

**Epic Mining Pty Limited  
Luddenham Clay/Shale Quarry  
Modification 4 of Development Consent DA315-7-2003  
Addendum to Response to Submissions – October 2017**

## **1 INTRODUCTION**

This addendum to the Response to Submissions Report (RTS) has been prepared by National Integrated Creative Solutions in collaboration with Epic Mining Pty Limited (the applicant) and other suitably qualified environmental consultants.

### **1.1 BACKGROUND**

On 23 May 2004, the NSW Department of Infrastructure and Planning (now Department of Planning and Environment) (Department) granted a Development Consent for a Major Project No 513-7-2003 (Consent) for a clay and shale quarry at 275 Adams Road, Luddenham in the State of New South Wales.

The Consent was modified three times in accordance with the provisions included in the Environmental Planning and Assessment Act 1979 (EP&A Act).

### **1.2 APPROVED DEVELOPMENT**

The original development consent for works at the subject site was issued on 23 May 2004 to undertake the following activities:

*“The development and operation of a clay/shale quarry on Lot 3, DP 623 799 and the construction and use of an access road and service facilities on Lot 1, DP 838 361.”*

Subsequent Modifications included the Department’s approval of stockpiling activities and small scale composting activities.

### **1.3 SITE DETAILS**

The approved site is legally identified as Lot 3 in DP 623799 and part of Lot 1 in DP 838361, and its street address is No 275 Adams Road, Luddenham. The subject site is battle-axe in shape and benefits from approved truck access off Elizabeth Drive via a Right Of Way (ROW) over the adjoining Commonwealth Government land.

Given the authorised access from Elizabeth Drive, the subject site is known by clients and Government Authorities as No 2420 Elizabeth Drive, Badgerys Creek NSW 2555.

A summary of site details are provided in **Table 1-1**.

**Table 1-1 - Summary of Site Details**

<b>Location</b>	Lot 1 DP 838361 and Lot 3 DP 623799, 275 Adams Road, Luddenham
<b>Total Area</b>	Approximately 71 hectares
<b>Topographic Maps</b>	1:25000-scale Penrith 9030-3N & Warragamba 9030-3S
<b>Grid Reference (GDA94 – MGA Zone 56)</b>	289000E 6249400N (Penrith topographic map) (approximate)
<b>Local Government Area</b>	Liverpool City Council
<b>Existing Land Use</b>	The environment of the site and surrounding properties is modified rural, consisting of grazing, poultry farms, crops in hot house environments and some dwellings (Douglas Nicolaisen & associates 2003)
<b>Current Zoning</b>	RU1 – Primary Production
<b>Approved Development</b>	Clay/Shale Quarry

The site is also known to use its access from Elizabeth Drive as its physical address to facilitate finding the site by clients.

## 1.4 PROPOSED DEVELOPMENT MODIFICATIONS

The proposed modifications as part of this Consent Modification No 4 are listed below.

- to relocate the approved stockpiling of clay and shale in combination with the approved work to the adjacent land known as 285 Adams Road, Luddenham which is also known as 2470 Elizabeth Drive, Luddenham (Lot 281 in DP 571171),
- to relocate the approved composting activities to the northern portion of the applicant's approved site,
- to review the locations of all environmental monitoring and discharge points due to the construction and future operation of the proposed Western Sydney Airport on the Commonwealth land located east and south of the applicant's site where most monitoring and discharge points are currently located,
- to review current monitoring and reporting requirements in accordance with previous consultation with both the Department and the NSW Environment Protection Authority (EPA),
- modify the parameters of Air Quality Assessment to reflect current NSW parameters due to changes in the Air Assessment parameters,
- to modify relevant Consent Conditions associated with the Luddenham Quarry Community Consultative Committee to reflect the alternative method approved by the Department, and
- to review the current noise criteria specified in the Consent due to the many ongoing changes in the local environment surrounding the applicant's site including the construction and

operation of Western Sydney Airport, the increase of industrial activities in the adjacent suburbs and the significant increase in traffic on Elizabeth Drive.

## 1.5 PROPOSED SITE

The proposed stockpiling site is located at 285 Adams Road which as mentioned before is also known to be 2470 Elizabeth Drive in the suburb of Luddenham and the Local Government area of Liverpool City Council in the State of New South Wales. Full details of the proposed stockpiling site location are provided in **Table 1-2**.

**Table 1-2 - Summary of Proposed New Site Details**

<b>Location</b>	285 Adams Road or 2470 Elizabeth Drive, Luddenham - Lot 281 DP 571171
<b>Total Area</b>	Approximately 11 hectares or 110,000 m <sup>2</sup>
<b>Grid Reference (GDA94 – MGA56)</b>	Middle of site = Easting: 288979 Northing: 6249826 Elevation: 65
<b>Local Government Area</b>	Liverpool City Council
<b>Existing Land Use</b>	The environment of the site and surrounding properties is modified rural, consisting of grazing, poultry farms, crops in hot house environments and some dwellings
<b>Current Zoning</b>	RU1 – Primary Production
<b>Proposed Development</b>	Relocation of stockpiling activities

## 1.6 ENVIRONMENTAL ASSESSMENT EXHIBITION

The Department of Planning and Environment (Department) placed the proposal on public exhibition from 15 September until 14 October 2016. The Department encourages the community to participate in the public consultation and exhibition process.

## 1.7 IMPACT OF PROPOSED MODIFICATIONS

The proposed modifications will have positive rather than negative impacts on human health and the environment due to the fact that there are no changes to the existing approved activities and no expansion of activities. On the contrary, there will be reduction in stockpiling activities and there will be more comprehensive mitigation measures installed at the proposed sites to assist in minimising the potential of impacts from noise, air and water perspective.

The proposed modifications will provide certainty for Epic Mining Pty Limited (the applicant) as to the continuation of the quarrying activities within the approved site since there is a pressure with potential uncertainties due to the construction and operation of Western Sydney Airport in the adjacent land.

## 1.8 SUBMISSIONS

As a result of the exhibition of the modification application and the notification undertaken by the Department, a total of nine (9) submissions were received from Government agencies whilst no public submissions were received. The list of Government agencies which provided a submission in addition to the Department is included below. It should be noted that there were no objections to the proposed modification application by any stakeholder.

1. Department of Infrastructure and Regional Development
2. NSW Department of Planning and Environment
3. NSW Department of Industry
4. NSW Environment Protection Authority
5. NSW Department of Primary Industries
6. Heritage Council of NSW
7. Liverpool City Council
8. NSW Office of Environment and Heritage
9. NSW Transport – Roads & Maritime Services
10. Water NSW

Copies of all submissions received by the Department, including its own were included in **Attachment A** of the Response to Submissions (RTS) which was submitted to the Department on 24 January 2017 following further consultations directly with the Environment Protection Authority (EPA), Liverpool City Council (Council) and the Department of Primary Industries – Water (DPI – Water) as well the Department.

Despite the fact that we believed that the RTS outlined in a very clear manner responses to submissions to ensure that every issue raised by every Government agency was addressed, the Department identified certain aspects that it believed needed further assessments and clarifications to ensure that all submissions are fully addressed. The Department's letter was dated 24 February 2017 and is included in **Attachment A**.

In its letter, the Department requested that the following aspects be addressed in accordance with the requirements included in that letter:

1. Noise
2. Composting
3. Traffic
4. Aboriginal Cultural Heritage
5. Mining Titles
6. Final Land Use
7. Layout Plans
8. Contaminated Land
9. Onsite Sewage Management System
10. Flood Risk
11. Water Quality Modelling

**This RTS addendum includes responses and reports to address the above aspects noting that we believe we have not been given procedure fairness in the assessment of this modification (MOD 4).**

## **1 Noise**

*The Department shares a number of concerns raised by the Environment Protection Authority (EPA) regarding the noise impact assessment (NIA). The EPA's primary submission of 13 October 2016 raised a number of issues with the NIA. The Department understands that the Epic Mining and the EPA met on 17 November 2016 to discuss the insufficiencies of the NIA and what further analysis would be required in the RTS to satisfy the EPA that potential noise impacts have been adequately assessed. EPA reiterated its advice in a letter dated 22 November 2016.*

*Epic Mining submitted an RTS on 24 January 2017. Following review of this document EPA advised on 3 February 2017 that the RTS did not sufficiently address the concerns raised. The unresolved matters were referred to the Department's noise specialist for resolution.*

*The Department's noise specialist agrees there are a number of issues with the NIA. Overall the proposed modification is relatively simple, however the lack of an adequate NIA makes it difficult to assess.*

*It is recognised that the noise sources within the project area are unlikely to change from the existing situation, however there is a significant change in the extent of noise impacts. This is due to both the proposed relocation of composting and stockpiling activities on site and the continued change in surrounding land use related to the upcoming construction of the Western Sydney Airport and the general growth in the Liverpool area.*

*Considering the above the Department requests, in the first instance, that the background noise levels be re-established. The background noise levels are likely to have increased over recent years, so it is necessary to re-measure these so that appropriate project specific noise levels can be calculated. This may well give the project higher limits and reduce the need for such extensive barriers. The noise measurements must be undertaken by a qualified noise specialist who is a member of the Australian Acoustical Society.*

*Until this is completed the Department is unable to provide further comment on the noise predictions and the suitability of the noise barriers. Generally the Department does not encourage the construction of bunds where they are not warranted, particularly along highly trafficked corridors.*

*The Department requests that Epic Mining provide the Department and the EPA with the updated background noise levels for review, before revising the NIA in line with agreed background noise levels.*

## **Response**

*It is unfortunate to receive such a request from the Department so late in the modification process, especially after we had requested the same in our initial meetings with senior staff of the Department to gauge their opinion on the matter and the response was: "No, your noise assessment must be made to ensure compliance with the current noise criteria included in the Consent which is 41 dB(A)*

*$L_{Aeq,15minutes}$ ".*

For the records, we provide the following facts:

- 1 We formally requested that the Project Specific Noise Level (PSNL) be reviewed in the previous modification (MOD 3) and was rejected,
- 2 We requested reviewing the PSNL in this modification (MOD 4) as stated above and was initially rejected,
- 3 We formally requested reviewing the PSNL in this modification (MOD 4) as stated in the Environmental Assessment Report (EA) ("Executive Summary" Page 13 *"to review the current noise criteria specified in the Consent due to the many ongoing changes in the local environment surrounding the applicant's site including the construction and operation of Western Sydney Airport, the increase of industrial activities in the adjacent suburbs and the significant increase in traffic on Elizabeth Drive"* and Executive Summary" Page 16 *"The applicant has also noted the comments received so far from the Acoustic Consultants in relation to the current background noise levels in the area and the fact that due to many ongoing changes in the area in the past 10-12 years, has caused the background noise levels to be much higher than those used during the preparation of the EIS at which time the project specific noise level was set to 41 dB(A). In addition, the construction and future operation of Western Sydney Airport in the adjacent land east and south of the applicant's site will also significantly change the background noise level of the whole region not just the local area. The applicant is of the opinion that this limit be reviewed in light of the current environmental status of the area excluding its activities on the site"*. We supplied a summary of the results of three (3) years of noise measurements including recommended background noise levels. Again, our request and the supplied information were considered by both the Department and the EPA to be insufficient to be evaluated at the beginning of the modification process, so we proceeded in undertaking all noise assessments on the basis that we have to comply with the PSNL of 41 dB(A) L<sub>Aeq,15minutes</sub>.
- 4 On that basis, the Environment Protection Authority (EPA) believed that the previously calculated and designed earth mounds (noise barriers) were inadequate and requested modifications of the earth mounds to make them adequate. Hence, the increase in the earth mounds dimensions to ensure that the proposed noise attenuations were sufficient to ensure that the level of noise emanating from the relocated approved activities will comply with the PSNL of 41 dB(A) L<sub>Aeq,15minutes</sub>.
- 5 The visual assessment was also considered by the Department and additional work was also requested to ensure that the proposed earth mounds are sufficient from visual impact perspective.

Notwithstanding the above, we have proceeded in engaging Global Acoustics Pty Ltd to undertake the background noise assessment. Global Acoustics is approved by the Department to undertake the regular noise monitoring required in accordance with the Development Consent and the EPL

It should be noted that the delay in undertaking the background noise assessment was due to severe adverse weather conditions, experienced by Sydney during part of March and April. These weather conditions prevented the long-term unattended background noise measurements to be undertaken earlier. In addition, due to the same weather conditions which included heavy rainfall, no quarrying activities were undertaken during most of the month of March and part of April including during the long-term unattended background noise measurements since the quarry pit and benches contained`

a large quantity of rainwater. We also note that a significant number of activities in the surrounding local areas were also significantly affected by the prolonged wet weather conditions.

Following the completion of the long-term background noise measurements, as requested by the Department, Epic submitted the outcome of the background noise measurements to the Department. The letter report was issued by Global Acoustics on 17 May 2017. The report included also the consultant's Recommended Background Levels (RBLs) for three locations which included the two (2) closest potentially sensitive residential receivers as agreed with the Department.

These RBLs will be used to determine the Project Specific Noise Levels (PSNLs) which in turn will be used in the Noise Impact Assessment to determine the activities compliance with current NSW Noise criteria as outlined in the Industrial Noise Policy 2000 and the Draft Industrial Noise Guideline 2015.

Subsequently, the EPA in an email to the Department provided some comments on the outcome of the measurements as outlined below. EPA comments were considered during the preparation of the NIA and additional details are provided below keeping in mind that the activities are not new activities and the site is considered as an existing site with no noise related complaints ever and very minor possible changes to the Development Consent and the Environment Protection Licence.

*1 – Describe how much weather affected data was filtered from background noise monitoring results, and demonstrate that the rating background levels were based on at least seven days of valid data:*

*The report stated that they filtered out periods of wind greater than 3 m/s at 10 metres above ground level, and periods of rainfall. The industrial noise policy requires weather affected data to be filtered out of background noise monitoring results.*

*The report did not say how much data was filtered out. The cover letter indicated that a significant amount of data may have been filtered out, as it stated severe weather occurred around the time of monitoring, and the site did not operate during the monitoring because it was too wet.*

*The proponent should quantify how much data was filtered out, and demonstrate that at least seven days of valid data were used to work out the rating background levels. This could be done by referring to the data exclusion rules in the industrial noise policy.*

*The report did not include a set of daily graphs of background monitoring (noise and weather), or a table of assessment background levels for each day of monitoring. These are usually included in background monitoring reports, to provide context to the derived rating background levels, assist with quality control and provide other useful information.*

The cover letter did not imply or state that a significant amount of data have been filtered out. The report did not state that they filtered out periods of wind greater than 3m/s at 10 metres above ground level, and periods of rainfall. The report stated that *"Noise monitoring should not be conducted or the data should be excluded when average wind speeds (over 15 minute periods or shorter) at microphone height are greater than 5m/s, or when rainfall occurs.* In addition, the report stated that *"Background noise data has been filtered such that only periods with wind speed less than 5 m/s and no rainfall are included in this assessment."*

Despite the fact that the site is an existing site and the activities are already approved activities, both abovementioned guidelines provide some flexibility in noise assessments, we have re-filtered the data. Based on the re-filtering of data by using Epic's weather station, approximately 7 days of valid data was included in the assessment when considering that the monitoring was undertaken for more than 7.5 days. This is clearly evident in the graphs attached to the NIA.

*2 – Explain why the Bureau of Meteorology weather station at Badgerys Creek was used to filter background noise results, rather than the onsite weather station:*

*Epic Mining's licence requires them to operate a weather station on site. It is likely that weather station is more representative of local weather conditions, and is more appropriate for excluding weather affected noise data from rating background level calculations.*

The use of Badgerys weather station was approved in the past as it was considered to be more reliable than the weather station located within Epic's site. Epic's weather station has been used for over 6 years now and all noise reports (more than 20 in total) were sent to the EPA for review. None of these matters was ever raised or considered to be of importance. In any case, it is appreciated that the EPA requested the use of meteorological data from Epic's weather station as this meant that much less data were excluded such as during the 7.5 days of background noise monitoring only 1 period was excluded due to the wind speed being higher than 5m/s. Similarly, many less periods were excluded due to rain.

*3 – Explain why evening and night time rating background levels were greater than daytime rating background levels at N2 and N4:*

*It is possible that evening rating background levels were higher because of road traffic noise, evening and night time noise levels were enhanced by meteorology or included significant insect noise or noise from other sources which are not present through most of the year. However, No attended measurements were provided in the report.*

*Attended measurements, particularly in the night time, may indicate what sources are likely to have caused elevated background noise relative to daytime.*

As you be aware, background noise levels in rural and semi-rural areas have been found in many cases to be higher during the evening and night periods. Background noise monitoring was recently undertaken at Boggabri at a rural site and similar results were obtained. The attended background noise measurements did not identify any specific dominant sources to explain this phenomenon except the noise from tree leaves wild life and insects.

We have also received a letter dated 9 June 2017 from the Department (copy is attached) requesting simply that a noise impact assessment be undertaken to determine compliance with the new PSNLs and the recommended mitigation measures to ensure compliance with these PSNLs.

Global Acoustics undertook a comprehensive Noise Impact Assessment (NIA) after taking into consideration comments from both the EPA and the Department. The report titled: "*Luddenham Clay/Shale Quarry – Noise Impact Assessment – August 2017*", which was released on 5 October 2017 is attached to this submission for your consideration. The meteorological data used in both the background noise measurements and the NIA were obtained from Epic's own weather station as requested by the EPA. The meteorological data for the whole 2016 was used for the NIA and the meteorological data between 25 March and 5 April 2017 were used for the unattended background noise measurements.

**We believe that we have complied fully with the Department's requests associated with the noise assessment.**

## **2 Composting**

*The Department considers that the RTS did not satisfactorily answer or address the compost related comments in the EPA's submission of 13 October 2016 or the EPA's letter of 22 November 2016 instead Epic Mining generally argued that the requested information had already been provided or*



*that the requests were unreasonable. The Department's further consideration of the matter is provided below.*

*The Department notes that small scale composting activities on Lot 1 DP 838361 were approved under Modification 3 for use in on-site rehabilitation and landscaping. Nonetheless, the Department disagrees with Epic Mining's statement in the RTS that it is unreasonable to reassess composting activities in this modification application. As this modification relates to relocating composting activities to Lot 3 DP 623799, the Department considers it necessary to reassess the environmental impacts related to composting at the new location.*

*The Department acknowledges that the level of assessment for this ancillary development differs to the EPA's requirements for an Environmental Protection Licence (EPL) variation under the Protection of the Environment Operation Act 1997 (POEO Act). Nevertheless, the Department looks to the EPA for expert advice and guidance on the matter.*

*The Department understands that on 20 February 2017, the EPA sent clarification questions to Epic Mining regarding the current composting activities on Lot 1 DP 838361 as Epic Mining is currently banned from receiving raw mulch or compost on the premises. While these questions concern the EPL, they also relate to this modification. Following resolution of these areas of clarification, the EPA and the Department will be in a better position to discuss what is/isn't reasonable to address in this modification.*

*Regardless of what is addressed in the modification application, the Department reiterates Epic Mining's responsibilities under the POEO Act and notes that planning approval of composting activities does not guarantee the activities will also be permitted under an EPL.*

## **Response**

Despite the fact that we have been providing information about these activities to both the Department and the EPA for a few years now, to clarify the fact that we do not believe that these activities should be classified as composting since what is undertaking by Epic is not included in the definition of composting. In addition to the above and the fact that these activities were previously approved by the Department and they are now being moved to another location within the approved site which is much more environmentally controlled location with many more proposed mitigation measures than ever before. We believe that it is unreasonable to undertake environmental assessments of an approved activity which is not a scheduled activity and following the implementation of several additional mitigation measures whilst the previously implemented mitigation measures were sufficient to ensure that the activities complied with all environmental requirements at all times. This compliance has been confirmed by regular monitoring in the vicinity of the activities as well as inspections by authorised EPA officers.

Furthermore, it appears that the EPA has not taken into consideration the accurate description of the activities undertaken by Epic in comparison with what Composting is defined in Clause 12 of Schedule 1 of the POEO Act 1997 to be considered as scheduled activity.

In any case, if pasteurisation is now required for the material in accordance with the EPA's new requirements, **pasteurisation is not a scheduled activity under provisions of the POEO Act 1997**. Hence, the pasteurisation activity does not require licensing by the EPA.

Similar definitions are included in the Environmental Planning and Assessment Act 1979. Similar conclusions can be derived. **This means that the specific activity does not require a Development Consent or be included in the existing development consent but it can be undertaken as part of the approved plant nursery as previously advised.**

**In conclusion, we have been trying to convince both the EPA and the Department that the activity undertaken by Epic does not fall within the meaning of composting for several years now but we have not been able to do so for unknown reasons.**

In summary, we believe that the EPA has continuously placed, at Epic, hurdles at every stage of the modification process and on most aspects. This seems to be unreasonable and unjustified since Epic was the best environmental performer in the Extractive Industries Sector for over five (5) years.

Notwithstanding the above, it appears that the issue of the approved composting activities has been made more complicated than what it actually is and may have been delaying the process of the modification assessment process. Thus, Epic has decided that if leaving the composting activities outside this modification application would assist in completing the processing of the application quicker, then it will be considered at a later stage and resolved first with the EPA.

### **3 Traffic**

*On 3 February 2017 the Department requested Epic Mining prepare a traffic assessment. This traffic assessment must be included in the revised RTS. For completeness, the Department's previous request is summarised below.*

*The Department notes that the traffic impact assessment in the 2003 Environmental Impact Statement (EIS) was based on a maximum of 80 product truck movements per day (40 return trips). However, the Department understands that truck movements are sporadic due to the nature of product sales and occasionally there are high demand days when truck movements are nearly double these maximum. In addition to this, the Department is aware that additional third party trucks enter the site to use Epic Mining's weighbridge.*

*Considering these facts, the Department requested that Epic Mining undertake a traffic assessment to demonstrate that Elizabeth Drive can accommodate the increased truck movements [as compared to those assessed in the EIS]. The assessment should consider potential impacts of the increased truck movements on existing traffic flows along Elizabeth Drive and the intersection treatment of the driveway with Elizabeth Drive. The assessment should be based on the predicted maximum number of truck movements, including all heavy vehicles (product, mulch, third party, etc.).*

#### **Response**

A comprehensive Traffic Impact Assessment has been undertaken by Morgan Stansbury, Director of Stansbury Traffic Planning. **This assessment demonstrates that a total of 260 (130 trucks in and**

**130 trucks out) truck movements per day would be acceptable without the need for any additional traffic controls or mitigation measures.**

**A copy of the report is attached for your consideration.**

#### **4 Aboriginal Cultural Heritage**

*With reference to Section 2.2(3) of the RTS, the Department requests that Epic Mining reconsider its proposal to install a fence between the riparian zone and the eastern boundary earth berm. A fence next to a 5 metre high earth berm is considered unnecessary. Instead please explain how the earth berm would serve as a security barrier to ensure that any unidentified artefacts in the riparian zone remain undisturbed by the development.*

#### **Response**

In our initial EA, we did not suggest or recommend a fence next to the 5 m high earth mound as we considered the 5 m high earth mound to be more than sufficient to prevent any access to the riparian zone by unauthorised persons. However, following discussions with the Department representatives it was suggested and agreed by all parties that the installation of a fence should also be considered as a preferred option. However, if there is a change of hearts now, we can remove this fence from the proposal and leave the 5 m high earth mound only.

The earth mounds/barriers are continuous around the western, northern and eastern sides of the proposed stockpiling site. The riparian zone is on the eastern side of the site and will be well protected as outlined below.

- Oaky Creek and large trees on its eastern side,
- Large trees and a wire fence on its northern side,
- 5m high earth mound on its western side,
- Oaky Creek, large trees and the proposed sediment pond at its southern side.

In addition to the above, the gradient/slope of the earth mounds is very steep which renders the access to the riparian zone by unauthorised persons extremely difficult.

Furthermore, as previously advised, an Epic employee lives on that site. That employee is also responsible for the security of the site and undertakes regular inspections during and outside the normal operating hours to ensure that unauthorised persons are not accessing any part of the site under Epic's control.

#### **5. Mining Titles**

*Considering the advice from DRE, please confirm if a mining purposes lease is required for the northern product stockpiles. In Section 2.3 of the RTS please also include an update on the status of Mining (Mineral Owner) Lease Application 3.*

#### **Response**

No Mining Titles are proposed for the northern stockpiles.

The application for a Mining (Mineral Owner) Lease is still in the assessment stage with the Division of Resources and Energy which is now part of the Department of Planning and Environment. As soon as the application is determined, Epic will notify the Department.

## 6. Final Land Use

*Considering the final land use advice from DPI and DRE, please update the response in Section 2.3 of the RTS.*

### **Response**

As previously advised, Epic Mining is only the occupier rather than the owner of the property. This means that at the completion of the development, **Epic or the operator of the quarry at that time will restore the land to its original or better conditions to ensure that the site is made suitable for activities that are similar to those previously undertaken.** However, this commitment may change by decisions that are beyond the control of Epic (or another operator). Epic cannot be held responsible for decisions made by Government or non-Government organisations that may override Epic's commitment.

## 7. Layout Plans

*Building on the advice from DPI, please provide an updated proposed site layout that shows the 40 metre riparian exclusion zone and the Aboriginal exclusion area. Please also differentiate between the main access road off Elizabeth Drive and the light vehicle employee driveway off Adams Road.*

### **Response**

Due to the so many items and aspects to be included in the proposed site layout, it will be very confusing if all these aspects/structures/activities are included in one plan only. The requested information was previously included in different plans since they served different purposes and were part of different assessments. The light and heavy vehicle routes were including in **Appendix K** of the EA as drawing No **NICS162001\_FIG004 Rev01** (Attached ). Attached are also the previously submitted plans which included the requested information. **Attached is also a revised site layout that includes all requested information associated with the Riparian Zone and the Aboriginal exclusion area.**

## 8. Contaminated Land

*Please ensure that the revised RTS includes an adequate Stage 1 – Preliminary Site Investigation of land in accordance with State Environmental Planning Policy No 55 – Remediation of Land.*

### **Response**

A report titled "Preliminary Site Investigation and Focussed Environmental Site Assessment – 2470 Elizabeth Drive, Luddenham NSW – Report No NICS\_171002\_PSI\_EPIC.docx" and dated September 2017, was prepared by National Integrated Creative Solutions in accordance with the following documents:

- 1 The National Environment Protection (Assessment of Site Contamination) Measure (NEPC, 1999) as amended in 2013. This document constitutes the most updated tool for Consultants in undertaking assessments on contaminated lands,
- 2 Guidelines for Consultants Reporting on Contaminated Sites (OEH September 2011),

3 *State Environmental Planning Policy No 55 – Remediation of Land,*

4 *NSW DUAP & NSW EPA: Managing Land Contamination – Planning Guidelines – SEPP 55 - Remediation of Land – 1998.*

A copy of the report was sent to Liverpool Council for consideration. The report demonstrates that the site with its current status is not contaminated and most certainly suitable for the proposed use provided that all mitigation measures are installed, implemented and maintained at all times.

It should be noted that the above contamination site assessment included a comprehensive Stage 1: Preliminary Site Investigation and a focussed Stage 2: Detailed Site Investigation to provide all stakeholders with greater confidence that the site is not contaminated. The focussed Stage 2 included the establishment of five (5) sampling stations and the collection of 18 soil samples including duplicates. All results of the analysis showed that for all selected analytes chosen based on the previous use of the site lower levels than current NSW criteria.

Liverpool Council response dated 4 October 2017 stated: *“The environmental health staff were satisfied with the contamination assessment and the drainage staff were happy with the response regarding water quality and detention capacity.”*

A copy of the abovementioned contamination assessment report is attached to this submission.

## **9. Onsite sewage management system**

*Please update the response in Section 2.7 of RTS to address Council’s comments.*

### **Response**

The proposed stockpiling activities are undertaken by Epic which is not the owner of the property but rather the occupier of part of the property. In addition to the stockpiling activities, there are still two (2) residential dwellings and old sheds that belong to the owner. One of these dwellings has been occupied continuously for decades and still is. Both dwellings are outside the stockpiling footprint. Stockpiling activities do not generate greywater that requires separate Onsite Sewerage Management System. The only workers (4-5) associated with the stockpiling activities will continue to use Epic’s existing amenities located at the access road of Elizabeth Drive. These amenities include an office, a lunch room, male & female toilets, a shower, an emergency wash up facility, first aid kits, etc....Furthermore, the landlord recently applied to Liverpool Council and obtained a Development Consent to demolish the old sheds and one of the dwellings. As part of this application, the on-site sewerage management issue was raised at a much later stage and the landlord was advised that the existing systems that have been used for over 50 years must be legitimised by an application to Liverpool Council.

**We see no reason for Epic to undertake an assessment of Onsite Sewerage Management and legitimise Onsite Sewerage Management System that is not required for its proposed stockpiling activities.**

In any case, we raised the matter with Liverpool Council to ensure that any additional work that may be required could be completed on time. Following our submission to Liverpool Council we received its response dated 19 October 2017 which stated:

*"Hi Sam, Nicholas,*

*To update you on this matter - I understand your concern that the On-site Sewage Management System at 2470 Elizabeth Drive is not connected to stockpiling activities on the land, and so you should not be required to legitimise the system. Despite this, the environmental health officers at Council here have continued to recommend that a consent condition require you to obtain a s68 certificate for this system. I have discussed the situation with Megan Dawson from DPE and am awaiting their opinion on the matter (noting that Council is not the consent authority for this application).*

*Regardless of the outcome regarding this issue, I do not think that this needs to hold up the application any further. Council officers have indicated to me that your responses regarding water quality/drainage, flooding and land contamination are adequate, and on-site sewage management issues can be dealt with by a consent condition if appropriate. For this reason no further studies should be required at this stage."*

**Based on the above advice, Liverpool Council is satisfied will the assessments and studies that have been completed and submitted to it.**

## **10. Flood Risk**

*The Department agrees with Council that the RTS has not sufficiently assessed the potential flood impacts from relocating the composting/stockpiling activities. Please provide an adequate assessment of these potential impacts.*

### **Response**

Based on our initial discussions with relevant employees of Liverpool Council, they indicated their satisfaction with the information presented to them during the meeting. The information included the following items:

- A copy of the comprehensive report produced by GHD and dated August 2016,
- Results of computer modelling undertaken by GHD for Oaky Creek which is an ephemeral creek that flows only after heavy rainfalls in its upper catchment,
- Enlarged maps showing clearly that the risk of flooding in Oaky Creek even for rainfall event 1 in 100 ARI is insignificant,
- Council's flood prone zone plans.

Furthermore and following extensive search through different sources, we have managed to find the following documents that support that the risk of flood in the ephemeral Oaky Creek was found to be insignificant even for the 1 in 100 year ARI:

- ❖ *Revised Flood Study – Oaky Creek Catchment – Upstream of Elizabeth Drive, Luddenham for Badger Mining Pty Ltd – prepared by Brink & Associates and dated 2 November 2001,*
- ❖ *Technical Reports Volume 2 – Proposed Clay/Shale Extraction Operation – Lot 3 – 275 Adams Road Luddenham NSW. This includes amongst other assessments a comprehensive Flood Study prepared by Brink & Associates and dated 30 May 2003.*

The above studies demonstrate that the risk of flooding in this part of Oaky Creek is insignificant even in the 1 in 100 year ARI and that this risk is reduced even further with the pit rather than without it.

These documents are now available in soft form but cannot be included in this document due to the fact that their total size is approximately 200 Mb. However, these documents as well all other documents previously submitted were hand-delivered directly to Liverpool Council on a flash drive.

In support of our justification that a comprehensive flood assessment is not required, we provide the following facts that support the findings of GHD as well our conclusions that the risk of flooding from the relocation of the previously approved stockpiling and composting activities is insignificant, and it will be reduced even further by implementing the proposed water management mitigation measures:

- (a) The comprehensive flood studies undertaken previously for the relevant catchment of Oaky Creek clearly demonstrate that the risk of flooding is none even in 1 in 100 year ARI,
- (b) The GHD assessment was undertaken by taken into consideration the catchment of Oaky Creek where the previously approved stockpiling and composting activities are located,
- (c) The same activities will remain within the same Oaky Creek catchment with improved surface water runoff management,
- (d) The quantity of rainfall in the Oaky Creek catchment is not different whether the stockpiling and composting activities are undertaken within the Commonwealth land or the adjacent lands since they remain within the same catchment,
- (e) The insignificant risk of flooding will be reduced further by the introduction of a sediment pond for the stockpiling area rather than being discharged directly to the existing water management system. This collected water will be re-used within the same catchment,
- (f) The insignificant risk of flooding will be reduced further by the introduction of a sediment pond/leachate collection pond for the composting area rather than being discharged directly to the existing water management system. This collected water will be re-used within this area which is within the same catchment area,
- (g) Based on the Section 149 (2&5) recently obtained from Liverpool City Council (Council), Council the following information was included:

***“7A. Flood related development controls information***

*(a) For the purpose of residential accommodation (excluding group homes or seniors housing), is the land, or part of the land, within the flood planning area and subject to flood planning controls?*

No

*For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.*

*(b) Is development on that land, or part of the land, for any other purpose subject to flood related development controls?*

No

*For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.*

*Note: Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006.”*

**In conclusion, despite the fact that all previous studies demonstrate that the flood risk in the ephemeral Oaky Creek is none/insignificant even for 1 in 100 year ARI, the proposed water mitigation measures will reduce this risk even further, we see no real justifiable reason for any additional studies to demonstrate the obvious.**

Following our submission of the above documents and this response to Liverpool Council, we received its response dated 4 October 2017 which stated: “*The environmental health staff were satisfied with the contamination assessment and the drainage staff were happy with the response regarding water quality and detention capacity.*”

This was also confirmed on 19 October 2017 as stated above.

## **11 Water Quality Modelling**

*In its primary submission of 14 October 2016, council raised concerns with the capacity of the proposed water management system to accommodate prolonged rainfall events and the consequent risk that stormwater run-off could discharge into Oaky Creek. Because of this, council requested that Epic Mining undertake appropriate water quality modelling and provide appropriate water quality treatment facilities in accordance with the guidelines for Water Sensitive Urban Design (WSUD) to satisfy the water quality requirements in Liverpool Development Control Plan 2008. The Department agrees with Council that there was no clear response to this matter in the RTS. The Department requests that Epic Mining adequately respond to the concerns raised.*

*In the first instance Epic Mining should demonstrate that the proposed sediment ponds have adequate capacity to accommodate prolonged rainfall events in accordance with managing Urban Stormwater: Soils and Construction, Volume 2E Mines and Quarries (DECC, 2008). If Epic Mining is unable to demonstrate available capacity, then additional water quality modelling should be undertaken to ensure any stormwater run-off into Oaky Creek meets the water quality control requirements in Liverpool Development Control Plan 2008.*

### **Response**

We confirm that the proposed sediment ponds for both the stockpiling and composting activities were undertaken with reference to the following guidelines:

- ❖ Landcom (2004). *Managing Urban Stormwater: Soils and Construction. Volume 1.* 4<sup>th</sup> Edition. NSW Landcom, Sydney.
- ❖ Managing Urban Stormwater – Soils and Construction – DECC 2008
- ❖ Department of Environment and Climate Change (DECC) (2008). *Managing Urban Stormwater: Soils and Construction. Volume 2E: Mines and Quarries.* NSW DECC, Sydney

Section 6.2.4 on page 91 of the EAR states:

*“Based on the document: “Managing Urban Stormwater: Soil & Construction – (Landcom 2004 and*



(DECC 2008)", we have undertaken the calculations for sediment ponds 4 and 5 to ensure that current NSW requirements are met. Detailed calculations are included in **APPENDIX L**.

The proposed sediment ponds 4 and 5 storage volumes were found to be at least 0.723 ML and 1.858 ML respectively. As previously stated, they were sized according to the Blue Book to have sufficient capacity to contain the 5-day, 90<sup>th</sup> percentile rainfall event using rainfall data for Wallacia (48.4 mm) which is considered to be the closest location to the site as included in the Blue Book. In this case, the volumetric runoff coefficient ( $C_v$ ) was considered to be 0.70 (Blue Book) as a conservative approach.

Notwithstanding the above, we recommend that the sizes of these two ponds be increased by 10% as a safety factor to ensure that they are able to capture surface water runoff under adverse weather conditions that are outside the design parameters. Hence, it is recommended that sediment pond 4 be designed for 0.8 ML (or 800 m<sup>3</sup>) capacity. A complying design could be 20 m Long x 6 m Wide x 6.7 m Deep. It is also recommended that sediment pond 5 be designed for 2.04 ML (or 2040 m<sup>3</sup>). A complying design could be 30 m Long x 10 m Wide x 6.8 m Deep."

EAR Appendix L includes additional information associated with detailed calculations for the sizing of the proposed sediment ponds 4 and 5 for both stockpiling and composting activities. The first sentence of that document states:

*"The Revised Universal Soil Loss Equation (RUSLE) in "Managing Urban Stormwater – Soil & Construction Landcom (2004) and DECC (2008)" (Also called Blue Book) is used to predict the long term, average soil loss and the soil loss class from sheet and rill flow over the development site."*

The reference Section of the EAR included all documents referred to during the preparation of the EAR. Relevant documents are included below.

- 18 Department of Environment and Climate Change (DECC) (2008). *Managing Urban Stormwater: Soils and Construction. Volume 2E: Mines and Quarries*. NSW DECC, Sydney.
- 19 Engineers Australia (2002). *Australian Rainfall and Runoff. Volume 1*.
- 20 Landcom (2004). *Managing Urban Stormwater: Soils and Construction. Volume 1*. 4<sup>th</sup> Edition. NSW Landcom, Sydney.
- 24 Managing Urban Stormwater – Soils and Construction – DECC 2008

For your information, for the sizing of sediment ponds, the "Department of Environment and Climate Change (DECC) (2008). *Managing Urban Stormwater: Soils and Construction. Volume 2E: Mines and Quarries*. NSW DECC, Sydney" refers to sections and equations included in other documents such as "Managing Urban Stormwater – Soil & Construction Landcom (2004) and DECC (2008)" (Also called Blue Book)". **These are the same sections and equations we have used to calculate the sizes of the proposed sediment. Notwithstanding the above and as we stated in the EAR, we increased the sizes by 10% to provide all stakeholders with a greater confidence that sediment ponds will be more than capable of capturing the water runoff from the relevant catchments.**

Following our submission of the EA report and this response to Liverpool Council, we received its response dated 4 October 2017 which stated: "The environmental health staff were satisfied with the contamination assessment and the drainage staff were happy with the response regarding water quality and detention capacity."

This was also confirmed on 19 October 2017 as stated above.

## ATTACHMENTS

**Attachment A: Government Departments' New Submissions**

Mr Samuel Tarabori  
Operations Manager  
Epic Mining Pty Ltd  
PO Box 177  
KEMPS CREEK NSW 2178

Dear Mr Tarabori

**Luddenham Clay/Shale Quarry- Modification 4 (DA 315-7-2003 MOD 4)**  
**Request for Revised Response to Submissions**

I refer to your email of 24 January 2017 submitting the Response to Submissions (RTS) for Luddenham Clay/Shale Quarry Modification 4 (DA 315-7-2003 MOD 4). The purpose of the RTS was to respond to the issues raised by the nine government agencies who commented on the Environmental Assessment (EA) and to respond to the Department's request for further information dated 19 October 2016.

The Department has reviewed the RTS and sought advice from key agencies on the adequacy of the RTS. Following this review and consultation period, the Department considers the RTS does not adequately address all issues raised.

The Department requests that you prepare and submit a revised RTS that further addresses the comments in **Attachment A**. The Department also emphasises that Epic Mining must confirm with the Department before deciding when requests are unreasonable or irrelevant to the modification and when they do not warrant a response in the RTS. The Department also considers that some of the comments in the RTS regarding positions of other agencies are inaccurate and unhelpful.

The Department further acknowledges that while it is typically acceptable to use a tried assessment methodology that has been used in previously approved modifications for Luddenham Quarry, it does not guarantee that the methodology remains appropriate for this modification nor does it waive the Department's or other agency's right to comment on or disagree with the methodology used.

If you wish to discuss this matter, please contact Megan Dawson on 9274 6391.

Yours sincerely,



Howard Reed

**Director**  
**Resource Assessments**

24.2.17

## Attachment A

### 1. Noise

The Department shares a number of concerns raised by the Environment Protection Authority (EPA) regarding the noise impact assessment (NIA). The EPA's primary submission of 13 October 2016 raised a number of issues with the NIA. The Department understands that Epic Mining and the EPA met on 17 November 2016 to discuss the insufficiencies of the NIA and what further analysis would be required in the RTS to satisfy the EPA that potential noise impacts have been adequately assessed. EPA reiterated its advice in a letter dated 22 November 2016.

Epic Mining submitted an RTS on 24 January 2017. Following review of this document, EPA advised on 3 February 2017 that the RTS did not sufficiently address the concerns raised. The unresolved matters were referred to the Department's noise specialist for resolution.

The Department's noise specialist agrees there are a number of issues with the NIA. Overall, the proposed modification is relatively simple, however the lack of an adequate NIA makes it difficult to assess.

It is recognised that noise sources within the project area are unlikely to change from the existing situation, however there is a significant change in the extent of noise impacts. This is due to both the proposed relocation of composting and stockpiling activities on site and the continued change in surrounding land use related to the upcoming construction of the Western Sydney Airport and the general growth in the Liverpool area.

Considering the above, the Department requests, in the first instance, that the background noise levels be re-established. The background noise levels are likely to have increased over recent years, so it is necessary to re-measure these so that appropriate project specific noise levels can be calculated. This may well give the project higher limits and reduce the need for such extensive barriers. The noise measurements must be undertaken by a qualified noise specialist who is a member of the Australian Acoustical Society.

Until this work is completed the Department is unable to provide further comment on the noise predictions and the suitability of the noise barriers. Generally, the Department does not encourage the construction of bunds where they are not warranted, particularly along highly trafficked corridors.

The Department requests that Epic Mining provide the Department and the EPA with the updated background noise levels for review, before revising the NIA in line with agreed background noise levels.

### 2. Composting

The Department considers that the RTS did not satisfactorily answer or address the compost related comments in the EPA's submission of 13 October 2016 or the EPA's letter of 22 November 2016. Instead Epic Mining generally argued that the requested information had already been provided or that the requests were unreasonable. The Department's further consideration of the matter is provided below.

The Department notes that small scale composting activities on Lot 1 DP 838361 were approved under Modification 3 for use in on-site rehabilitation and landscaping. Nonetheless, the Department disagrees with Epic Mining's statement in the RTS that it is unreasonable to reassess composting activities in this modification application. As this modification relates to relocating composting activities to Lot 3 DP 623799, the Department considers it necessary to reassess the environmental impacts related to composting at the new location.

The Department acknowledges that the level of assessment for this ancillary development differs to the EPA's requirements for an Environmental Protection Licence (EPL) variation under the *Protection of the Environment Operation Act 1997* (POEO Act). Nevertheless, the Department looks to the EPA for expert advice and guidance on the matter.

The Department understands that on 20 February 2017, the EPA sent clarification questions to Epic Mining regarding the current composting activities on Lot 1 DP 838361 as Epic Mining is currently banned from receiving raw mulch or compost on the premises. While these questions concern the EPL, they also relate to this modification. Following resolution of these areas of clarification, the EPA and the Department will be in a better position to discuss what is/isn't reasonable to address in this modification.

Regardless of what is addressed in the modification application, the Department reiterates Epic Mining's responsibilities under the POEO Act and notes that planning approval of composting activities does not guarantee the activities will also be permitted under an EPL.

### 3. Traffic

On 3 February 2017 the Department requested Epic Mining prepare a traffic assessment. This traffic assessment must be included in the revised RTS. For completeness, the Department's previous request is summarised below.

The Department notes that the traffic impact assessment in the 2003 Environmental Impact Statement (EIS) was based on a maximum of 80 product truck movements per day (40 return trips). However, the Department understands that truck movements are sporadic due to the nature of product sales and occasionally there are high demand days when truck movements are nearly double these maximum. In addition to this, the Department is aware that additional third party trucks enter the site to use Epic Mining's weighbridge.

Considering these facts, the Department requested that Epic Mining undertake a traffic assessment to demonstrate that Elizabeth Drive can accommodate the increased truck movements (as compared to those assessed in the EIS). The assessment should consider potential impacts of the increased truck movements on existing traffic flows along Elizabeth Drive and the intersection treatment of the driveway with Elizabeth Drive. The assessment should be based on the predicted maximum number of truck movements, including all heavy vehicles (product, mulch, third party, etc).

### 4. Aboriginal Cultural Heritage

With reference to Section 2.2(3) of the RTS, the Department requests that Epic Mining reconsider its proposal to install a fence between the riparian zone and the eastern boundary earth berm. A fence next to a 5 metre high earth berm is considered unnecessary. Instead please explain how the earth berm would serve as a security barrier to ensure that any unidentified artefacts in the riparian zone remain undisturbed by the development.

### 5. Agency submissions on the RTS

The Department requests the revised RTS further consider the three agency submissions provided in **Attachment B**.

The Department notes that most of the remaining comments from the Department of Primary Industries (DPI) and Division of Resources & Energy (DRE) can be resolved through conditions of consent. However, the following matters need to be further clarified in the revised RTS.

- **Mining titles:** Considering the advice from DRE, please confirm if a mining purposes lease is required for the northern product stockpiles. In Section 2.3 of the RTS please also include an update on the status of Mining (Mineral Owner) Lease Application 3.
- **Final land use:** Considering the final land use advice from DPI and DRE, please update the response in Section 2.3 of the RTS.
- **Layout Plans:** Building on the advice from DPI, please provide an updated proposed site layout that shows the 40 metre riparian exclusion zone and the Aboriginal exclusion area. Please also differentiate between the main access road off Elizabeth Drive and the light vehicle employee driveway off Adams Road.

The Department also notes that Liverpool City Council considered the RTS did not sufficiently address its concerns regarding potential contaminated land, onsite sewage management, flood risk and water quality. The Department's consideration and advice on these matters are provided below.

- **Contaminated land:** Please ensure the revised RTS includes an adequate Stage 1 - Preliminary Site Investigation of the land in accordance with *State Environmental Planning Policy No 55 - Remediation of Land*.
- **Onsite sewage management system:** Please update the response in Section 2.7 of RTS to address Council's comments.
- **Flood risk:** The Department agrees with Council that the RTS has not sufficiently assessed the potential flood impacts from relocating the composting/stockpiling activities. Please provide an adequate assessment of these potential impacts.

- **Water Quality Modelling:** In its primary submission of 14 October 2016, Council raised concerns with the capacity of the proposed water management system to accommodate prolonged rainfall events and the consequent risk that stormwater run-off could discharge into Oaky Creek. Because of this, Council requested that Epic Mining undertake appropriate water quality modelling and provide appropriate water quality treatment facilities in accordance with the guidelines for Water Sensitive Urban Design (WSUD) to satisfy the water quality control requirements in Liverpool Development Control Plan 2008. The Department agrees with Council that there was no clear response to this matter in the RTS. The Department requests that Epic Mining adequately respond to the concerns raised.

In the first instance Epic Mining should demonstrate that the proposed sediment ponds have adequate capacity to accommodate prolonged rainfall events in accordance with *Managing Urban Stormwater: Soils and Construction, Volume 2E Mines and Quarries* (DECC, 2008). If Epic Mining is unable to demonstrate available capacity, then additional water quality modelling should be undertaken to ensure any stormwater run-off into Oaky Creek meets the water quality control requirements in Liverpool Development Control Plan 2008.





## Department of Primary Industries

OUT17/6330

Ms Megan Dawson  
Modification Assessments  
NSW Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

Megan.dawson@planning.nsw.gov.au

Dear Ms Dawson

### **Luddenham Clay Shale Quarry (DA315-7-2003 MOD 4) Comment on the Response to Submissions Report**

I refer to your email of 25 January 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant divisions of DPI. Views were also sought from NSW Department of Industry - Lands that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to [landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au).

DPI has reviewed the Response to Submissions report and provides the following comments:

- The proponent advises that clean water will not be included in the proposed management system for use in any part of the development. However, section 6.2.1 of the EA states “**clean water diversions from undisturbed land** is captured and channelled to Sediment ponds 1 and 2 to the Northeast boundary for storage and use in the site’s dust suppression and vegetation management activities” (page 87). The proponent should be aware that should captured clean water be used for any part of the development licensing may be required under the *Water Management Act 2000* and the proponent should consult with DPI Water ([water.referrals@dpi.nsw.gov.au](mailto:water.referrals@dpi.nsw.gov.au)) if this is the case.
- DPI notes discrepancies in the proponent’s documentation in relation to the location of the width of the riparian corridor. Any consent for the modification should include a condition to ensure that the 40 m vegetated riparian buffer is rehabilitated and maintained during the life of the quarry. The proponent should provide revised plans / diagrams to ensure that establishment and maintenance of this 40 m buffer zone and these should be approved prior to commencement.

- Speculation on the possibility of rezoning of the land in future does not give sufficient cause to exclude rehabilitation of the land for future agricultural use. DPI recommends that any determination for this project should include a condition of consent requiring rehabilitation to a level that provides for future agricultural investment opportunities, unless otherwise agreed by the Secretary. The ability to seek the Secretary's agreement should provide sufficient flexibility in the event of future rezoning.

Yours sincerely



Mitchell Isaacs  
**Director, Planning Policy & Assessment Advice**  
10 February 2017

*DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:*

<https://goo.gl/o8TXWz>



Megan Dawson  
Senior Planning Officer  
Resource Assessments & Planning Services  
Department of Planning & Environment  
GPO Box 39  
SYDNEY NSW 2001

Megan.dawson@planning.nsw.gov.au

Dear Megan

**Luddenham Clay Shale Quarry (DA 315-7-2003) MOD 4  
Response to Submissions Comments**

I refer to your email dated 25 January 2017 inviting the Division of Resources & Energy (DRE) to provide comments on the Luddenham Clay Shale Quarry MOD 4 Response to Submissions (RTS).

DRE has reviewed the adequacy of information provided by Epic Mining Pty Ltd. (the Proponent) in the RTS and is satisfied that the Proponent has addressed DRE's advice.

No final land use plan has been provided, however DRE is currently considering Mining (Mineral Owner) Lease Application 3 which covers the project area (excluding the northern product stockpiles area) and if approved will require a Rehabilitation Management Plan under the *Mining Act (1992)* and Security which will address this matter.

The need for a mining purposes lease for the northern product stockpiles should be confirmed and, if required, the area covered by Mining (Mineral Owner) Lease Application 3 would be revised accordingly.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalty & Advisory Services on 9842 8573.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Zane West', written over a horizontal line.

Zane West  
**Manager Royalties & Advisory Services**

8 February 2017

Megan Dawson  
Resource Assessments/Planning Services  
Department of Planning and Environment  
GPO Box 39  
**SYDNEY NSW 2001**

Dear Ms Dawson

**Re: Luddenham Clay/Shale Quarry- Modification 4 (DA 315-7-2003 MOD 4) Response to Submissions**

I write in response to your email dated 25 January 2017 regarding the response to submissions document for the exhibition of the proposed consent modification for the Luddenham Clay/Shale Quarry. Council has considered the response to submissions document and considers that it does not sufficiently address Council's concerns.

1. Potential site contamination

Council noted the requirements of SEPP 55 - Remediation of Land and outlined concerns in relation to the suitability of the subject site for the proposed development. It was suggested that the applicant should be required to engage the services of a suitably qualified and experienced contaminated land consultant to prepare a Stage 1 - Preliminary Site Investigation of the land. In response, the applicant indicated that the Stage 1 - Preliminary Site Investigation's requirements were mostly covered in the previously submitted Environmental Assessment. The consultant reported that the land is free from any contamination as a result of the previous cropping and grazing activities and will be capped to make the site suitable for the proposed use.

Council disagrees with the assessment process suggested and believes that the proposed change of use must be assessed strictly in accordance with State Environmental Planning Policy No 55 - Remediation of Land. Clause 7(2) of SEPP55 requires the consent authority to consider a report specifying the findings of a preliminary investigation of land if the proposed development involves a change of use on any land specified in subclause 4. This includes land on which a development for a purpose referred to in Table 1 of the Contaminated Land Planning Guidelines is being, or is known to have been, carried out. In this case, the land has been used for cropping and grazing activities.

Note that it is the responsibility of the consent authority (i.e. the Department of Planning and Environment) to consider the requirements of SEPP 55 prior to granting consent to any development of the land.

2. Onsite sewage management system

Council indicated that the landholder of 2470 Elizabeth Drive, Luddenham had not been issued an approval to install or operate a waste treatment device or operate a system of sewage management at the subject premises. Within the response to submissions letter, the applicant refuted this and stated that Council had formerly required the applicant's hydraulic engineer to prepare an onsite wastewater management system and scaled drawings to support DA-1035/2015. In addition, it was stated that the proposed activities do not require additional on-site sewage management, and that there had been an occupied dwelling on the site for more than 60 years.

This response does not address the issue raised in Council's submissions. A *stormwater* management report and plans were prepared to Council's satisfaction before DA-1035/2015 was issued. However, a stormwater management plan is different to a report regarding wastewater and the operation of an on-site sewage management system (**OSMS**).

OSMSs are regulated under Section 68 of the Local Government Act 1993, and approval to install or operate such a system must be sought from Council pursuant to this act. OSMSs are also dealt with in Liverpool's DCP, which seeks to ensure that developments make suitable provisions for the disposal of effluent on site. Any development application in unsewered parts of the LGA, including the subject site, must have regard to these controls. The applicant has a responsibility to legitimise their system, and the consent authority and Council have a responsibility to require such legitimisation, in line with relevant legislation. Neither a history of operating an OSMS without approval, nor the receipt of a DA without conditions regarding such a system, remove these responsibilities .

The applicant is therefore required to submit to Council an application for Approval of the onsite sewage management system pursuant to Section 68 of the Local Government Act 1993. If approval is granted for the proposed modifications to the Luddenham Clay/Shale Quarry, it is requested that the following condition is imposed on the consent:

**Onsite Sewage Management System**

An application for approval for an onsite sewage management system pursuant to Section 68 of the Local Government Act 1993 is to be submitted to Liverpool City Council for consideration and approval. The application is to be accompanied by a wastewater report prepared by a suitably qualified consultant, specifications of the septic system and NSW Health accreditation details.

3. Flood Risk

Council recommended that the applicant be required to assess the flooding impact of the proposal by undertaking a detailed flood study of Oaky Creek for all design events including the 1 in 100 year ARI and up to the probable maximum flood (PMF). In response the applicant indicated that the site is unlikely to be affected by the 1 in 100 year flood, and referred to a study undertaken for Western Sydney Airport without providing sufficient details or information to support further assessment.

Council is still of the opinion that the applicant should be required to undertake a detailed flood study of Oaky Creek for all design events up to the PMF in order to assess the flood affectation of the site and the impact of the proposal including the proposed 4.5m mound along the riparian corridor.

4. Water Quality

Council recommended that the applicant should undertake appropriate water quality modelling and provide appropriate water quality treatment facilities in accordance with the guidelines of water sensitive urban design satisfying water quality requirements of Liverpool Development Control Plan 2008. There is no clear response from the applicant to this recommendation.

Council is still of the opinion that the applicant should undertake water quality modelling as previously recommended.

5. Traffic and Access

The applicant's response is considered to adequately address the traffic and access issues raised in Council's submission. However, it is noted that the Department of Infrastructure and Regional Development has indicated that the current access to the site is through the proposed Western Sydney Airport Site, and is to be relocated in future. It is recommended that any future changes to the existing access arrangements be discussed with Council and the RMS prior to undertaking such changes.

In addition, changes to the approved traffic generation from the proposed development site should be brought to Council's attention prior to it impacting on the traffic conditions of the adjoining road network.

Thank you for your consideration of these issues. Council would be pleased to discuss these matters further if required. Should you require any further information on this matter, please contact Kieran Woolfe, Strategic Planner, on 9821 9306.

Yours sincerely



Toni Averav

Director Planning and Growth



Mr Samuel Tarabori  
Operations Manager  
Epic Mining Pty Ltd  
PO Box 177  
KEMPS CREEK NSW 2178

Dear Mr Tarabori

**Luddenham Clay/Shale Quarry - Modification 4 (DA 315-7-2003 MOD 4)**  
**Background Noise Results**

I refer to your letter of 25 May 2017 regarding the background noise monitoring recently undertaken by Global Acoustics. These results show that background noise levels at the development have increased significantly over the last decade. This warrants a review of the noise impact assessment criterion for the development and a reconsideration of the proposed noise mitigation barriers (ie. earth bunds) in Modification 4.

To progress the modification application, the Department requests that the following next steps be undertaken in accordance with the NSW *Industrial Noise Policy*:

1. establish the new Project Specific Noise Limits (PSNLs) using the updated background noise levels;
2. predict noise levels from the development, as proposed to be modified, considering the worst case operational scenario at each sensitive receiver;
3. if the predicted noise levels exceed the PSNLs, then predict noise levels incorporating noise mitigation.

The purpose of the above steps is to demonstrate that the development can meet the PSNLs.

If a bund is required to meet the PSNLs, the Department would generally expect a bund in the range of 2 to 3 metres in height to be appropriate for noise mitigation. However, the Department acknowledges that the earth bunds, as proposed, serve additional purposes on top of noise mitigation, such as providing visual screening, site security and surface run-off and flooding controls, and therefore the bund must be carefully designed (ie. not too high and not too low).

If you wish to discuss this matter, please contact Megan Dawson on 9274 6391.

Yours sincerely,

Howard Reed

**Director**  
**Resource Assessments**

96.17

**Attachment B – Original and Revised Proposed Drawings and Maps**



EPIC MINING PTY LTD – 275 ADAMS ROAD, LUDDENHAM

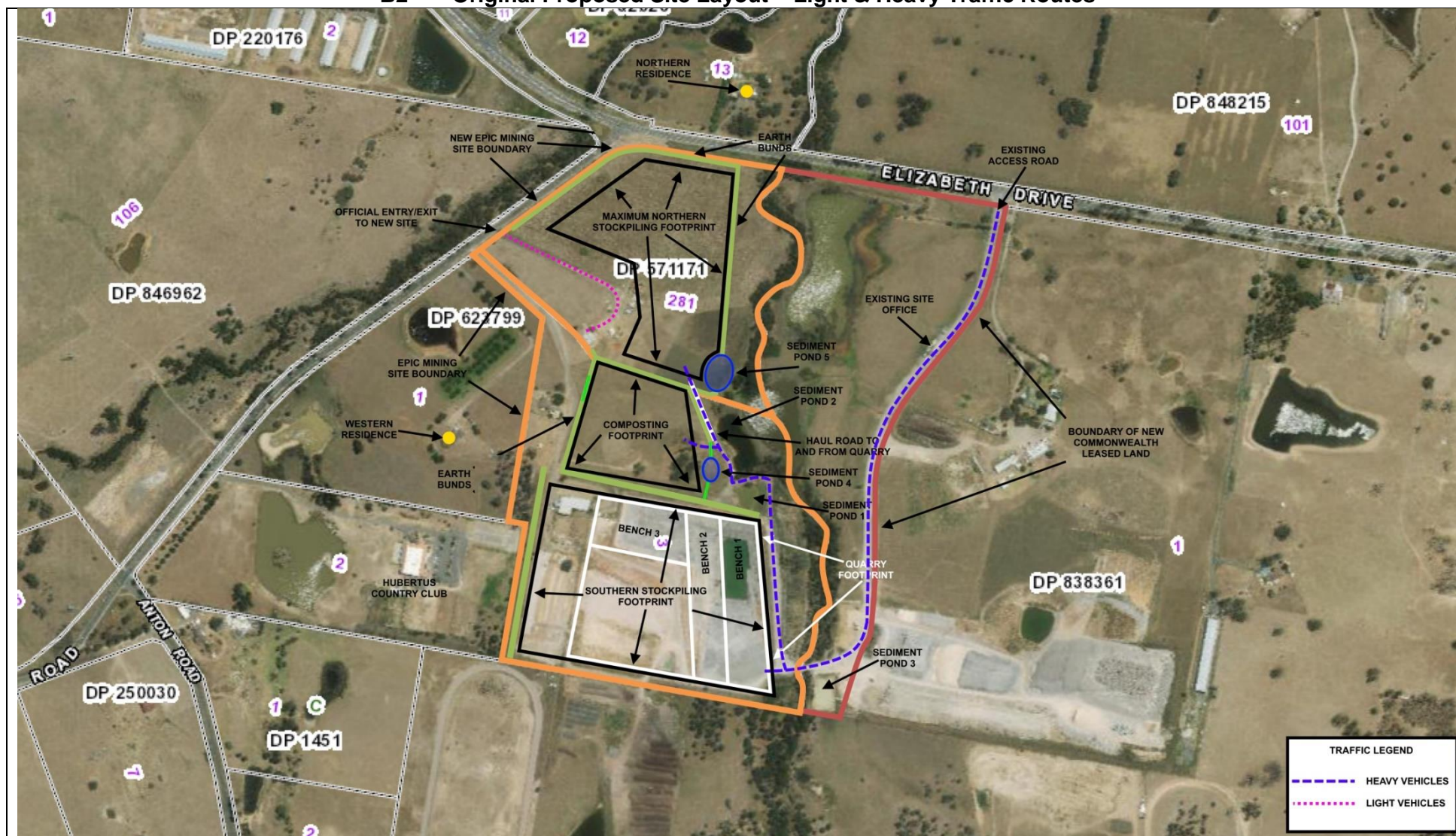
Ref: NICS162001\_FIG001 Rev01

Nicolas Israel – March 2016

Proposed Site Layout



## B2 Original Proposed Site Layout – Light & Heavy Traffic Routes





### B3 Non-Clean Water Areas



Epic Mining Pty Ltd – 275 Adams Road,  
Luddenham

Non-Clean Water Areas shown  
as yellow shading

Ref:NICS162001\_FIG026 Rev01

Nicolas Israel – 21 December 2016

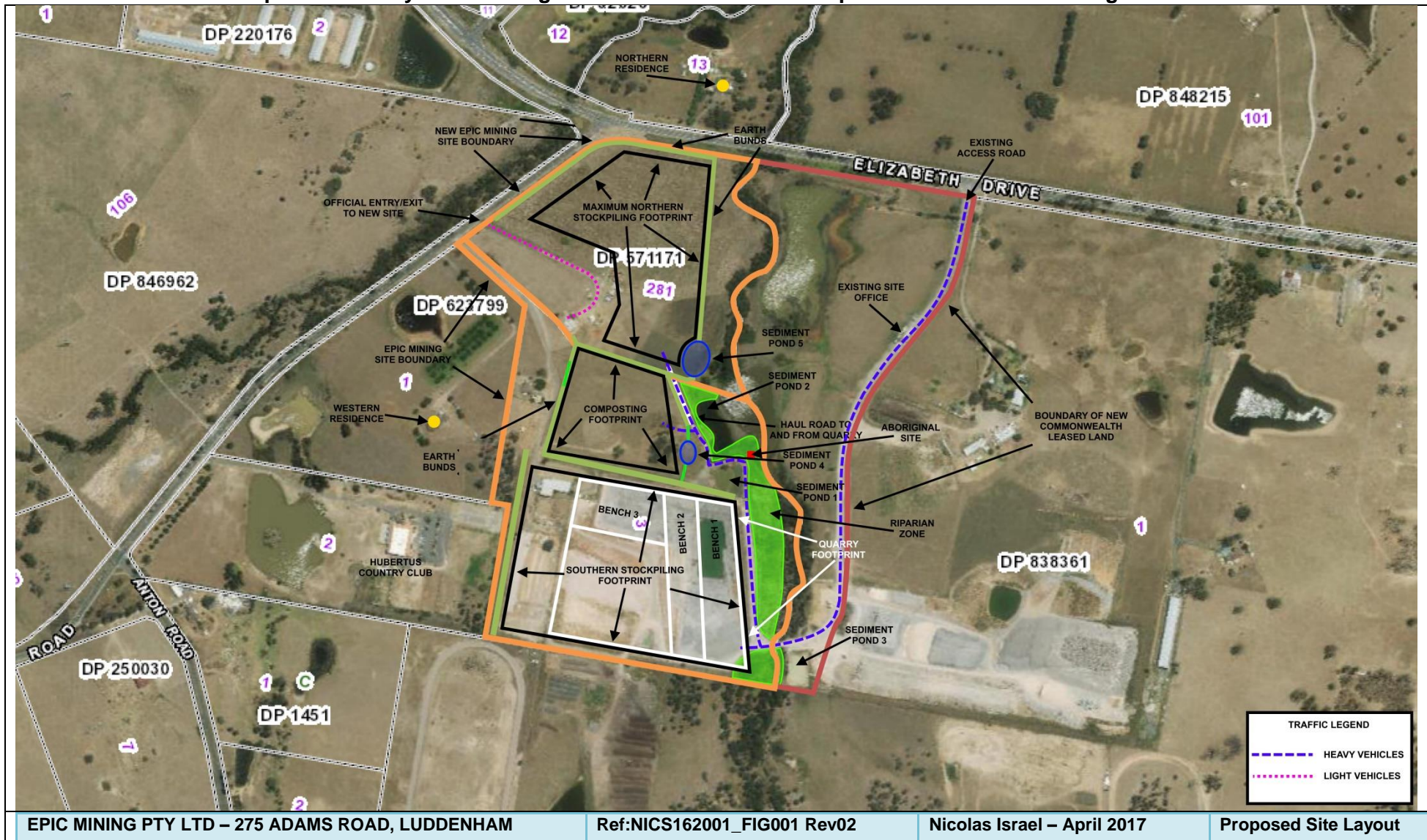


B4 Indicative Location of Areas to be rehabilitated (Riparian Zone)(Original Drawing)





**B4 Revised Proposed Site Layout including accurate Location of the Riparian Zone and the Aboriginal Exclusion Area - A4**





B4 Revised Proposed Site Layout including accurate Location of the Riparian Zone and the Aboriginal Exclusion Area – A3

