Lot 325 Daddow Road, Warralakin, WA

Native Vegetation Clearing Area Permit

Q-Stone Quartz Extraction - Supporting Report

PREPARED FOR
Q-Stone

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PLANNING DESIGN ENVIRONMENT

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1 Introduction

This application seeks approval under the Environmental Protection Act 1986 (WA) for the clearing of native vegetation at Lot 325 Daddow Road, Warralakin, within a defined and minimised disturbance footprint to facilitate the Q-Stone Pty Ltd Quartz Extraction Project.

The application is submitted on behalf of Q-Stone Pty Ltd by Land Insights, who have prepared this supporting documentation and act as the environmental consultant and key contact for submission to the Department of Water and Environmental Regulation (DWER).

The total proposed clearing area is approximately 7.87 hectares.

A flora, vegetation and Black Cockatoo habitat survey undertaken on 25 November 2025 recorded 46 vascular plant taxa and identified a single vegetation community: *Allocasuarina campestris* shrubland in Very Good condition.

No Threatened or Priority flora, or Threatened Ecological Communities (TECs), were recorded within the disturbance footprint.

One tree meeting Black Cockatoo habitat DBH criteria was identified.

However, no evidence of breeding, roosting or foraging was observed. Overall, the site is considered to have low to negligible significance for Black Cockatoos.

Surface water and groundwater interactions are limited, and no dewatering is proposed. Environmental impacts associated with the proposal are considered manageable subject to implementation of avoidance, mitigation, and rehabilitation measures outlined in this report.

Supporting documentation is provided in the appendices.

1.1 Background

This report supports an application for an **Area Permit** under Part V Division 2 of the Environmental Protection Act 1986 (WA).

The application seeks approval for the clearing of approximately **7.87 hectares** of native vegetation associated with the proposed Q-Stone Quartz Extraction Project at Lot 325 Daddow Road, Warralakin.

The proposed clearing relates to quartz extraction activities and associated infrastructure, including operational areas, access requirements and ancillary works required for the project.

The proposed disturbance footprint was refined following review of flora, vegetation and habitat survey findings to avoid and minimise impacts to native vegetation wherever practicable.

Clearing has been limited to the minimum extent necessary to safely accommodate extraction activities, access requirements and associated operational infrastructure.

The design avoids disturbance outside operationally required areas and minimises impacts to remnant native vegetation within the Avon Wheatbelt landscape.

This document provides:

- Project description and scope
- Statutory and policy context
- Environmental baseline conditions
- Survey methodology and results

- Assessment against the Ten Clearing Principles
- Avoidance and minimisation measures
- Rehabilitation and monitoring commitments

The proposal is also subject to a Works Approval application currently under assessment by DWER.

1.2 Permit Type and Landowner Authority

This application is made for a purpose native vegetation clearing permit under regulation 5 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*, pursuant to Part V Division 2 of the *Environmental Protection Act 1986*.

The proposed clearing is required for the establishment and operation of an extractive industry at a fixed location on private land.

The applicant is not the landowner and is not acting on behalf of the landowner but has obtained the landowner's permission to access and use the land for extractive activities.

1.2.1 Land tenure

The applicant is not the registered landowner of Lot 325 Daddow Road, Warralakin.

The proposed activities are being undertaken with the knowledge and consent of the landowner, and the applicant has obtained the necessary authority to apply for the Native Vegetation Clearing Permit and undertake the proposed works associated with the Q-Stone Quartz Extraction Project.

Evidence of landowner consent can be provided to DWER upon request.

1.3 Legislation and Policy

This application has been prepared in accordance with the following legislation and guidance:

- *Environmental Protection Act 1986 (WA)* – Native Vegetation Clearing provisions
- *Biodiversity Conservation Act 2016 (WA)* – Threatened and Priority flora and fauna
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* – Matters of National Environmental Significance (desktop search included)
- Environmental Protection Authority (EPA) *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (2016)*
- *EPA Technical Guidance – Terrestrial Fauna Surveys (2020), where relevant to Black Cockatoo habitat assessment*
- Relevant Shire of Westonia Development Approval (attached)

1.4 Site Description

The project area is located at Lot 325 Daddow Road, Warralakin, within the Shire of Westonia, Western Australia. The proposed clearing footprint comprises approximately 7.87 hectares within the broader cadastral lot.

The area is located within the Avon Wheatbelt (AVW) bioregion and is characterised by granite outcrop landforms within a highly modified agricultural landscape.

Soils are predominantly shallow, comprising quartz outcrops and orange-brown clay substrates on gentle slopes.

Vegetation remnants are isolated within a broader cleared matrix of cropping and grazing land, resulting in a fragmented landscape context. Surrounding land use is predominantly broadacre agriculture and grazing.

The nearest sensitive receptor (non-associated residence) is located approximately 3.2 km from the project area.



Figure 1.1 - Site sensitive receptors

1.5 Approval Status

Approval	Status
Development Approval – Shire of Westonia	Approved
Works Approval	Under Assessment
Native Vegetation Clearing Permit	Subject of this application

2 Flora and Vegetation Survey Results

2.1 Survey Methodology

The assessment is informed by a detailed flora, vegetation and Black Cockatoo habitat survey undertaken on 25 November 2025, supplemented by desktop database searches.

The survey was conducted in accordance with EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (2016), and EPA Technical Guidance – Terrestrial Fauna Surveys (2020), where relevant to Black Cockatoo habitat assessment, and included:

- DBCA and DCCEEW desktop searches (10 km and 5 km radii respectively)
- Five representative 10 m × 10 m quadrats in best-condition vegetation
- Targeted transects and opportunistic searches
- Specimen collection and herbarium verification
- Black Cockatoo habitat tree assessment using DBH thresholds and hollow inspection.

Survey findings are interpreted in the context of survey timing, site condition and the highly fragmented agricultural landscape of the Avon Wheatbelt.

2.2 Survey Results

A total of 46 vascular plant taxa were recorded from 24 families and 39 genera.

Introduced species comprised three taxa occurring at relatively low abundance within disturbed microsites (~15% localised cover) and no Weeds of National Significance were identified.

A single vegetation community was mapped across the disturbance footprint:

Allocasuarina campestris open shrubland with scattered *Calothamnus gilesii* and *Grevillea paradoxa*, over very open herbland/grassland.

Vegetation condition was assessed as Very Good.

The detailed flora and vegetation survey report is provided in Appendix A.

2.3 Significant Flora and TECs

Desktop database searches identified several Threatened and Priority flora species and TECs within the broader regional search area.

However, no Threatened flora, Priority flora, or TECs were recorded within the survey footprint during field assessment.

The *Eucalypt Woodlands* of the Western Australian Wheatbelt TEC was identified in desktop records but does not occur within the project area.

Residual risk of undetected significant flora is considered low, based on habitat condition, survey effort, and landscape context.

2.4 Black Cockatoo Habitat

One potential Black Cockatoo habitat tree *(Eucalyptus transcontinentalis)* meeting DBH criteria was recorded within the project area. However, the project area occurs outside core breeding habitat areas and does not provide significant foraging resources at a regional scale.

No evidence of breeding activity, roosting or foraging was observed during the survey. Given the lack of observed use, limited habitat value, and fragmented surrounding landscape, the site is considered to provide low to negligible habitat value for Carnaby's, Baudin's, and Forest Red-tailed Black Cockatoos.

3 Fauna

An assessment of potential Malleefowl habitat was undertaken based on available site photographs, vegetation information, undertaken by Amber Anderson on behalf of Land Insights, who has experience conducting targeted Malleefowl surveys within the Goldfields region for mining developments.

The proposed 7.87 ha clearing area is not considered suitable habitat for Malleefowl due to the predominantly rocky substrate and limited availability of soft litter, sandy soils, and dense organic material typically required for mound construction.

Based on the available information, the proposed clearing is unlikely to result in significant impacts to Malleefowl.



Figure 3.1 – Site Suitability



Figure 3.2 Site Suitability

4 Impact Assessment

Biodiversity and Ecological Values

No Threatened flora, Priority flora, or Threatened Ecological Communities (TECs) were recorded within the disturbance footprint.

Vegetation within the project area comprises a single vegetation community in Very Good condition within a fragmented Wheatbelt landscape.

One potential Black Cockatoo habitat tree was identified; however, no evidence of breeding, roosting or foraging activity was recorded.

Based on survey effort, habitat characteristics and surrounding land use, the likelihood of significant residual ecological impacts is considered low.

Native Vegetation Extent and Landscape Context

The project area occurs within the extensively cleared Avon Wheatbelt bioregion, where remnant vegetation retains local ecological value due to landscape fragmentation.

The proposed clearing footprint was refined following environmental assessment to minimise impacts to remnant vegetation wherever practicable.

The final disturbance footprint is localised and is not expected to significantly reduce the regional extent, representation or connectivity of native vegetation.

Hydrology and Land Degradation

No permanent watercourses, wetlands or groundwater-dependent ecosystems occur within the project area.

No dewatering is proposed.

Standard erosion and sediment control measures will be implemented to minimise potential off-site impacts.

Residual hydrological and land degradation impacts are considered low.

4.1 Footprint Refinement and Avoidance

Environmental survey findings directly informed refinement of the proposed disturbance footprint.

Following completion of the flora, vegetation and Black Cockatoo habitat assessment, the original conceptual clearing footprint of approximately 12.57 ha was reassessed and reduced to approximately 7.87 ha.

This resulted in a reduction of approximately 4.7 ha (approximately 37%) in proposed clearing extent.

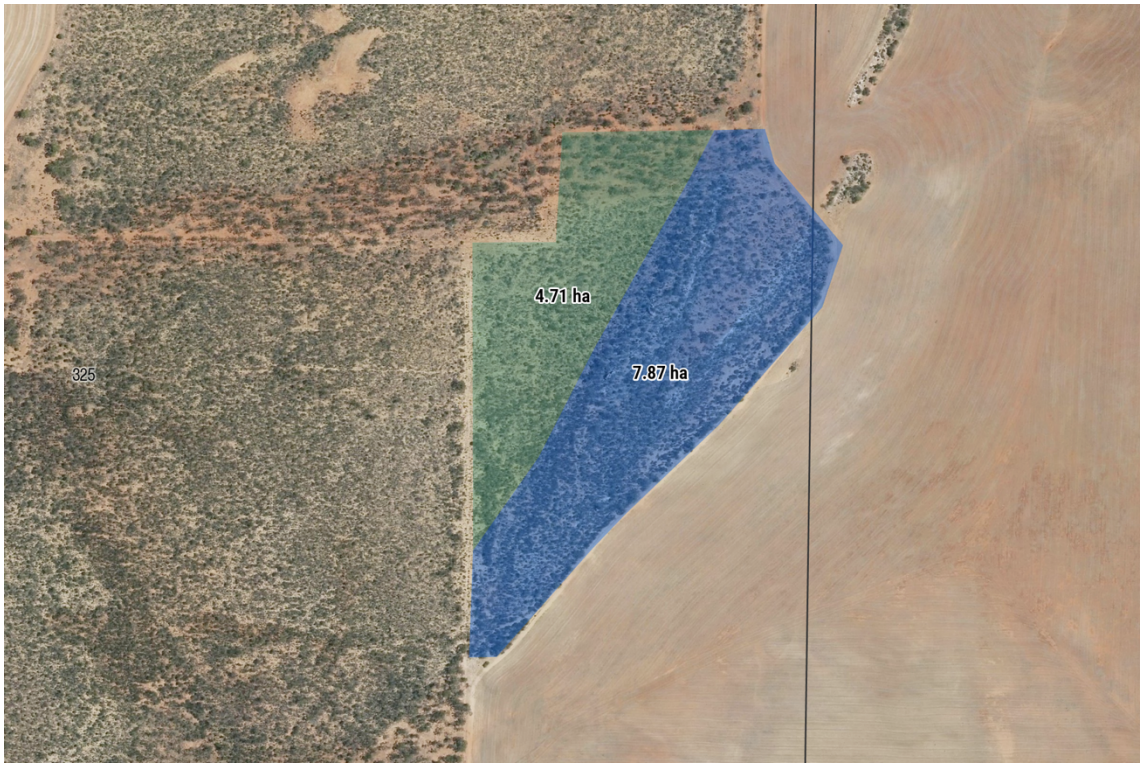


Figure 4.1 – Reduction: Clearing footprint

The reduction was achieved through:

- redesign of extraction and operational areas;
- avoidance of clearing extending to remnant vegetation boundaries and fence lines where not operationally required;
- retention of additional native vegetation surrounding the operational footprint;
- consolidation of infrastructure and access requirements; and
- minimisation of disturbance outside essential operational areas.

The final disturbance footprint represents the minimum practicable area necessary to safely undertake the proposed activities.

4.2 Avoidance, Minimisation and Management Measures

The following measures will be implemented:

- Clear demarcation of disturbance boundaries with fencing and signage
- Staged clearing to reduce exposed surfaces
- Pre-clearance inspections prior to disturbance activities
- Retention of vegetation outside required operational areas
- Fauna inspection and salvage procedures for habitat trees if required
- Topsoil and seed salvage for reuse in rehabilitation
- Erosion and sediment controls (bunding, sediment fencing, staged stabilisation)
- Hydrocarbon storage and spill response procedures
- Dust suppression and operational controls during adverse conditions
- Environmental induction and contractor awareness training.

Clearing activities will be undertaken during daylight hours and in accordance with all relevant permit conditions and environmental management commitments.

4.3 Assessment Against the Ten Clearing Principles

Clearing Principle	Assessment	Outcome
(a) Native vegetation should not be cleared if it comprises a high level of biological diversity	Vegetation consists of a single community in Very Good condition with moderate species richness (46 taxa). However, the site is highly isolated within a cleared agricultural landscape, reducing landscape-scale biodiversity significance.	May be at variance, but low significance
(b) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna	One potential Black Cockatoo habitat tree was recorded, but no evidence of use was observed. The site provides limited foraging or breeding value and is highly fragmented.	Not at variance
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora	No Threatened flora recorded during field surveys. Habitat suitability is considered low.	Not at variance

Clearing Principle	Assessment	Outcome
(d) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of a threatened ecological community	No TECs occur within the disturbance footprint.	Not at variance
(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared	The project area occurs within the extensively cleared Avon Wheatbelt bioregion, where remnant native vegetation retains elevated local significance due to landscape fragmentation. In recognition of this context, the disturbance footprint underwent substantial refinement following completion of the detailed flora, vegetation and habitat assessment. The original conceptual disturbance footprint of approximately 12.57 ha was reviewed against environmental survey findings and subsequently reduced to approximately 7.87 ha, representing a reduction of approximately 4.7 ha (37%) in proposed clearing extent. Accordingly, the proposal may be considered at variance with Principle (e) at a local scale; however, the significance of the variance is considered minor due to the substantial avoidance and minimisation measures incorporated into project design	May be at variance (low significance)
(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland	No watercourses or wetlands occur within the project area.	Not at variance
(g) Native vegetation should not be cleared if the clearing is likely to	Soils are stable with standard erosion risk typical of Wheatbelt environments. With implementation of erosion and sediment controls, land degradation risk is low.	Not at variance

Clearing Principle	Assessment	Outcome
cause appreciable land degradation		
(h) Native vegetation should not be cleared if the clearing is likely to have an impact on the environmental values of any adjacent or nearby conservation area	No conservation estate or managed conservation areas occur adjacent to the project area.	Not at variance
(i) Native vegetation should not be cleared if the clearing is likely to cause deterioration in the quality of surface or underground water	No groundwater-dependent ecosystems or surface water features occur on-site. No dewatering is proposed.	Not at variance
(j) Native vegetation should not be cleared if clearing would cause or exacerbate the incidence or intensity of flooding	The site is not located within a floodplain and clearing will not alter regional hydrology.	Not at variance

4.4 Residual Impact Statement

The disturbance footprint has been designed to minimise clearing of native vegetation and avoid unnecessary habitat removal.

Following completion of environmental surveys, the original conceptual clearing footprint of approximately 12.57 ha was refined and reduced to approximately 7.87 ha, representing a reduction of approximately 4.7 ha (37%) in proposed clearing extent.

This refinement process enabled retention of additional remnant vegetation, reduced edge effects and minimised fragmentation within the surrounding Wheatbelt landscape.

4.5 Conclusion – Clearing Principles Assessment

The proposed clearing of native vegetation at Lot 325 Daddow Road, Warralakin has been assessed against the Ten Clearing Principles.

The assessment determined that:

- No Threatened flora, Priority flora, or Threatened Ecological Communities are present within the disturbance footprint (Principles c and d);
- The site provides limited fauna habitat value, with no confirmed evidence of Black Cockatoo breeding, roosting or significant foraging activity (Principle b);
- Vegetation within the project area is in Very Good condition but occurs within a highly fragmented and extensively cleared agricultural landscape, limiting its regional ecological significance (Principles a and e);
- The project area does not intersect wetlands, watercourses, or groundwater-dependent ecosystems (Principle f);
- The proposal is unlikely to cause appreciable land degradation, deterioration in water quality, or flooding impacts due to the small, contained nature of clearing and the implementation of standard management controls (Principles g, i and j);
- No nearby conservation estate or protected areas are expected to be impacted (Principle h).

Overall, while the vegetation condition within the project area is relatively intact at a local scale, the broader landscape context is highly modified and fragmented. The proposed clearing is minor in scale, carefully constrained, and supported by mitigation and rehabilitation measures designed to avoid or reduce environmental harm.

Thus, the proposal is considered to be:

- Not at variance with the majority of the Ten Clearing Principles, and
- At most only minimally at variance with Principles (a) and (e), while the vegetation occurs within a highly cleared bioregion, the proposal is not expected to significantly reduce the representation, extent or connectivity of remnant vegetation at a regional scale.

Accordingly, it is concluded that the proposed clearing can be supported under the objectives of the Environmental Protection Act 1986 (WA), subject to implementation of the mitigation and rehabilitation measures detailed in this report.

No environmental offsets are considered necessary given the scale of the proposal, the absence of significant environmental values within the disturbance footprint, and the low residual environmental impact predicted following implementation of management measures.

5 Disturbance footprint justification

The disturbance footprint was subject to iterative refinement during project planning following review of flora, vegetation and habitat survey findings.

The original conceptual clearing footprint of approximately 12.57 ha was reduced to approximately 7.87 ha to avoid unnecessary disturbance of remnant vegetation and minimise edge effects where practicable.

Clearing extents adjacent to remnant vegetation boundaries and fence alignments were reduced where operationally feasible, and operational infrastructure was consolidated within a smaller disturbance envelope.

The final footprint represents the minimum practicable area required to safely undertake extraction activities and associated infrastructure requirements.



Figure 5.1 – proposed clearing extent

6 Rehabilitation and Closure

Disturbed areas not required for ongoing operational use will be stabilised and managed, where practicable, following completion of extraction activities.

The objectives of rehabilitation and closure are to:

- maintain a safe and stable landform;
- minimise erosion, sediment transport, dust and windblown material; and
- reduce the potential for weed establishment and off-site impacts.

Closure and stabilisation measures may include:

- reuse of available topsoil or vegetative material, where practicable;
- use of suitable quarry-derived material, including crushing and screening material, for backfilling or stabilisation where appropriate;
- implementation of erosion and drainage controls as required; and
- periodic inspection of disturbed areas to identify any maintenance requirements.

Opportunistic seed collection from within the project area may be undertaken, where practicable, to support stabilisation or rehabilitation activities.

Final closure measures will be determined in consideration of operational requirements, final landform, long-term site stability and surrounding land use at the time of closure.