NSW EPA

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General Manager
Port Macquarie-Hastings Council
PO Box 84
Port Macquarie NSW 2444

ATT: Mr Chris Gardiner

Dear Mr Gardiner

Proposed Lookout Road Quarry, Herons Creek (DA 2015/953)

Reference is made to the letter received from Port Macquarie Hastings Council (PMHC) dated 05 January 2016 containing the development application (DA 2015/953) for the Lookout Road Quarry (CTK Natural Resources Pty Ltd). Your correspondence included a request for comments from the Environment Protection Authority (EPA) regarding the Quarry and included the Environmental Impact Statement - Lookout Road Quarry (CTK Natural Resources Pty Ltd) dated December 2015 (the EIS). Reference is also made to submissions received by PMHC and provided to the EPA for our consideration of the application.

The application for the Lookout Road Hard Rock Quarry includes the establishment of a hard rock quarry and processing plant capable of producing a maximum 200,000 tonnes of quarry material per year for a 20 year period.

The EPA has noted that the proposal contains several water control management structures. The EPA has included monitoring requirements and licenced discharge points reflecting these commitments. The EPA also would like to emphasise that it will be important for the proponent to ensure that adequate diversions are in place and maintained to ensure separation of clean and dirty water.

The EPA has reviewed the EIS, considered the submissions provided by PMHC, and notes that a number of concerns have been raised by potentially affected stakeholders. In regard to noise, the EPA advises PMHC that based on the location and proximity to receivers it is probable that the premises will be audible for a number of receivers even if operating below noise limits set for the premises. The EPA has also noted that several of the submissions have raised concerns with the modelling associated with the EIS. The EPA notes that while it has set criteria at the likely worst affected receiver, the limits will be applied at all potential noise receivers. The EPA also would like to emphasise that the licence may incorporate additional monitoring locations in the future based on the premises construction and performance.

The proposed General Terms of Approval (GTA) for this proposal are provided at Attachment A. If Port Macquarie Hastings Council grant development consent for this proposal these conditions need to be incorporated into the consent.

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If PMHC deems consent is appropriate, the proponent will need to make a separate application to the EPA to obtain an Environment Protection Licence (EPL).

These GTA relate to the development as proposed in the EIS and documents currently provided to the EPA. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the condition proposed to be attached to the consent, it will be necessary to consult with the EPA about the changes before the consent is issued. This will enable the EPA to determine whether its GTA need to be modified in light of the changes.

Please contact Cameron Perry on (02) 4908 6808 if you require further information regarding this matter.

Yours sincerely

17-3-16

PETER JAMIESON
Head Regional Operations Unit – Hunter
Environment Protection Authority

Attachment

General Terms of Approval for the proposed Lookout Road Quarry, Herons Creek

General

1) Except as provided by these conditions of approval terms of approval, the works and activities must be undertaken in accordance with the proposal contained in the Environmental Impact Statement - Lookout Road Quarry (CTK Natural Resources Pty Ltd) dated December 2015, unless otherwise specified in these conditions of approval.

2) Activities must be carried out in a competent manner. This includes:
    a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and
    b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

3) All plant and equipment installed at the premises or used in connection with the licensed activity:
    a) Must be maintained in a proper and efficient condition; and
    b) Must be operated in a proper and efficient manner.

4) The proponent must nominate to the EPA a representative of the proponent that is available at all times and is capable of providing immediate assistance or response during emergencies or any other incidents at the premises. The name of the nominated representative and their contact details, including their telephone number, must be current at all times. The nomination and contact details must be provided to the EPA's Regional Manager- Hunter at PO Box 488G, Newcastle NSW 2300.

5) The proponent must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must be developed in accordance with the requirements in Part 5.7A of the *Protection of the Environment Operations* (POEO) Act 1997 and POEO regulations. The proponent must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. The PIRMP must be tested at least annually or following a pollution incident.

Surface Water

6) The following points referred to in the table below are identified for the purposes of monitoring and/or setting of limits for the emission of pollutants to water from the point.

Water

Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Discharge quality monitoring	Discharge to waters	Discharge from the Sediment Basin1 (Basin 1) as shown on plan titled <proponent to supply to the EPA a plan with the application for licence showing this location - This point is noted in the Water Management and Erosion and Sediment Control Plan attached to the EIS>.
2	Discharge quality monitoring	Discharge to waters	Discharge from the Sediment Basin1 (Basin 2) as shown on plan titled <proponent to supply to the EPA a plan with the application for licence showing this location - This point is noted in the Water Management and Erosion and Sediment Control Plan attached to the EIS>.
3	Discharge quality monitoring	Discharge to waters	Discharge from the proposed water storage dam as shown on plan titled <proponent to supply to the EPA a plan with the application for licence showing this location - This point is noted in the Water Management and Erosion and Sediment Control Plan attached to the EIS>.
4	Ambient water monitoring		Site SW1 in Herons Creek immediately upgradient of the discharges from the ephemeral creek. <proponent to supply to the EPA a plan with the application for licence to show SW1 at a suitable location immediately upstream of any discharges from the quarry>.
5	Ambient water monitoring		Site SW2 in Herons Creek downgradient of any discharges from the ephemeral creek as shown on the plan titled <proponent to supply to the EPA a plan with the application for licence to show SW2 at a location downstream of any discharges from the quarry>.

7) Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation to the development, section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying out of the development.

8) For each monitoring/discharge point or utilisation area specified in the table above the concentration of a pollutant must not exceed the concentration limits specified for that pollutant in the tables below.

POINT 1-2

Pollutant	Units of measure	100 PERCENTILE LIMIT
Suspended Solids	mg/L	50
Oil and Grease	mg/L	5 and/or none visible
pH	pH units	6.5 – 8.5

POINT 3

Pollutant	Units of measure	100 PERCENTILE LIMIT
Suspended Solids	mg/L	40
Oil and Grease	mg/L	5 and/or none visible
pH	pH units	6.5 – 8.5

9) For each monitoring/discharge point or utilisation area specified below (by a point number) the concentration of each pollutant specified in Column 1 must be monitored by sampling and obtaining results by analysis. Specified opposite in the other columns are the sampling method and units of measure to be used and the frequency with which samples are to be taken.

POINT 1-3

Pollutant	Units of measure	Frequency	Sampling Method
Total Suspended Solids	mg/L	Special Frequency 1	Grab sample
pH	pH units	Special Frequency 1	Grab sample
Oil and grease	visible	Special Frequency 1	Visual observation

Note: For the purposes of the table above 'Special Frequency 1' means:
(a) prior to any controlled discharge; and
(b) daily during any discharge.

Note: The design of both the dam and sediment basin must ensure that sampling is possible both during planned discharges as well as during wet weather events.

POINT 4-5

Pollutant	Units of measure	Frequency	Sampling Method
Suspended Solids	mg/L	Special Frequency 2	Grab sample
pH	pH units	Special Frequency 2	Grab sample
Oil and grease	visible	Special Frequency 2	Visual observation

Note: For the purposes of the table above 'Special Frequency 2' means at a minimum quarterly at a time when discharge is occurring from Point 3.

10) The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into adequately sized sedimentation basins.

11) The sedimentation basins must be maintained to ensure that their design capacity is available for the storage of all runoff from cleared areas.

12) Stormwater management measures must be prepared and implemented to mitigate the impacts of stormwater run-off from and within the premises in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared

the measures should be consistent with the guidance contained in Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads and Volume 2E Mines and Quarries (DECCW 2008).

13) The premises must prepare a flood management plan that details the impacts of flood waters on the premises, including how the site will be managed prior to a flood occurring, along with mitigation measures during and immediately following a flood event, till the premises returns to normal operation. This needs to include management of exposed areas, machinery and materials (including chemicals) stored at the premises.

Effluent Management

14) The effluent management system for human wastes must be installed and maintained to the satisfaction of Port Macquarie Hastings Council.

15) The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids.

For the purposes of this condition, 'effectively utilise' includes the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.

16) Effluent application to the utilisation area(s) must not occur in a manner that causes surface run-off from the utilisation area(s).

Bunding

17) All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

18) Bunds must:

a) have walls and floors constructed of impervious materials;
b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
c) have floors graded to a collection sump; and
d) not have a drain valve incorporated in the bund structure,

or be constructed and operated in a manner that achieves the same environmental outcome.

Waste

19) The proponent must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence.

20) The proponent must ensure that any liquid and/or non liquid waste generated and/or stored at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.

Hours of Operation

21) Activities covered by this licence must only be carried out between the hours of 6.00am to 5:00pm Monday to Friday, and 6.00am to 1:00pm Saturday, and at no time on Sundays and Public Holidays.

The EPA notes that the proponent requested the following hours of operation.

Weekdays 6.00 am to 6.00 pm
Saturdays 6.00 am to 3 .00 pm
Sundays and Public Holidays – no work

The hours proposed by the EPA are consistent with the other Quarry in the area.

22) Maintenance activities may occur 24 hours seven days per week provided it is inaudible at all residential receivers.

Noise

23) Noise generated at the premises must not exceed the noise limits in the table below.

	NOISE LIMITS dB(A)		
Location	Day	Evening	Morning Shoulder
	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$	$L_{Aeq\ (15\ minute)}$
All residential noise receivers.	35	35	35

24) For the purpose of the above condition:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
- Evening is defined as the period 6pm to 10pm.
- Morning Shoulder is defined as the period from 5am to 7am Monday to Saturday.

25) The noise limits set out in the condition above apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
c) Stability category G temperature inversion conditions.

26) To determine compliance:

a) with the $L_{eq(15\ minute)}$ noise limits in this Noise Limits condition, the noise measurement equipment must be located:
    - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or

- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

b) with the noise limits in this Noise Limits condition, the noise measurement equipment must be located:

- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed by this Noise Limits condition.

27) A non-compliance of this Noise Limits condition will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by this Noise Limits condition; and/or
- at a point other than the most affected point at a location.

28) For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

29) To assess compliance with Noise Limits specified in this licence, attended noise monitoring must be undertaken in accordance with the limit condition of this licence and:
a) at the two most affected residential receivers;
b) occur annually in any reporting period;
c) occur during each morning shoulder, day and evening period as defined in the NSW Industrial Noise Policy; and
d) occur during a period of normal quarry operations.

Note: The EPA will consider this frequency of monitoring, upon request, after the first three years of monitoring.

30) A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the yearly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

a) an assessment of compliance with noise limits as shown in this licence; and
b) an outline of any management actions taken within the monitoring period to address any exceedences of the limits contained in this licence.

31) The proponent must prepare and implement a Noise Management Plan that covers all premises based activities and transport operations for the construction and operational phases of the project. The plan must include but need not be limited to:

a) All measures necessary to satisfy the noise limits in at all times,
b) A system that allows for periodic assessment of Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA) that has the potential to reduce noise levels from the premises,
c) Measures to monitor noise performance and respond to complaints,
d) Measures for community consultation including site contact details,
e) Noise monitoring and reporting procedures.

Blasting

32) The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

33) The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

34) Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

35) Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

36) Blasting at the premises may only take place between 10:00am-3:00pm Monday to Saturday. Blasting is not permitted on Sundays or public holidays.

37) Blasting outside of the hours specified in this consent can only take place with the written approval of the EPA.

38) Offensive blast fume must not be emitted from the premises.

Definition: Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:

a. are harmful to (or are likely to be harmful to) a person that is outside the premises from which it is emitted, or
b. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premise from which it is emitted.

39) The proponent must monitor all blasts carried out in or on the premises at or near the nearest residence that is likely to be most affected by the blast and that is not owned by the proponent or subject of a private agreement between the owner of the residence or noise sensitive location and the proponent relating to alternative blasting limits.

40) The proponent must report any exceedence of the blasting limits to the regional office of the EPA as soon as practicable after the exceedence becomes known to the proponent or to one of the proponent's employees or agents.

41) The proponent must supply, with each Environment Protection Licence Annual Return, a Blast Monitoring Report which must include the following information relating to each blast carried out within the premises during the reporting period covered by the Annual Return:

a) the date and time of the blast;
b) the location of the blast on the premises;
c) the blast monitoring results at each blast monitoring station; and
d) an explanation for any missing blast monitoring results.

AIR

42) The following points referred to in the table below are identified for the purposes of monitoring and/or setting of limits for the emission of pollutants to the air from the point.

Air

Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
R10	Ambient Air Monitoring		PM10 real time particulate monitoring station as shown on Figure A3-1 of the Air Quality Impact Assessment

43) For each monitoring/discharge point or utilisation area specified below (by a point number) the concentration of each pollutant specified in Column 1 must be monitored by sampling and obtaining results by analysis. Specified opposite in the other columns are the sampling method and units of measure to be used and the frequency with which samples are to be taken. The sampling methods are defined in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

POINT R10

Pollutant	Units of measure	Frequency	Sampling Method
PM10	mg/Nm^3	Continuous	Australian Standard 3580.9.8 - 2001

Air Quality Management Plan

44) For all emission sources at the site the proponent must prepare an air quality management plan that includes, but is not limited to:
a) Key performance indicator(s) that are quantifiable, measurable and auditable;
b) Monitoring method(s);
c) Location, frequency and duration of monitoring;
d) Record keeping;
e) Response mechanisms; and
f) Compliance reporting.

Potentially offensive odour

45) The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Dust

46) All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.

47) Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust to the air.

48) Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

49) All trafficable areas, stockpile areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust.

50) Trucks entering and leaving the premises that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading.

Meteorological monitoring

27. a) The proponent must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below. The proponent must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm/hour	continuous	1 hour	AM-4
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Siting				AM-1
Temperature at 2 metres	kelvin	continuous	10 minute	AM-4
Temperature at 10 metres	kelvin	continuous	10 minute	AM-4
Total solar radiation	watts per square metre	continuous	10 minute	AM-4
Wind Direction at 10 metres	degrees	continuous	10 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	10 minute	AM-2 and AM-4

Note 1: Sampling methods as defined in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.*

Note 2: The location of meteorological monitoring must be confirmed and approved by the EPA prior to earth moving activities being undertaken at the site

b) Monitoring of all parameters listed must commence prior to earth moving activities being undertaken at the site.