



11 August 2021

██████████
Assistant Secretary
Environmental Assessments West (WA, SA, NT) Branch
Department of Agriculture, Water and the Environment

Sent via email to EPBC.Referrals@environment.gov.au

Dear ██████████,

**ARROWSMITH NORTH SILICA SAND PROJECT (EPBC Act Referral 2020/8788) -
Section 156A Request**

VRX Silica Limited (VRX) is seeking approval to develop the Arrowsmith North Silica Sand Project (the Proposed Action) located in the Mid-West region of Western Australia (WA), approximately 270 kilometres (km) north of Perth. The Proposal will involve extraction of silica sand from the top of a dune to produce high-grade silica sand product via mechanical upgrading.

The Proposed Action was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 9 September 2020. The Department of Agriculture, Water and the Environment released its decision that the Proposed Action was a controlled action under section 75 and section 87 of the EPBC Act on 30 October 2020. On 30 June 2021 it was determined that the Proposed Action be assessed by accredited assessment under Part IV of the (WA) Environmental Protection Act 1986 (EP Act). The WA Environmental Protection Authority (EPA; the delegated authority for Environmental Impact Assessment in Western Australia) determined that the Proposed Action required assessment as a Public Environmental Review level of assessment (s. 40(2)(b) and s. 40(4) of the EP Act).

The Proposed Action has evolved since the original referral under the EPBC Act and a number of minor elements have changed as a result. The purpose of this letter is to request a variation to the referred Proposed Action under Section 156A of the EPBC Act. This request for variation has been prepared according to section 5.07 - 5.09 of the Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) and accordingly provides the following information:

1. Details of the proposed variation to the Proposed Action;
2. The reasons for the proposed variation;

3. How the impacts of the proposed variation on Matters of National Environmental Significance (MNES) compare with those of the original referral; and
4. Alternatives, mitigation measures and offsets to compensate for additional impacts on MNES.

All proposed variations that are addressed in this Section 156A will be included in the Environmental Review Document required for the accredited assessment by the EPA. A similar application has been made under Section 43A of the WA EP Act to revise the referred proposal.

Details of the Proposed Variation

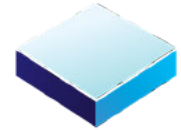
The proposed variation includes:

1. Relocation of the silica sand processing plant to within the Mine Development Envelope;
2. A reduction in the extent of the Access and Processing Development Envelope from 447 ha to 61 ha (a reduction of 386 ha);
3. A reduction in the extent of clearing from 412.2 ha to 366.5 ha (a reduction of 45.7 ha) as a result of:
 - a. Relocating the processing plant footprint to within the mining footprint;
 - b. Removal of the western access route and shortening the extent of the southern access route;
 - c. Removal of a solar farm; and
 - d. Removal of the train loadout facilities.

Table 1 provides further detail of the proposed changes to the Proposed Action. The Development Envelope and Disturbance Footprint of the original Proposed Action is provided in Figure 1 and the Development Envelope and Disturbance Footprint of the Proposed Variation is shown in Figure 2.

Table 1: Details of the variation to the proposed action

Proposal Element	Original Proposed Action	Proposed Variation
Processing Plant	Located within the Access and Processing Development Envelope	Located within the Mine Development Envelope
Access and Processing Development Envelope	Clearing of no more than 52.2 ha, and no more than 16.2 ha of native vegetation, within the 447 ha Access and Processing Development Envelope	Clearing of no more than 6.5 ha of native vegetation within the 74 ha Access Development Envelope
Train Loadout Facilities	The Original Proposal included a Train Loadout	Remove Train Loadout Facilities from the Proposal Train loadout is no longer part of the Proposal, product will instead be hauled offsite using trucks.
Solar Farm	The Original Proposal included a Solar Farm that would be constructed on an area of cleared land within the Western	The amended Proposal does not include a solar farm as landholder negotiations for a suitable solar farm site are unlikely to be completed prior to

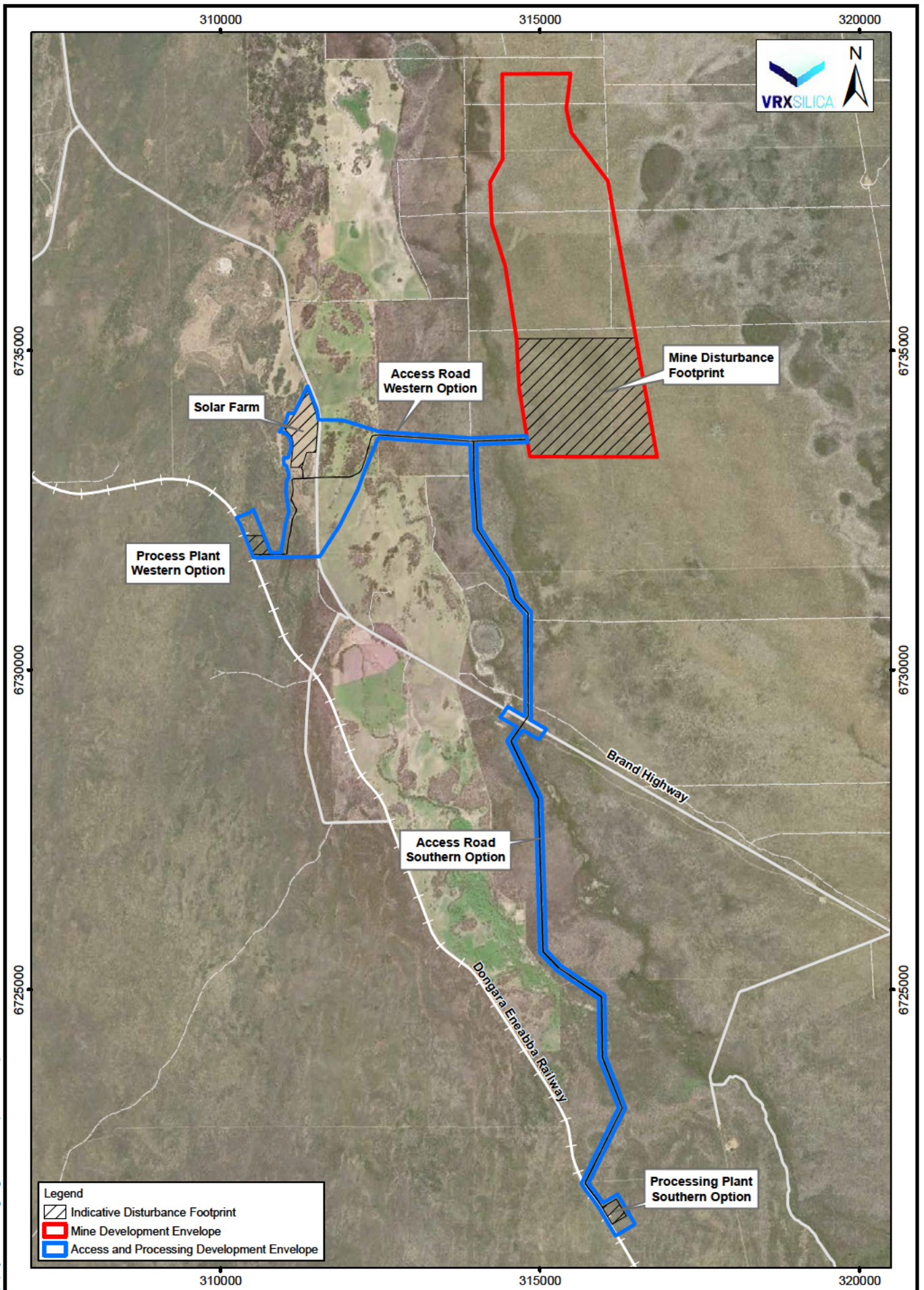


VRXSILICA

Proposal Element	Original Proposed Action	Proposed Variation
	option of the Access and Processing Development Envelope.	assessment. VRX will continue to investigate the development of a solar farm, with the intent to utilise existing cleared land.

VRX Silica Limited

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Sources: Aerial Photography: LESRI, Digitalglobe, Maxar (March 2019), Tenements: DMIRS

Legend
 [Hatched Box] Indicative Disturbance Footprint
 [Red Outline Box] Mine Development Envelope
 [Blue Outline Box] Access and Processing Development Envelope

0 1.2 km
 Scale: 1 80,000
 MGA94 (Zone 50)

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Arrowsmith North Project Indicative Infrastructure Layout

Figure:
1

Figure 1: Development Envelope and Disturbance Footprint of the original Proposed Action

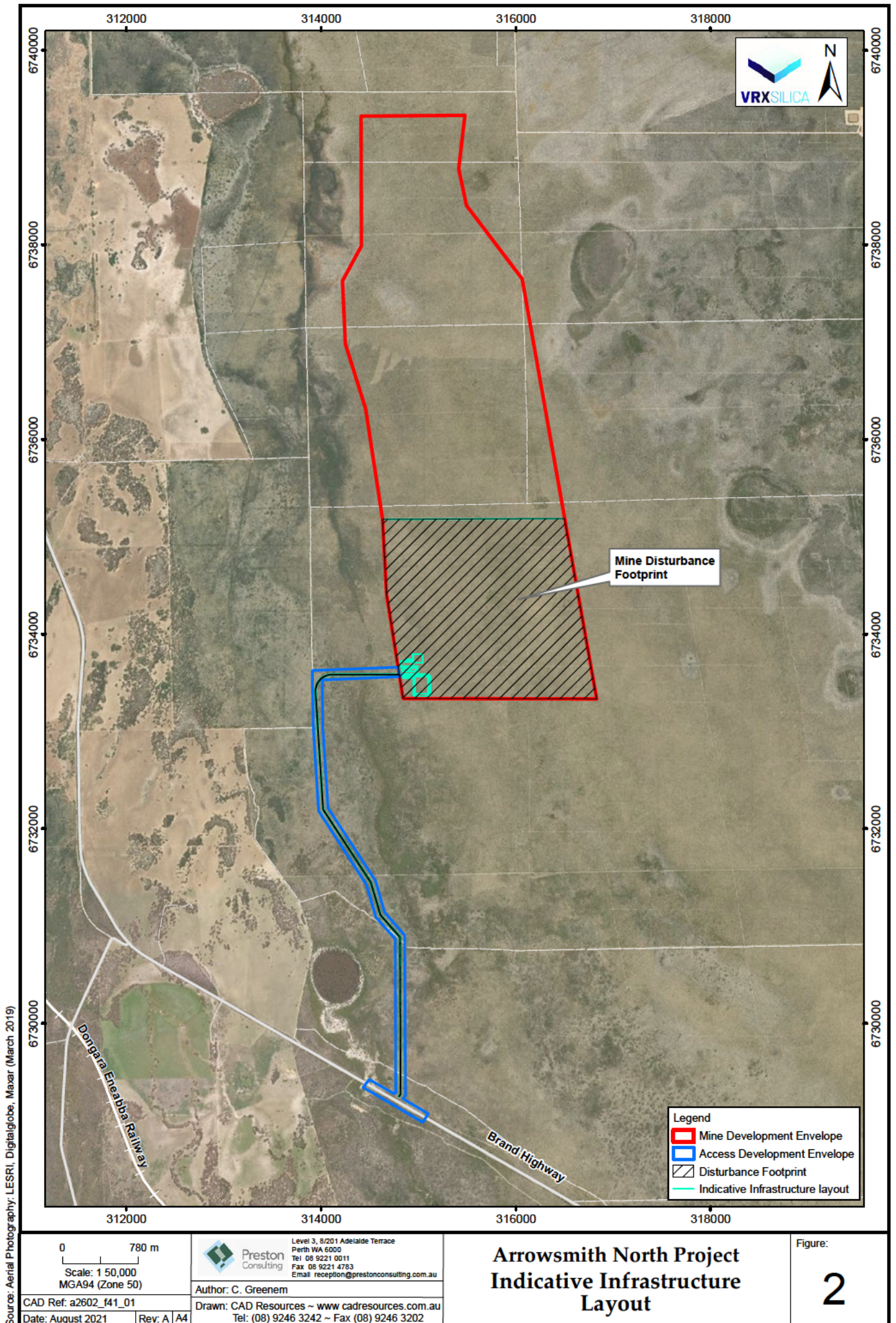


Figure 2: Development Envelope and Disturbance Footprint of the variation to the Proposed Action



Rationale for the Proposed Changes

Relocation of the Processing Plant

Currently, the export facilities at Geraldton Port are not suitable to handle Silica Sand at the rates proposed by VRX Silica. Upgrades required for the export of silica sand are not scheduled to be completed prior to VRX gaining approval for the Proposal. As a result, VRX proposes to change the export of product from rail to road haulage, which would expand the available export options for the Proposal. Based on this change there is now no requirement to construct the Processing Plant adjacent to the railway. VRX proposes to relocate the Processing Plant to the southwest corner of the Mine Development Envelope. The environment within the Mine Development Envelope is better understood (a detailed significant flora survey, Basic fauna survey and several Aboriginal heritage pre-clearance surveys have been conducted already) and impacts from the Proposal are able to be quantified with greater certainty.

Access and Processing Development Envelope and Disturbance

VRX has chosen to transport ore to Geraldton Port via road instead of rail as defined in the original Proposal. As a result, VRX proposes to use only the Southern access option to the extent of the intersection with the Brand Highway. As a result, the Access and Processing Development Envelope (proposed to be re-named as the Access Development Envelope) has been reduced from 447 ha to 61 ha and the extent of clearing within this Development Envelope has been reduced from 52.2 ha to 6.5 ha. The Western option of the Access and Processing Development Envelope is no longer required and has been removed from the Development Envelope boundary (Figure 1). The revisions were due to several reasons:

- To enable the export of the Silica Sand Product;
- To limit the extent of disturbance to only what is necessary for the development of the Proposal; and
- To avoid impacts to the Arrowsmith River Registered Aboriginal Heritage Site.

Solar Farm Removal

The Solar Farm was originally proposed to be constructed in an area of cleared land within the Western option of the Access and Processing Development Envelope. Since choosing the Southern Access option, the Western option (and subsequently the area designated for the Solar Farm) has been removed from the Access and Processing Development Envelope. The amended Proposal does not include a solar farm as landholder negotiations for a suitable solar farm site are unlikely to be completed prior to assessment. VRX will continue to investigate the development of a solar farm, with the intent to utilise existing nearby cleared land.

Train Loadout Facilities Removal

As the method of export has changed to road haulage, the train load out facilities are no longer required. The clearing and construction associated with the train load out are no longer required.

Comparison of the Potential Impacts of the Variation

Table 3 provides a comparison of the impacts of the original and varied proposed action on MNES.

Table 2: Comparison on the potential impacts of the original and varied proposed action on MNES

Change to Proposal Element	Potential impacts of original proposed action on MNES	Potential impacts of varied proposed action on MNES	Comments
Relocation of the Processing Plant to within the Mine Area	The Processing Plant required the clearing of 2 ha within the Access and Processing Development Envelope. Noise and dust impacts.	The Processing Plant requires the clearing of 2 ha within the Mine Development Envelope. Noise and dust impacts.	Relocation of the Processing plant to the Mine Area will result in an estimated 2 ha reduction in vegetation disturbance (0.53% reduction to total disturbance area) to MNES habitat including Carnaby's Black-Cockatoo foraging habitat, potential Malleefowl habitat and Threatened Flora habitat. Noise and dust emissions will be similar to the original proposed action however all main sources will now be in one position (the mine site) rather than two separate sources. This represents a positive change.
Access and Processing Development Envelope and Disturbance	Clearing of up to 16.2 ha of native vegetation within the 447 ha Access and Processing Development Envelope	Clearing of up to 6.5 ha of native vegetation within the 61 ha Access Development Envelope	The overall extent of native vegetation clearing within this development envelope has been reduced by 9.7 ha (a 59.9% reduction). The development envelope has also been reduced in size by 373 ha (a 83.4% reduction), with no new areas added. This has significantly reduced the area where clearing could take place.

Change to Proposal Element	Potential impacts of original proposed action on MNES	Potential impacts of varied proposed action on MNES	Comments
Solar Farm Removal	<p>The following impacts have been identified as having the potential to occur as a result of the construction and operation of the solar farm:</p> <ul style="list-style-type: none"> • Direct impacts to transient MNES from vehicle / earth moving equipment • The introduction of fauna • Alteration of behaviour as a result of noise or light emissions • Alterations to fire regimes • Establishment or spread of weed species/populations • Hydrocarbon spills; and • Introduction or spread of dieback. 	<p>There are no potential impacts associated with this variation to the Proposed Action, other than a temporary increase in greenhouse gas emissions. VRX will source alternative renewable energy sources in the early phase of the proposed action.</p>	<p>Removal of the Solar Farm will remove all potential direct and indirect impacts associated with the construction and operation of the Solar Farm.</p>
Train Loadout Facilities Removal	<p>The Train Loadout Facilities required the clearing of 2.5 ha within the Access and Processing Development Envelope. Noise and dust impacts.</p>	<p>There are no potential impacts associated with the removal of the Train Loadout Facilities from the Proposed Action.</p> <p>The decision to export product via road haulage will result in an increase to the frequency and duration of vehicle movements and subsequently the likelihood of vehicle strike will increase slightly</p>	<p>Removal of the Train Loadout Facilities will remove all potential direct and indirect impacts associated with the construction and operation of the Train Loadout Facilities.</p>

Impacts of the proposed variation on MNES

The relocation of the processing plant and removal of the Solar Farm and Train Loadout Facilities will result in a reduction in the extent of the Access and Processing Development Envelope and the extent of native vegetation clearing required for the Proposed Action. Furthermore, the variation to the Proposed Action will remove the potential indirect impacts associated with the development and operation of the removed elements. The variation to the Proposed Action represents an overall reduction in impacts to MNES. However, there is expected to be a minor increase in some potential indirect impacts to MNES from vehicle strike with the added vehicle movements required for the export of product via road.



The original Proposed Action was deemed to have a significant residual impact on Carnaby's Black-Cockatoo foraging habitat. The proposed variation to the Proposed Action results in a decrease to the extent of these impacts, however, there still remains a significant residual impact. Therefore, the mitigation measures proposed in the original Proposed Action will remain.

Alternatives, mitigation measures and offsets to compensate for additional impacts on MNES

Mitigation measures are proposed to compensate for additional potential impacts to MNES. These will be described in detail in the Environmental Review Document and have been summarised below:

1. Implementation of site wide speed limits;
2. Implementation of reduced speed limits during the dark;
3. Keeping records of Carnaby's Black-Cockatoo and Malleefowl sightings; and
4. Recording and reporting any instances of vehicle strike.

Further Enquiries

Should you have any queries or require any additional information please do not hesitate to contact me at [REDACTED] or [REDACTED] from Preston Consulting at [REDACTED].

Yours sincerely

A handwritten signature in black ink, appearing to read "B. Malum".

[REDACTED]

Managing Director