under the Abel Mine consent with an extended agreement between Bloomfield Coal and Donaldson Coal.
105	The haulage route for raw coal from the Donaldson pit to the Bloomfield CPP shall be the same as that proposed for haulage of product coal from the proposed Donaldson CPP to the existing Bloomfield rail loading facility up to the point of intersection with the Bloomfield Mine access road, and thence westward along the Bloomfield Mine access road to the CPP, unless otherwise agreed to with the owners of Bloomfield. However, any variation to the route shall be considered to determine whether a modification to this Consent is required to enable the variation.	YES		Donaldson Coal constructed an internal haul road to transport ROM coal to the Bloomfield CPP, the road alignment crossing Four Mile Creek.
106	The Applicant shall notify the Director-General within eighteen months of the commencement of mining as to the results of the Bloomfield washery trials.	YES		See comment on MCoA 104.
COMMUNITY INVOLVEMENT				
Community Consultative Committee				

107	The Applicant shall establish a Community Consultative Committee which shall be chaired by an independent chairperson approved by the Director-General. Selection of representatives shall be agreed by the Director-General and include (unless otherwise agreed by the Director-General) two representatives from the Applicant (including the Environmental Officer), four community representatives (including a representative of the local Aboriginal Community) and representatives of the local Councils. Representatives from relevant government agencies (including DUAP) may be invited to attend meetings of the Committee as required.	YES		The CCC was established on 30 May 2000 and meetings were held regularly. There were no meetings during the reporting period as no mining/rehabilitation activity has occurred during the reporting period.
108	The Committee may make comments and recommendations about the implementation of the development. The Applicant shall ensure that the Committee has access to the necessary plans and/or studies for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee and the Director-General.	YES		Whilst the mine site was operational, Management Plans were provided to the CCC for comment and information. Discussion of management plans had occurred at the CCC meetings.
109	The Applicant shall, at its own expense: (i) provide appropriate facilities for meetings of the Committee;	YES		Whilst the mine site was operational CCC Meetings were held at Donaldson Mine offices. Donaldson arranged and provided the required material and administrative backup for the meetings.
	(ii) nominate a representative to attend all meetings of the Committee;	YES		The Donaldson Coal nominated representative to attend all meetings is the Environmental Superintendent - Phillip Brown.
	(iii) ensure that the first meeting is held prior to commencement of construction, that meetings are held at least every six months for the first 24 months from the date of the mining lease and at least annually thereafter;	YES		The first meeting of the CCC was held on 30 May 2000 prior to commencement of construction and subsequent meetings have been held on a regular basis. The meetings have been arranged by the Independent Chairperson as required. .
	(iv) provide to the Committee regular information on the progress of the work and monitoring results;	YES		Reports on project status, monitoring results and AEMR's and complaints were provided to the CCC and

	(v) promptly provide to the Committee such other information as the Chairperson of the Committee may reasonably request concerning the environmental performance of the development; and	YES		Material was provided to the CCC as and when requested as detailed in the CCC Minutes.
	(vi) provide reasonable access for site inspections by the Committee.	YES		Site inspections by members of the CCC to view the mine and rehabilitation areas, following CCC Meetings.
110	The Applicant shall establish a trust fund to be managed by the Chairperson of the Committee to facilitate functioning of the Committee, and pay $2000 per annum to the fund for the duration of mining operations. The payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting.	YES		A trust fund for the functioning of the CCC was established in May 2000 and has been managed by the Independent Chairperson. Donaldson Coal provided all the requirements for the CCC Meetings with any additional funding reported to be provided upon request by the Chairperson.

Community Information				
111	The Applicant shall, in consultation with Councils, ensure that the local community is kept informed of the progress of the project, including prior notice of: (i) the nature of works proposed for the forthcoming period; (ii) hours of construction; (iii) a 24 hour contact telephone number; (iv) any traffic disruptions and controls; (v) proposed blasting program, and any changes to the program; (vi) work required outside the normal working hours; (vii) individuals' rights under the Conditions of this Consent (such as the rights for acquisition or independent monitoring) and mechanisms proposed to be used to safeguard the community and individual properties against adverse impacts from the development.	YES		Since June 2003, community information has been made available on the Donaldson website.
112	The Applicant shall ensure that the AEMR, minutes from Community Consultative Committee meetings and results and interpretation of monitoring required by this Consent are placed on the Internet for public information within 14 days after they are available. The Internet address is to be made publicly available.	YES		Donaldson website has been established and information on the CCC, monitoring and company status and activities is available on the site, including Minutes of the CCC Meetings, AEMR's and any project Newsletters.
Complaints				
113	(1) The Applicant shall record details of all complaints received and ensure that a response is provided to the complainant within 24 hours. (2) If the Applicant's response does not address the complaint to the satisfaction of the complainant within six weeks, the Applicant shall refer the matter to an independent mediator (approved by the Director-General) and bear the costs of such mediation. The Applicant shall immediately carry out such works as agreed through the mediation process. (3) The Applicant shall make available a 3 monthly report on complaints to the Community Consultative Committee and to relevant government agencies and the Councils upon request; and include a summary in the AEMR. The report shall include the complaints that have been resolved with or without mediation.	YES		(1) The Complaints Register is on a database held at the Donaldson Mine office and maintained by the Environmental Superintendent. (2) This requirement of the condition had not been activated at the time of the audit. (3) A Complaints Report is prepared and presented to the CCC at each meeting. A summary of complaints/actions/status is presented in the AEMR's:
ANNUAL ENVIRONMENTAL MANAGEMENT REPORT				
114	The Applicant shall prepare and submit an Annual Environmental Management Report (AEMR) throughout the life of the mine to the satisfaction of the Director-General. The AEMR shall review the performance of the mine against the Environmental Management Strategy and the Conditions of this Consent, and other licences and approvals relating to the mine. To enable ready comparison with the EIS's predictions, diagrams and tables, the report shall include, but not be limited to, the following matters:	YES		The AEMR's have been prepared in accordance with the Guidelines and submitted to relevant authorities.

	(i) an annual compliance audit of the performance of the project against Conditions of this Consent and statutory approvals; (ii) a review of the effectiveness of the environmental management of the mine in terms of EPA, DLWC, DMR, and the Councils' requirements and provide an explanation of any variance; (iii) results of all environmental monitoring required under this Consent or other approvals, including interpretations and discussion by a suitably qualified person; (iv) identification of trends in monitoring results over the life of the mine; (v) a comparison of the actual impacts with predictions made in the EIS and supporting documents; (vi) a review of the social impact of the mine, including mitigation works and acquisition; (vii) a listing of any variations obtained to approvals applicable to the subject area during the previous year; (viii) the outcome of the water budget for the year, the quantity of water used from water storages and details of discharge of any water from the site; (ix) rehabilitation report; and (x) environmental management targets and strategies for the next year, taking into a account identified trends in monitoring results.	YES		(i) Compliance Audit conducted by Donaldson Mine in August 2001. Compliance with the conditions of consent is commented on in each Annual Return. (ii) Commented on throughout the Annual Return. (iii) Environmental monitoring data included in the Annual Return in the relevant sections. (iv) Trends in monitoring data are presented under each specific heading in the Annual Return. (v) Comparison with the EIS predictions for the development are provided in each Annual Return taking account of the approved MOP. (vi) No acquisition requests have been made to the time of this audit. Mitigation measures are part of the normal mine operation. (vii) Approval status is summarised in section 3 of the Annual Return. (viii) No discharge has occurred from the mine site during the reporting period. Water management is reported in section 7 of the Annual Return. (ix) Rehabilitation progress is reported in section 8 of the Annual Return. (x) Targets and strategies for the next 12 months are reported in Section 4.3 of the Annual Return.
115	In preparing the AEMR, the Applicant shall: (i) consult with the Director-General during preparation of each report for any additional requirements; (ii) comply with any requirements of the Director-General or other relevant government agency and with any guidelines current at the time of reporting; and (iii) ensure that the first report is completed and submitted within 12 months of this Consent, or at a date determined by the Director-General in consultation with the DMR and the EPA.	YES		(i) Other than feedback on the 2015/16 Annual Return, no additional requirements for the Annual Return have been advised from the Director-General. (ii) see above

116	The Applicant shall ensure that copies of each AEMR are submitted at the same time to DUAP, EPA, DLWC, NPWS, Councils and the Community Consultative Committee, and made available for public information at Councils within 14 days of submission to these authorities.	YES		Copies of the Annual Return prepared for the Donaldson Mine have been submitted to the authorities following receipt of acceptance of the document by the DII (or DPI-MR) and the Director-General. The Annual Return's have been prepared in accordance with the DMR Guidelines and submitted to the DII/DPI/DMR in accordance with the mining lease agreement.
INDEPENDENT ENVIRONMENTAL AUDIT				
117	At 3 yearly intervals after the commencement of mining and at the completion of mining, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	YES		An Independent Environmental Audit was conducted in 2015 to fulfil the requirements of MCoA 117.
	(i) be conducted by a suitably qualified, experienced and independent person whose appointment has been endorsed by the Director-General; (ii) be consistent with ISO 19011:2002 – Guideline for Quality and/or Environmental Systems Auditing, or equivalent updated versions of these guidelines; (iii) assess the environmental performance of the development, and its effects on the surrounding environment; (iv) assess whether the development is complying with the relevant standards, performance measures and statutory requirements; (v) review the adequacy of the Applicant's Environmental Management Strategy and Environmental Monitoring Program; (vi) and if necessary, recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.	YES		The 2015 audit was conducted by Trevor Brown of Trevor Brown & Associates Applied Environmental Management Consultants. The conduct of the 2015 audit was consistent with the requirements of ISO19011. The environmental performance of the development was reviewed and comments provided the audit report. The development demonstrated a high degree of compliance with the standards, performance measures and statutory requirements relevant to the development (v) Comment on the Environmental Management Strategy and Environmental Monitoring Program were provided in the audit report

118	The audit shall: (i) assess compliance with the requirements of this Consent, licences and approvals; (ii) review the effectiveness of the environmental management of the mine, and any mitigation works; (iii) be carried out at the Applicant's expense; and (iv) be conducted by a duly qualified independent person or team approved by the Director-General in consultation with the Councils.	YES		An Independent Environmental Audit was conducted in 2015 by Trevor Brown & Associates to fulfil the requirements of MCoA 117 and 118 in place in 2010.
119	The Director-General may, after assessing compliance in accordance with this Consent and after considering any submission made by the EPA, DLWC, DMR, the Councils or the Community Consultative Committee on the report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the Director-General may require.	Noted		
COMPLIANCE				
120	The Applicant shall comply with all requirements of the D-G in respect of the implementation of any measures arising from the Conditions of this Consent. The Applicant shall bring to the attention of the D-G any matter that may require further investigation and the issuing of instructions from the D-G. The Applicant shall ensure that these instructions are implemented to the satisfaction of the D-G within such time that the D-G may specify. If necessary, the D-G may order the Applicant to cease work until non-compliance has been addressed to the satisfaction of the D-G.	Noted		
121	The Applicant shall submit for the approval of the D-G compliance reports concerning the implementation of Conditions of this Consent as applicable: (i) before the commencement of construction works; and (ii) before the commencement of mining.	YES		Compliance Reports were prepared and submitted to DUAP for construction of the Donaldson Mine on 20 October 2000, and a Compliance Report was submitted to DUAP prior to commencement of mining works on 17 January 2001.
Y2K COMPLIANCE				
122	One month prior to the commencement of operation of any automated system, included embedded systems used for operation, pollution control, monitoring and safety (including fire safety), the Applicant shall provide the D-G with a report confirming that the system(s) has been tested in accordance with the most recent edition of BSI/DISC PD2000-1 to confirm continuous time and date functionality of that system.	YES		The Donaldson Mine commenced after the 1 January 2000. Systems installed and operated for the Donaldson Mine are Y2K compliant.
DISPUTE RESOLUTION				

123	In the event that the Applicant and an individual, the Councils or a Government agency, other than DUAP, cannot agree on the specification or requirements applicable under this Consent, the matter shall be referred by either party to the Director-General or if not resolved within six months, to the Minister for Urban Affairs and Planning, whose determination of the disagreement shall be final and binding on the parties.	Noted	The development consent was accepted by the parties and construction and commencement of mining occurred after 1 January 2000.
OTHER ISSUES			
124	The Applicant shall participate in (including a financial contribution if appropriate, to a maximum of $10,000) the preparation of a revised Planning Strategy for the Thornton-Beresfield area. Any such financial contribution shall be paid as directed by the Director-General and any amounts not expended in the review upon completion of mining shall be refunded to the Applicant.	Requirements of this condition not specifically activated at the time of the audit due to changes to the planning proposals.	The Thornton-Beresford Area has been incorporated into the Lower Hunter Area and a Planning Strategy as an employment generating area with a transport internodal hub proposed for the area. Donaldson has participated in meetings associated with the Thornton-Killingworth study, Lower Hunter Regional Strategy and Lower Hunter Conservation Plan. Donaldson also made some financial contributions including analysis and participation in the planning of a Newcastle rail by-pass line through the Stony Pinch site. The Lower Hunter Regional Strategy and Conservation Plan is not yet finalised, but Donaldson Coal continues to be involved in discussions with the authorities on the Strategy and Plan.
125	The Applicant shall provide reasonable funding to Councils for independent counselling services for any landowner within 1.5 kilometres of the mining lease area who may request support on stress-related matters resulting from the development.	Not activated at the time of the audit	No requests have been made for the activation of this condition.
126	Within six months of the date of this Consent and in each AEMR thereafter, the Applicant shall report to the Director-General on the number of personnel employed by the mine in construction, mining and environmental management during that reporting period. The report shall compare the employment figures with those predicted in the EIS.	YES	Mine employment numbers have been reported annually in the AEMR.