

Appendix A

DIRECTOR GENERAL REQUIREMENTS



Planning &
Infrastructure

Development Assessment Systems & Approvals

Mining Projects

Contact: Nicholas Brbot
Phone: (02) 9228 2019
Fax: (02) 9228 6466
Email: nicholas.brbot@planning.nsw.gov.au

Mitchell Bland
R.W. Corkery & Co Pty Ltd
62 Hill Street
ORANGE NSW 2800

Dear Mr Bland

**Avoca Tank Project (DGR 766)
Director-General's Requirements**

I refer to your request for the Director-General's Requirements (DGRs) for the above development, which is designated local development under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). I have attached a copy of the DGRs for the Environmental Impact Statement (EIS) required for this development. These requirements have been prepared in consultation with relevant State agencies and are based on the information your company has provided to date. I have also attached the agencies' input into the formation of the DGRs, which you are also advised to consider closely during your preparation of the EIS. Detailed requirements for the EIS were not received from the Department of Water and Energy, consequently you are advised to liaise directly with them and obtain any further requirements.

In your request for DGRs, it was indicated that the proposal will require approval under the *Protection of the Environment Operations Act 1997*, *Water Management Act 2000* and *Roads Act 1993*. Accordingly, the proposal is classified as integrated development under section 91 of the EP&A Act. If further integrated approvals are identified, you must undertake your own consultation with the relevant public authorities, and address their requirements in the EIS.

When you lodge your DA for the proposal, you must provide:

- two hard copies and one electronic copy of the EIS to the Department;
- one hard and one electronic copy of the EIS to each identified integrated approval authority; and
- a cheque for \$320 to each identified integrated approval authority, to offset costs involved in the review of the DA and EIS. Do not send a cheque to the Department of Planning and Infrastructure as it is not an integrated approval authority.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will require an additional approval under the Commonwealth's *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Department of Sustainability, Environment, Water, Population and Communities in Canberra (6274 1111 or www.environment.gov.au).

Should the consent authority approve the proposal, then under section 22 of the *Mine Health and Safety Act 2004*, the owner or general manager of a mine or quarry must not undertake mining or quarrying operations without first nominating a person as the operator of the mine or quarry to the Chief Inspector of Mines. The Applicant should contact the local Mine Safety Operations Branch of the Division of Resources and Energy within the Department of Trade, Investment, Regional Infrastructure and Services in regard to this and other matters relating to compliance with the *Mine Health and Safety Act 2004*.

If you have any enquiries about these requirements, please contact Nicholas Brbot.

Yours sincerely

David Kitto 25/9/13

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

Director-General's Requirements

Section 78A(8) of the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

Designated Development

DGR Number	766
Proposal	Development of a box cut mine; underground mine and associated surface infrastructure to extract up to 400,000 tonnes of copper-gold ore per year to be transported to the Girilambone Mine for processing, for a period of up to 8 years.
Location	Mitchell Highway, Coolabah, approximately 7km northwest of Girilambone.
Applicant	Tritton Resources Pty Limited
Date of Expiry	25 September 2015
General Requirements <small>(refer Schedule 2 of the Environmental Planning and Assessment Regulation 2000)</small>	<p>The Environmental Impact Statement (EIS) must include:</p> <ul style="list-style-type: none"> • an executive summary; • a full/detailed description of the proposal, including: <ul style="list-style-type: none"> - identification of the resource; - description of the site; - a history of any previous quarrying operations on the site; - the proposed works (including rehabilitation works); - the duration and intensity of extraction operations; - any likely interactions between the proposed operations and existing/approved development and land use in the area; and - a detailed justification for the development; • a conclusion justifying the development on economic, social and environmental grounds, taking into consideration whether the proposal is consistent with the objects of the <i>Environmental Planning & Assessment Act 1979</i>; and • a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.
Key Issues	<p>The EIS must also assess the potential impacts of the proposal during the establishment, operation and decommissioning of the proposal. The EIS must describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the potential impacts on:</p> <ul style="list-style-type: none"> • Land Resources – including a assessment of the potential impacts on: <ul style="list-style-type: none"> - soils and land capability, including an assessment of activities that would cause erosion and the measures proposed to minimise erosion and sedimentation; - landforms and topography, including cliffs, rock formations, steep slopes, etc; and - land use, including agricultural, forestry and conservation lands; • Water Resources – including: <ul style="list-style-type: none"> - identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; - an assessment of potential impacts on the quality and quantity of existing surface and ground water resources; - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo; - an annual site water balance for representative years of the proposed life of the project; and - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; • Biodiversity – including: <ul style="list-style-type: none"> - accurate predictions of any vegetation clearing on site or for any road upgrades; - a detailed assessment of the potential impacts of the development on any threatened species or populations or their habitats, endangered ecological communities and groundwater dependent ecosystems; - a detailed description of the measures to maintain or improve the

	<ul style="list-style-type: none"> - consideration of a Biodiversity Offset Strategy; • Heritage – including: <ul style="list-style-type: none"> - an Aboriginal cultural heritage assessment (addressing both cultural and archaeological significance) which must demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures; and - a Historic heritage assessment (including archaeology) which must include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; • Traffic and Transport – including: <ul style="list-style-type: none"> - an assessment of potential traffic impacts on the capacity, efficiency and safety of the road network, in particular the assessment must include a Road Safety Audit to review the condition of the proposed routes and identify any safety issues which may exacerbated by the development; and - a description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road network in the surrounding area over the life of the project; • Noise and Vibration <ul style="list-style-type: none"> - particularly any potential noise and vibration impacts on nearby private receptors due to construction, operation or road haulage; • Air Quality – particularly any potential dust impacts on nearby private receptors from construction, operation or road haulage; • Rehabilitation – including: <ul style="list-style-type: none"> - a detailed description of the proposed rehabilitation measures that would be undertaken during quarry closure; - a detailed rehabilitation strategy, including justification for the proposed final land form and consideration of the objectives of any relevant strategic land use plans or policies; and - the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy; • Waste Management – including importation of any waste material to the site; • Hazards and Risks – including any transport or storage of dangerous goods; • Visual Amenity; • Agricultural Impacts; • Utilities and Services; and • Social and Economic Impacts.
Environmental Planning Instruments	<p>The EIS must assess the proposal against the relevant environmental planning instruments, including (but not limited to):</p> <ul style="list-style-type: none"> • <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007;</i> • <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;</i> • <i>State Environmental Planning Policy No. 44 – Koala Habitat Protection;</i> • <i>State Environmental Planning Policy No. 55 – Remediation of Land;</i> • <i>Bogan Local Environmental Plan 2011;</i> and • relevant development control plans and section 94 plans, strategies and management plans.

Guidelines	<p>The EIS must take into account relevant State Government policies and guidelines, in particular the <i>Industrial Noise Policy</i> (EPA 2001), <i>Aquifer Interference Policy</i> (DPI 2012), <i>Soils and Construction: Managing Urban Stormwater</i> (Landcom 2004), <i>Guidelines for Fresh and Marine Water Quality and Guidelines for Water Quality Monitoring and Reporting</i> (ANZECC), <i>Using the ANZECC Guideline and Water Quality Objectives in NSW</i> (DEC), <i>Approved Methods for the Modelling and Assessment of Air Pollutants</i> (DEC), <i>Approved Methods for Sampling and Analysis of Air Pollutants</i> (DEC), <i>Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft</i> (DECC 2004), <i>The Threatened Species Assessment Guideline – The Assessment of Significance</i> (DECC 2007), <i>Draft Guidelines for the Assessment of Aquatic Ecology in EIA</i> (DUAP 1998), <i>Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW</i> (OEH 2011), <i>Code of Practice of the Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010), <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW 2010), <i>Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC 2005), <i>Guide to Traffic Generating Development</i> (RTA), <i>Road Design Guide</i> (RTA) or latest versions.</p> <p>During the preparation of the EIS you must consult the Department's EIS Guideline – Extractive Industries – Quarries. This guideline is available for purchase from the Department's Information Centre, 23-33 Bridge Street, Sydney or by calling 1300 305 695.</p>
Consultation	<p>During the preparation of the EIS, you must consult with Council and should consult with the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult surrounding landowners and occupiers that are likely to be impacted by the proposal.</p> <p>Details of the consultations carried out and issues raised must be included in the EIS.</p>

Appendix B

EIS AND RESPONSE TO SUBMISSIONS

TO BE ATTACHED SEPARATELY

Appendix C

SUBMISSIONS RECEIVED



Transport
Roads & Maritime
Services

SF2013/091019; WST13/00067/03

General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

BOGAN SHIRE COUNCIL

FILE

R/N

23 APR 2015

ASSIGNEE:

Dear Sir

**DA2015/004: Part Lot 10, Lots 135 & 144 DP 751315 and Part Lot 3 DP 751342;
Booramugga Road, Girilambone; Underground Mine (Avoca Tank Project)**

Thank you for your letter dated 18 March 2015 referring DA2015/004 to Roads and Maritime Services for comment. It is noted the application has been referred to Roads and Maritime in accordance with Clause 16(2) of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

The information submitted in support of the application has been reviewed and the following aspects of the proposed development are noted:

- The proposed mine (to be known as Avoca Tank Mine) is expected to operate for seven (7) years.
- Ore material would be transported from the mine site to the Tritton Copper Mine for processing. This will involve registered road trains using private haul roads, Booramugga and Yarrandale Roads. Following processing, gold, copper and silver would then be transported to Hermidale Rail Siding. This proposed haulage route is an extension to the existing haulage routes used by applicant as part of its Girilambone Copper Mine operations.
- Approximately 50 road train movements per day would operate between Tritton Copper Mine and Avoca Tank Mine. The applicant advises this is similar to existing movements on the public road network currently generated by Girilambone Copper Mine operations. Girilambone Copper Mine is approaching its end of life and haulage operations generated by the proposed Avoca Tank Mine will replace current haulage operations at Girilambone Copper Mine.
- Deliveries and staff accessing the site will use the intersection of Mitchell Highway (HW7) and Booramugga Road. This intersection is sealed with some widening and is located within a 70km/h speed zone. Mitchell Highway at this location carries on average 663 vehicles per day.
- The proposed development will employ 55 staff. Employment positions generated by the Avoca Tank Mine are expected to replace positions concluding at Girilambone Copper Mine.

Roads and Maritime does not object to the proposed development and provides the following recommended condition of consent for Council's consideration:

- The proponent is to prepare and implement a code of conduct relating to transport of materials on public roads as part of the considerations under Clause 16(1) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

Roads and Maritime Services

51 - 55 Currajong Street Parkes NSW 2870
PO Box 334 Parkes NSW 2870 DX 20256
www.rms.nsw.gov.au | 13 17 82

Please forward a copy of Council's determination of the application to Roads and Maritime at the same time it is sent to the applicant. Should you require further information please contact Andrew McIntyre (02) 6861 1453.

Yours faithfully



20 APR 2015

Susie Mackay
Network & Safety Manager
Western



27 June 2016

SF2013/091019; WST13/00067/04

General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Sir

**DA2015/004: Part Lot 10, Lots 135 & 144 DP 751315 and Part Lot 3 DP 751342;
Booramugga Road, Girilambone; Underground Mine (Avoca Tank Project)
Response to Submissions**

Thank you for your letter dated 10 June 2016 forwarding Response to Submissions (RtS) for the Avoca Tank Mine Project to Roads and Maritime Services for comment. Reference is made to Roads and Maritime's previous submission in relation to this matter dated 20 April 2015.

The RtS has been reviewed. I note the applicant concurs with the comments made by Roads and Maritime in its submission dated 20 April 2015. Roads and Maritime therefore makes no further comment.

Please forward a copy of the determination of this project to Roads and Maritime at the same time it is sent to the applicant. Should you require further information please contact the undersigned on 02 6861 1453.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Andrew McIntyre'.

Andrew McIntyre
Manager Land Use Assessment
Western



**Office of
Environment
& Heritage**

Date:
Your reference:
Our reference:
Contact:

10 April 2015
DA2015/004
DOC15/97818
Michelle Howarth 02 6883 5339

COPIES

Derek Francis
General Manager
Bogan Shire Council
PO Box 221
Nyngan NSW 2825

Dear Derek

RE: Avoca Tank Project

I refer to your request dated 18 March 2015 seeking comment from the Office of Environment and Heritage (OEH) on the exhibited Environmental Impact Statement (EIS) for the proposed Avoca Tank Project.

We have reviewed the information provided against our requirements sent to the Department of Planning and Environment on 3 September 2013. OEH considers that the EIS does not meet the Director General's requirements. Specifically, a Biodiversity Offset Strategy should be prepared to offset the area of impact. Further details are provided in Attachment A.

If you have any questions regarding this matter please contact Michelle Howarth, Conservation Planning Officer on 02 6883 5339.

Yours sincerely

SONYA ARDILL
Senior Team Leader Planning, North West Region
Regional Operations

Attachment A: Biodiversity Comments

Biodiversity Comments

1 Biodiversity Offsets

Section 4.3.7 of the EIS states 'a *Biodiversity Offset Strategy* is not required for the proposal because the general principles of 'avoid and minimise' have been adopted'.

OEH notes that the proponent has modified the footprint of the project to avoid key habitat for the Cobar Greenhead Orchid and to minimise the area of disturbance. However, from the information provided in the EIS, it is understood that the proposal will still result in the clearing of approximately 34 hectares of native vegetation and the removal of up to 38 hollow-bearing trees. The site assessment found that habitat condition and quality across the study area is moderate to good due to the diversity of microhabitats and the condition of native vegetation. The area to be impacted provides potential habitat for a large number of threatened species. The EIS identified 21 threatened species listed under the *Threatened Species Conservation Act*, 2 of which are also listed under the *Environment Protection and Biodiversity Act*, and 3 migratory species that are either known or have the potential to occur within the area. Based on this information these impacts should be offset.

The proposed offsets package should meet the OEH's principles for the use of biodiversity offsets in NSW, which are available at:

<http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>

In addition the proposed biodiversity offset package should:

- Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites, and;
- Include an appropriate Management Plan that has been developed as a key amelioration measure to ensure any compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

Recommendations

- 1.1 That a biodiversity offset package be developed to adequately offset the area of impact.
- 1.2 That an appropriate Management Plan be developed to ensure offsets are appropriately managed and funded.
- 1.3 That the conservation mechanisms to be used in securing the offset be identified



DOC16/303388
DA2015/004

Ms Kayla Volker
Senior Development and Environment Officer
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Dear Ms Volker

Avoca Tank Project - Submission Response

I refer to your request dated 10 June 2016 seeking comment from the Office of Environment and Heritage (OEH) on the response to our submission for the Avoca Tank Project.

We have reviewed the information provided against our advice sent to council on 10 April 2015 (Attachment B) and 27 July 2015 (Attachment C) and the proponent has not addressed OEH's concerns regarding offsetting. We recommend including consent conditions that require the proponent to establish suitable offsets for areas of native vegetation being impacted by the project. Our detailed comments are attached (Attachment A).

If you have any questions regarding this matter please contact Michelle Howarth on 02 6883 5339 or email michelle.howarth@environment.nsw.gov.au.

Yours sincerely

STEVEN COX
Senior Team Leader Planning North West
Regional Operations Group

24 June 2016

Contact officer: MICHELLE HOWARTH
02 6883 5339

OEH Review – Biodiversity

Acronyms

OEH	NSW Office of Environment and Heritage
PVP	Property Vegetation Plan

1. Biodiversity Offsets

The proponent has stated that *‘a biodiversity offset strategy was not required based on the measures taken to first avoid and then mitigate the potential impacts to native vegetation’* OEH understands that the proponent has modified the footprint of the project to avoid areas of key habitat for the Cobar Greenhood Orchid and to minimise the area of disturbance. However, the project will still result in the clearing of approximately 34 hectares of native vegetation and the removal of up to 38 hollow-bearing trees.

Impacts to native vegetation that cannot be avoided using prevention and mitigation measures should be offset. The proposal will result in the clearing of 34 hectares of Poplar Box-Gum Coolibah and White Cypress Pine Shrubby Woodland mainly in the Cobar Peneplain Bioregion (WE91). We recommend that an offset package is developed to adequately offset these impacts. Offsets must be targeted, they must offset on a basis of like-for-like or better conservation outcomes.

The proponent does not understand that employing avoidance and mitigation measures does not remove the importance of offsetting remaining impacts to native vegetation. Therefore, if consent is granted it is recommended that council include a condition of consent requiring the preparation and implementation of a Biodiversity Offset Strategy for impacts to the remaining areas of native vegetation.

Offsets should be based on a quantitative assessment of the loss in biodiversity from the development and the gain from the offset. The methodology must be based on the best available science, be reliable and used for calculating both the loss from the development and the gain from the offset.

The offset package should include an appropriate Management Plan that has been developed as a key amelioration measure to ensure the offsets are appropriately managed and funded. Management activities included in the management plan should result in an improvement of the offset area over time.

For the biodiversity objectives of the offset to be met an appropriate legal mechanism needs to be used to secure the offset. This mechanism should secure the offset in perpetuity to ensure long term protection and management of the site. OEH’s preferred mechanism for securing offsets is a BioBanking agreement however the following conservation mechanisms may also be acceptable:

- dedication of land under the National Parks and Wildlife Act 1974 (NPW Act);
- trust Agreements under the Nature Conservation Trust Act 2001, and;
- a PVP registered on title under the Native Vegetation Act 2003.

Recommendations

- 1.1 Council include a condition of consent requiring the preparation and implementation of a Biodiversity Offset Strategy that adequately addresses the following recommendations.
 - 1.1.1 An offset package be prepared that comprises like for like offsets for the impacts to 34 hectares of Poplar Box-Gum Coolibah and White Cypress Pine Shrubby Woodland mainly in the Cobar Peneplain Bioregion.
 - 1.1.2 A Biodiversity Offset Management Plan be developed to ensure the offsets are appropriately managed and funded. Management activities included in the management plan should result in an improvement of the offset area over time.
 - 1.1.3 The offset be secured in perpetuity under one of the following conservation mechanisms:
 - BioBanking agreement;

- Dedication of land under the National Parks and Wildlife Act 1974 (NPW Act);
- Trust Agreements under the Nature Conservation Trust Act 2001, and;
- A PVP registered on title under the Native Vegetation Act 2003.



**Office of
Environment
& Heritage**

Date: 10 April 2015
Your reference: DA2015/004
Our reference: DOC15/97818
Contact: Michelle Howarth 02 6883 5339

Derek Francis
General Manager
Bogan Shire Council
PO Box 221
Nyngan NSW 2825

Dear Derek

RE: Avoca Tank Project

I refer to your request dated 18 March 2015 seeking comment from the Office of Environment and Heritage (OEH) on the exhibited Environmental Impact Statement (EIS) for the proposed Avoca Tank Project.

We have reviewed the information provided against our requirements sent to the Department of Planning and Environment on 3 September 2013. OEH considers that the EIS does not meet the Director General's requirements. Specifically, a Biodiversity Offset Strategy should be prepared to offset the area of impact. Further details are provided in Attachment A.

If you have any questions regarding this matter please contact Michelle Howarth, Conservation Planning Officer on 02 6883 5339.

Yours sincerely

SONYA ARDILL
Senior Team Leader Planning, North West Region
Regional Operations

Attachment A: Biodiversity Comments

Biodiversity Comments

1 Biodiversity Offsets

Section 4.3.7 of the EIS states '*a Biodiversity Offset Strategy is not required for the proposal because the general principles of 'avoid and minimise' have been adopted*'.

OEH notes that the proponent has modified the footprint of the project to avoid key habitat for the Cobar Greenhead Orchid and to minimise the area of disturbance. However, from the information provided in the EIS, it is understood that the proposal will still result in the clearing of approximately 34 hectares of native vegetation and the removal of up to 38 hollow-bearing trees. The site assessment found that habitat condition and quality across the study area is moderate to good due to the diversity of microhabitats and the condition of native vegetation. The area to be impacted provides potential habitat for a large number of threatened species. The EIS identified 21 threatened species listed under the *Threatened Species Conservation Act*, 2 of which are also listed under the *Environment Protection and Biodiversity Act*, and 3 migratory species that are either known or have the potential to occur within the area. Based on this information these impacts should be offset.

The proposed offsets package should meet the *OEH's principles for the use of biodiversity offsets in NSW*, which are available at:

<http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>

In addition the proposed biodiversity offset package should:

- Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites, and;
- Include an appropriate Management Plan that has been developed as a key amelioration measure to ensure any compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

Recommendations

- 1.1 That a biodiversity offset package be developed to adequately offset the area of impact.
- 1.2 That an appropriate Management Plan be developed to ensure offsets are appropriately managed and funded.
- 1.3 That the conservation mechanisms to be used in securing the offset be identified



**Office of
Environment
& Heritage**

Your reference: DA2015/004 & DA2015/010
Our reference: DOC15/279853
Contact: Michelle Howarth 02 6883 5339
Date: 27 July 2015

Kayla Volker
Senior Development and Environment Officer
Bogan Shire Council
PO Box 221
Nyngan NSW 2825

Dear Kayla

RE Proposed Offset Package – Avoca Tank Project and Murrawombie Mine

I refer to the telephone conversation between yourself and Michelle Howarth on 22 July 2015 regarding the use of a biodiversity fund as a supplementary offset for the Avoca Tank Project and the Murrawombie Mine.

From the information provided it is understood that the proponent is proposing to establish a biodiversity fund with Bogan Shire Council, which would be managed by the Council for biodiversity or other rehabilitation related works such as rehabilitation of the riparian zone of the Bogan River. This fund would be instead of securing a like-for-like offset.

Correspondence sent to Bogan Shire Council from R.W Corkery & Co (dated 22 July 2015) states that there is a range of inefficiencies associated with the development of an on-site biodiversity offset such as the need for on-ground assessment of the offset site, establishment of security such as a conservation PVP, on-going administrative costs and inefficiency of managing an isolated offset. OEH does not consider this justification to default to the use of a supplementary offset.

Any proposed offset package should meet the *OEH's principles for the use of biodiversity offsets in NSW* which are available at: <http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>. OEH's preference is that impacts are offset in a like-for-like manner. Supplementary offsets such as the establishment of a biodiversity fund should only be used where a proponent can adequately demonstrate that they have been unable to locate a suitable like-for-like offset after undertaking reasonable steps.

Both the Avoca Tank Project and the Murrawombie Open Cut and Underground Mine Modification are impacting on areas of native vegetation. Site assessments for both sites found that habitat condition across the areas to be impacted is moderate to good. Additionally both assessments have identified a number of threatened species listed under the *Threatened Species Conservation Act* and the *Environment Protection and Biodiversity Act* that are either known or have the potential to occur within the area. Based on this these impacts should be offset in a like-for-like manner unless the proponent can adequately demonstrate that they are unable to locate a suitable site.

A copy of our generic guidelines for biodiversity offsets is included in Attachment A.

Should you require further information regarding issues that are the responsibility of the OEH please contact Michelle Howarth, Conservation Planning Officer on (02) 68835339.

Yours sincerely,

SONYA ARDILL
Senior Team Leader Planning, North West Region
Regional Operations

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

ATTACHMENT A

Biodiversity impacts can be assessed using **either**:

- The BioBanking Assessment Methodology (scenario 1) **or**
- A detailed biodiversity assessment (scenario 2).

The requirements for each of these approaches are detailed below.

The BioBanking Assessment Methodology can be used either to obtain a BioBanking statement, or to assess impacts of a proposal and to determine required offsets without obtaining a statement. In the latter instances, if the required credits are not available for offsetting, appropriate alternative options may be developed in consultation with OEH officers.

Note:

- i. The Shire may be listed in Schedule 1 of **SEPP No. 44 - Koala Habitat Protection**. If so, the requirements of the SEPP regarding Koala habitat protection should also be considered by the proponent.

SCENARIO 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM)

1. Where a BioBanking Statement is being sought under Part 7A of the *Threatened Species Conservation Act 1995* (TSC Act), the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act 1995) and done in accordance with the [BioBanking Assessment Methodology](#) (OEH, 2014). To qualify for a BioBanking Statement a proposal must meet the 'improve or maintain' standard.
- 1a. The EIS should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any DG approved variations to impact on Red Flags.
2. Where the BioBanking Assessment Methodology is being used to assess impacts of a proposal and to determine required offsets, and a BioBanking Statement is not being obtained, the EIS should contain a detailed biodiversity assessment and all components of the assessment must be undertaken in accordance with the [BioBanking Assessment Methodology](#) (OEH, 2014).
- 2a. The EIS should include a specific Statement of Commitments which:
 - is informed by the outcomes of the proposed BioBanking assessment offset package;
 - sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
 - if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;
 - demonstrates how all options have been explored to avoid red flag areas; and
 - includes all relevant 'BioBanking files (e.g. *.xml output files), data sheets, underlying assumptions (particularly in the selection of vegetation types from the vegetation types database), and documentation (including maps, aerial photographs, GIS shape files, other remote sensing imagery etc.) to ensure that the OEH can conduct an appropriate review of the assessment.
3. **Where appropriate**, likely impacts (both **direct** and **indirect**) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be

considered. Please refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECCW, 2010).

4. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

SCENARIO 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology

1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.
2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including:
 - the [Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians](#) (DECCW, 2009);
 - [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004); and
 - Threatened species survey and assessment guideline information on www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm.
 - Commonwealth survey requirements (birds, bats, reptiles, frogs, fish and mammals): <http://www.environment.gov.au/topics/environment-protection/environment-assessments..> These are relevant when species or communities listed under the *Environment Protection and Biodiversity Conservation Act* are present.

It is preferable for proponents to use the Interim Vegetation Mapping Standard data form to collect the vegetation plot data for the project site, and any offset site associated with the project. This will provide data that is useful for vegetation mapping as well as in the BioBanking Assessment Methodology. This is available at <http://www.environment.nsw.gov.au/research/VISplot.htm>.

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with the OEH prior to undertaking the EIS, to determine whether the OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:

- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species for the site must be done in accordance with the [Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft](#) (DEC, 2004).

The OEH Threatened Species website <http://www.environment.nsw.gov.au/threatenedspecies/> and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present.

The Vegetation Types database (available via the OEH website at <http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm>, and other data sources (e.g. PlantNET, Online Zoological Collections of Australian Museums (<http://ozcam.org.au/>), previous or nearby surveys etc.) may also be used to compile the list.

Other reference literature may be available for the subject locality/region. The proponent should explore this possibility thoroughly.

3. The EIS should contain the following information as a minimum:

- a. Description and geo-referenced mapping of study area (**and associated spatial data files**), e.g. overlays on topographic maps, satellite images and /or aerial photos, including details of map datum, projection and zone, all survey locations, vegetation communities (including classification and methodology used to classify), key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area. Separate spatial files (.shp format) to be provided to the OEH should include, at a minimum, shapefiles of the project site, impact footprint, vegetation mapping and classification for both the impact and any offset site(s);
 - b. Description of survey methodologies used, including timing, location and weather conditions, and a comparison of survey effort (in tabular form) with that recommended in the [*Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft*](#) (DEC, 2004). Where survey effort is not consistent with those guidelines justification must be provided;
 - c. Detailed description of vegetation communities (including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (eg MS-Excel) and organised by vegetation community;
 - d. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIS;
 - e. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status;
 - f. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including **direct** and **indirect** and **construction** and **operation** impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor;
 - g. Identification of the **avoidance**, **mitigation** and **management measures** that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed;
 - h. Description of the residual impacts of the proposal. **If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected** (see the requirements for this at point 6 below); and
 - i. Provision of specific Statement of Commitments relating to biodiversity.
4. An assessment of the significance of **direct** and **indirect** impacts of the proposal must be undertaken for threatened biodiversity **known or considered likely to occur** in the study area based on the presence of suitable habitat. The Assessment of Significance is a statutory mechanism which allows decision makers to assess whether a proposed development or activity is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. This assessment must take into account:
- a. the factors identified in s.5A of the EP&A Act¹; and

¹ Following threatened species assessment via the Assessment of Significance, it may be necessary to prepare a **Species Impact Statement (SIS)**. The proponent will need to prepare a SIS in the following circumstances:

- b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance* (DECCW, 2007). This guideline is available on the OEH website:
<http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf>
5. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should:
 - a. Meet the OEH's *Principles for the use of biodiversity offsets in NSW*², which are available at: <http://www.environment.nsw.gov.au/biodivoffsets/oehoffsetprincip.htm>
 - b. Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites; and
 - c. Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.
6. **Where appropriate**, likely impacts (both **direct** and **indirect**) on any adjoining and/or nearby OEH estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the [Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water](#) (DECC, 2010).
7. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

-
- If (after having addressed Section 5A) the flora/fauna assessment concludes that there is likely to be a significant impact to threatened species, or
 - The proposed development is likely to affect critical habitat declared under the TSC Act.

If a SIS is required, the proponent (not the consultant) must write to OEH for any formal requirements for the SIS that may be deemed appropriate. The SIS must then be prepared in accordance with these requirements and provided to the OEH. In some instances the Minister for the Environment will also need to be consulted for approval.

Methods to reduce the impact on the protected and threatened species should be considered fully, and are considered an integral requirement within any SIS document.

Conducting an Assessment of Significance or an SIS according to the provisions of the *EP&A Act* and the *TSC Act* is a complex task and should be undertaken by suitably qualified person(s).

² **Please note** that the OEH's *Principles for the use of biodiversity offsets in NSW* ('the Principles') require offsets to be based on a **quantitative assessment** of the loss in biodiversity from the proposal and the gain in biodiversity from the offset. The methodology must be based on the best available science, be reliable, and used for calculating both the impact and offset sites. Even where a proponent does not intend to use the BioBanking Assessment Methodology and Credit Calculator (Scenario 1), use of a **suitable alternative metric**, justified in the EA, is necessary to demonstrate that the proposal is consistent with the Principles. Ultimately the proponent is expected to demonstrate quantitatively that the biodiversity losses associated with the project will be adequately compensated for by the improvement in vegetation condition and security expected from the offset site. This cannot be properly determined by a hectare comparison alone.



**Department of
Primary Industries**
Office of Water

COPY

Contact: Tim Baker
Phone: 02 6841 7403
Fax: 02 6884 0096
Email: Tim.Baker@dpi.nsw.gov.au

The General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Our ref: ER22616
File No:
Your Ref: 2015/004

Dear Mr Francis

Re: Development Proposal Underground Mine Tritton Resources Pty Ltd – Notification of Development Application DA 2015/004

Reference is made to your recent referral dated 18th March 2015 regarding the above integrated development. An initial review of the Environmental Impact Statement indicates that additional information relevant to issuing the General Terms of Approval is needed in order to complete the assessment. The Office of Water requests that Council stop the clock.

The following additional information is requested with detailed comments in Attachment 1.

- Section 4.4.7 refers generally to licensing requirements however no detail is provided on existing work approvals, linked water access licenses (WALs) and water take figures. Further detail is requested to confirm existing approvals for groundwater interception, the water take requirements and the entitlements held in linked water access licenses (WALs). Where additional entitlement is required, detail is requested on whether adequate entitlement is available in other WALs held by the proponent or whether the proponent has considered the ability to purchase the required entitlement.
- Clarification is requested on the methods used to estimate the groundwater inflows listed in Table 4.12 of the EIS. The Office of Water advises that adequate water entitlement needs to be held to account for water taken whether it is for consumptive use or incidentally by an aquifer interference activity.
- Clarification is requested of the numerical modelling referred to on page 1-35 of Appendix 7 of the EIS as no detail of this model is provided elsewhere in the report.
- A conceptual groundwater monitoring and mitigation plan is requested to understand the proposed measures to monitor and address potential impacts due to the aquifer interference activity. The estimated impact on 2 private bores exceeds the Level 1 minimal impact considerations of the Aquifer Interference Policy, hence make good provisions are requested to be included in the monitoring and mitigation plan in an unlikely event of impact. Section 4.4.8 refers to monitoring of existing bores but further detail is requested to support how this will monitor the predicted impacts of the proposed activity and that the current bores will not become obsolete due to drawdown impacts.

Should you have any further queries in relation to this submission or wish to discuss further please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'M Isaacs', written in a cursive style.

Mitchell Isaacs
Manager Strategic Stakeholder Liaison
15 April 2015

**NSW Office of Water Detailed Comments –
Tritton Underground Mine DA2015/004**

Groundwater Assessment

- Due to the nature of groundwater occurrence in the fractured rock aquifers (LFB) at this location, the impacts from mine inflows are considered to be of low risk to the quantity and quality of groundwater. NOW considers that the assessment of drawdowns impacts and dewatering volumes (pit inflows) through analytical methods and through comparisons with nearby mines in the same type of aquifers are adequate.
- Table 4.12 of the EIS provides estimates of groundwater inflows at each of the proponents operations. Clarification is requested on the relevant work approvals and linked water access licenses to confirm the current license arrangement and entitlements to account for the current and predicted water take.
- Clarification is requested on the methods used to estimate the groundwater inflows in Table 4.12 of the EIS.
- There are a range of pit dewatering volumes estimated in the report. It is recommended the proponent obtain sufficient annual water entitlement to at least a middle to high range of water take to account for any unforeseen larger mine inflows.
- The estimated impact on the identified two private bores exceeds the Level 1 minimal impact consideration of the Aquifer Interference Policy. NOW acknowledges that there is no robust model used to estimate the impacts on the existing users and the estimates provided are believed to be over estimated due to poor connectivity of aquifers in the fractured rocks. It is therefore recommended that the proposal includes a make good provision to supply water to the impacted users in an unlikely event of impact and a proposal for a groundwater monitoring and mitigation plan.
- The impact to aquifer and Groundwater Dependent Ecosystems are identified and adequately addressed.
- The Office of Water database has the following licence information for groundwater take at the Tritton and Girilambone sites.

Work Approval	WAL	Entitlement	Site
80WA716055	WAL31041	304 units	Girilambone Pits (Murrawombie Larsens & NE Pit)
80WA716044	WAL31090	30 units	Tritton excavation/TSF bore
80WA716017	WAL31049	10 units	Girilambone - PLS Ponds

End of Attachment A



Kayla Volker
Senior Development and Environment Officer
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825
By email: kayla.volker@bogan.nsw.gov.au

Dear Ms Volker

RE: Comments on Response to Submission report for proposed Avoca Tank Project (DA/15/004)

I refer to your email dated 23 June 2016 advising a response to submissions (RtS) report has been prepared for the Avoca Tank Project and requesting comment from the Heritage Division for this phase of the project.

The Heritage Council of NSW previously provided comment on 12 August 2015 and recommended a due diligence heritage response strategy should be prepared for this project. It is noted that the current response strategy for cultural heritage was provided as a part of this 'RtS' as Appendix 3.

The following documents were reviewed to provide comment in this letter:

- 'Response to Submissions for the Avoca Tank Project', prepared by RW Corkery and Co Pty Ltd, dated June 2016.
- 'Cultural Heritage Management Plan for the Tritton Mines including Murrawombie Mine, North East Mine, Girilambone Regional Mine, Coolabah Mine, Girilambone East, Tritton Regional Mine, Miandetta Mine and Hermidale Mine', prepared by Straits Resources Limited, dated 22 June 2015.

The Heritage Division has considered the information supplied and notes the commitment by the proponent to update the response strategy. To ensure the response strategy continues to appropriately manage historic heritage during the proposed works, the following updates are recommended:

- The definition for 'historical relics' has changed from a 'greater than 50 years of age' to management of sites based on significance to reflect the definition of 'relic' in the NSW *Heritage Act 1977*. The sections in the report (p.A3-12) should be updated to reflect this. (Refer to section 4 of the Heritage Act and the definition of relics).



- A procedure should be included in the response strategy specifically dealing with the unexpected identification of historic heritage items or relics during works and how these should be managed. This should also identify any approvals under the *Heritage Act 1977* that may be required.

It is also noted the RtS has confused historic and Aboriginal heritage in parts. The CHMP should be clear in expressing when advice relates to Aboriginal and when to historic heritage matters and ensure that advice is correct. Updating the above information may enable this area to be better addressed.

If you have any questions regarding the above matter please contact Rebecca Newell, Archaeologist, at the Heritage Division, Office of Environment and Heritage on 9873 8517 or at Rebecca.Newell@environment.nsw.gov.au.

Yours sincerely

21/07/2016

Katrina Stankowski

Acting Manager, Conservation

Heritage Division

Office of Environment & Heritage

As Delegate of the NSW Heritage Council

Appendix D

GENERAL TERMS OF APPROVAL



**Resources
& Energy**

COPY

OUT15/9277

Mr Timothy Riley
Manager Environmental Services
Bogan Shire Council
P.O. Box 221
Nyngan, NSW 2825

Dear Mr Riley

**Development Proposal Avoca Tank Underground Mine
Tritton Resources Pty Ltd
Notification of Development Application DA 2015/004**

I refer to your letter of 12 March 2015 inviting comments from the Department of Trade and Investment (DTIRIS), Division of Resources and Energy (DRE) regarding development application lodged by Tritton Resources Pty Ltd for the Avoca Tank underground mine proposal.

DRE has reviewed the *Environmental Impact Statement for the Avoca Tank Project*, dated July 2014 and provides the following comments which are directed at specific areas of responsibility within DRE for this proposal.

The proposed Avoca Tank Mine Project lies within EL 6126 held by Tritton Resources Pty Limited. The project will require a mining lease to be granted under the *Mining Act (1992)*.

DRE supports the proposed project

Subject to the approval of development consent for this proposal, DRE recommends that the following conditions be incorporated in any development approval:

1. Rehabilitation Management Plan/Mining Operation Plan (RMP/MOP)

The proponent must prepare and implement a Rehabilitation Management Plan / Mining Operations Plan for the project area to the satisfaction of the Secretary of DTIRIS. This Plan must be:

- a) prepared in consultation with the DRE, Office of Environment and Heritage, Planning and Environment, NSW Office of Water, NSW EPA and Broken Hill City Council;
- b) prepared in accordance with the relevant DRE guidelines and in consultation with the DRE; and
- c) submitted to the Secretary of DTIRIS within 3 months of this approval.

2 Exploration Activities

- a) Exploration activities must be notified to, and approved by, DRE prior to commencement. Relevant due diligence assessment reports and environmental assessment reports must be provided and must address the following:
- summary of the Proposed Activity;
 - description of the Site(s);
 - existing Environment – including general description, surface and groundwater, threatened species, populations and ecological communities, aboriginal cultural heritage values, historic and natural heritage values;
 - impact assessment;
 - summary of Impacts;
 - conclusions; and
 - Statement of Commitments
- b) Details of exploration activities must be documented in the Annual Environmental Management Report.

DRE supports in principle the proposed Avoca Tank Project as a responsible utilisation of the State's mineral resources.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Industry Coordination on (02) 9842 8573.

Yours sincerely



Adrian Delany
Acting Director Industry Coordination

cc: Mitchell Bland, orange@rwcorkery.com

5.5.15



OUT16/25008

Ms Kayla Volker
Senior Development & Environmental Officer
Bogan Shire Council
PO Box 221
Nyngan . NSW 2825

Email: admin@bogan.nsw.gov.au

Dear Ms Volker

**Development Proposals Avoca Tank Underground Mine
Tritton Resources Pty Ltd
Response to Submissions DA 2015/004**

I refer to your letter dated 10 June 2016 requesting comments regarding the *Response to Submissions* made by the applicant to the Department of Trade and Investment, Division of Resources and Energy (the Division), comments to the Environmental Impact Statement (EIS) for the Avoca Tank Project dated July 2014.

The Division has reviewed the applicants *Response to Submissions*, dated June 2016 by AusGold Mining Group (the Proponent) and considers that its submission has been responded to satisfactorily.

In particular, the Proponent's response to the first submission made by the Division, at paragraph 6.2, would appear to accept the recommendation to incorporate the condition referred to in the Division's letter to DPE dated 5 May 2015.

If exploration is not approved as part of the development consent, the details of the proposed prospecting will be required to be included in a Mining Operations Plan (MOP) and adequately reflected in a Rehabilitation Cost Estimate (RCE) for the relevant mining lease. Details to be included in the MOP should cover the extent and location of the area that will be affected by prospecting during the MOP's term.

Further, the Division would like to note that a number of the its guidelines and policies surrounding exploration on a mining lease have been released. Attached is a Frequently Asked Questions document *Prospecting on a mining lease* which may be of assistance to you in circumstances where a development consent does not contemplate prospecting.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalties & Advisory Services, on (02) 9842 8573.

Yours sincerely

Zane West
Manager Royalties & Advisory Services



General Manager
Bogan Shire Council
PO Box 221
NYNGAN NSW 2825

Contact Tim Baker
Phone 02 6841 7403
Mobile 0428 162 097
Fax 02 6884 0096
Email Tim.Baker@dpi.nsw.gov.au
Our ref 80 ERM2016/0455

Attention: Kayla Volker

Dear Kayla

DEVELOPMENT APPLICATION DA2015/004 – UNDERGROUND MINE (AVOCA TANK PROJECT) TRITTON RESOURCES PTY LTD

I refer to the Response to Submissions document received by DPI Water on 10 June 2016. DPI Water has reviewed this information in conjunction with the original EIS submitted in March 2016. Based on this review the DPI Water is prepared to issue General Terms of Approval (GTA) and recommended conditions of consent. The licensing requirements that the GTA relate to include the following:

- Work Approval under the *Water Management Act 2000* for an excavation which will result in the take of groundwater.

Detailed comments are provided in Attachment A, Recommended conditions of consent in Attachment B and General Terms of Approval in Attachment C.

Please note Council's statutory obligations under section 91A(3) of the *Environmental Planning and Assessment Act, 1979* (EPA Act) which requires a consent, granted by a consent authority, to be consistent with the GTA proposed to be granted by the approval body.

If the proposed development is approved by Council, the Office of Water requests that the attached GTA be included (in their entirety) in Council's development consent. Please also note the following:

- DPI Water should be notified if any plans or documents are amended and these amendments result in more than minimal change to the proposed development or in additional works on waterfront land.

Once notified, DPI Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed works are part of Council's proposed consent conditions and do not appear in the original documentation.

- DPI Water should be notified if Council receives an application to modify the development consent if the modification relates to a matter covered by our GTA. Failure to notify may render the consent invalid.
- DPI Water requests notification of any legal challenge to the consent.

Under section 91A(6) of the EPA Act, Council must provide DPI Water with a copy of any determination/s including refusals.

The GTA in Attachment C are not the work approval. The applicant must apply to DPI Water for the work approval **after consent** has been issued by Council **and before** the commencement of the related works.

Should you have any further queries in relation to this submission please do not hesitate to contact Tim Baker on (02) 6841 7403.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Z. Baker', with a long horizontal flourish extending to the right.

Tim Baker
Senior Water Regulation Central/Far West
24 June 2016

DPI WATER - DETAILED COMMENTS

Water Licensing

- The proponent acknowledges a need to purchase additional entitlement to account for the dewatering needs of additional inflow in to the project area. Further consultation with DPI Water as proposed in the RTS regarding the approach to manage licensing across all operations is supported.
- The proponent indicated that the required volume is available for purchase in the open market. It is noted the proponent has not demonstrated the intention to have the required entitlement prior to the aquifer interference activity.
- The proponent will be required to hold sufficient entitlement prior to commencement of the aquifer interference activity.
- The proponent has indicated that inflow to the proposed mine would reach a maximum of 111ML in the final year and that at that time the dewatering requirements in other operations would be reduced. The proponent will be required to include the predicted inflow requirements throughout the project for future years in the Water Management Plan and as part of Annual Reporting to ensure adequate entitlement is held prior to the take occurring. DPI Water also advises that groundwater take is not restricted to the dewatered component, rather it includes the groundwater inflow volume that flows into the excavations. As a result the volume that needs to be accounted for once an operation ceases is the groundwater take until the water table reaches an equilibrium and for any predicted ongoing take induced through evaporation or other losses.

Groundwater Assessment

- The proponent has clarified that pit inflow estimates are derived from similar measured inflow in the nearby pits and using analytical methods. It is clear that the inflow is not estimated from any numeric modelling operations. DPI Water has no further comment on this aspect.
- The proponent has clarified that the term 'numeric modelling' used in the EIS as referring to analytical methods.
- DPI Water considers that the assessment of drawdown impacts and dewatering volumes (pit inflows) through analytical methods and through comparisons with nearby mines in the same type of aquifers are adequate.
- The proponent has indicated that a water management plan that includes a groundwater monitoring and mitigation plan would be prepared within three months of receipt of approval of the development. As proposed in the RTS this plan will need to develop adequate monitoring, trigger response mechanisms and mitigation measures to enable make good provisions to be applied. It is requested the proponent provide the water management plan to DPI Water for review and comment as this plan will be required as part of final assessment to issue the approval under the *Water Management Act 2000*.

End of Attachment

Recommended Conditions of Consent

1. The Construction Certificate will not be issued over any part of the site requiring a Work Approval under the *Water Management Act 2000* until a copy of the Work Approval has been provided to Council.
2. The proponent must obtain a Water Access Licence (WAL) in the Lachlan Fold Belt Groundwater Source with sufficient share component to account for the proposed groundwater take prior to commencing activities.
3. The proponent must prepare a Water Management Plan in consultation with DPI Water. This plan is to address:
 - Erosion and Sediment Control
 - Groundwater Monitoring and Mitigation
 - Surface Water Monitoring and Mitigation

End of Attachment

General Terms of Approval – for works requiring a Work Approval under the Water Management Act 2000 (Excavation)

Our Reference		80 ERM2016/0455	File No:	
Site Address		Lot 10 (part), Lot 135 & 144 DP751315 and Lot 3 (part) DP751342		
DA Number		DA2015/004		
LGA		Bogan Shire Council		
Number	Condition			
Plans, standards and guidelines				
1	<p>These General Terms of Approval (GTA) only apply to activities constituting a work approval associated with the proposed excavation of an underground mine in relation to the interception and/or extraction of groundwater as conceptually defined in the documentation relating to DA2015/004</p> <p>Any amendments or modifications to the proposed works may render these GTAs invalid. If the proposed activities are amended or modified DPI Water must be notified to determine if any variations to these GTA will be required.</p>			
2	<p>Prior to the commencement of any works associated with groundwater interception and /or extraction for the Avoca Tank Project, the consent holder must obtain the necessary Work Approval/s under the <i>Water Management Act 2000</i> from DPI Water. In addition to the Work Approval for the excavation the proponent will be required to obtain adequate licensed entitlement in a Water Access Licence (WAL) commensurate with the anticipated volume of groundwater take prior to this take occurring.</p>			
3	<p>The consent holder must prepare or commission the preparation of the following to be submitted with the Work Approval application:</p> <p>(i) Groundwater Monitoring and Mitigation Plan</p>			
4	<p>All plans and/or documents must be prepared by a suitably qualified person and submitted with the licence application to DPI Water for approval prior to any works commencing.</p>			
5	<p>The consent holder must (i) carry out any works for the excavation in accordance with approved plans and (ii) construct and/or implement any works for the groundwater excavations by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to DPI Water.</p>			
Rehabilitation and maintenance				
6	<p>Rehabilitation and site management must be undertaken in accordance with a plan approved by DPI Water.</p>			
7	<p>The licence holder must carry out any work or make any alterations deemed necessary by DPI Water, for the protection or proper maintenance of the works, or for the control of the water extracted or prevention of pollution of groundwater.</p>			
8	<p>If a work is abandoned at any time, the approval holder must notify DPI Water that the work has been abandoned and seal off the aquifer by:</p> <p>(a) Casing (lining) to the satisfaction of DPI Water; or</p> <p>(b) Such other methods as agreed to or directed by DPI Water.</p>			

Our Reference		80 ERM2016/0455	File No:	
Site Address		Lot 10 (part), Lot 135 & 144 DP751315 and Lot 3 (part) DP751342		
DA Number		DA2015/004		
LGA		Bogan Shire Council		
Number	Condition			
Reporting requirements				
9	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the DPI Water as required.			
10	The licence holder must develop and implement a methodology to estimate the annual volume of Groundwater inflow (water budget), approved by DPI Water. Water budgets must be set and approved one month prior to the beginning of each water year to enable implementation.			
11	An extraction measurement device must be installed and maintained on each extraction device (pump) used for extraction of water under this licence, and such devices must be of a type and standard, and must be maintained in a manner, which is acceptable to DPI Water.			
12	The licence holder will provide DPI Water with an annual Compliance Report, to report on the results of the Groundwater Monitoring and Mitigation Plan within one month of the end of the water year.			
Drainage and Stormwater				
13	The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by DPI Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by DPI Water.			
14	The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by DPI Water.			
Erosion control				
15	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by DPI Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.			
Excavation				
16	The consent holder must ensure that no excavation is undertaken on waterfront land, and no groundwater interception is undertaken other than in accordance with a plan approved by DPI Water.			
17	The consent holder must ensure that any excavation does not result in (i) bed or bank instability or (ii) damage to native vegetation within the area where a work approval has been authorised, other than in accordance with a plan approved by DPI Water.			
18	The consent holder must prepare a works schedule plan depicting the location of the proposed underground mine and the order as to which extraction will occur.			
END OF CONDITIONS				



Our reference : DOC
Contact: Daniel Stokes
Date: 1 July 2016

The General Manager
Bogan Shire Council
PO Box 21
NYNGAN NSW 2825

Attention: Kayla Volker

Dear Mr Francis,

I refer to the response from the Applicant to the General Terms of Approval (GTA's) for the proposed Avoca Tank Project (DA 2015/004), received by the Environment Protection Authority (EPA) on 10 June 2016. The EPA has reviewed the information in the response and has determined the following amendments to the GTA's are acceptable.

Meteorological Monitoring Station – The EPA has reviewed the applicant's request for the removal of Conditions A3, L6.4 and M2, relating to the requirement to monitor meteorological parameters. To ensure accurate meteorological data is obtained at the mine site the EPA requires, at a minimum, rainfall to be monitored. The EPA proposes to modify condition M2 to include only the rainfall parameter.

The EPA notes that the nearest sensitive receptor is 2.4km from the site and as such is amenable to the removal of the requirement for an onsite weather station associated with the project. However, the EPA will review the need for an onsite weather station subject to receipt of any verified complaints in relation to noise, dust or odour complainants.

Water Management Plan – The EPA has considered the applicant's request that Conditions O3 and O4 are modified to reflect the Applicant's commitment to prepare a single Water Management Plan. A single Water Management Plan is acceptable provided it complies with all requirements detailed in Conditions O3 and O4. The EPA considers that if this requirement is met, there is no need to modify Conditions O3 and O4.

The EPA notes that the proposal will require an environment protection licence pursuant to the *Protection of the Environment Operations Act 1997* to operate. The proponent will need to make a separate application to the EPA to obtain this license once development project approval is granted and prior to commencement of scheduled development work.

If you have any questions, or wish to discuss this matter further, please contact Daniel Stokes in the Dubbo EPA Office by telephoning 02 6883 5384 or by email to epa.farwest@epa.nsw.gov.au.

Yours sincerely



BRAD TANSWELL
A/Head Far West Operations
Environment Protection Authority

Protection of the Environment Operations Act 1997

General Terms of Approval - Issued



Notice No: 1531800

The General Manager
PO BOX 386
HERMIDALE NSW 2831

Attention: Mr John Miller

Notice Number 1531800
File Number S15/22025
Date 21-Jul-2015

Re: "Avoca Tank Project"

Issued pursuant to Section 91A(2) Environmental Planning and Assessment Act 1979

I refer to the development application and accompanying information provided for the Avoca Tank Project received by the Environment Protection Authority (EPA) on 25 May 2015.

The EPA has reviewed the information provided and has determined that it is able to issue a licence for the proposal, subject to a number of conditions. The applicant will need to make a separate application to EPA to obtain this licence prior to scheduled development works or activities commencing.

The general terms of approval for this proposal are provided at Attachment A. If Bogan Shire Council (Council) grants development consent for this proposal these conditions should be incorporated into the consent.

These general terms relate to the development as proposed in the documents and information currently provided to 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 conditions proposed to be attached to the consent, it will be necessary to consult with EPA about the changes before the consent is issued. This will enable EPA to determine whether its general terms need to be modified in light of the changes.

Attachment B contains mandatory conditions which are attached to all Environment Protection Licences (EPL).

If you have any questions, or wish to discuss this matter further please contact Ramya Gowda on 6883 5306.

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Yours sincerely

Bradley Tanswell

Acting Unit head Far West Operations

Environment Protection Licence

(by Delegation)

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Attachment A - Avoca Tank Project

Administrative conditions

A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application DA 2015-004 submitted to EPA on 25 May 2015; and
- Environmental Impact Statement (EIS) for Avoca Tank Project submitted to EPA on 25 May 2015 relating to the development;

A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

A3. Discharges to Air

A3.1 Location of monitoring/discharge points and areas

The following point(s) referred to in the table are identified in this licence for the purpose of monitoring and/or the settling of limits for discharge of pollutants from the plant.

EPA identification number	Type of monitoring point	Description of location
1	Weather monitoring	Weather station on mine site

Note: the monitoring requirements may be modified by the EPA subject to ongoing review of license condition and monitoring results.

Limit conditions

L1. Pollution of waters

L1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

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L5. Waste

L5.1 The licensee 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 under the Protection of the Environment Operations Act 1997.

L5.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L6. Noise Limit

L6.1 Noise generated at the premises must not exceed the noise limits in the table below.

Location	Time Period	Noise level dB(A) (LAeq (15 min))
All residences	Day	35
	Evening	35
	Night	35

L6.2 For purpose of condition L6.1;

- Day is defined as the period from 7:00 am to 6:00 pm Monday to Saturday and 8:00am to 6:00 pm Sunday and Public Holidays.

L6.3 The noise limits set out in condition L6.1 apply under all meteorological conditions except for the following:

- wind speed greater than 3 metres/second at 10 metres above ground level.
- stability category F temperature inversion condition and wind speed greater than 2 metres/second at 10 metres above ground level; or
- stability category G temperature inversion conditions.

L6.4 For the purpose of condition L6.3:

- Data recorded by a meteorological station installed on site must be used to determine meteorological conditions; and
- Temperature inversion condition (stability category) are to be determined by the sigma-theta method referred to in Part E4 of appendix E to the NSW Industrial Noise Policy.

L6.5 To determine compliance:

- with the Leq (15 min) noise limit in condition L6.1, 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 facade, but not closer than 3m, where any dwelling on the property is situated more than 30 m from the property boundary closest to the premises or, where applicable; and
 - within approximately 50 m of the boundary of a National Park or a nature reserve.

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- b. with the LA(1 minute) noise limits in condition L6.1, the noise measurement equipment must be located within 1 metre of a dwelling facade;
- c. with the noise limits in condition L6.1, the noise measurement equipment must be located
 - at 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 condition L6.5 (a).

L6.6 A non compliance of condition L6.1 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 condition L6.1; and/or
- at a point other than the most affected point at a location.

L6.7 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.

L7. Blasting

L7.1 Blasting at the premises is limited to the following on each day on which blasting is permitted or as otherwise approved in writing by the EPA:

- A maximum of 3 blasts per day. This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately owned land, or blasts required to ensure the safety of the site or its workers.

Overpressure

L7.2 The overpressure level from blasting operations on the premises must not:

Exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and

Exceed 120dB (Lin Peak) at any time,

The air blast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be added to the measured value. Equipment with a lower cut-off frequency exceeding 10Hz should not be used for the purpose of measuring air blast overpressure.

Ground vibration (ppv)

L7.3 Ground vibration peak particle velocity from the blasting operations at the premises must not:

Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and

Exceed 10mm/s at any time,

when measured at any point within 1 metre of any affected residential boundary or other noise sensitive location such as a school or hospital.

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Operating conditions

01. Odour

- 01.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.
- 01.2 No condition of this licence identifies a potentially offensive odour for the purpose of Section 129 of the Protection of the Environment Operations Act 1997.

02. Dust

- 02.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.
- 02.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.
- 02.3 The premises must be maintained in a condition which minimises or prevent the emission of dust from the premises.

03. Stormwater/sediment control - Construction Phase

- 03.1 An *Soil and Water Management Plan (SWMP)* must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The SWMP should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).

04. Stormwater/sediment control - Operation Phase

- 04.1 A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* (available from the EPA).

05. Bunding requirement

- 05.1 All above ground storage facilities containing flammable and combustible liquid must be bunded in accordance with Australian Standards AS 1940-200.

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O6. Waste Rock Management Plan

O6.1 The proponent must prepare and implement a Waste Rock Management Plan documenting procedures for the management of potentially Acid Forming Material to prevent pollution of water or groundwater and provide a copy to the EPA prior to commencement of operations.

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

in a legible form, or in a form that can readily be reduced to a legible form;

kept for at least 4 years after the monitoring or event to which they relate took place; and

produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

the time(s) at which the sample was collected;

the point at which the sample was taken; and

the name of the person who collected the sample.

M2 Requirement to Monitor Weather

M2.1 For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Weather - Monitoring Point 1 - Weather Station Location on the Mine Site

Parameter	Units of measure	Frequency	Averaging period	Sampling Method
Rainfall	mm	Continuous	24 hour	AM - 4
Wind speed and direction	m/s & degrees	Continuous	15 minute	AM-2 and AM-4
Air Temperature	Degrees (C)	Continuous	15 minute	AM-4
Sigma theta	Degrees (C)	Continuous	15 minute	Am-2 and AM-4

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M4. Testing methods - concentration limits

M4.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:
any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or

if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or

if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Clean Air (Plant and Equipment) Regulation 1997 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".)

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Reporting conditions

R1.1 The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

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Attachment – B

Mandatory Conditions for all EPA licences

Administrative conditions

Operating conditions

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

This includes:

the processing, handling, movement and storage of materials and substances used to carry out the activity; and
the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

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.

Monitoring and recording conditions

Recording of pollution complaints

The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

The record must include details of the following:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

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The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

- a. Statement of Compliance; and
- b. Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Where this licence is transferred from the licensee to a new licensee,

- a. the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b. the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

- a. in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b. in relation to the revocation of the licence - the date from which notice revoking the licence operates.

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Deadline for Annual Return

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

(Licences with assessable pollutants)

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

The notification must specify:

- a. the assessable pollutants for which the actual load could not be calculated; and
- b. the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a. the licence holder; or
- b. by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Written report

Where an authorised officer of the EPA suspects on reasonable grounds that:

- a. where this licence applies to premises, an event has occurred at the premises; or
- b. where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

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and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

The request may require a report which includes any or all of the following information:

- a. the cause, time and duration of the event;
- b. the type, volume and concentration of every pollutant discharged as a result of the event;
- c. the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- d. the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- g. any other relevant matters.

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

Appendix E

RECOMMENDED CONDITIONS OF CONSENT

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the Development.

TERMS OF CONSENT

- A2. The Applicant shall carry out the Development generally in accordance with the:
- a) Development Application – 2015/004;
 - b) Environmental Impact Statement prepared by R W Corkery and Co dated July 2014;
 - c) Response to Submissions report prepared by R W Corkery and Co dated June 2016; and
 - d) The conditions of this consent.
- A3. If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this approval prevail to the extent of any inconsistency. Where there is an inconsistency between approved elevations and plans, the elevations prevail.
- A4. The Applicant shall comply with any reasonable requirement(s) of the Council arising from the Department's assessment of:
- a) any reports, plans or correspondence that are submitted in accordance with this consent; and
 - b) the implementation of any actions or measures contained within these documents.
- A5. Material extracted from the Avoca Mine (other than waste rock) is to be transported to the Tritton Processing Facility for processing. On-site processing or processing at a third location is excluded from this consent.

PROTECTION OF PUBLIC INFRASTRUCTURE

- A6. The Applicant shall:
- a) conduct a yearly dilapidation survey of all public roads affected by the transport of material from the Avoca Tank Mine to the Tritton Processing Facility;
 - b) provide a copy of the yearly dilapidation report to Bogan Shire Council within 30 days of completion of the survey;
 - c) repair and maintain, or pay all reasonable costs associated with repairing and maintaining, public infrastructure that is damaged or impacted by the Development as identified by the yearly dilapidation survey; and
 - d) relocate, or pay all reasonable costs associated with relocating public infrastructure that needs to be relocated as a result of the Development.

STAGING

- A7. The Applicant may elect to construct and/ or operate the Development in stages. Where staging is proposed, the Applicant shall submit a Staging Report to the Bogan Shire Council prior to the commencement of the first proposed stage. The Staging Report shall provide details of:
- a) how the Development would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and
 - b) details of the relevant conditions of consent, which would apply to each stage and how these shall be complied with across and between the stages of the Development.

Where staging of the Development is proposed, these conditions of consent are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).

The Applicant shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Bogan Shire Council prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.

Note: These conditions do not relate to staged development within the meaning of section 83B.

STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

A8. With the approval of Bogan Shire Council, the Applicant may:

- a) submit any strategy, plan or program required by this consent on a progressive basis; and
- b) combine any strategy, plan or program required by this consent with any similar strategy, plan or program required for the Development.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
- If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.

PART B ENVIRONMENTAL PERFORMANCE CONDITIONS

AIR QUALITY AND GREENHOUSE GAS

Odour

B1. The Applicant shall ensure the Development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

Impact Assessment Criteria

B2. The Applicant shall ensure that the dust and particulate emissions generated by the development do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 3, 4 and 5 at any residence on, or on more than 25 percent of, any privately owned land.

Table 3: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 4: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Table 5: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

*Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: **Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.***

B3. The limits and conditions specified in Condition B2 apply for the period up to the first review of the EPL under Section 78 of the POEO Act.

BIODIVERSITY

Biodiversity Offset Package

- B4. The Applicant shall prepare a Biodiversity Offset Package that formalises the final suite of offset measures that comprises like for like offsets for the impacts to 34 hectares of Poplar Box-Gum Coolibah and White Cypress Pine Shrubby Woodland mainly in the Cobar Penneplain Bioregion. The Biodiversity Offset Package shall be developed in consultation with the OEH and shall (unless otherwise agreed by the Bogan Shire Council) include, but not necessarily be limited to:
- a) the extent and types of habitat that would be lost or degraded as a result of the final design of the Development ;
 - b) the objectives and biodiversity outcomes to be achieved;
 - c) the final suite of the biodiversity offset measures selected and secured in accordance with the EIS Biodiversity Offset Strategy;
 - d) the management and monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including:
 - i) the monitoring of the condition of species and ecological communities at offset locations;
 - ii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;
 - iii) provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH; and
 - e) timing and responsibilities for the implementation of the provisions of the Package; and
 - f) The offset be secured in perpetuity under one of the following conservation mechanisms:
 - a. BioBanking agreement;
 - b. Dedication of land under the National Parks and Wildlife Act 1974 (NPW Act);
 - c. Trust Agreements under the Nature Conservation Trust Act 2001, and;
 - d. A PVP registered on title under the Native Vegetation Act 2003.
- B5. Land offsets shall be consistent with the *Principles for the use of Biodiversity Offsets in NSW*. Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region.
- B6. Where monitoring referred to in Condition B4 indicates that biodiversity outcomes are not being achieved, remedial actions as approved by OEH shall be undertaken to ensure that the objectives of the Biodiversity Offset Package are achieved.
- B7. A Biodiversity Offset Management Plan be developed to ensure the offsets are appropriately managed and funded. Management activities included in the management plan should result in an improvement of the offset area over time.
- B8. The Biodiversity Offset Package must be approved by Bogan Shire Council and OEH prior to any construction work that would result in the disturbance of any existing ecological communities identified in the Biodiversity Offset Strategy.
- B9. Those measures outlined in Section 4.3.7.3 of the EIS are to be implemented and maintained (as applicable) to the satisfaction of Bogan Shire Council.

BUSHFIRE MANAGEMENT

- B10. The Applicant shall take all reasonable measures to prevent the ignition and/or spread of bushfires, in accordance with the *Schedule of Onshore Petroleum Operations and Production Safety Requirements (1992)*.
- B11. A bush fire management plan is to be prepared and provided to Council prior to the commencement of operations incorporating, but not being limited to the following:
- a. A 15 metre cleared area around the buildings and infrastructure is to be implemented prior to the commissioning of the development and maintained in accordance with Appendix 5 of the Rural Fire Service publication *Planning for Bushfire Protection (2006)* (or such document as should replace this) for the life of the development.
 - b. The controls identified in Section 4.12.3 of the EIS are to be implemented prior to the commissioning of the development and maintained for the life of the consent.

HAZARDS AND RISK

Safety and Risk Management

- B12. The Applicant shall prepare and implement an Emergency Plan for the development to the satisfaction of Bogan Shire Council. The plan shall be submitted to Council prior to commissioning of the development and shall be prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*.
- B13. The Applicant shall prepare and implement a Safety Management System (SMS) for the Development, to the satisfaction of Bogan Shire Council. The SMS must be submitted to the Council prior to commissioning of the Development and shall be prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*. For the avoidance of doubt, the SMS may be provided as an update to an existing plan in current application. The SMS shall:
- clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures;

Compliance Report

- B14. Within 3 months of commissioning of the Development, the Applicant shall prepare a compliance report to the satisfaction of the Bogan Shire Council. The report shall be prepared by a suitably qualified, experienced, and independent expert whose appointment has been endorsed by the Bogan Shire Council and shall include:
- dates of commencement of construction and commissioning;
 - actions taken (or proposed to be taken) to implement conditions B10 and B12; and
 - a signed statement that:
 - the Emergency Plan required under Condition B12 is effectively in place and that at least one emergency exercise has been conducted;
 - the SMS required under condition B13 has been fully implemented and that records required by the system are being kept;
 - the Emergency Plan and SMS have been prepared in accordance with the relevant Hazardous Industry Planning Advisory Paper;
 - all recommendations of the QRA, Emergency Plan and SMS have been implemented and are being maintained; and
 - all safety management systems and their associated risk controls have been implemented and are being maintained.

NOISE

Construction and Operation Hours

- B15. The Applicant shall construct and operate the Development in accordance with the hours listed in Table 6, except for emergency purposes.

Table 6: Construction and operation hours of the development

Activity	Hours
Construction - vegetation clearing, topsoil stripping and rehabilitation operations	Daylight hours 7 days per week
Operation - site establishment, underground mining, ore transportation and maintenance	24 hours 7 days per week

Notes: 'Emergency purposes' refers to instances where the cessation of construction activities would have the potential to generate serious harm to the environment or serious safety issues. Should these activities be conducted outside of the hours permitted, a report must be provided to the Department within 7 days of the event containing relevant information and/or data to demonstrate the specific emergency purposes and circumstances at the time.

Impact Assessment Criteria

- B16. The Applicant shall ensure that the noise generated by the Development (excluding drilling) does not exceed the noise impact assessment criteria set out in Table 7 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 7 Impact assessment criteria dB(A)

Location	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
All privately owned land	35	35	35	35

Notes:

- Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

SOIL AND WATER

Construction Soil and Water Management

- B17. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vol. 1* (Landcom, 2004) shall be employed during the construction of the Development to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.

Pollution of Waters (Department of Primary Industry: Water General Terms of Approval Conditions)

- B18. The Construction Certificate will not be issued over any part of the site requiring a Work Approval under the Water Management Act 2000 until a copy of the Work Approval has been provided to Council.
- B19. The proponent must obtain a Water Access Licence (WAL) in the Lachlan Fold Belt Groundwater Source with sufficient share component to account for the proposed groundwater take prior to commencing activities.
- B20. The proponent must prepare a Water Management Plan in consultation with DPI Water. This plan is to address:
- Erosion and Sediment Control
 - Groundwater Monitoring and Mitigation
 - Surface Water Monitoring and Mitigation

VISUAL

- B21. The Applicant shall:
- implement all reasonable and feasible measures to minimise the visual and lighting impacts of the Development;
 - establish and maintain effective vegetative screens;
 - ensure no outdoor lights shine above the horizontal;
 - ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*; and
 - Those measures outlined in Section 4.11.3 of the EIS are to be implemented to the satisfaction of Bogan Shire Council.

TRAFFIC AND TRANSPORT

- B22. The proponent is to prepare and implement a code of conduct relating to transport of materials on public roads as part of the considerations under Clause 16(1) of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.
- B23. Sufficient parking is to be provided on site to accommodate proposed staffing levels, at a ratio of one parking space per two employees. All parking provided on site is to be designed and constructed to ensure compliance with Australian Standard 2890.

WASTE MANAGEMENT

- B24. All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.
- B25. Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the POEO Act, if such a licence is required in relation to that waste.
- B26. All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with *Waste Classification Guidelines* (Department of Environment, Climate Change and Water, 2009), or any superseding document.
- B27. Non-production waste management measures listed in Section 4.13.4 of the EIS are to be incorporated in perpetuity into the development (updated to reflect the 2014 POEO Regulations).
- B28. Any soil contaminated as a result of the development is to be remediated in accordance with relevant guidelines (including guidelines under section 145C of the Act and the Contaminated Land Management Act 1997)
- B29. Details of an effluent management system suitable to accommodate the required capacity of generated effluent from staff amenities is to be submitted to and approved by Bogan Shire Council prior to the site commencing operations. This system is to be installed, maintained and decommissioned to Bogan Shire Council's satisfaction for the life of the development.

NSW RESOURCES AND ENERGY GENERAL TERMS OF APPROVAL

- B30. The general terms of approval, issued by NSW Resources and Energy on the 5 May 2015, are reproduced below in their entirety, and are to be complied with for the duration of the consent.

REHABILITATION/MINING OPERATIONS PLAN

- B31. The proponent must prepare and implement a Rehabilitation Management Plan/Mining Operations Plan for the project area to the satisfaction of the Secretary of DTIRIS. This Plan must be:
- a. prepared in consultation with the DRE, Office of Environment and Heritage, Planning and Environment, NSW Office of Water, NSW EPA and Bogan Shire Council;
 - b. prepared in accordance with the relevant DRE guidelines and in consultation with the ORE; and
 - c. submitted to the Secretary of DTIRIS within 3 months of this approval.

EXPLORATION ACTIVITIES

- B32. Exploration activities must be notified to, and approved by, DRE prior to commencement. Relevant due diligence assessment reports and environmental assessment reports must be provided and must address the following:
- summary of the Proposed Activity;
 - description of the Site(s);
 - existing Environment - including general description, surface and groundwater, threatened species, populations and ecological communities, aboriginal cultural heritage values, historic and natural heritage values;
 - impact assessment;
 - summary of Impacts;
 - conclusions; and
 - Statement of Commitments
- B33. Details of exploration activities must be documented in the Annual Environmental Management Report.

ENVIRONMENT PROTECTION AUTHORITY GENERAL TERMS OF APPROVAL

B34. The general terms of approval, issued by the EPA on the 21 July 2015, and amended via the EPA correspondence of 1 July 2016, are reproduced below in their entirety, and are to be complied with for the duration of the consent.

Administrative conditions

A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application DA 2015-004 submitted to EPA on 25 May 2015; and
- Environmental Impact Statement (EIS) for Avoca Tank Project submitted to EPA on 25 May 2015 relating to the development;

A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

A3. Discharges to Air

A3.1 Location of monitoring/discharge points and areas

The following point(s) referred to in the table are identified in this licence for the purpose of monitoring and/or the settling of limits for discharge of pollutants from the plant.

EPA identification number	Type of monitoring point	Description of location
1	Weather monitoring	Weather station on mine site

Note: the monitoring requirements may be modified by the EPA subject to ongoing review of license condition and monitoring results.

Limit conditions

L1. Pollution of waters

L1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

L5. Waste

L5.1 The licensee 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 under the Protection of the Environment Operations Act 1997.

L5.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L6. Noise Limit

L6.1 Noise generated at the premises must not exceed the noise limits in the table below.

Location	Time Period	Noise level dB(A) (LAeq (15min))
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All residences	Day	35
	Evening	35
	Night	35

L6.2 For purpose of condition L6.1;

- Day is defined as the period from 7:00 am to 6:00 pm Monday to Saturday and 8:00am to 6:00 pm Sunday and Public Holidays.

L6.3 The noise limits set out in condition L6.1 apply under all meteorological conditions except for the following:

- wind speed greater than 3 metres/second at 10 metres above ground level.
- stability category F temperature inversion condition and wind speed greater than 2 metres/second at 0 metres above ground level; or
- stability category G temperature inversion conditions.

L6.4 For the purpose of condition L6.3:

- Data recorded by a meteorological station must be used to determine meteorological conditions; and
- Temperature inversion condition (stability category) are to be determined by the sigma-theta method referred to in Part E4 of appendix E to the NSW Industrial Noise Policy.

L6.5 To determine compliance:

a. with the Leq (15 min) noise limit in condition L6.1, 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 facade, but not closer than 3m, where any dwelling on the property is situated more than 30 m from the property boundary closest to the premises or, where applicable; and
- within approximately 50 m of the boundary of a National Park or a nature reserve.

b. with the LA(1 minute) noise limits in condition L6.1, the noise measurement equipment must be located within 1 metre of a dwelling facade;

c. with the noise limits in condition L6.1, the noise measurement equipment must be located:

- at 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 condition L6.5 (a).

L6.6 A non compliance of condition L6.1 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 condition L6.1; and/or
- at a point other than the most affected point at a location.

L6.7 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.

L7. Blasting

L7.1 Blasting at the premises is limited to the following on each day on which blasting is permitted or as otherwise approved in writing by the EPA:

- A maximum of 3 blasts per day. This condition does not apply to blasts that generate ground vibration of 0.5mm/s or less at any residence on privately owned land, or blasts required to ensure the safety of the site or its workers.

Overpressure

L7.2 The overpressure level from blasting operations on the premises must not:

- Exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and
- Exceed 120dB (Lin Peak) at any time,

The air blast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be added to the measured value. Equipment with a lower cut-off frequency exceeding 10Hz should not be used for the purpose of measuring air blast overpressure.

Ground vibration (ppv)

L7.3 Ground vibration peak particle velocity from the blasting operations at the premises must not:

- Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
- Exceed 10mm/s at any time,

when measured at any point within 1 metre of any affected residential boundary or other noise sensitive location such as a school or hospital.

Operating conditions

O1. Odour

O 1.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

O1.2 No condition of this licence identifies a potentially offensive odour for the purpose of Section 129 of the Protection of the Environment Operations Act 1997.

O 2. Dust

O2.1 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O2.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O2.3 The premises must be maintained in a condition which minimises or prevent the emission of dust from the premises.

O3. Stormwater/sediment control - Construction Phase

O3.1 An *Soil and Water Management Plan (SWMP)* must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The *SWMP* should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).

O4. Stormwater/sediment control - Operation Phase

O4.1 A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be

consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* (available from the EPA).

O5. Bunding requirement

O5.1 All above ground storage facilities containing flammable and combustible liquid must be bunded in accordance with Australian Standards AS 1940-200.

O6. Waste Rock Management Plan

O6.1 The proponent must prepare and implement a Waste Rock Management Plan documenting procedures for the management of potentially Acid Forming Material to prevent pollution of water or groundwater and provide a copy to the EPA prior to commencement of operations.

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

M2 Requirement to Monitor Weather

M2.1 The licensee must monitor the parameter specified in Column 1. The licensee 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	Continuous	24 hour	AM - 4

M4. Testing methods concentration limits

M4.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or

if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or

if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any

methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Clean Air (Plant and Equipment) Regulation 1997 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".)

Reporting conditions

R1.1 The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

Mandatory Conditions for all EPA licences

Administrative conditions

Operating conditions

Activities must be carried out in a competent manner.

Licensed activities must be carried out in a competent manner.

This includes:

- the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

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.

Monitoring and recording conditions

Recording of pollution complaints

The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

The record must include details of the following:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

- a. Statement of Compliance; and
- b. Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Where this licence is transferred from the licensee to a new licensee:

- a. the transferring licensee must prepare an annual, return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b. the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on:

- a. in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b. in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load cannot be calculated

(Licences with assessable pollutants)

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

The notification must specify:

- a. the assessable pollutants for which the actual load could not be calculated; and
- b. the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a. the licence holder; or
- b. by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Written report

Where an authorised officer of the EPA suspects on reasonable grounds that:

- a. where this licence applies to premises, an event has occurred at the premises; or
- b. where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

The request may require a report which includes any or all of the following information:

- a. the cause, time and duration of the event;
- b. the type, volume and concentration of every pollutant discharged as a result of the event;
- c. the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- d. the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- g. any other relevant matters.

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

NSW DEPARTMENT OF PRIMARY INDUSTRY (WATER) GENERAL TERMS OF APPROVAL

B35. The general terms of approval, issued by the NSW DPI (Water) on the 24 June 2016 are reproduced below in their entirety, and are to be complied with for the duration of the consent.

General Terms of Approval – for works requiring a Work Approval under the Water Management Act 2000 (Excavation)

Our Reference
80 ERM2016/0455

Site Address

**Lot 10 (part), Lot 135 & 144 DP751315 and Lot 3 (part)
DP751342**

DA Number

DA2015/004

LGA

Bogan Shire Council

Number

Condition

Plans, standards and guidelines

1

These General Terms of Approval (GTA) only apply to activities constituting a work approval associated with the proposed excavation of an underground mine in relation to the interception and/or extraction of groundwater as conceptually defined in the documentation relating to DA2015/004

Any amendments or modifications to the proposed works may render these GTAs invalid. If the proposed activities are amended or modified DPI Water must be notified to determine if any variations to these GTA will be required.

2

Prior to the commencement of any works associated with groundwater interception and /or extraction for the Avoca Tank Project, the consent holder must obtain the necessary Work Approval/s under the *Water Management Act 2000* from DPI Water. In addition to the Work Approval for the excavation the proponent will be required to obtain adequate licensed entitlement in a Water Access Licence (WAL) commensurate with the anticipated volume of groundwater take prior to this take occurring.

3

The consent holder must prepare or commission the preparation of the following to be submitted with the Work Approval application:

4

(i) Groundwater Monitoring and Mitigation Plan

All plans and/or documents must be prepared by a suitably qualified person and submitted with the licence application to DPI Water for approval prior to any works commencing.

5

The consent holder must (i) carry out any works for the excavation in accordance with approved plans and (ii) construct and/or implement any works for the groundwater excavations by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to DPI Water.

Rehabilitation and maintenance

6

Rehabilitation and site management must be undertaken in accordance with a plan approved by DPI Water.

- 7 The licence holder must carry out any work or make any alterations deemed necessary by DPI Water, for the protection or proper maintenance of the works, or for the control of the water extracted or prevention of pollution of groundwater.
- 8 If a work is abandoned at any time, the approval holder must notify DPI Water that the work has been abandoned and seal off the aquifer by:
(a) Casing (lining) to the satisfaction of DPI Water; or
(b) Such other methods as agreed to or directed by DPI Water.
- 9 The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the DPI Water as required.
- 10 The licence holder must develop and implement a methodology to estimate the annual volume of Groundwater inflow (water budget), approved by DPI Water. Water budgets must be set and approved one month prior to the beginning of each water year to enable implementation.
- 11 An extraction measurement device must be installed and maintained on each extraction device (pump) used for extraction of water under this licence, and such devices must be of a type and standard, and must be maintained in a manner, which is acceptable to DPI Water.
- 12 The licence holder will provide DPI Water with an annual Compliance Report, to report on the results of the Groundwater Monitoring and Mitigation Plan within one month of the end of the water year.
- Drainage and Stormwater**
- 13 The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by DPI Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by DPI Water.
- 14 The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by DPI Water.
- Erosion control**
- 15 The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by DPI Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.
- Excavation**
- 16 The consent holder must ensure that no excavation is undertaken on waterfront land, and no groundwater interception is undertaken other than in accordance with a plan approved by DPI Water.
- 17 The consent holder must ensure that any excavation does not result in (i) bed or bank instability or (ii) damage to native vegetation within the area where a work approval has been authorised, other than in accordance with a plan approved by DPI Water.
- 18 The consent holder must prepare a works schedule plan depicting the location of the proposed underground mine and the order as to which extraction will occur.

END OF DPI (WATER) CONDITIONS

PART C ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

- C1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Bogan Shire Council. This strategy must:
- a) be submitted to the Bogan Shire Council for approval prior to the commencement of any construction works;
 - b) be prepared by a suitably qualified and experienced expert;
 - c) provide the strategic framework for environmental management of the development;
 - d) identify the statutory approvals that apply to the development;
 - e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - f) describe the procedures that would be implemented to:
 - (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - (ii) receive, handle, respond to, and record complaints;
 - (iii) resolve any disputes that may arise;
 - (iv) respond to any non-compliance;
 - (v) respond to emergencies; and
 - g) include the following environmental management plans:
 - (i) Aboriginal Heritage Management Plan
 - (ii) Historic Heritage Management Plan
 - (iii) Hydrocarbon Management Plan
 - (iv) Soil and Water Management Plan
 - (v) Pest Animal Management Plan
 - (vi) Weed Management Plan
 - (vii) Fauna Management Plan
 - (viii) Water Management Plan
 - (ix) Bush Fire Management Plan

Management Plan Requirements

- C2. The Applicant shall ensure that the management plans required under this consent are prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans (Department of Planning and Infrastructure 2004)* and include:
- a) detailed baseline data;
 - b) a description of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures/criteria;
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
 - c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - d) a program to monitor and report on the:
 - e) impacts and environmental performance of the development;
 - f) effectiveness of any management measures (see c above);
 - g) a contingency plan to manage any unpredicted impacts and their consequences;
 - h) a program to investigate and implement ways to improve the environmental performance of the development over time;
 - i) a protocol for managing and reporting any:
 - (i) incidents;
 - (ii) complaints;
 - (iii) non-compliances with statutory requirements; and
 - (iv) exceedances of the impact assessment criteria and/or performance criteria; and

- j) a protocol for periodic review of the plan.
- C3. A procedure is to be included in the Historic Heritage Management Plan specifically dealing with the unexpected identification of historic heritage items or relics during works and how these would be managed. This must also identify any approvals under the Heritage Act 1977 that may be required.

Annual Review

- C4. By the end of July each year, or other timing as may be agreed by Bogan Shire Council, the Applicant shall review the environmental performance of the development to the satisfaction of the Council. This review must:
- a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;
 - b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the;
 - (i) the relevant statutory requirements, limits or performance measures/criteria;
 - (ii) the monitoring results of previous years; and
 - (iii) the relevant predictions in the EIS;
 - c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - d) identify any trends in the monitoring data over the life of the development;
 - e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - f) describe what measures will be implemented over the next year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

- C5. Within 3 months of the submission of an:
- a) annual review under Condition C3 above;
 - b) incident report under Condition C7 below;
 - c) audit under Condition C8 below; or
 - d) any modification to the conditions of this consent,
- the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Bogan Shire Council.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

Community Consultative Committee

- C6. The Applicant shall establish and operate a new Community Consultative Committee (CCC) for the development to the satisfaction of Bogan Shire Council. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments* (Department of Planning, 2007, or its latest version), and be operating within 12 months of the date of this consent.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent; and*
- *The CCC should be comprised on an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

- C7. The Applicant shall notify, at the earliest opportunity, Bogan Shire Council and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the

environment. For any other incident associated with the development, the Applicant shall notify Bogan Shire Council and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide Bogan Shire Council and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

AUDITING

Independent Environmental Audit

- C8. Within 2 years of the date of this consent, and every 3 years thereafter, unless Council directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit. This audit must:
- a) be conducted by a suitably qualified, experienced and independent person(s) whose appointment has been endorsed by Bogan Shire Council;
 - b) include consultation with the relevant agencies;
 - c) assess the environmental performance of the development, and its effects on the surrounding environment
 - d) assess whether the development is complying with the relevant standards, performance measures and statutory requirements;
 - e) include a hazard audit of the development in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines*;
 - f) review the adequacy of any approved strategy, plan or program required under this consent; and
 - g) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under this consent.

Note: This audit team must be led by a suitably qualified auditor, and include experts in any other fields specified by Bogan Shire Council

- C9. Within 3 months of commissioning this audit, or as otherwise agreed by Bogan Shire Council, the Applicant shall submit a copy of the audit report to the Council, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

- C10. The Applicant shall:
- a) make the following information publicly available on its website:
 - (i) the documents referred to in Condition A2;
 - (ii) all current statutory approvals for the development;
 - (iii) all approved strategies, plans or programs required under the conditions of this consent;
 - (iv) a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - (v) a complaints register, updated on a monthly basis;
 - (vi) minutes of CCC meetings;
 - (vii) the annual reviews of the development;
 - (viii) any independent environmental audit, and the Applicant's response to the recommendations in any audit;
 - (ix) any other matter required by the Bogan Shire Council; and
 - b) keep this information up to date, to the satisfaction of Bogan Shire Council.