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**Our Ref:** 105716 & 127152  
**Date:** 23 March 2016

Attn: Chris Schultz  
Resource Assessments & Compliance  
NSW Dept of Planning & Environment  
PO Box 5475  
WOLLONGONG NSW 2520

Dear Mr Schultz

**RE: NEWNES KAOLIN SANDMINE – DA 329-7-2003  
NEWNES JUNCTION – SANDHAM ROAD  
INITIAL ANNUAL ENVIRONMENTAL MANAGEMENT REPORT – 2011 TO 2015**

Thankyou for your letter dated 6/1/16.

Please find attached our amended AEMR as requested.

**Reporting period: 2011 to 2015**

**1) Background**

The project was approved in March 2006. Little progress was achieved for the first 4 years due to the global financial crisis.

In 2009 some trial mining and bulk sampling excavation works were undertaken on site and in 2010 this site was fully rehabilitated. Refer to photo record in Appendix 1.

In 2010 the draft Environmental Management Plan (EMP) was prepared and circulated to the stakeholders and approved in stages, with the final approval in 2013.

The EMP is on the project website - [www.sydneyconstructionmaterials](http://www.sydneyconstructionmaterials)

In March 2011 approval was given for some initial “physical commencement” site works to ensure the DA consent would continue. These works included the clearing of approximately 2500m<sup>2</sup> of native vegetation in accordance with the EMP and the construction of a small stormwater detention pond. Refer to photos in Appendix 1.

Refer also to the Initial Erosion & Sediment Control plan in Appendix 5

There have been no additional site works undertaken since then. The mine is unlikely to be operational before 2017.

**2) Current situation**

The main focus of the project for the last few years has been identifying and negotiating access to a site at Glenlee, in south west Sydney, with rail access, for the material processing. Planning

issues are being addressed and RPS have been engaged to prepare a Development Application for sand washing and kaolin processing.

Newnes Kaolin P/L have an Agreement in Principle with Sada, the site owners, for a long term rental agreement over part of the site.

There will be no processing of the raw material on site at Newnes Junction. Planning for the processing site in Sydney is on-going.

Once the Sydney processing site is finalised with planning approvals in place, the design of the required infrastructure at Newnes Junction including the rail loader and associated works will be completed, as well as the Mine Operations Plan.

### **3) Project timeline**

The project is proceeding through a number of stages:

- Groundwater monitoring bores in place in from 2004;
- DA consent – completed – approved March 2006;
- Initial Commonwealth EPBC approval – 2006;
- Trial mining works on site at Newnes Junction – completed in 2009;
- Trial mining site rehabilitated - completed in 2010;
- Draft Environmental Management Strategy circulated to stakeholders – Dec 2010;
- First meeting of the Newnes Kaolin Community Consultative Committee – Dec 2010;
- Physical commencement works on site at Newnes Junction – completed – March 2011;
- Revised Commonwealth EPBC approval – February 2011;
- Approval of the project Environmental Management Plan – September 2011;
- Environment Protection Licence 13389 – March 2012;
- Finalisation of compensatory offset site - 2013
- Draft Pollution Incident Response Management Plan – April 2015;

At time of writing – March 2016

- Review date for Environmental Protection Licence 13389 – April 2016;
- DA consent for raw material processing at Glenlee, Sydney south – DA will be lodged by June 2016;
- Construction of mine infrastructure at Newnes Junction – estimated in 2017;
- Construction of processing infrastructure at Glenlee – 2017/2018;
- Commencement of mining operations at Newnes Junction – 2018/2019;

**4) Standards and performance measures**

a) Flora and fauna

Schedule 3 condition 25 specifies the compensatory habitat requirements for the project.

Schedule 3 condition 25 specifies detailed biodiversity offset measures and the purchase of at least 25 hectares of habitat offset within proximity of the GBMWA.

Refer to Flora & Fauna Management plan – Appendix 4 of the EMS

b) Air quality

Schedule 3 condition 15 specifies that a air Quality Monitoring program be prepared and implemented.

Schedule 3 condition 24 specifies the establishment of a meteorological station be established.

Impact assessment criteria as follows:

Pollutant	Averaging period	Criterion
<b>Short term impact assessment criteria</b>		
Particulate matter - PM10	24 hour	50ug/m3
<b>Long term impact assessment criteria</b>		
Particulate matter - PM10	annual	30ug/m3
Total suspended particulate matter - TSP	annual	90ug/m3
		Max increase/max total
Deposited Dust	annual	2 g/m2/month 4 g/m2/month

c) Groundwater

Schedule 3 condition 22 details the requirements for a Groundwater Monitoring program.

**5) Monitoring results**

a) Flora and fauna

In 2011 flora and fauna monitoring was undertaken as part of the EMP and is described as follows:

Flora and fauna monitoring was carried out within the 100m buffer (between the mine site and the adjoining Blue Mountains National Park) and within the adjoining GBMWA and alongside the Wollangambe River and tributaries, totalling ten monitoring plots in the survey area. The location of these survey locations is shown on the monitoring plan attached.

*The program of monitoring within the GBMWhA and alongside the Wollangambe River and tributaries is similar to that for the subject site and compensatory sites.*

*Assessment of the potential for the identified vegetation communities to constitute EEC's as listed within the TSC Act and the EPBC Act was undertaken within each monitoring quadrat. Vegetation communities that are listed during the life of the project will be further assessed and additional surveys undertaken if this is found to be necessary. Floristic composition, geo-morphological characters and geographic distribution will be considered when determining whether a vegetation community comprises an EEC or not.*

Weed and pest monitoring also occurred in these areas in accordance with Condition 29(c) of the DA consent.

In early 2016 further flora and fauna baseline monitoring was undertaken. The Flora and Fauna monitoring assessment made this key observation;

*All sites in the Newnes kaolin monitoring program had been severely burnt during the State Mine bushfire (17th October 2013). This fire burned for one month tracking from Marrangaroo through Newnes to Bilpin covering over 55,000 ha. The fire through Newnes Junction at Clarence resulted in extreme canopy damage, with total destruction of groundcover, particularly at sites located on the ridges and mid-slopes. Areas in creek line tributaries were better protected, and this is represented in the base line monitoring record for these sites. They have the higher diversity of structural diversity in vegetation, to support presence of birds and wombat. Similarly the site at the Wollongambe River has a diverse ecological system developing based on insects, presence to water and northerly aspect. Of the ridge sites, site 7 is showing the nutrient cycling process is commencing, with the presence of termites starting mound building.*

*Generally the fire resulted in widespread death of trees. The surviving ones have intense epicormic growth. Species such as banksia which can regenerate rapidly after fire are becoming very prominent. Almost all of the smaller shrubs have been killed. The new growth is in very juvenile stages with no inflorescence or mature foliage to assist identification. There are also some agricultural weeds such as fleabane becoming established on bare, burnt ground. The loss of the litter layer has exposed the sandy surface soil. This is soil very susceptible to erosion during intense rain events.*

Refer to the Newnes kaolin Flora & Fauna baseline monitoring report dated March 2016 in Appendix 9.

b) Air quality

An Air quality monitoring station has been established on site since 2011 and background monitoring is underway. Summary of results to date as follows:

**Newnes Junction – Clarence - Air quality results – baseline data - summary to date**

<b>critierion</b>	<b>date</b>	<b>Concentration Ug/m3 Range: High - low</b>	<b>Wind speed m/sec Range: High - low</b>	<b>Wind direction degrees Range:</b>
<b>PM 10</b>				
30 ug/m3 maximum	23.03.15	7 to 0	0.3 to 0.7	139 to 8
Micrograms per cubic metre				
	29.03.15	13 to 0	0.3 to 0.4	20 to 126
	4.04.15	2 to 1	0.3 to 0.7	214 to 248
	10.09.15	8 to 0	0.3	0 to 12
	16.09.15	9 to 1	0.3	0 to 3
	22.09.15	nil	0.3	0 to 1
	28.09.15	4 to 1	0.3	0 to 55
	4.10.15	13 to 1	0.3	0 to 1
<b>TSP</b>				
90 ug/m3 maximum	3.02.15	27 to 2	0.3 to 1.6	181 to 357
	9.02.15	18 to 2	0.3 to 0.8	112 to 305
	15.02.15	18 to 1	0.3 to 0.5	181 to 132
	21.02.15	36 to 1	0.3 to 0.8	No data
	10.10.15	nil	0.3	0 to 18
	16.10.15	20 to 1	0.3	0 to 10
	22.10.15	5 to 1	0.3	0 to 4
	28.10.15	9 to 0	0.3	0 to 9
	3.11.15	38 to 0	0.3	0 to 4

Refer to Clarence/Newnes Junction air quality data in Appendix 8.

c) Groundwater

Three sets of shallow and deep groundwater monitoring bores were installed on site in 2004 and have been continuously monitored since 2010.

In early 2015 the groundwater monitoring data for the period January 2010 to December 2014 was documented in the form of two graphs – Newnes kaolin shallow bore groundwater levels and Newnes kaolin Deep bores groundwater levels against the local rainfall data.

Refer to project website – [www.sydneyconstructionmaterials.com](http://www.sydneyconstructionmaterials.com)

In early 2016 Newnes kaolin commissioned the preparation of a Groundwater Monitoring Report which may be summarised as follows:

### Newnes Monitoring Network Summary

Bore ID	Easting (WGS84)	Northing (WGS84)	Surface RL (mAHD)	Installation Date	Total Depth (m)	Screen Interval (mbgl)	Monitoring Data
NW60	244563	6293686	1037	2004	59.93	15-18, 21-24, 27-30, 33-36, 39-42, 45-48, 51-54, 57-60	17/06/2010 - Present
NW17.5				2004	17.55	14.5-17.5	17/06/2010 - Present
NE60	245066	6293569	995	2004	60.35	15-18, 21-24, 27-30, 33-36, 39-42, 45-48, 51-54, 57-60	17/06/2010 - Present
NE17.5				2004	17.53	14.5-17.5	17/06/2010 - Present
S54	244668	6292930	1059	2004	53.91	24-30, 36-42, 48-54	17/06/2010 - Present
S17.5				2004	17.02	14.5-17.5	17/06/2010 - Present

#### Baseline Groundwater monitoring

The routine groundwater monitoring program at Newnes kaolin commenced in June 2010. The key components and objectives of the program are to:

- Record daily water levels at all piezometers and to continue this monitoring monitor program through the life of the project.
- Collect quarterly groundwater samples from all piezometers and any pit sump/seepages (during excavation), for field based analysis of electrical conductivity (EC), total dissolved solids (TDS) and pH.
- Collect representative groundwater samples biannually (twice yearly) from all piezometers and any pit sump/seepages (that occur during excavation) and schedule for laboratory analysis of a suite of parameters, to include; physical properties (EC, TDS and pH), major cations and anions (Ca, Mg, Na, K, Cl, SO<sub>4</sub>, HCO<sub>3</sub> and CO<sub>3</sub>), nutrients and dissolved metals (aluminum, arsenic, barium, cadmium, chromium, copper, lead, manganese, nickel, zinc, boron and iron).

#### Groundwater quality

Groundwater samples were collected from the Newnes kaolin monitoring network and submitted under chain-of-custody conditions to NATA accredited laboratory ALS Laboratory Group for detailed chemical analysis.

The groundwater quality data set was divided into two data sets, one for the shallow piezometers (NW17.5, NE17.5 and S17.5) and one for the deeper piezometers (NW60, NE60 and S54). Although the shallow and deep piezometers are inferred to represent the same aquifer unit, the groundwater quality is not homogenous across the intersected aquifer.

The summary and analysis of the groundwater quality data of the shallow piezometers is presented in Table 5.1. Table 5.2 in the final report comprises the water quality results of the deep piezometers. Both tables show the observed range of groundwater quality parameters, the mean and median concentrations as well as the 20<sup>th</sup> and 80<sup>th</sup> percentile of the baseline dataset. The observed ranges and site specific trigger values (SSTV's) represent the minimum and maximum concentrations recorded and trigger value for that parameter from four laboratory data sets (June 2010 to March 2013) and seven field observations of pH, EC and TDS.

Refer to the Newnes kaolin Annual Groundwater Monitoring report in Appendix 4.

## **6) Analysis of monitoring results**

There is no mining activity on site and it is not anticipated that mining activities will commence till 2017/2018.

### a) Flora and Fauna

As noted above the most notable result of the flora and fauna monitoring was that the site was severely burnt by a bushfire in late 2013 and consequently the 10 flora and fauna monitoring stations have been severely impacted.

It is anticipated that the flora and fauna in the vicinity of the monitoring locations will recover albeit slowly.

### b) Air quality

The air quality data collected to date reflects the existing air quality at Newnes Junction and Clarence more generally. Given that Newnes kaolin is not yet carrying out any mining or quarrying operations it is reasonable to assume that the background data collected to date reflects the operations of:

- The existing Clarence colliery including rail loader and associated train operations which adjoins the site to the west
- Kables sand quarry to west of colliery
- The now closed Rocla quarry which adjoins the site to the south, and
- The nearby Great Western Railway which operates regular coal trains from the western coal fields and which almost adjoins the site to the south west

The air quality data collected to date reflects the natural range of variability to be expected for such a location with a number of mining/quarrying operations.

There have been no known air quality exceedances observed to date.

c) Groundwater

The Groundwater Monitoring Report concluded as follows:

*The aquifer in the vicinity of the proposed operation has been shown to behave as a single aquifer unit and is therefore suitable to monitor groundwater levels before, during and after mining. Given no active mining, the TARP is not applicable and variations and exceedances in groundwater levels and quality are seen to be natural variation.*

**7) Monitoring result trends**

The gathering of background/baseline data will continue as required. There are no observable trends apparent at this stage.

**8) Incidents and Compliance**

There have been no incidents or matters of non-compliance to date.

**9) Pollution Incident Response Management Plan (PIRMP)**

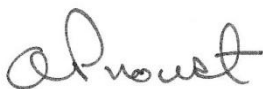
A preliminary Draft PIRMP has been prepared for the project although the final version will not be tested and implemented until prior to commencement of construction activities on site in 2016 or, more likely, 2017. Refer to the project website for details.

**10) Community Consultative Committee**

The Newnes Kaolin Community Consultative Committee has been meeting twice a year since December 2010 in accordance with the DA consent. Minutes of the previous meetings are on the project website – [www.sydneyconstructionmaterials.com](http://www.sydneyconstructionmaterials.com)

We trust this information is sufficient for your purposes, however should you require any further details or clarification, please do not hesitate to contact the writer by telephone.

Yours sincerely  
**RPS Newcastle**



Tony Proust  
Senior Planner & Newnes Kaolin Environmental Manager

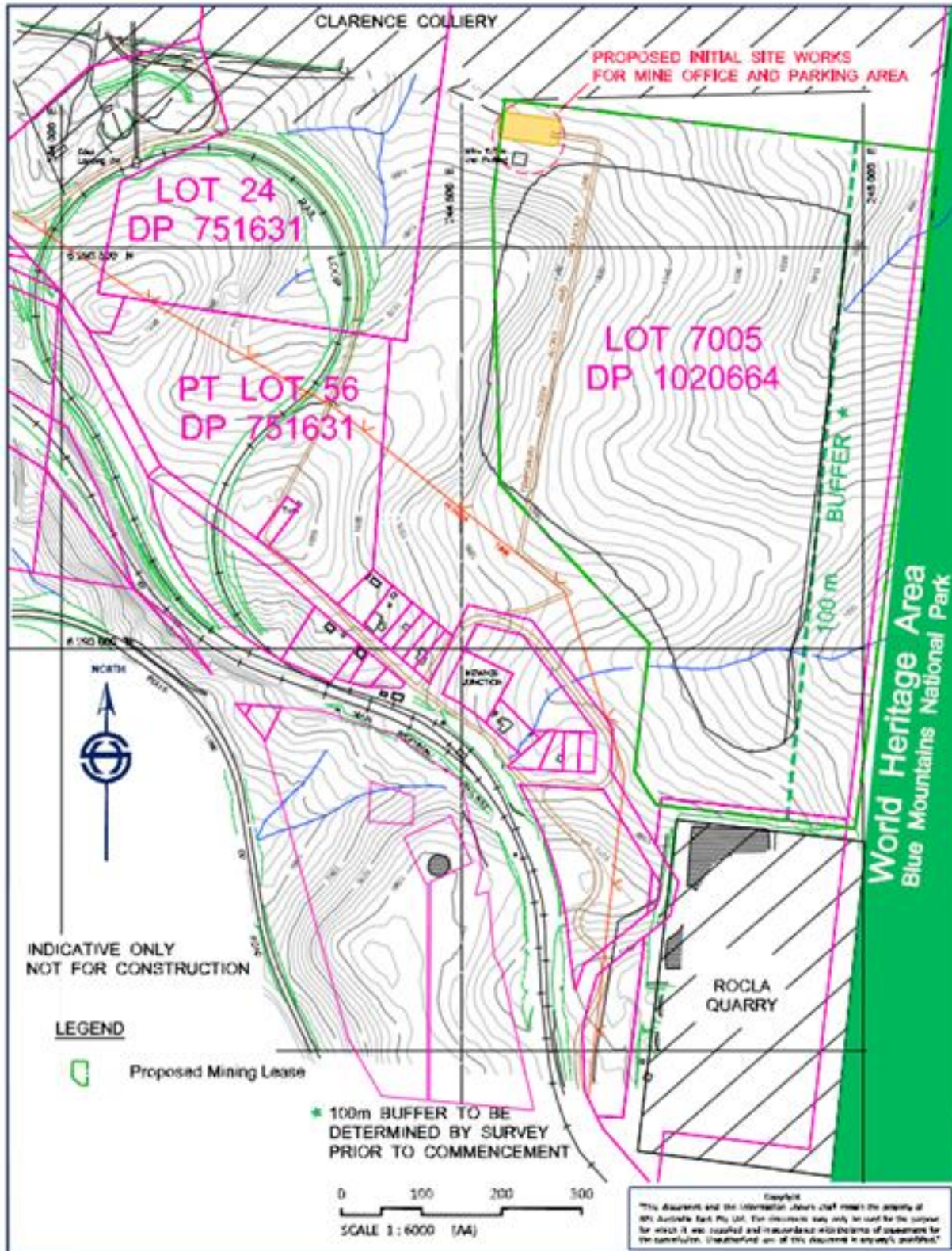


## Appendix I

Photo record – air photos 1 to 4 and current situation photos

## Appendix 2

### Initial site works plan with cadastral details





## Appendix 3

### Newnes Kaolin Monitoring plan



## Appendix 4

### Groundwater monitoring results to September 2015



## Appendix 5

### Initial Erosion & Sediment Control Plan



## Appendix 6

### Air quality monitoring data 2015



## Appendix 7

### Flora & Fauna baseline monitoring report – early 2016



## Appendix 8

### DA conditions compliance report

# Development Approval conditions compliance report

## Newnes kaolin sandmine

DA 329-7-2003 consent compliance report

As at March 2016

No mining activities on site.

Anticipated mining operations to commence in 2017/2018

Development Consent Schedule and Condition	Subject	Relevant EMS Section	comments
Schedule 3			
condition 9	noise mitigation	6.2	Not applicable at this stage – no mining activities on site
condition 10	Use of surface miner only	6.2	as above
condition 12	continuous improvement	2.2	as above
condition 13	noise monitoring program	6.4	as above
condition 15	air quality monitoring program	5.2	meteorological stn established on site
condition 18	water management monitoring & management	4.2	complies
condition 19	water balance	4.3	complies
condition 20	soil and water management plan	4.4	complies
condition 21	surface water monitoring program	4.5	Not applicable at this stage – no mining activities on site
condition 22	groundwater monitoring program	4.6	Groundwater monitoring in place since 2010
condition 23	reporting	4.7	complies
condition 24	meteorological monitoring	5.3	meteorological stn established on site

Development Consent Schedule and Condition	Subject	Relevant EMS Section	comments
condition 25	compensatory habitat	3.2	Compensatory habitat site purchased and signed over to National Parks – see letter below
condition 26	flora and fauna management plan	3.3	complies
condition 27	vegetation clearing protocol	3.4	Not applicable at this stage – no mining activities on site
condition 28	compensatory habitat management plan	3.5	complies
condition 29	pest and weed management plan	3.6	complies
condition 30	flora and fauna monitoring program	3.7	complies
condition 32	rehabilitation and landscape management plan	9.2	complies
condition 33	rehabilitation management plan	9.3	complies
condition 34	final void management plan	9.4	complies
condition 35	mine closure plan	9.5	complies
condition 38	Aboriginal cultural heritage monitoring program	7.2	complies
conditions 39, 40 ,41	traffic and transport	8.2	complies
condition 42	parking	8.3	Not applicable at this stage – no mining activities on site
condition 43	visual impact	12.2	Not applicable at this stage – no mining activities on site
conditions 44 , 45	tree screens	12.2	NA
conditions 48, 49	waste management	11.1	NA
condition 53	production data	2.2	NA

Development Consent Schedule and Condition	Subject	Relevant EMS Section	comments
Schedule 4			
conditions 2 to 6	independent review	2.7	NA
Schedule 5			
condition 1	environmental management strategy	2.1	completed
condition 2, 3	environmental monitoring program	2.3	complies
condition 4	incident reporting	2.4	no incidents to date Draft PIRMP in place
condition 5	annual reporting	2.2	AEMR submitted
condition 6, 7, 8	independent environmental audit	2.6	NA
condition 8 (again)	environmental manager	2.5	completed – see letter below
conditions 9, 10	community consultative committee	10.2	complies
conditions 11, 12	access to information	10.3	complies

RPS



Planning

**Mining & Industry Projects**

Contact Kane Winwood  
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Fax: (02) 9228 6466  
Email: [kane.winwood@planning.nsw.gov.au](mailto:kane.winwood@planning.nsw.gov.au)

Allens Arthur Robinson  
GPO Box 50  
SYDNEY NSW 2001

Attention: Mr Tom Cregan

Dear Mr Cregan,

**Sand and Kaolin Operations, Newnes Junction (DA 329-7-2003)  
Environmental Manager**

I refer to your letter dated 26 October 2010 nominating Mr Tony Proust of RPS Newcastle as the Environmental Manager for the above development.

I wish to advise you that the Director-General has approved the appointment of Mr Proust and the team of supporting specialist companies in accordance with condition 8A of Schedule 5 of the development consent (DA 329-7-2003).

If you have any further enquiries please contact Kane Winwood.

Yours sincerely

A handwritten signature in blue ink that reads "D Kitto 11/11/10".

David Kitto  
Director  
Mining & Industry Projects  
as Delegate for the Director-General

RPS



Office of  
Environment & Heritage  
NSW National Parks & Wildlife Service



Mr Tony Proust  
RPS Australia Asia Pacific  
PO Box 428,  
Hamilton NSW 2303

Our Ref:  
Your Ref:

23 May, 2013

Dear Tony,

**Re: Transfer of Mount Wirriba to Wollemi National Park**

I am writing to confirm transfer of Lot 1 DP 753824 to the Minister for Environment as of the 17 May 2013 for addition to Wollemi National Park. The transfer meets the requirements for Compensatory Habitat under DA 329 – 7 – 2003 for the Newnes Kaolin and Sand mine.

I can also confirm that the addition of Lot 1 will be covered by the Plan of management for Wollemi National Park approved by the minister on the 5 April 2001.

Thank for your assistance, the block will be a valuable addition to Wollemi National Park

Please contact me on 63 709000 if you need any other information

Yours faithfully,

A handwritten signature in black ink, appearing to read "David Crust".

David Crust  
Area Manager – Mudgee