



Response to Submissions for the **Dargues Gold Mine**

Modification 4 MP10_0054

January 2019

Prepared by

R.W. CORKERY & CO. PTY. LIMITED



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Response to Submissions

for the

Dargues Gold Mine

Modification 4 MP10_0054

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1. INTRODUCTION

Big Island Mining Pty Ltd (the Proponent) submitted an application to modify Development Approval MP10_0054 (Proposed Modification or MOD4) for the Dargues Gold Mine (the Mine) on 3 December 2018. Development Approval MP10_0054 was transitioned from a Part 3A Project to a State Significant Development by an order in the NSW Gazette published on 23 November 2018. As a result, that application was made under Section 4.56 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The application was accompanied by a *Statement of Environmental Effects* prepared by R.W. Corkery and Co. Pty Limited (RWC) hereafter referred to as RWC (2018). MOD 4 proposes to:

- relocate the previously approved heavy vehicle crossing of Spring Creek approximately 400m upstream;
- reinstate a previously approved road from the Site Access Road to the Tailings Storage Facility; and
- update the Project's approval conditions to reflect the purchase of Lot 210, DP 755934 by Dargues Gold Mine Pty Ltd

The Proposed Modification was publicly exhibited by the Department of Planning and Environment's (DPE) from 5 December 2018 to 19 December 2018. During and immediately following that period the following submissions were received.

- Ten submissions from Government agencies.
- Two submissions supporting the Proposed Modification.
- Five individual submissions and one joint submission opposing the Proposed Modification.

This document has been prepared by RWC on behalf of the Proponent to provide a response to each of the submissions received. Where relevant, text extracted or paraphrased from individual submissions is presented in *italics*, with responses to issues raised provided in normal text.

2. GOVERNMENT AGENCY SUBMISSIONS

2.1 INTRODUCTION

During the exhibition period, submissions were received from the following government agencies (**Appendix 1**).

- Department of Planning & Environment – Division of Resources and Geoscience.
- Department of Planning & Environment – Resources Regulator.
- Environment Protection Authority.
- Roads and Maritime Service.
- Office of Environment and Heritage.
- Office of Environment and Heritage – Heritage Division

- Dam Safety Committee.
- Water NSW.
- Queanbeyan-Palerang Regional Council.
- Department of Industry – Lands and Water

2.2 DEPARTMENT OF PLANNING AND ENVIRONMENT - DIVISION OF RESOURCES AND GEOSCIENCE

[The Division] acknowledges that there are no proposed changes to the approved mining areas, ore processing rate, mine life or mining methods, and that there is also no change to the Dargues Reef Gold Mine ore resource/reserve.

The Division has determined that identified risks or opportunities can be effectively regulated through the conditions of the mining authorities issued under the Mining Act 1992 and therefore has no further comment at this time.

The Proponent acknowledges this submission and notes that no response is required.

2.3 DEPARTMENT OF PLANNING & ENVIRONMENT – RESOURCES REGULATOR

The Resources Regulator has determined that sustainable rehabilitation outcomes can be achieved as a result of the Modification, and that any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the Mining Act 1992.

The Mining Operations Plan for Dargues Gold Mine will need to be updated to incorporate changes associated with MOD 4 should it be approved.

The Proponent acknowledges this submission and the requirement to update the MOP.

2.4 ENVIRONMENT PROTECTION AUTHORITY

The EPA does not have any comments or recommended conditions in addition to the current project approval to provide on the Modification.

The Proponent acknowledges this submission and notes that no response is required.

2.5 ROADS AND MARITIME SERVICE

The RMS notes that the modifications are unlikely to impact the Kings Highway. RMS has no objections to the modifications in principle.

The Proponent acknowledges this submission and notes that no response is required.

2.6 OFFICE OF ENVIRONMENT AND HERITAGE

The submission from the Office of Environment and Heritage noted three matters for consideration as follows.

1. The modification and resulting offset requirement was not determined using the Biodiversity Assessment Method (BAM) as required by Section 7.17 of the *Biodiversity Conservation Act 2016* (BC Act).
2. The submission requested that the Proponent provide sufficient information to determine whether the modification will not increase the impact on biodiversity.
3. The submission noted that it was unclear as to whether the areas to be disturbed by the Proposed Modification had been the subject of archaeological surveys and whether Registered Aboriginal Parties had been consulted regarding the current modification.

Response

Item 1 – Use of BAM

Section 7.17(1) of the BC Act states that Part 7, Division 4 of the Act applies to modification to development consents granted after commencement of the Act. PA10_0054 was granted on 7 February 2012, prior to commencement of the BC Act. As a result, Section 7.17 of the BC Act does not apply to the Proposed Modification.

Notwithstanding the above, Section 7.17(2)(c) of the Act states that

“further biodiversity development assessment report is not required to be submitted if the authority or person determining the application for modification (or determining the environmental assessment requirements for the application) is satisfied that the modification will not increase the impact on biodiversity values”

The Proponent engaged EcoLogical Australia to assess the ecology-related impacts associated with the Proposed Modification. That assessment determined that a net reduction in impacts to biodiversity values will result from the Proposed Modification. As a result, the Proponent contends that an assessment using the BAM is not required for the Proposed Modification.

Item 2 - Level of detail provided in relation to proposed biodiversity impacts

An assessment of ecology-related impacts relating to the Proposed Modification was undertaken by EcoLogical Australia, presented as Appendix 3 of RWC (2018). A comparison of ecology-impacts associated with both the approved and the proposed Spring Creek Crossing, as well as a summary of the net ecological impact should the proposed changes to the Spring Creek Crossing be accepted, is presented in Table 8 of RWC (2018). In summary, the Proponent contends that the proposed Spring Creek Crossing would have a lower ecological impact compared to the approved crossing because the proposed crossing:

- is highly disturbed land and was previously used as a crossing, evidenced by a concrete ford present at the site;
- represents the shortest distance between the Processing Plant Area and Tailings Storage Facility; and
- would not require the removal of any mature native vegetation;

As a result, the impacts on biodiversity values, as described in Table 8 of RWC (2018) would result in a net reduction in impacts to biodiversity as a result of the Proposed Modification.

Furthermore, the Proponent contends that the reestablishment of the road connecting the Site Access Road and the Tailings Storage Facility would not result in additional ecological impacts as the road is an existing farm track and the necessary upgrade would only require minor works.

Item 3 – Aboriginal heritage

Three Aboriginal heritage Assessment reports and an Aboriginal Heritage Management Plan have been completed for the Project since 2010, as detailed in Section 4.6 of (RWC 2018). The effective archaeological survey coverage is the full extent of the Project Site, and as a result the Proponent contends that the areas of proposed disturbance for MOD 4 have been the subject of an archaeological survey.

No additional consultation was undertaken with Registered Aboriginal Parties concerning the current modification, as disturbance locations proposed in MOD 4 have previously been the subject of consultation and archaeological surveys.

As archaeological surveys have been conducted across all areas of proposed disturbance and Registered Aboriginal Parties have been consulted regarding the Project's initial approval and subsequent modifications, the Proponent contends that the Proposed Modification would not result in additional impacts to Aboriginal cultural heritage.

2.7 OFFICE OF ENVIRONMENT AND HERITAGE – HERITAGE DIVISION

The Heritage Division has no issues or concerns in relation to State Heritage Matters.

The Proponent acknowledges this submission and notes that no response is required.

2.8 DAM SAFETY COMMITTEE

As these proposed modifications do not impact the proposed tailings dam, the Dams Safety Committee has no comment on the modifications.

The Proponent acknowledges this submission and notes that no response is required.

2.9 WATER NSW

Water NSW notes that works associated with the Proposed Modification are outside Sydney Drinking Water Catchment and are therefore unlikely to impact on the water quality of the Sydney Drinking Water Catchment.

Water NSW requests that it remain as a stakeholder for the proposal, that it be consulted on any updates to relevant plans, and that it have further opportunities to comment on the Project as the assessment progresses if any works associated with the Project are located within the Sydney Drinking Water Catchment.

The Proponent acknowledges this submission and notes that no response is required. The Proponent notes Water NSW's request and will consult with the agency as required in the future.

2.10 QUEANBEYAN-PALERANG REGIONAL COUNCIL

Council wishes to advise that it has no objection to the proposed modification.

The Proponent acknowledges this submission and notes that no response is required.

2.11 DEPARTMENT OF INDUSTRY – LANDS AND WATER

The submission from the Department of Industry – Lands and Water noted the following matters for consideration.

DOI-Water and Natural Resources Access Regulator

Works should be conducted in accordance with the Natural Resources Access Regulator's Guidelines for Controlled Activities:

<https://www.industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities>

Surface water and groundwater monitoring triggers should be reviewed and the appropriate management plan/s updated to reflect any changes.

The Proponent acknowledges this submission and the requirement that works within waterfront land be conducted in accordance with the *Guidelines for Controlled Activities*.

Condition 4 of Schedule 5 of MP10_0054 required that all management plans be reviewed and, if required, revised within 3 months of granting of a modification to the approval. The Proponent anticipates that surface and groundwater monitoring triggers would be reviewed and revised, in consultation with DOI-Water and Natural Resources Access Regulator, at that time if required..

Crown Lands

All Crown Land and Crown Roads subject to Exploration Activities must be subject to an Access Arrangement issued under Section 141 of the Mining Act 1992, to be agreed and executed prior to any exploration activity taking place.

Crown Land within the Project Site is limited to Lot 193 DP 755934. That Lot was included within the approved Project Site in Modification 3 (MP10_0054) (RWC 2015). The Lot also falls within Exploration Licence (EL) 8372.

The Proponent acknowledges this submission and the requirement for an Access Agreement to be agreed and executed prior to any exploration taking place. The Proposed Modification does not include changes to exploration activities associated with the Project.

3. PUBLIC SUBMISSIONS

3.1 INTRODUCTION

This section provides a response to the public submissions received following the exhibition period. The following public submissions were received in relation to the Project (**Appendix 2**).

- Supporting submissions – two individual submissions from members of the general public or private companies supporting the Proposed Modification.
- Opposing submissions – five individual submissions and one joint submission from two people, for a total of seven members of the general public opposing the Proposed Modification.

3.2 SUBMISSIONS IN SUPPORT

Two submissions were received in support of the Proposed Modification. Those two submissions are reproduced in full below.

I support the proposed Modification, on both economic and environmental grounds.

David Lever, Member of Dargues Community Consultative Committee

Having worked with a previous mineral exploration company for five years largely on the current Dargues Gold Mine site and surrounding lands, I am very familiar with the landscape there. I speak with confidence from that knowledge and express my full support for the proposal to relocate the heavy vehicle crossing over spring creek.

The existing crossing has always caused problems mainly due to its location at the bottom of a large gully and tight turns on its approaches. The road also passes very close to old mine shafts and possible subsidence issues. Large volumes of water and sediment issue from the gully and flood over the road on the eastern side of the crossing at times of heavy rain and this has been known to close the road until repairs can be done. Not a good situation for operating a mine.

There are a number of advantages to be gained by relocating the crossing upstream.

- *Construction of the new crossing provides the opportunity to repair the gully and bring significant erosion problems under control*
- *The length of the haul road would be reduced by nearly 50% reducing fuel consumption and noise*
- *Reduction in vehicular generated dust*
- *Safer gradients and elimination of tight turns improves safety for vehicles*
- *Simpler construction than modifying the existing crossing*

I would urge those people tasked with deciding whether or not to approve the relocation of the crossing to rule in favour of the proposal. There are many advantages and few, if any disadvantages to the proposal.

Brian James, Majors Creek

3.3 SUBMISSIONS OPPOSED

A total of six submissions were received opposing the Proposed Modification. Due to the limited number of submissions and the diversity of issues raised, each submission has been responded to individually. Where submissions were brief, the entire submission has been reproduced. Where submissions were longer than a single paragraph, representative comments have been reproduced from those submissions.

3.3.1 Individual Submission 1

Representative Comment(s)

The proposed modification 4, and other decisions taken in relation to Dargues Reef Gold Mine, do not address risks associated with climate change. An assessment of risk from climate change is a requirement for significant developments. A reliance on historical climate conditions as a basis is no longer considered appropriate for current and future developments. Both physical risks and transition risks are relevant to decisions in Modification 4 and previous decisions made by the decision maker in relation to the Dargues Reef Mine.

...

That no consideration of the risks from climate change are assessed as a part of this anticipatory approach to potential impacts is inconsistent with the statutory requirement to take precautions to prevent damage occurring.

...

The principle of intergenerational equity requires the current generation make sure that the health, diversity and productivity of the environment continues for the benefit of future generations.

...

NARClm shows less recharge for groundwater is projected across much of NSW, especially in the south-east of the state, and the State of NSW is declared in drought. There is no evidence of climate variability and projected reduced groundwater recharge having been considered in the assessment for the water licenses for Dargues Mine.

The Dargues Mine and planning considerations has failed to consider the risks of ground water recharge, the flood impacts and potential loss of water, and water quality occasioned by the mining project. There is no assessment of management of projected restricted water availability.

Big Island Pty Limited (Dargues Reef Mine) has previously dealt with criminal offences when it polluted waters in breach of s120 of the Protection of the Environment Operations Act 1997. It was identified that Big Island Mining Pty Ltd could have avoided the pollution if “adequate controls had been adopted to capture and treat runoff onsite” during heavy rainfall events. Climate risk modelling and projections shows that heavy rainfall events and changes to surface runoff are reasonably foreseeable.

...

The proponent has failed to take account of ESD principles by failing to provide for the risk of climate change. Adaptation requires making adjustments to decisions and activities, in consideration of climate change, on order to manage risks and capture potential opportunities.

Kathleen Waddell, Araluen

Response

Climate Change

The Proponent notes that the current application is required to assess additional impacts associated with the proposed modified activities, not undertake an assessment of the Project as a whole. The matters raised by Ms Waddell relate to climate change, a global and national issue. The proposed activities, by contrast, are minor adjustments to an already approved Project. As a result, the Proponent contends that the matters raised are not relevant to the Proposed Modification.

Notwithstanding the above and acknowledging the significance of climate change to both Ms Waddell and the community in general, the Proponent notes that the issue was addressed in Sections 4.8.5 and 5.2.26 of the *Response to Submissions* for the original application. It was noted in that document that the Project, consisting of a 5 year mining operation (increased to 6 years in Modification 3) followed by site rehabilitation and decommissioning, would span a relatively brief period. In contrast, climate change is likely to result in a gradual change in climate patterns over periods spanning decades to centuries.

Water

The Proponent notes that the proposed modified Spring Creek Crossing has been designed to comply with all relevant requirements outlined in the following guidelines.

- *Guidelines for watercourse crossings on waterfront land*, published by Office of Water in July 2012
- *Why do fish need to cross the road? Fish passage requirements for waterway crossings*, published by Fisheries NSW in 2003
- Relevant Australian and other standards.

The proposed crossing would also meet design criteria including the installation of surface water controls in line with a detailed and staged *Sediment and Erosion Control Plan* prepared in accordance with Managing Urban Stormwater Volumes 1 and 2C (Landcom 2004 and DECC 2008a). Additionally, the Proposed Modification would include the implementation of the following management and mitigation measures as outlined in Section 4.5.3 RWC (2018).

- Ensure that best-practice erosion and sediment control measures as identified in Landcom (2004) and DECC (2008a and 2008b) are implemented during the construction and operation of Spring Creek Crossing.
- Implement a self-auditing program at least weekly and retain a log of inspections identifying the performance of design features, general erosion and drainage conditions.
- Ensure that adaptive environmental management practices are implemented in the event that monitoring or site inspections identify potential or actual impacts to the surrounding surface water environment.

The Proponent contends that the proposed Spring Creek Crossing, designed in accordance with relevant guidelines and subject to ongoing inspections and adaptive environmental management practices, adequately anticipates and addresses potential risks to the water quality and structure of Spring Creek.

The Proposed Modification does not include any alterations to approved Project water supply, water access licenses, or water use during Project operation.

Ecologically Sustainable Development

With regard to the principle of inter-generational equity, the approved Project ensures that inter-generational equity is maintained through commitments to the establishment of a final landform that would be stable, non-polluting, self-sustaining and suitable for a final land use of nature conservation and agriculture. RWC (2018) states that the Spring Creek Crossing would remain following the completion of the project. The Proponent contends that retaining the Spring Creek Crossing following site decommissioning would improve inter-generational equity, as the crossing would facilitate future access to the site for agricultural use.

Prior Environmental Performance

The Proponent acknowledges that it previously did not manage erosion and sediment controls adequately during the initial stages of the Project and that sediment-laden water was discharged from the Project Site. This matter has been dealt with by the Land and Environment Court, and the outcome was well publicised. The Proponent subsequently invested significant resources in managing environmental matters within the Project Site since that date in light of the failures which resulted in the aforementioned discharges. In addition, control of the Project is now under a new management team. Having taken appropriate action regarding acknowledged past failures, the Proponent rejects the assertion that it is unable to manage environmental issues within the project Site.

3.3.2 Joint Submission 2

Representative Comment(s)

The additional modification is an example of cumulative development creep that is occurring in major developments in NSW such as Barangaroo.

Dargues Reef Gold Mine development was not well thought out from conception – yet the proponent can manipulate the planning processes to refine its objectives, push back its critics and simultaneously expand its operation.

The additional land purchase and inclusion into the project's schedule of land is an expansion of the project area. There is no detail of the additional land area size or indication of future purpose.

...

The recent breach of the tailings dam wall at Cadia gold mine earlier this year demonstrates that modern risk mitigation is not foolproof.

...

The mine will continue to take more without giving anything of comparable value in return, except irreversible damage that will be its legacy.

Sky and Jakub Mazurkiewicz, Charleys Forest

Response

Development Creep

The Proponent notes that with time, better or more efficient ways of undertaking projects are identified that can result in less impact to the environment. In addition, many other factors may require modifications to development consents of all types. As a result, the EP&A Act incorporates procedures to permit such modifications. The requirement that such modifications be “substantially the same” as the development as originally approved provides adequate protection from development creep as described by Mr and Mrs Mazurkiewicz.

In the present case, the Proponent contends that the Proposed Modification is substantially the same development as that originally approved.

Additional Land

The Proposed Modification simply seeks to update the Project Approval with the changed ownership of Lot 210, DP 755934. That land is currently already part of the Project Site and does not reflect “additional land.”

Tailings Storage Facility

The current modification does not include any alterations to the construction or operation of the approved Tailings Storage Facility. As a result, comments in relation to the approved Facility are not relevant to this application

Notwithstanding this, the Proponent notes that the approved Tailings Storage Facility has been designed and will be constructed in accordance with the requirements set out in the following guidelines.

- Dams Safety Committee of New South Wales – DSC3A – Consequence Categories for Dams
- Dams Safety Committee of New South Wales – DSC3F – tailings Dams
- Australian National Committee on Large Dams (ANCOLD) – Guidelines on the Consequence Categories for Dams

As a result, the Proponent contends that the approved Tailings Storage facility would be in line with the above guidelines and that the risk of catastrophic failure would be unchanged from the approved Project.

Benefits of the Project

With regards to the contribution of the approved Project to the community, direct socio-economic benefits to the local and regional community are outlined in Section 5.2.3 of RWC (2018). These include direct employment for 120 full-time equivalent positions during site establishment and 100 full-time equivalent positions during site operation, a contribution of \$6 million to \$10 million per year to the local and regional economy through wages and purchases of local goods and services, approximately \$10 million to \$31 million per year to State and national economy through purchases of goods and services, and approximately \$1 million to \$8 million per year to local, State and national governments through the payment of rates, taxes and royalties. The Proponent notes that these contributions would not be altered by the proposals included within Modification 4.

Finally, the Proponent contends that the legacy of the Project will not be one of irreversible damage to the environment but rather the approved site rehabilitation and decommissioning activities would ensure that the final landform will be stable, non-polluting, self-sustaining and suitable for a final land use of nature conservation and agriculture. Final landform and land capability for the Project Site are shown in Figure 9 of RWC (2018). The Proposed Modification would only alter the final landform for the Spring Creek Crossing, with the crossing to remain following the completion of the Project to facilitate access for subsequent agricultural use. The Proponent has committed to preparing an amended Mining Operation Plan to reflect the revised Project Site layout should the Proposed Modification be approved.

3.3.3 Individual Submission 3

Representative Comment(s)

I am concerned and alarmed that the modification proposes to move an internal road further upstream and no visual analysis has been done regarding the higher location of the road and therefore the potential effect on the village of Majors Creek that sits lower than the road crossing site. This road will carry trucks 24/7 to load and unload and the potential impact of light spill over neighbouring properties should be an issue that is addressed more thoroughly than it has been in the supporting documents to this modification. Section 4.11 which deals with the potential visual impact of the modification is very light on, with motherhood statements about existing landform and does not address in any way the raising of the road and the potential impact on adjoining properties.

Name Withheld, Braidwood

Response

In relation to the visual impacts associated with vehicle movements along the proposed Spring Creek Crossing, the Proponent contends that:

- movement of the crossing approximately 400m upstream would significantly shorten the crossing compared to the approved Spring Creek Crossing;
- views of the Project Site from areas of lower elevation to the south are largely obscured by vegetation; and
- the location of the proposed crossing is in a valley and that neither the proposed nor the approved crossing would be visible.

Hence, the Proponent contends that the Proposed Modification would result in negligible impacts upon visual and night-time amenity if indeed there were any. Views of the proposed Spring Creek Crossing are provided in Plates 13-16 of RWC (2018).

3.3.4 Individual Submission 4

Representative Comment(s)

I object very strongly to mining on the reef. I cannot believe we still have to say this is not OK. This government is destroying our country, our water, our air, our rare animals, our soils and our future for our children and grandchildren.

Nobody asked me if I agree about Adani and big coal or Coal Seam gas. Nobody consults us. Listen to the children. They have to live with the mess we are going to leave them. Can't we stop the mindless blind greed for a few minutes and think about what we are actually doing to this planet?

Name Withheld, Unknown

Response

The Proponent notes this objection but rejects the association of the Proposed Modification with Adani Group enterprises, 'big coal', and coal seam gas projects. The Proponent notes that there is nothing substantive to respond to in this submission.

3.3.5 Individual Submission 5

Representative Comment(s)

The represented modifications covering the impact to health, eco systems and groundwater are still not acceptable. They have whittled away protections required by the Land and Environment Court outlined in 2012.

I repeat that the potential to contaminate the regional water supply is unacceptable. The stone fruit producers produce food but gold is one molecule off lead, and a fat bank balance is of no practical use without food to buy.

M. Pearce

Response

The Proponent notes that the current modification would not involve disturbance of groundwater resource and therefore potential impacts to those resources would be negligible. The Proponent further notes that the current modification does not propose alterations with the potential to impact upon human health, with the current modification consequently not being classified as a Hazardous and Offensive Development under *State Environmental Planning Policy No. 33*. With regards to impacts upon ecosystems, the proposed Spring Creek Crossing would have a reduced ecological impact compared to the approved crossing as the new crossing would be located on land which is already highly disturbed, would not require the removal of any mature native vegetation, and would reduce impacts on native dominant pasture due to reduced route distance. Additionally, the reestablishment of the access track between the Site Access Road and the Tailings Storage Facility would not result in additional ecological impacts as the track is an existing farm track and would only require minor works to upgrade.

The Proponent contends that the Proposed Modification is "substantially the same development" as that originally approved and rejects the comments re "whittled away protections" in the original NSW Land and Environment Court approval.

3.3.6 Individual Submission 6

Representative Comment(s)

When first I received this letter, I just threw it in the bin, thinking 'what's the point?, the decision's already been made by vested interests higher up anyway'...

But then I thought: 'No, add your voice...'

So I want to quote from an old American Indian Chief...

'When the last tree has been cut down,'

'When the last river has been polluted,

Only then will men realise that you can't eat money'

Claire Thompson

Response

The Proponent notes this objection but there is nothing substantive to respond to in this submission.

4. REFERENCES

- Australian National Committee on large Dams (ANCOLD) (2012).** *Guidelines on the Consequence Categories for Dams*, October 2012.
- Dams Safety Committee (2010).** *DSC3A – Consequence Categories for Dams*, June 2010.
- Dams Safety Committee (2012).** *DSC3F – Tailings Dams*, June 2012.
- Department of Environment and Climate Change (DECC) (2008a).** *Managing Urban Stormwater – Soils and Construction – Volume 2C Unsealed Roads*.
- Department of Environment and Climate Change (DECC) (2008b).** *Managing Urban Stormwater – Soils and Construction – Volume 2E Mines and Quarries*.
- Department of Primary Industries – Office of Water (2012).** *Guidelines for watercourse crossings on waterfront land*, July 2012.
- Landcom (2004).** *Managing Urban Stormwater – Volume 1*.
- NSW Fisheries (2003).** *Why do fish need to cross the road? Fish passage requirements for waterway crossings*, January 2003.
- R.W. Corkery & Co. Pty Limited (RWC) (2018).** *Statement of Environmental Effects for the Dargues Gold Mine – Modification 4*, November 2018.
- R.W. Corkery & Co. Pty Limited (RWC) (2015).** *Environmental Assessment for the Dargues Gold Mine – Modification 3*, July 2015.

Appendices

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Appendix 1 Government Agency Submissions (14 pages)

Appendix 2 Public Submissions (12 pages)

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Appendix 1

Government Agency Submissions

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Planning &
Environment

DOC18/978974

Dr Mandana Mazaheri
Senior Environmental Assessment Officer
Resource Assessments - Planning Services Division
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

mandana.mazaheri@planning.nsw.gov.au

Dear Mandana

Re: Dargues Reef Gold Mine – Modification 4 – Review of Statement of Environmental Effects
Dev Ref: 10_0054 MOD4

I refer to your email dated 4 December 2018 inviting the Division of Resources & Geoscience (the Division) to provide comments on the Dargues Reef Gold Mine – Modification 4 (the Project) submitted by R.W. Corkery & Co. Pty Limited on behalf of Big Island Mining Pty Ltd (the Proponent).

The relevant units internal to the Division have been consulted where required in generating this advice. Further, the Department of Planning and Environment - Planning Services Division and the Proponent should be aware that matters pertaining to rehabilitation, final landform, environmental impacts of subsidence, subsidence management, mine operator and safety are not or not currently assessed by the Division and recommendations should be sought from the Resources Regulator.

The Division has reviewed the information supplied in relation to the abovementioned Project and acknowledges that there are no proposed changes to the approved mining areas, ore processing rate, mine life or mining methods. There is also no change to the Dargues Reef Gold Mine ore resource/reserve.

The Division has determined that identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992* therefore has no further comments at this time.

For further enquiries regarding this matter please contact the Assessment Coordination Unit on 02 4063 6534 or assessment.coordination@planning.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Banister'.

Mr Adam Banister
A/Manager Assessment Coordination
Division of Resources & Geoscience
18 December 2018

for
Dr David Blackmore
A/Executive Director Resource Operations
Division of Resources & Geoscience

NSW Department of Planning and Environment
Division of Resources & Geoscience – Resource Operations – Assessment Coordination Unit
516 High St Maitland NSW 2320 | PO Box 344 Hunter Region Mail Centre NSW 2310
Tel: (02) 4063 6534 Fax: (02) 4063 6974 Email: assessment.coordination@planning.nsw.gov.au
www.resourcesandgeoscience.nsw.gov.au
ABN 38 755 709 681





Our Ref: MCV18/1471
DOC18/989003

Mandana Mazaheri
Senior Environmental Assessment Officer
Resource & Energy Assessments
Planning Services
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

By email: Mandana.Mazaheri@planning.nsw.gov.au

Dargues Reef Gold Mine – MOD 4: Review of Statement of Environmental Effects (SEE)

Dear Mandana,

I refer to the Department of Planning and Environment – Resources Assessments (DPE – Resources & Assessment) email dated 4 December 2018 inviting the Resources Regulator to provide advice regarding the Statement of Environmental Effects (SEE) for Project **Dargues Reef Gold Mine MOD 4**.

Development Details

The Dargues Gold Mine is an underground mine located at Majors Creek, approximately 13 kilometres south of Braidwood, NSW. The Dargues Reef Gold Mine MOD 4 proposes the following modifications:

- Relocation of the approved heavy vehicle crossing of Spring Creek approximately 400m upstream.
- Reinstatement of the previously approved road that from the Site Access Road to the Tailings Storage Facility.
- An update to the Project's approval conditions (Appendix 1 – Schedule of Land) to reflect the purchase of Lot 210, DP 755934 by Dargues Gold Mine Pty Ltd from B & C James (see Section 2.4).

Environment and Rehabilitation

The Compliance Operations unit within the Resources Regulator has responsibility for providing strategic advice for environmental issues pertaining to the proposed project in so far as they relate to or affect rehabilitation.

The Resource Regulator has determined that sustainable rehabilitation outcomes can be achieved as a result of the Modification, and that any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992*.

The Mining Operations Plan for Dargues Gold Mine will need to be updated to incorporate changes associated with MOD 4 should it be approved.

Resources Regulator
516 High Street MAITLAND NSW 2320 Australia | PO Box 344 HRMC NSW 2310 Australia
Tel: +61 2 4931 6666



For enquiries regarding this matter please contact Inspector Chris Hammersley on (02) 4276 7425 or minres.environment@planning.nsw.gov.au

Yours sincerely



David Humphris
Principal Compliance Officer

On behalf of
Matthew Newton
Director Compliance Operations
Resources Regulator
NSW Department of Planning and Environment

20 December 2018



DOC18/974532

Mandana Mazaheri
Senior Environmental Assessment Officer
Resource and Energy Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mandana,

Dargues Gold Mine Project MOD 4 (MP 10_0054)

I refer to the Department of Planning and Environment (DPE) email of 4 December 2018 advising that Big Island Mining Pty Ltd (the applicant) has submitted a modification application for the Dargues Reef Gold Mine, which was placed on public exhibition from 5 December 2018 to 19 December 2018.

The NSW Environment Protection Authority (EPA) has reviewed the application and relevant Statement of Environmental Effects for the proposed modification. The EPA does not have any comments or recommended conditions in addition to the current project approval to provide on the modification.

Thank you for discussing this matter with the EPA. If you have any queries or wish to discuss these matters further, please contact Carlie Armstrong or myself on (02) 6229 7002

Yours Sincerley,

A handwritten signature in black ink, appearing to read 'Matthew Rizzuto'.

17.12.2018

MATTHEW RIZZUTO
Unit Head – South East Region
NSW Environment Protection Authority

Phone 131 555
Phone +61 2 6229 7002

Fax +61 2 6229 7001
TTY 133 677
ABN 43 692 285 758

PO Box 622
Queanbeyan
NSW 2620 Australia

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11 Farrer Place
Queanbeyan NSW
2620 Australia

queanbeyan@epa.nsw.gov.au
www.epa.nsw.gov.au



Our ref: STH10/00060
Contact: Rebecca Reedman 4221 2423
Your ref: 10_0054 MOD 4

18 December 2018

Mandana Mazaheri
Department Planning & Environment
BY EMAIL: Mandana.Mazaheri@planning.nsw.gov.au

DARGUES REEF GOLD MINE MOD 4

Dear Madam,

Roads and Maritime Services (RMS) refers to your correspondence dated 4th December regarding the subject modification application.

RMS has completed an assessment of the development, based on the information provided and focussing on the impact to the state road network. RMS notes for this application the key state road is Kings Highway.

RMS notes the modifications are unlikely to impact the Kings Highway. RMS has no objections to the modifications in principle.

If you have any questions please contact Rebecca on 4221 2423.

Please ensure that any further email correspondence is sent to development.southern@rms.nsw.gov.au.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Chris Millet', is written over a horizontal line.

Chris Millet
Manager Land Use
Southern Region

rms.nsw.gov.au

1



Office of Environment & Heritage

10_0054 MOD 4
DOC18/938066-3

Mandana Mazaheri
Resource & Energy Assessments
320 Pitt Street, GPO Box 39
Sydney NSW 2001
Mandana.mazaheri@planning.nsw.gov.au

RE: Modification Application for Dargues Reef Gold Mine (10_0054 MOD 4)

As requested, we have reviewed Dargues Reef Gold Mine fourth Modification Application (Mod 4) and advise the following:

The impact of the modification and the resulting offset requirement was not determined using the Biodiversity Assessment Method (BAM) as required by section 7.17 of the *Biodiversity Conservation Act 2016*.

There are savings provisions that allow SSD modification applications to be considered under the previous legislation but only if:

- substantial environmental assessment was undertaken before 25 August 2017 (as determined in writing by the Secretary of the Department of Planning and Environment) and the application is made within 18 months of the Secretary's determination, or
- environmental assessment requirements were issued before 25 August 2017 and the application is made before 25 February 2019. If the environmental assessment requirements are reissued, the application must instead be made within 18 months of the reissue, but no later than 24 August 2020.
- if the authority or person determining the application for modification (or determining the environmental assessment requirements for the application) is satisfied that the modification will not increase the impact on biodiversity values.

Biodiversity:

The SEE states that this modification is different and less impact from the previous modification. However, it does not provide any information to validate this statement. We therefore recommend the proponent be required to provide sufficient information to determine whether the modification will not increase the impact on biodiversity values.

Aboriginal cultural heritage

We note no new archaeological assessment has been undertaken to survey the proposed modification works and it is not clear from the previous 2010 assessment whether the area proposed for the modification works was ever surveyed or assessed. OEH cannot comment on any possible impacts to Aboriginal cultural values as no information has been supplied regarding whether the Registered Aboriginal Parties have been consulted as part of the modification. Given the lack of information supplied in the Statement of Environmental

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ABN 30 841 387 271
www.environment.nsw.gov.au



Effects OEH is not satisfied that the modification will not increase the impact on Aboriginal cultural values.

Please do not hesitate to contact me if you would like to discuss the OEH comments.

Yours sincerely,



18.12.2018

MICHAEL SAXON
Director – South East
Conservation and Regional Delivery

From: Adrian Hohenzollern
Sent: Friday, 7 December 2018 2:50 PM
To: Mandana Mazaheri
Subject: RE: Dargues Reef Gold Mine Mod 4 - Exhibition

Hi Mandana

Thanks for the referral,

I've had a look at the documents, the Heritage Division has no issues or concerns in relation to State Heritage matters. Please note, DPE does not need to refer this project (including any future modifications) to the Heritage Council (i.e Heritage Division), however other Divisions of OEH may respond separately in relation to Aboriginal Cultural Heritage.

Kind regards
Adrian

Adrian Hohenzollern
Senior Team Leader

Customer Strategies, Heritage Division
Office of Environment and Heritage
Locked Bag 5020 PARRAMATTA NSW 2124
Level 6, [10 Valentine Ave, PARRAMATTA NSW 2150](#)
T: 02 9860 1505 E: adrian.hohenzollern@environment.nsw.gov.au
W www.environment.nsw.gov.au | www.environment.nsw.gov.au/cultureandheritage.htm



**Dams Safety
Committee**

14th December, 2018

Mandana Mazaheri,
Senior Environmental Assessment Officer
Planning Services,
Department of Planning & Environment
GPO Box 39
Sydney NSW, 2001

Our ref: 10.121.046

Your ref: 10_0054 MOD 4

Dear Mandana,

Dargues Reef Gold Project (10_0054) MOD 4

DSC has reviewed the Statement of Environmental Effects for the Dargues Reef Gold Project (MP 10_0054) MOD 4 and has the following comments. The Project involves the proposed construction of a large Tailings Storage Facility to be known as the Dargues Reef Gold Project Tailings Dam. This dam has been 'prescribed' by the Dams Safety Committee of NSW. The proposed dam is designed to be 30m in height and have a storage volume of 640m. The dam is designed to be constructed as an Earthfill Dam, and will be classified as High C in the event of failure.

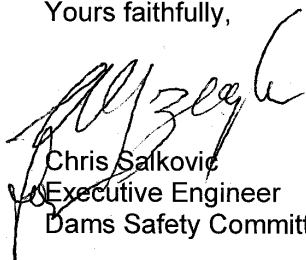
The Proposed Modification includes:

- Relocation of the approved heavy vehicle crossing of Spring Creek approximately 400m upstream; and
- Updating the projects schedule of land

As these proposed modifications do not impact the proposed tailings dam, the Dams Safety Committee has no comment on the modifications.

Further queries should be directed to Bill Ziegler at the DSC. Bill can be contacted at bill.ziegler@damsafety.nsw.gov.au or on 98428077.

Yours faithfully,



Chris Salkovic
Executive Engineer
Dams Safety Committee

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Postal: NSW Dams Safety Committee
Locked Bag 5123
Parramatta NSW 2124
Australia

Address:
Level 11
10 Valentine Avenue
Parramatta NSW 2150

Phone: (02) 9842 8073
http: www.damsafety.nsw.gov.au
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PO Box 398, Parramatta NSW 2124
Level 14, 169 Macquarie Street
Parramatta NSW 2150
www.watarnsw.com.au
ABN 21 147 934 787

17 December 2018

Contact: *Juri Jung*
Telephone: *98652503*
Our ref: *D2018/137941*

Mandana Mazaheri
Senior Environmental Assessment Officer
Resource and Energy Assessments | Planning Services
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Dr. Mazaheri

Dargues Reef Gold Project MOD4 (10-0054 MOD4)
Response to SEE

I refer to your email received 4 December 2018 requesting Water NSW's comments on the above modification application. Water NSW appreciates the opportunity and offers the following comments for consideration.

Water NSW has reviewed the Statement of Environmental Effects (SEE) and noted the modification involves:

- relocation of the approved heavy vehicle crossing of Spring Creek, and
- reinstatement of the previously approved access track to the Tailings Storage Facility.

Water NSW notes that all the proposed works are outside Sydney Drinking Water Catchment (SDWC), and therefore, they are unlikely to impact on the water quality of the SDWC.

It is requested that Water NSW remain as a stakeholder for the proposal and be consulted on any updates to relevant plans. Water NSW would appreciate having further opportunity to comment on this project as the assessment progresses, if any works associated with the project are located within the SDWC.

If you wish to discuss this letter further please contact Juri Jung on 9865 2503.

Yours sincerely

A handwritten signature in black ink that reads "Malcolm Hughes".

MALCOLM HUGHES
Manager Catchment Protection

From: Mandana Mazaheri <Mandana.Mazaheri@planning.nsw.gov.au>
Sent: Tuesday, 22 January, 2019 11:44 AM
To: James Dornan
Cc: Steve O'Donoghue; Phillipa Duncan; Gordon Barnes
Subject: FW: Dargues Reef Gold Mine Mod 4 - Exhibition

Hi James,

Please see the below response from the Queanbeyan-Palerang Regional Council.

The Department has not received a submission from Eurobodalla Shire Council.

Kind regards,

Mandana

Mandana Mazaheri, PhD

Senior Environmental Assessment Officer | Resource & Energy Assessments | Planning Services
320 Pitt Street | GPO Box 39 | Sydney NSW 2001
T 02 9995 5093 | E Mandana.Mazaheri@planning.nsw.gov.au



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From: Luke Perkins <luke.perkins@qprc.nsw.gov.au>
Sent: Tuesday, 22 January 2019 10:41 AM
To: Mandana Mazaheri <Mandana.Mazaheri@planning.nsw.gov.au>
Subject: RE: Dargues Reef Gold Mine Mod 4 - Exhibition

Dear Mandana,

Council wishes to advise that it has no objection to the proposed modification.

Regards,

Luke Perkins
Planning Team Leader

Queanbeyan-Palerang Regional Council
Tel: 02 6238 8111
Office: 10 Majara Street, Bungendore
Web: www.qprc.nsw.gov.au
Mail: PO Box 90, Queanbeyan NSW 2620



Department of Industry

OUT18/19137

Mandana Mazaheri, PhD
Senior Environmental Assessment Officer
Resource & Energy Assessments
NSW Department of Planning and Environment

Mandana.Mazaheri@planning.nsw.gov.au

Dear Ms Mandana

Dargues Reef Gold Mine (10_0054) Modification 4 Statement of Environmental Effects

I refer to your email of 4 December 2018 to the Department of Industry (DoI) in respect to the above matter. Comment has been sought from relevant branches of Lands & Water and Department of Primary Industries. Any further referrals to Department of Industry can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

The department provides the following comments and recommendations for consideration in assessment of the proposal.

DoI -- Water and Natural Resources Access Regulator

- Works should be conducted in accordance with the Natural Resources Access Regulator's Guidelines for Controlled Activities:
<https://www.industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities>
- Surface water and groundwater monitoring triggers should be reviewed and the appropriate management plan/s updated to reflect any changes.

DoI Crown Lands

- Crown Land and Crown Roads subject to the Project Approval Area require any existing or proposed occupation to be authorized under the *Crown Land Management Act 2016* or *Roads Act 1993*.
- The exceptions to the above condition apply where:
 - a) The Crown Land and Crown Roads are located within a Mining Lease. All Crown Land and Crown Roads within a Mining Lease must be subject to a Compensation Agreement issued under Section 265 of the *Mining Act 1992*, to be agreed and executed prior to any mining activity taking place and within 12 months of Project/Modification Approval. The Compensation Agreement may include conditions requiring the Mining Lease Holder to purchase Crown Land impacted on by mining activity.
 - b) The Crown Land and Crown Roads are located within an Exploration Licence. All Crown Land and Crown Roads subject to Exploration Activities must be subject to an Access Arrangement issued under Section 141 of the *Mining Act 1992*, to be agreed and executed prior to any exploration activity taking place.

NSW Department of Industry Lands and Water Division
Level 49 | 19 Martin Place | Sydney NSW 2000
landuse.enquiries@dpi.nsw.gov.au ABN: 72 189 919 072



RESPONSE TO SUBMISSIONS

Report No. 752/48

BIG ISLAND MINING PTY LTD

Dargues Gold Mine

Yours sincerely



Cassandra Cosgrove
Director Cabinet and Legislation Services
Lands and Water - Strategy and Policy
14 January 2019



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Appendix 2

Public Submissions

(Total No. of pages including blank pages = 12)

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David Lever, of **Araluen NSW**, made the following submission on the project:
Dargues Reef Gold Mine (Mod 4)

Supports this project



I support the proposed Modification, on both economic and environmental grounds.

David Lever, M. Env. Studies (University of Adelaide), member of the Dargues Community Consultative Committee

(Name withheld), of **Majors Creek NSW**, made the following submission on the project:
Dargues Reef Gold Mine (Mod 4)

Supports this project



Submission in relation to Big Island Mining Pty Ltd's Proposal to relocate the Heavy Vehicle Crossing over Spring Creek - Outlined in Document No: DGM - 04020207 - BGP MOD4

Having worked with a previous mineral exploration company for five years largely on the current Dargues Gold Mine site and surrounding lands, I am very familiar with the landscape there. I speak with confidence from that knowledge and express my full support for the proposal to relocate the heavy vehicle crossing over spring creek. The existing crossing has always caused problems due mainly to its location at the bottom of a large gully and tight turns on its approaches. The road also passes very close to old mine shafts and possible subsidence issues. Large volumes of water and sediment issue from the gully and flood over the road on the eastern side of the crossing at times of heavy rain and this has been known to close the road until repairs can be done. Not a good situation for an operating mine.

There are a number of advantages to be gained by relocating the crossing upstream.

- * construction of the new crossing provides the opportunity to repair the gully and bring significant erosion problems under control
- * the length of the haul road would be reduced by nearly 50% reducing fuel consumption and noise
- * reduction in vehicular generated dust
- * safer gradients and elimination of tight turns improves safety for vehicles
- * simpler construction than modifying the existing crossing

I would urge those people tasked with deciding whether or not to approve the relocation of the crossing to rule in favour of the proposal. There are many advantages and few, if any disadvantages to the proposal.

Brian James
100 Cawthornes Lane, Majors Creek, NSW 2622.
Ph: 02 4846 1044 Mob: 0429 461 567 E: bcj@activ8.net.au

Dargues Gold Mine- Modification 4

Big Island Mining Pty Ltd: Dargues Gold Mine – Modification 4

The proposed Modification 4 would relocate the approved heavy vehicle crossing of Spring Creek approximately 400m upstream.

The proposed Modification 4, and other decisions taken in relation to the Dargues Reef Gold Mine, do not address risks associated with climate change. An assessment of risk from climate change is a requirement for significant developments. A reliance on historical climate conditions as a basis is no longer considered appropriate for current and future developments. Both physical risks and transition risks are relevant to decisions in Modification 4 and previous decisions made by the decision maker in relation to the Dargues Reef Mine.

Infrastructure may be directly affected by the physical effects of climate change (e.g. people and assets such as roads, buildings and equipment may be vulnerable to extreme weather events) as well as by transition risks that occur in the process of adjusting towards climate change environments. There is no consideration of climate change, flooding impacts, compensatory water and risks to water supply for farmers and other users in the region. The original application, subsequent modifications and this Modification 4 application have not considered climate change impacts. Company directors are also required to consider climate risk as a reasonably foreseeable risk.

The Modification 4 Statement of Environmental Effects¹ refers to four principles of ecologically sustainable development (ESD). The *Environment Protection and Biodiversity Conservation Act 1999*² (EPBC Act) at Section 3A provides the following are the principles of ecologically sustainable development:

3A Principles of ecologically sustainable development

The following principles are *principles of ecologically sustainable development*:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- (e) improved valuation, pricing and incentive mechanisms should be promoted.

The assessment of a development's merits requires consideration of the public interest under section 4.15 (previously 79C) of the *Environmental Planning and Assessment Act 1979* (EPA Act).³ The decision maker is required to consider the

¹ Paragraph 5.1.2 of the Modification 4 Statement of Environmental Effects.

² <https://www.legislation.gov.au/Details/C2018C00440>

³ <https://www.legislation.nsw.gov.au/#/view/act/1979/203/part4/div4.3/sec4.15> previously section 79C *Environmental Planning and Assessment Act 1979*.

Dargues Gold Mine- Modification 4

likely impacts of that development, including environmental impacts on both the natural and built environments, the social and economic impacts in the locality, and the public interest. Considering the public interest for projects such as a gold mine, and subsequent infrastructure development related to the mine, mandates the consideration of principles of ESD, particularly intergenerational equity and the precautionary principle. Weighing up the private good against the public good is part of that consideration.

The precautionary principle requires that where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.⁴ If there are uncertainties about potential environmental damage that may be caused by development activities, it is necessary to take precautions to prevent damage occurring.

The Proposed Modification, says "the Proponent and its consultants have, by undertaking an appropriate level of research and baseline investigations and environmental evaluation, adopted an anticipatory approach to potential impacts. The controls, safeguards and/or mitigation measures have therefore been planned with a comprehensive knowledge of the existing environment and the potential risk of environmental degradation posed by the Proposed Modification."⁵ That no consideration of the risks from climate change are assessed as a part of this anticipatory approach to potential impacts is inconsistent with the statutory requirement to take precautions to prevent damage occurring.

The principle of intergenerational equity⁶ requires the current generation make sure that the health, diversity and productivity of the environment continues for the benefit of future generations. The EPBC Act⁷ also requires decision-making processes effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.

In the application of the precautionary principle, public and private decisions are to be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and an assessment of the risk- weighted consequences of various options.

Water Supply and Water Access Licence

In relation to water licences for the Dargues Mine, all water supply licences come under the *Water Sharing Plan for the South Coast Groundwater Sources 2016*⁸ and the water source for all licences is the Lachlan Fold Belt Coast Ground Water Source. The water access licences (WAL) provide that water can be taken at any time or rate. Dargues Gold Mine Pty Ltd has the single largest WAL at 320 units (WAL3928), this is approximately four times the share of the next largest water allocation at 75 units.

⁴ *Environment Protection and Biodiversity Conservation Act 1999* section 3A(b)

⁵ Paragraph 5.1.2 of the Modification 4 Statement of Environmental Effects.

⁶ *Environment Protection and Biodiversity Conservation Act 1999* section 3A(c)

⁷ *Environment Protection and Biodiversity Conservation Act 1999* section 3A(a)

⁸ available at <https://legislation.nsw.gov.au/#/view/regulation/2016/380/full>

Dargues Gold Mine- Modification 4

The combined size of WAL for Dargues Gold Mine Pty Ltd (WAL39281 at 320 units; WAL39282 at 39 units; WAL39292 at 24 units; and WAL39287 at 16 units) is 399 units. Dargues Gold Mine Pty Ltd has approximately 33 per cent of the total water allocation for the whole of the Lachlan Fold Belt Coast Ground Water Source.

The *Water Sharing Plan for the South Coast Groundwater Sources 2016*,⁹ at Clause 13, provides for Climatic variability and states: "This Plan recognises the effects of climatic variability on groundwater levels in these groundwater sources by having provisions that manage the sharing of water in these groundwater sources within the limits of water availability on a long-term average annual basis and the priorities according to which water allocations are to be adjusted as a consequence of any reduction in the availability of water due to an increase in the average annual extraction against the long-term average annual extraction limit, contained in Division 1 of Part 6 of this Plan. Note. Other statutory tools are available to manage for climatic variability within a water source, for example, temporary water restrictions under section 324 of the Act."

Climate change is projected to impact the hydrological system through changes in groundwater recharge and surface runoff. The NSW Office of Environment and Heritage has used the projections from the NSW and ACT Regional Climate Modelling (NARClIM) Project¹⁰ to provide updated information on the projected impacts of climate change on groundwater recharge and surface runoff in the near future (2030) and far future (2070). NARClIM shows less recharge for groundwater is projected across much of NSW, especially in the south-east of the state,¹¹ and the State of NSW is declared in drought. There is no evidence of climate variability and projected reduced groundwater recharge having been considered in the assessment for the water licences for the Dargues Mine.

Changes in recharge can influence the availability of groundwater resources and the volumes of base flow in streams. Secondary impacts on water quality with subsequent impacts on aquatic biodiversity can also occur. NARClIM shows that in the near future, (2020–2039) less recharge is predicted across much of NSW, especially in the south-east of the state. Large changes are projected to occur in groundwater recharge and surface runoff by 2070.

The Dargues Mine and planning considerations has failed to consider the risks of ground water recharge, the flood impacts and the potential loss of water, and water quality occasioned by the mining project. There is no assessment of management of projected restricted water availability.

Big Island Pty Limited (Dargues Reef Mine) has previously dealt with criminal offences when it polluted waters in breach of s120 of the *Protection of the Environment Operations Act 1997*. It was identified that Big Island Mining Pty Ltd could have avoided the pollution if "adequate controls had been adopted to capture

⁹ <https://legislation.nsw.gov.au/#/view/regulation/2016/380>

¹⁰ <https://climatechange.environment.nsw.gov.au/Climate-projections-for-NSW/About-NARClIM>

¹¹ Research results and modelling of ground water recharge and surface runoff is available here: <https://climatechange.environment.nsw.gov.au/Impacts-of-climate-change/Water-resources/Groundwater-recharge-and-surface-runoff>

Dargues Gold Mine- Modification 4

and treat runoff onsite¹² during heavy rainfall events. Climate risk modelling and projections shows that heavy rainfall events and changes to surface runoff are reasonably foreseeable.

Climate Risk Assessment and Climate Change Adaptation

In March 2018 Diversified Minerals was asked if climate risk had been taken into account in relation to the mine planning and meteorological projections. Diversified Minerals responded that baseline data has been generated from the previous 5-10 years, the projections incorporate this change as well as severity classification.¹³ This response does not deal with assessment of climate risk – this is an assessment of local meteorological data and projections off a small base, not climate risk and projections. There is no evidence that climate risk assessment methodology required for infrastructure planning, mining and other significant developments, has been used as a part of risk assessment for this Modification 4, for previous modifications and the original determination.

In relation to the Tailings Storage Facility and the incorporation of climate risk, Diversified Minerals has advised that “Given the short life of the facility, approximately five (5) years, no specific risks with regards to climate change have been assessed or are considered to be warranted to be assessed. Notwithstanding this, the water balance model for the TSF uses a data set of 74 years and includes an assessment of both Majors Creek and Braidwood sourced data.”¹⁴

The EPBC Act requires decision-making processes effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.

Consideration of the public interest under section 4.15 of the EPA Act requires the decision maker to consider the likely impacts of the mine development, including environmental impacts on both the natural and built environments, and social and economic impacts in the surrounding locality and the public interest. The Minister, or decision maker, must consider the public interest in fulfilling functions under the *Environmental Planning and Assessment Act 1979*.¹⁵

Further “in respect of a consent authority making a decision in accordance with s 79C of the EPA Act.....consideration of the public interest embraces ESD”¹⁶ The NSW Court of Appeal has held “that the principles of ESD are likely to come to be seen as so plainly an element of the public interest, in relation to most if not all decisions, that failure to consider them will become strong evidence of failure to consider the public interest and/or to act *bona fide* in the exercise of powers granted to the Minister, and thus become capable of avoiding decisions.”¹⁷

¹² *Environment Protection Authority v Big Island Mining Pty Ltd* [2014] NSWLEC 131 [95] [99]

¹³ http://www.divminerals.com.au/wp-content/uploads/2018/06/27-DRCCC-Meeting-minutes-March-2018_final.pdf pg.3.

¹⁴ DRCC Minutes 18 September 2018, Pg.13. <https://www.divminerals.com.au/dargues-gold-mine/community/community-consultative-committee/>

¹⁵ *Minister for Planning v Walker* (2008) 161 LGERA 423 at 450[39].

¹⁶ *Minister for Planning v Walker* (2008) 161 LGERA 423 at 451[42].

¹⁷ *Minister for Planning v Walker* (2008) 161 LGERA 423 at 454[56].

Dargues Gold Mine- Modification 4

Consideration of the precautionary principle and inter-generational equity requires consideration of long-term threats of serious or irreversible environmental damage, this almost inevitably involves consideration of the effect of climate change.¹⁸

In approving the Dargues Project, the project documentation, assessment process and decision maker has not considered the risk associated with climate change.

Addressing the risk from climate change

The proponent has failed to take account of ESD principles by failing to provide for the risk of climate change. Adaptation requires making adjustments to decisions and activities, in consideration of climate change, in order to manage risks and capture potential opportunities.

The Dargues Mining operations can avoid or limit risks and impacts of climate change by:

- Modifying existing risk identification processes to incorporate combinations of daily, seasonal and less frequent weather events to ensure that the cumulative impact does not exceed the specifications of key infrastructure or modify existing infrastructure to accommodate these risks;
- Developing and or using existing climate models to evaluate potential risks based on local and regional data and projections based on long-term trends;
- Implement measures that will address the risks identified; and
- Monitor and review the risks, relevant data, and identified measures, on an ongoing basis, to ensure that the measures are as appropriate as they can be.

Until climate risks are assessed and addressed in the planning and management of the mine, or an undertaking is made on behalf of Big Island Mining Pty Ltd and Dargues Mine Pty Ltd to complete these assessments within the next six months, the proposed Dargues Reef Gold Mine Modification 4 is opposed.

Kathleen Waddell
Araluen
18 December 2018

¹⁸ *Minister for Planning v Walker* (2008) 161 LGERA 423 at 454[60].

Sky & Jakub Mazurkiewicz
1129 Charley's Forest Rd
CHARLEYS FOREST NSW 2622

19th December 2018

NSW Department of Planning
& Environment
GPO Box 39,
SYDNEY NSW 2001.

**RE: Submission on Dargues Reef Mine Proposed Modification 4
(10_0054 MOD 4)**

Dear Sir/Madam

We are opposed to Modification 4 of the Dargues Reef Mine proposal.

This additional modification is an example of the cumulative development creep that is occurring in major developments in NSW such as Barangaroo.

Dargues Reef Gold Mine development was not well thought out from conception – yet the proponent can manipulate the planning processes to refine its objectives, push back its critics and simultaneously expand its operation.

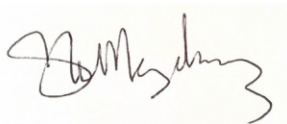
The additional land purchase and inclusion into the project's schedule of land is an expansion of the project area. There is no detail of the additional land area size or indication of future purpose.

The recent breach of a tailings dam wall at Cadia gold mine earlier this year demonstrates that modern risk mitigation is not foolproof. Given that Pybar Construction Services who are contracted at Cadia are also employed at Dargues Reef, it does not provide any confidence in the current project or the authorities approving it.

The mine will continue to take more without giving anything of comparable value in return, except irreversible damage that will be its legacy.

We are vehemently opposed to this proposal and encourage the NSW Department of Planning and Environment to prioritise approval of renewable energy projects, where employment will be indefinite and the benefit to the community and environment will be positive, as opposed to approving a gold mine disaster.

Yours faithfully,



Sky Mazurkiewicz



Jakub Mazurkiewicz

(Name withheld) , of **BRAIDWOOD NSW 2622 NSW**, made the following submission on the project:
Dargues Reef Gold Mine (Mod 4)

Objects to this project

“ I am concerned and alarmed that the modification proposes to move an internal road further upstream and no visual analysis has been done regarding the higher location of the road and therefore the potential effect on the village of Majors Creek that sits lower than the road crossing site. This road will carry trucks 24/7 to load and unload and the potential impact of light spill over neighbouring properties should be an issue that is addressed more thoroughly than it has been in the supporting documents to this modification. Section 4.11 which deals with the potential visual impact of the modification is very light on, with motherhood statements about existing landform and does not address in any way the raising of the road and the potential impact on adjoining properties.

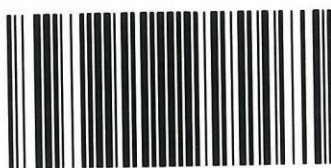
(Name withheld) , of **Unknown NSW**, made the following submission on the project:
Dargues Reef Gold Mine (Mod 4)

Objects to this project

“ I object very strongly to mining on the reef. I cannot believe we still have to say this is not OK. This government is destroying our country, our water, our air, our rare animals, our soils and a future for our children and grandchildren.

Nobody asked me if I agree about Adani and big coal or Coal Seam Gas. Nobody consults us. Listen to the children. They have to live with the mess we are going to leave them. Can't we stop the mindless blind greed for a few minutes and think about what we are actually doing to this planet?

P.O. BOX 253,
BELGRAVE, 3160
VICTORIA



PCU077443

9th December, 2018



Mr. Clay Preshaw,
Director
Resource and Energy Assessments,
G.P.O. Box, 39
SYDNEY 2001
N.S.W.

Dear Sir,

Re DARGUES REEF GOLD MINE (20-0054 MOD4)
Notice of Exhibition

The represented modifications covering the impact to health, eco systems and groundwater are still not acceptable. They have whittled away protections required by the Land and Environment Court outlined in 2012.

I repeat that the potential to contaminate the regional water supply is unacceptable. The stone fruit producers produce food but gold is one molecule off lead, and a fat bank balance is of no practical use without food to buy.

Yours faithfully,

(Ms.) M Pearce

RE

DARGUES REEF GOLD MINE

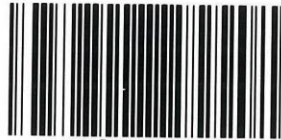
APPLICATION No 10_0054 MOD 4

WED 12th DEC.
2018.

CLAIRE THOMPSON

1/65 HOOD ST.

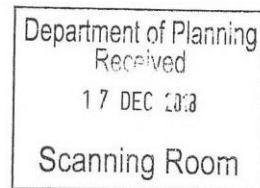
COFFS HARBOR NSW 2450



PCU077500

Dear Men & Women of the Planning & Environment Dept,
When I first received this letter, I just threw it in the bin,
thinking 'what's the point?', the decisions already been made
by vested interests higher up anyway'...

But then I thought:
'No, add your voice...'



So I went to quote from an old American Indian Chief...

'When the last tree has been cut down,
'When the last river has been polluted,
Only then will men realise that you can't eat money'

Yours Sincerely,
Claire Thompson

P.S. ... No I haven't made any reportable political donations in the
last 2 years