

To: Dr Tom Hatton

Date: 23 November 2017

Company: Environmental Protection Authority

Your Ref: DWERA 000302

Fax/email:

Inquiries: Mat Brook (Strategen)

Kidman Resources and SQM Earl Grey Lithium Project Section 43A Request

Dear Dr Hatton,

Kidman Resources Limited (Kidman) and Sociedad Química y Minera (SQM) Joint Venture are proposing development of the Earl Grey Lithium Project (the Proposal), 105 km south of Southern Cross. The Proposal will comprise open cut mining and processing of lithium ore, with transport of a lithium concentrate to an existing Western Australian port for export to overseas markets.

The Proposal was referred under s 38 of the *Environmental Protection Act 1986* (EP Act) by Kidman Resources Limited (Kidman). Subsequent to the referral of the Proposal Kidman have entered into a joint venture with Sociedad Química y Minera (SQM). As a result, the Kidman Resources and SQM Joint Venture will be seeking to become the Proponent for the proposal and a request will be made for change of Proponent under s 38 (6a) and (7) in the near future.

The purpose of this document is to request to change the Proposal under s 43A of the EP Act. This document has been prepared in accordance with the requirements identified in Section 3.8 of the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual 2016* (EPA 2016). Specifically, this report has been structured to:

- describe the change to the Proposal (Section 1).
- provide a rationale for the change (Section 2).
- provide a statement of the significance of the proposed change (Section 3).

1. Description of change

The proposed change involves the following three elements:

1. Modification to the design of a Waste Rock Dump (WRD) to avoid an active Mallee Fowl nest.
2. Increase to the tailings storage capacity requirements, which increases the extent of Tailings Storage Facility (TSF) (also resulting in a decrease in the extent of the WRD).
3. Incorporation of existing road network that will be used as part of the Proposal into the description of the Proposal.

The overall outcome of the proposed change is an increase in the footprint of Proposal from 610 ha to 705 ha, which will also result in an increase in the extent of native vegetation clearing from 365 ha to 392 ha.

In addition to the elements described above, it is proposed to revise how the proposal elements are set out in the key characteristics table for the proposal, by consolidating the description of the clearing into an overall amount. This is intended to facilitate any small changes necessary in the clearing required for individual components during design and implementation of the proposal, without exceeding the total project disturbance.

Proposed change to footprint

The revised proposed site layout and development envelope is shown in Figure 1. The differences to the indicative footprint set out in the referral as a result of the proposed change are shown in Figure 2.

Table 1 provides a summary of the proposed change. Overall there is an additional 27 ha of clearing. Table 2 provides further detail on the changes to the extent of the key project elements as referred. Table 1 and Table 2 have been structured to provide a comparison between what was referred and the proposed change for the following areas:

- Existing disturbance within development footprint
- Proposed increase in disturbance
- Total disturbance.

As identified above, the proposed change will increase the extent of the development footprint, w will include an increase in the existing disturbance within the development footprint (68.3 ha) and increase new disturbance (27 ha). The increase in existing disturbance within the Proposal development footprint is predominantly associated with incorporating the existing road network within the description of the Proposal. The increase in additional disturbance is associated with the increase in the area required to meet additional tailings storage requirements. Further information regarding the requirements for this change is provided in Section 2.

Table 1: Comparison of proposed change to referral

	Referral (ha)	Proposed change (ha)	Difference (ha)
Existing disturbance within development footprint	244.7	313	68.3
New clearing	365	392	27
Total footprint	610	705	95

Table 2: Comparison of proposed change to referral by disturbance element

Element	Existing disturbance within footprint (ha)			Proposed increase (ha)			Proposed extent (total) (ha)		
	Referral	Proposed change	Diff.	Referral	Proposed change	Diff.	Referral	Proposed change	Diff.
Pit	50.4	50	-0.4	92.1	93	0.9	142.5	143	0.5
Waste Rock Dumps	93	91	-2	166.8	168	1.2	259.8	259	-0.8
Tailings Storage Facility	41.4	51	9.6	2.6	33	30.4	44	84	40
Infrastructure	59.9	121	61.1	103.5	98	-5.5	163.7	219	55.3
Total	244.7	313	68.3	365	392	27	610	705	95

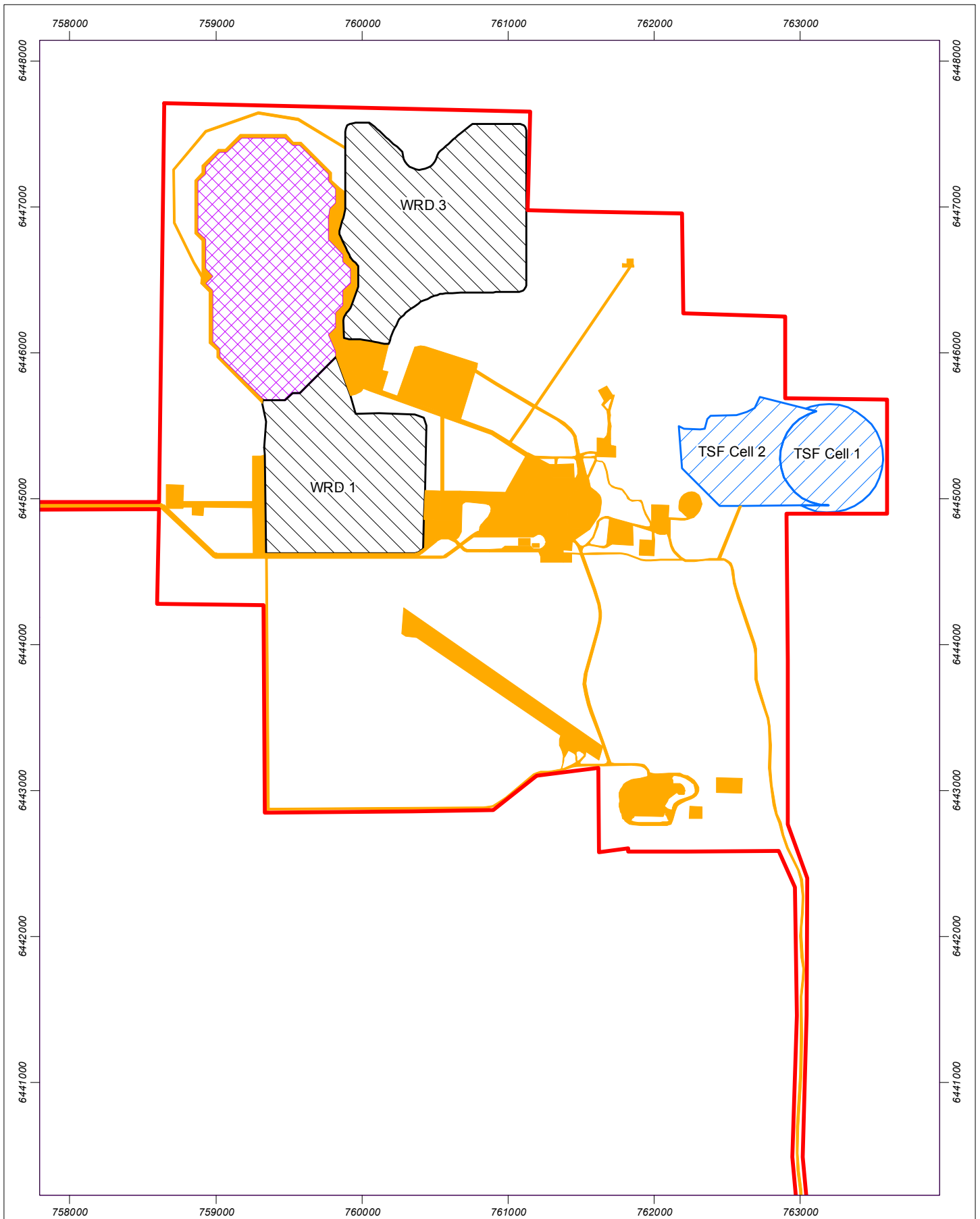


Figure 1: Proposed Site Layout

Scale 1:35,000 at A4



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas
 Date: 23/11/2017
 Author: jcrute
 Source: Development Envelope and mine layout: Client 17/11/2017.

Legend

- Development Envelope
- Pit
- TSF
- WRD
- Supporting infrastructure



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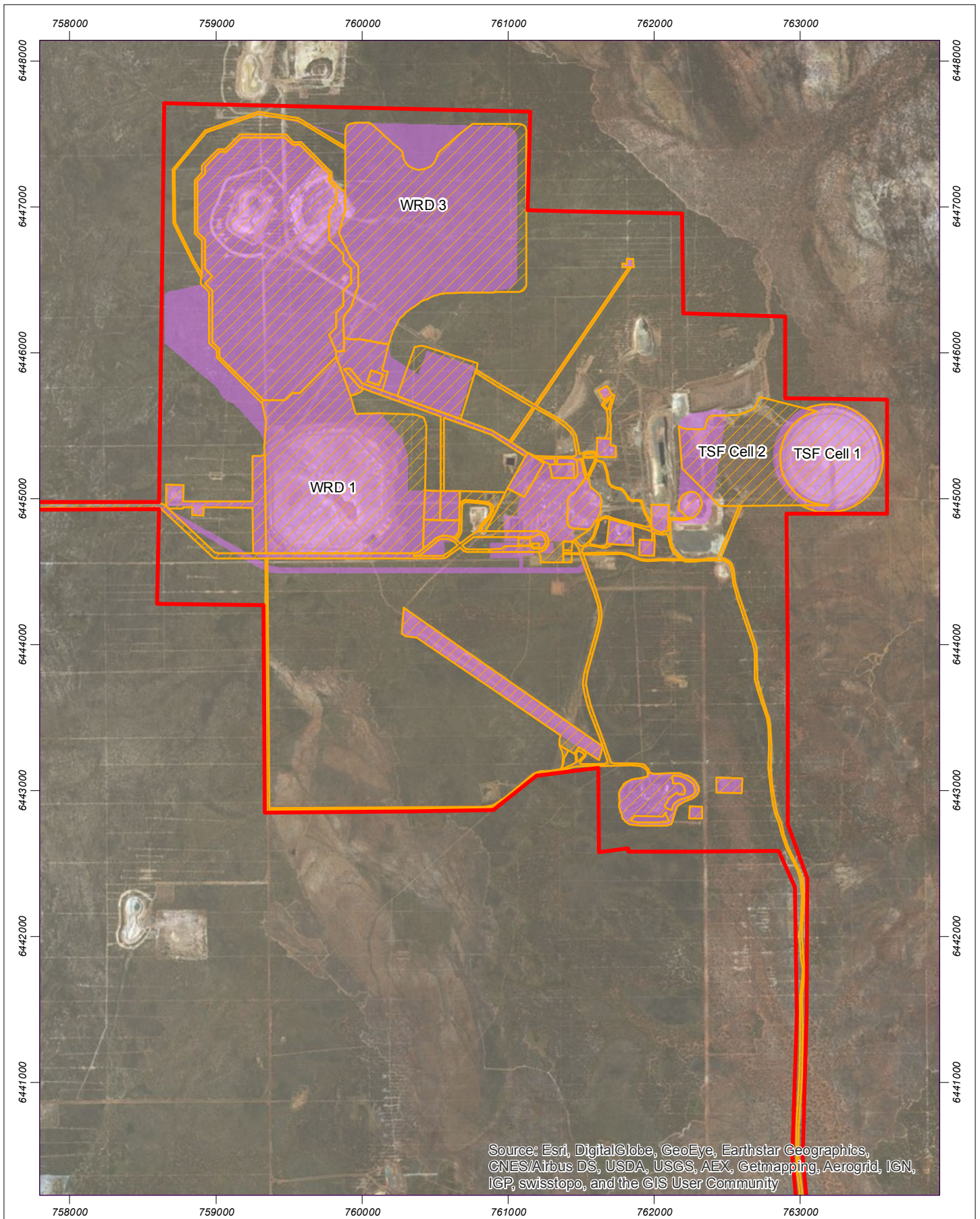


Figure 2: Comparison of proposed change to footprint with referred footprint

Scale 1:35,000 at A4



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas
 Date: 23/11/2017
 Author: jcrute

Source: Aerial: ESRI approx. 2011. Development Envelope and proposed mine layout: Client 17/11/2017.

Legend

- Development Envelope
- Footprint including referral
- Footprint of proposed change



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Proposed change to key characteristics

The proposed change will require modification of the key proposal characteristics. The description of the key characteristics of the Proposal, as provided in the Referral, are provided in Table 3 with the location and proposed extent of the disturbance presented in Table 4.

The proposed amended key characteristics are presented in Table 5 and Table 6, with the proposed changes identified in bold. Specifically, the changes are limited to:

- increasing the area of the total footprint and the new clearing
- consolidating the elements of the proposal clearing into 'mine and associated infrastructure'.

Key characteristics identified in referral

Table 3: Key Proposal characteristics (provided in referral)

Proposal title	Earl Grey Lithium Project
Proponents name	Kidman Resources Limited
Short description	This Proposal is for the development of an open cut lithium mine within the abandoned Mt Holland Mine Site, located approximately 105 km south-southeast of Southern Cross, Western Australia. The Proposal will have a total footprint of 731 ha of which 408 ha would be new clearing and 323 ha are already disturbed. The life of mine is 30 to 40 years.

Table 4: Location and proposed extent of physical and operational elements (provided in referral)

Element	Existing Disturbance (ha)	Proposed increase (this approval) (ha)	Proposed extent (total) (ha)
Earl Grey Pit	50.4	92.1	Up to 142.5
Waste Dump 1	82.8	8.2	Up to 91
Waste Dump 2	4.5	33.5	Up to 38
Waste Dump 3	5.7	125.1	Up to 130.8
Tailings storage facility	41.4	2.6	Up to 44
Processing Plant	25.5	4.8	Up to 30.6
Other Supporting Infrastructure (incl: accommodation village, wastewater treatment plant, landfill, water storage, explosives magazine, coreyard, topsoil stockpiles, workshop, admin facilities, pipelines, power lines, roads etc.).	34.4	98.7	Up to 133.1
Total	245	365	Up to 610

Proposed revised key characteristics

Table 5: Key Proposal characteristics (proposed change)

Proposal title	Earl Grey Lithium Project
Proponents name	Kidman Resources Limited
Short description	This Proposal is to develop a pegmatite-hosted lithium deposit at the abandoned Mt Holland Mine Site, in a Development Envelope of 1,984 ha. The mining proposal involves disturbance of 705 ha of land, including new clearing of up to 392 ha of native vegetation, which is habitat for significant fauna species.

Table 6: Location and proposed extent of physical and operational elements (proposed change)

Element	Existing Disturbance (ha)	Proposed increase (this approval) (ha)	Proposed extent (total) (ha)
Mine and associated infrastructure (including waste rock dumps, tailings storage facility, processing plant, accommodation village, wastewater treatment plant, landfill, water storage, explosives magazine, coreyard, topsoil stockpiles, workshop, admin facilities, pipelines, power lines, roads etc.).	313	392	705

2. Rationale for the change

As identified in Section 1, the proposed change consists of three elements:

1. Modification to the design of a WRD to avoid an active Mallee Fowl nest.
2. Increase to the tailings storage capacity requirements, which increases the extent of TSF (also resulting in a decrease in the extent of the WRD).
3. Incorporation of existing road network that will be used as part of the Proposal into the description of the Proposal.

The rationale of these three elements is provided below.

Modification of WRD

The modification of the WRD in the north of the Development Envelope has been undertaken to avoid an active Mallee Fowl nest. This change has been undertaken for the sole purpose of minimising the impact of the Proposal on a species of conservation significant fauna.

While the footprint for the WRD is approximately the same as the referral, as this is a less efficient shape it actually represents a decrease in the overall volume of waste rock

Increase in tailings storage requirements

Subsequent to the submission of the referral additional test work has identified that additional on-site processing will be required. The additional processing involves additional physical processing (including crushing, dense media separation (DMS) and flotation processing). The additional processing does not introduce chemical processing.

The referred Proposal described the requirement to transport fine material from the processing plant to the TSF. Adding additional processing reduces the particle size of the waste i.e. more fine particle size waste material will be generated). Increasing the relative amount of fine particle size waste increases the amount of material that will be disposed of in the TSF. The increase in the amount of fine material will have a corresponding decrease in the amount of coarser material that requires disposal of as waste rock.

The increase in the storage capacity requirements of the tailings storage facility increases the extent of the footprint required for the TSF. While less material will be transported to the WRD, as the design has been modified to avoid a Mallee Fowl nest the design is less efficient and therefore the footprint of the WRD has not been able to be substantially reduced.

Incorporation of existing road network into Proposal

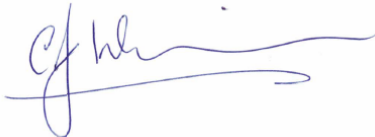
The incorporation of existing road network that will be used as part of the Proposal (i.e. between the accommodation village and the plant has been included to provide greater clarity on the implementation of the Proposal. The incorporation of existing road network does not represent any new disturbance.

3. Significance of potential environmental impacts of the change

Table 7 provides a review of the environmental significance of the proposed change. The assessment considers the increase in the extent of native vegetation clearing by 27 ha. The proposed change does not introduce any additional potential impacts or key environmental factors. Table 7 has been structured to provide a review of the relevant factors identified by key factors and potential impact.

The review in Table 7 identifies that the proposed change does not significantly increase any impact that the proposal may have on the environment.

Yours sincerely



Chris Williams

Kidman Resources General Manager



Nicolas Vejar
SQM Project Manager

Table 7: Review of significance of change

Change	Factor	Potential impacts	Consideration
Increase in clearing of native vegetation (27 ha).	Flora and vegetation	<ul style="list-style-type: none"> further loss and fragmentation of native vegetation and habitat 	Proposed change will result in the clearing of an additional 27 ha of native vegetation, which will not significantly increase the loss of native vegetation as a result of the implementation of the Proposal. Importantly, the proposed change will not result in the direct loss of any currently known Declared Rare Flora species.
		<ul style="list-style-type: none"> spread of weeds and alteration of fire regimes 	Proposed change will not increase the potential for impacts associated with the spread of weeds or alteration of fire regimes.
		<ul style="list-style-type: none"> dust deposition on vegetation from mining and related activities 	Proposed change will not increase the potential for impacts associated with dust deposition from mining and related activities.
		<ul style="list-style-type: none"> impact to flora and vegetation from overspray of hypersaline water used for dust suppression 	Proposed change will not increase the potential for impacts associated with use of waster for dust suppression.
		<ul style="list-style-type: none"> changes to vegetation structure and composition through altered surface drainage flow patterns 	Proposed change will not increase the potential for impacts associated with changes to surface drainage flow patterns.
		<ul style="list-style-type: none"> impact to flora and vegetation from spillage of tailings, hypersaline water and hydrocarbons. 	Proposed change will not increase the potential for impacts associated with the spillage of tailings, hypersaline water or hydrocarbons.
Increase in clearing of native vegetation (27 ha).	Terrestrial fauna	<ul style="list-style-type: none"> Further loss and fragmentation of habitat from vegetation clearing 	Proposed change will result in the clearing of an additional 27 ha of native vegetation, which will not significantly increase the loss of native vegetation as a result of the implementation of the Proposal. Importantly, the change will avoid direct disturbance of an active Mallee Fowl nest. The increased clearing does not significantly increase any impacts on Mallee Fowl and Chuditch habitat.
		<ul style="list-style-type: none"> Death, injury and displacement from construction and mining operations, vehicle strikes and changed fire regimes 	Proposed change will not increase the potential for mortality, injury and displacement of fauna species associated with construction and mining operations, vehicle strikes and changed fire regimes.
		<ul style="list-style-type: none"> Increased feral fauna from increased access into areas from new tracks and roads, and attraction to rubbish tips 	Proposed change will not increase the potential for impacts associated with the feral animals.
		<ul style="list-style-type: none"> Secondary impact from dust, noise and vibration during construction and mining operations 	Proposed change will not increase the potential for impacts associated with secondary impacts.