NEWNES KAOLIN PTY LTD

Sand Quarry & Kaolin Mine

Annual Environmental Management Report

Year ending December 2020

25th March 2021

Resource Assessments & Compliance
NSW Department of Planning & Environment
PO Box 5475
Wollongong NSW 2520
Email: nswresourcesregulator@service-now.com.
and catherine.lewis@planning.nsw.gov.au

Re: Newnes Kaolin Sandmine – DA 329-7-2003
Newnes Junction – Sandham Road
Sixth Annual Environmental Management Report (AEMR)
Period - 1st January 2020 to 31st December 2020

Dear Mr / Ms

Please see following the Newnes Kaolin P/L AEMR for 2021.

As reported previously, ALS Laboratory Group in Lithgow have been collecting on-site monitoring data since 1.6.16 and have made available multiple, detailed data files via the project website: www.sydneyconstructionmaterials.com

The Newnes Kaolin (N/K) site was in drought for most of 2019 and part of 2020, then in the summer of 2019/2020 was devastated by bushfire, including the company-owned residential property off Sandham Road which was totally destroyed. As a result of the drought, there has been little surface water-flow in the adjoining water courses and consequently only limited surface water monitoring data are available for the reporting period.

Following the fires, the regular N/K contractor was engaged to clear fallen trees from the access track to ensure that regular environmental monitoring could proceed as usual.

In September 2020 N/K requested an extension to the SEARs for the proposed processing site at Glenlee, Menangle Park. An extension has been granted until the end of 2021.

Should any additional information be required please contact me as follows:

Email: asproust@tpg.com.au
Address: 81 Harriet Street Waratah NSW 2291
Mobile: 0425-285782

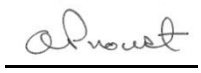
Yours sincerely,

Tony Proust
Environmental Manager

NEWNES KAOLIN P/L AEMR

Reporting period: 1st January 2020 – 31st December 2020

Title Block

Name of mine	Newnes Kaolin P/L		
Titles/mining lease	ML1654		
Mine OP commencement date	31 March 2020	**MOP completion date**	31 March 2023
AEMR commencement date	1 January 2020	**AEMR end date**	31 December 2020
Name of leaseholder	Newnes Kaolin P/L		
Name of mine operator (if different)	N/A		
Reporting Officer	Tony Proust		
Title	Environmental Manager		
Signature			
Date	25 March 2021		

1. Background

The Newnes Kaolin (N/K) Project was approved in March 2006.

In late 2010 a draft Environmental Management Plan (EMP) was prepared and circulated to all stakeholders with final approval in 2013. The EMP can be accessed on the project website: www.sydneyconstructionmaterials.com

In March 2011 the Department of Planning gave approval for 'physical commencement works'. The work undertaken included the removal of approximately 2500m^2 of vegetation and the

construction of a small stormwater detention pond, site office foundations and appropriate erosion and sediment controls.

No additional site works have been undertaken since March 2011, with the exception of regular on-site maintenance, bushfire recovery work, the on-going site environmental monitoring as required under the DA consent, and regular maintenance work including the removal of regrowth and fallen trees resulting from the December 2019 bushfire.

Since 2016 a Lithgow-based laboratory, ALS Laboratory Group, has been engaged by N/K to undertake the groundwater, surface water and air quality data collection and management. ALS monitoring data are available on the project website: www.sydneyconstructionmaterials.com

Lithgow-based ecologists, Consulting and Environmental Services, were also engaged by N/K in 2016 to undertake the annual flora and fauna monitoring. Appendix 1 contains the 2020 monitoring results.

In 2017 and since, N/K have engaged Sydney-based hydrology and engineering consultants, Pell Sullivan Meynink, (PSM) to analyse and interpret the groundwater water and surface water monitoring data. Appendix 2 contains the 2020 data report.

Todoroski Air Sciences have been engaged since 2018 to conduct Air Quality Monitoring Reviews of the air quality data. Appendix 3 contains the review of 2020 data.

2. Current Situation

The N/K Project was 'physically commenced' in 2011.

N/K are currently negotiating a site at Glenlee near Camden for the processing of the raw material which will be transported from Newnes to Glenlee by rail. It is anticipated that the mine will be operational in 2024 and that the construction phase will begin at both Newnes Junction and Glenlee in 2022/2023.

In August 2016 the Department of Planning issued the SEARs for the Newnes Kaolin Processing Plant at Glenlee: State Significant Development – SSD 7833. Recently the Department of Planning extended the SEARs till the end of 2021.

N/K are planning to lodge the EIS for the processing plant by the end of 2021.

3. Standards and performance measures

- Condition 15 of the consent specifies as follows:
  The Applicant shall prepare and implement an Air Quality Monitoring Program.

- Condition 21 of the consent specifies as follows:
  The Surface Water Monitoring Program shall include detailed baseline data on surface water flows and quality in waterbodies that could potentially be impacted by the development.

- Condition 22 of the consent specifies as follows:
  The Groundwater Monitoring Plan shall include detailed baseline data on groundwater levels and quality based on statistical analysis to benchmark the pre-mining natural variation in groundwater levels.

- Condition 23 of the consent specifies as follows:
  Each year from the date of the consent the Applicant shall report the results of the monitoring in the AEMR.

- Condition 24 specifies as follows:
  The applicant shall establish and maintain a meteorological station in the vicinity of the development.

- Condition 30 of the consent specifies as follows:
  That the Flora and Fauna Monitoring Program shall include detailed baseline data on the flora and fauna of the site and adjacent the site including habitat present in the Greater Blue Mountains WHA and along the Wollangambe River and its tributaries.

4. Monitoring Results

a) Flora and Fauna

Consulting & Environmental Services based in Lithgow have completed the annual flora and fauna monitoring for 2020, as was the case for the previous AEMRs. Their report is provided in Appendix 1.

The fieldwork for the Annual Monitoring Summer 2020/2021 report was undertaken in March 2021. Much of the vegetation in the study area suffered fire damage in December 2019 having been previously burnt out in the 2013 bushfire.

b) Air Quality

In accordance with the DA consent N/K have installed a Weather Station on site which records wind speed and direction. The ALS Laboratory Group in Lithgow have been collecting and managing the air quality data since 2016. N/K is fortunate to also have access to the annual wind rose data for the neighbouring Clarence Colliery Weather Station during 2020.

On a seasonal basis the N/K Weather Station data indicates that during Summer there is a high percentage of winds from the north-northeast (N-NE) and northeast (NE) sectors. The Autumn wind distribution pattern is similar to the annual distribution with winds from the west – southwest (W-SW) and east-northeast (E-NE). In Winter and Spring the highest percentage of prevailing winds come from the west-southwest (W-SW).

c) Dust

ALS Laboratory Group in Lithgow collect and manage dust data on behalf of N/K. Location details of the three dust gauges are as follows:

DG#1 – Dust gauge adjacent to Weather Station on Sandham Road

DG#2 – Dust gauge adjacent to SW1 in the south-east corner of the site

DG#3 – Dust gauge 100m north of SW2 in the north-east corner of the site

In 2020 all gauges recorded an annual average deposited dust level below 4g/m^2/month.

The highest monthly dust deposition rate recorded across all monitors occurred at DG#2 in February 2020 with a level of 11.6 g/m^2/month.

d) Groundwater

Groundwater levels and water quality are measured at six groundwater bores installed at three locations around the site in 2004. Typically, these instruments have a life of about 10 years. During the previous reporting period new instruments were installed.

As noted above, N/K has engaged ALS Laboratory Group in Lithgow to collect and manage the groundwater data and Pells Sullivan Meynink (previously Pells Consulting) to analyse the groundwater and surface water data. The advice received is as follows:

> Groundwater levels have been plotted as metres below ground level for the 'shallow' and 'deep' bores respectively. Also shown are the daily rainfall figures from the Bureau of Meteorology.
>
> There are gaps in the continuous monitoring corresponding with upgrading of instruments as the operational life of the original instruments expires. Routine manual (dip) readings provide continuity of observations.
>
> There has been relatively little observable rapid response to rainfalls during the recent monitoring period although increasing levels in the S shallow borehole may be related to earlier periods of heavy rainfall.

The monitoring data accords with previous measurements made. The Ground and Surface Water Monitoring Report is provided in Appendix 2.

e) Surface Water

Surface water monitoring is undertaken twice a year. Given that much of the state has been in drought for most of 2019 - 2020 and longer, including the subject site, there is limited surface water data for the reporting period. Consequently, only surface water quality samples collected at SW2 (North Creek) in March 2020 are available.

The Groundwater and Surface Water Monitoring Report is provided in Appendix 2.

5. Analysis of Monitoring Results

a) Flora and Fauna

As noted previously the most notable result is that the site was severely burnt by a bushfire in 2013 and again in December 2019. In particular the baseline data represents eight of the ten monitoring sites with significant fire damage from both bushfires.

Data collected before the bushfires provides valuable background information indicative of the local flora and fauna environment prior to the N/K mine becoming operational.

b) Air Quality

In accordance with the monitoring schedule, dust and weather station data are sampled monthly and shared with the Clarence Colliery. The E-sampler data, owned by Clarence Colliery, is reciprocally shared with N/K.

The air quality data collected to date reflects the existing air quality at Newnes Junction and Clarence more generally. Given that N/K is yet to commence mining/quarrying activities, it is reasonable to assume that the air quality data collected to date reflects the existing situation in the vicinity of the site.

As stated above, the data from the N/K Weather Station and the Clarence Colliery Weather Station correlate. Refer Appendix 3.

c) Dust

Dust samples are collected monthly in accordance with the monitoring schedule.

The results are consistent over time and within expectations given the location of the nearby colliery and coal rail loading infrastructure and that the N/K operations are not yet underway.

d) Groundwater

The groundwater data accord with previous measurements made. However, there are instances where the recorded constituents are outside the baseline range indicated in the N/K Groundwater MP. As no works of significance have yet been undertaken on the site these exceedances should be noted when establishing revised baseline levels prior to commencement of larger scale works.

e) Surface Water

In accordance with the monitoring schedule surface waters are sampled bi-annually.

There are two sampling locations: SW1 (South Creek) and SW2 (North Creek). Given the region was in drought for the whole year 2019, and part of 2020, the only surface water samples collected were in March 2020.

6. Monitoring result trends

As this is only the sixth AEMR and the mine is yet to become operational, it is unlikely that any significant discernible trends will be apparent at this stage. However, it is important to note that there can, and often will be, significant natural variability from year to year particularly in air quality, groundwater and surface water.

Newnes Kaolin hopes to have sufficient monitoring data to be able to discern any trends before the commencement of operations in 2022/2023.

a) Air Quality

Todoroski Air Sciences have compared the wind data available from the repaired N/K Weather Station with the annual wind rose from the nearby Clarence Colliery Weather Station. Comparison of the Weather Station results suggests a similar pattern of wind and implies the newly-repaired Weather Station is recording sensible/reliable wind speeds and directions.

Note that N/K has an established arrangement with Clarence Colliery to share air quality monitoring data.

b) Dust

The dust sample data are consistent with previous monitoring results. Average dust deposition rates of the monitoring sites indicate that compliance with the dust performance indicator (below 4 g/m^2/month) was achieved at all of the monitoring sites during the reporting period.

c) Groundwater

The observed groundwater levels are consistent with previous monitoring and remain relatively constant over the monitoring period. There is little observable response to rainfall events.

The PSM Groundwater Report concludes as follows:

> *Data has been included as it was provided to PSM, and there are some items requiring review and revision, such as:*
>
> - *Manual measurements ('dips') presented in the latest ALS report are labelled 'water height'. These values have been previously taken as depth below ground. In the latest monitoring period (Jan 2020 to Dec 2020) some of these dips are inconsistent with the logger data. They are significantly scattered and several 'water heights' reported are greater than the depth of the bore.*
> - *Water quality in September (EC data) featured some strong departures from previous data.*
>
> *These data inconsistencies have been queried and PSM will update reports accordingly when a formal response is provided by ALS.*

d) Surface Water

There was limited surface water data for the year 2020 due to drought conditions prevailing on site.

e) Flora and Fauna

The site vegetation was devastated by severe bushfires in October 2013 and December 2019 and the physical impacts of these events is still very apparent on the ground. Canopy health due to bushfire impacts was significant and generally has not changed in the 12 months since the 2019 bushfire.

A number of monitoring sites are located directly on water ways and water courses at the boundary of the monitoring area. All have exotic species established.

Ground cover is in the "emergent diversity" phase with distinct comparisons to after-effects of the 2013 bushfire.

Nevertheless, data collected prior to the fires helps to establish the background information which will be useful prior the start of mining operations.

7. Incidents and Compliance

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

8. Pollution Incident Response Management Plan

As reported previously, the PIRMP was subjected to a desktop test and review for the first time in 2016 and was reviewed for the second time in this reporting period. The two key issues identified were:

a) that there is significant threat of bushfire to workers on-site including those gathering annual monitoring data. As noted above, devastation of the site by bush fires in October 2013 and December 2020 means that the vegetation will take years to recover. The PIRMP now includes a draft Bushfire Management Plan which will be periodically reviewed as required going forward.

b) the potential for detention basin over-flow into the National Park.

9. Community Consultative Committee

The Newnes Kaolin CCC has met twice during the past year as required under the DA consent:

- 20th meeting of the CCC was held on 11th August 2020
- 21th meeting of the CCC was held on 4th December 2020

Minutes of the CCC meeting will be posted on the project website as required - www.sydneyconstructionmaterials.com

APPENDICES

1) Flora and Fauna – Annual Monitoring Summer 2019/2020
   Consulting & Environmental Services Lithgow
   22nd March 2021 – under separate cover

2) Groundwater & Surface Water Monitoring Report
   Pells Sullivan Meynink Engineering Consultants
   15 March 2021 – under separate cover

3) Air Quality Monitoring Assessment Report
   Todoroski Air Sciences
   22 February 2021 – under separate cover

4) Recent Site Photographs – see below
   Refer to Project Website – www.sydneyconstructionmaterials.com

Constructed on-site detention basin as it was in August 2020 after recent rain

Project site in August 2020 – post bushfire in January 2019