



# **Talison Lithium - 132 kV Powerline Corridor from Hester Road Western Power Substation to the Mine Development Envelope at Greenbushes Lithium Mine**

Native Vegetation Clearing Permit Application

Supporting Information

(IBSA REF: IBSA-2022-0175)

20 May 2022



# **1 INTRODUCTION**

## **1.1 Project Background**

Talison Lithium is a Western Australian mining company with operations based at Greenbushes in the south-west of Western Australia. The Greenbushes Mine is located approximately 250 km south of Perth and 80 km south-east of the port of Bunbury.

The site comprises a number of open cut mining operations for tantalum, tin and spodumene (lithium). An underground tantalum operation has also been developed but is currently under care and maintenance. The Greenbushes pegmatite is the world's largest hard rock tantalum resource and the largest and highest-grade lithium minerals resource in the world. Minerals produced at Talison's Greenbushes Mine can be found in many different applications including mobile phones, computers, surgical implants, electronic devices, glassware, ceramics and batteries.

Talison is currently undertaking an expansion of mining activities to increase output from the Greenbushes Mine, approved under Ministerial Statement 1111 and Mining Act approvals. To further support the expansion, Talison is proposing to construct a new 132 kilo-Volt (kV) powerline along a corridor easement extending from the southern boundary of the Mine Development Envelope (MDE) of the Greenbushes Lithium Mine, southeast to the Hester Road Western Power Substation (Figure 1).

Construction of the 132 kV powerline will occur predominantly on cleared agricultural and silvicultural land. There will be a requirement to clear approximately 0.893 hectares (ha) of native vegetation, occurring as small isolated remnants within the corridor. It is noted that a wildfire in early February 2022 impacted 1,700 hectares (ha) in the local area including the majority of the study area.

A detailed flora and vegetation survey of all native vegetation remnants occurring within the powerline corridor was completed by Onshore Environmental in March 2022 (Onshore Environmental 2022) to determine the value of flora and vegetation at the site.

## **1.2 Purpose**

The purpose of this Native Vegetation Clearing Permit (NVCP) Supporting Information is to assist the DWER in its assessment of the "Application for new permit or referral to native vegetation" for the clearing of up to 0.893ha of native vegetation to provide an easement for the 132kV powerline corridor from the Hester Road Western Power Substation to the Greenbushes Mine-site MDE.

## **1.3 Land Use**

The final land use will be an easement or corridor for the 132kV Power Line. This land use is classified as a "Public Utility" (electricity supply services), as defined under the Rural Zone 2 - General Agriculture, Zoning of the Shire of Bridgetown Greenbushes Town Planning Scheme No. 4.



## 2 TENURE AND ACCESS

The project area is situated entirely within the Shire of Bridgetown-Greenbushes, and intersects 13 separate land tenures which are tabulated below (Table 1, Figure 1).

**Table 1 Details for landholder forming the 132 kV powerline corridor easement.**

	Property Details	Address	Area (ha)
1	Talison Australia Pty Ltd	Lot 5 (previously Lot 1263) Forest Park Road	50.6
2	Main Roads WA	South West Highway (Road Reserve)	NR
3	Talison Australia Pty Ltd	Lot 11240 South West Highway	12.2
4	Recruit Tree Farm Australia Pty Ltd	Lot 70 South West Highway	161.7
5	Talison Australia Pty Ltd	Lot 72 South West Highway	60.4
6	Talison Australia Pty Ltd	Lot 7974 South West Highway	66.5
7	Shire Bridgetown Greenbushes	Dalgarup Brook Road (Road Reserve)	NR
8	Water Corporation	Lot 10438 Bill Baldock Drive	75.1
9	Sanders	Lot 616 Wagebadenup Ridge	40.4
10	Bridgetown Golf Club	Lot 6799 Bill Baldock Drive	NR
11	Shire Bridgetown Greenbushes	Hester Road (Road Reserve)	NR
12	Talison Australia Pty Ltd	Lot 1961 Hester Road	48.8
13	Western Power	Lot 3 Hester Road	3.4

## 3 ENVIRONMENTAL CHARACTERISTICS

### 3.1 Biogeographic regions

The latest version of the Interim Biogeographic Regionalisation for Australia (IBRA7) divides Australia into 89 bioregions based on climate, geology, landform, native vegetation and species information, and includes 419 sub-regions (Department of Environment 2013). The bioregions and sub-regions are the reporting unit for assessing the status of native ecosystems and their level of protection in the National Reserve System.

The project area is located within the Southern Jarrah Forest (JF2) sub-region within the Jarrah Forest bioregion. The Southern Jarrah Forest sub-region is described as, “Duricrusted plateau of Yilgarn Craton characterised by Jarrah-Marri forest on laterite gravels and, in the eastern part, by Marri-Wandoo woodlands on clayey soils. Eluvial and alluvial deposits support *Agonis* shrublands. In areas of Mesozoic sediments, Jarrah forests occur in a mosaic with a variety of species-rich shrublands. The climate is Warm Mediterranean” (Hearn *et al.* 2002).

The vegetation of the sub-region is described as “Jarrah - Marri forest in the west grading to Marri and Wandoo woodlands in the east. There are extensive areas of swamp vegetation in the south-east, dominated by Paperbarks and Swamp Yate. The understory component of the forest and woodland reflects the more mesic nature of this area. The majority of the diversity in the communities occurs on the lower slopes or near granite soils where there are rapid changes in site conditions” (Hearn *et al.* 2002).



### 3.2 Land Systems and Soils

Tille (1996) has mapped soils of the Wellington-Blackwood District, which includes the town sites of Greenbushes and Bridgetown on its southern boundary. The project area occurs within the Darling Plateau System, and consists of undulating ridges and hill crests formed on laterite and gneiss which typically slope downwards off the main plateau into the surrounding Lowden Valleys System. The soils are mostly loamy gravels, sandy gravels and loamy earths.

The geology of the Greenbushes area is described as Archean granite of the Yilgarn Block (Wilde and Walker 1982) and the major soil types are listed below (Tille 1961):

#### Darling Plateau

- Dwellingup Subsystem (DW): Ridge Crests and Divides - broad undulating lateritic divides formed over granite and gneiss. Loamy gravels and sandy gravels are the most common soils with pockets of deep sands; and
- Yarragil Upstream Valleys Phase (YGu): Minor Valleys - 5-20 m deep with gradients of 3-10% on the slopes. The valley floor is broader than downstream. Being shallowly incised these valleys have a higher proportion of gravels and sands derived from laterite.

#### Lowden Valleys (granitic rocks)

- Grimwade Subsystem (GR): Low Slopes - moderately deep valleys (30-70 m) incised into granitic terrain. Lateritic colluvium often covers the slopes which have mostly low gradients (5-20%). Loamy earths and loamy gravels are the dominant soils.

### 3.3 Flora and Vegetation

The project area occurs in the Menzies Sub-district of the Darling Botanical District, in the South-West Botanical Province (Beard 1981). The Menzies Sub-district (southern jarrah forest) covers a total area of 26,572 km<sup>2</sup>, of which 18,715 km<sup>2</sup> (70%) originally supported jarrah and jarrah-marri forest (Beard 1990). It is estimated that approximately 61% of the total area has been cleared since European settlement, mainly in the valleys which are free of laterite, leaving the forest intact on laterised higher plateau levels.

#### 3.3.1 Beard (1981) Vegetation Associations

Regional vegetation mapping completed by Beard (1981) was utilised to assess representation of vegetation within the project area. A single Beard vegetation association was represented within the project area; 3 Medium forest; jarrah-marri (Table 1). In terms of representation, the Western Australian Government is committed to the National Objectives Targets for Biodiversity Conservation which includes a target that prevents clearance of ecological communities with an extent below 30% of that present at pre-European settlement (Department of Natural Resources and Environment 2002, EPA 2000). When considering representation at the State level, Beard vegetation association 3 currently has 67.76% of the pre-European extent remaining (Table 1, Government of Western Australia 2018). The project area is located within the Jarrah Forest Bioregion, specifically within the Southern Jarrah Forest Subregion. When considering the representation of vegetation association 3 at the IBRA regional and sub-regional levels, 67.10% and 59.40% of the pre-European extent remains respectively (Table 1). The project area falls



entirely within the Shire of Bridgetown-Greenbushes. At this local level 56.35% of the pre-European extent remains for vegetation association 3 (Table 2). Vegetation within the project area is therefore determined to be well represented at all levels (state-wide, bioregional [IBRA region and IBRA sub-region] and local government authority).

In terms of reservation, there is a benchmark for a minimum of 15% of each Beard (1981) vegetation association to be protected in Class I-IV reserves (Commonwealth of Australia 1997). The proportion of the current extent of vegetation association 3 occurring within Class I-IV reserves at a state-wide, bioregional and local government authority level ranges between 23.44% and 31.13%, noting that larger proportions (ranging from 78.50% to 86.77%) occur within DBCA managed lands (Table 2). Hence the reservation status is determined to be above the minimum benchmark confirming adequate reservation for vegetation association 3.

### 3.3.2 Mattiske and Havel (1998) Vegetation Complexes

The pre-1750 distribution of vegetation complexes of the South West Forest Region of Western Australia has been mapped at 1:50,000 scale by Mattiske and Havel (1998) as part of the biodiversity assessment for the comprehensive regional assessment for the South West Forest Region. Interrogation of this database confirmed there were three vegetation complexes intersecting the project area:

- BL (Balingup) - Open forest of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla* on slopes and woodland of *Eucalyptus rudis* on the valley floor in the humid zone;
- CC1 (Catterick) - Open forest of *Eucalyptus marginata*-*Corymbia calophylla* mixed with *Eucalyptus patens* on slopes, *Eucalyptus rudis* and *Banksia littoralis* on valley floors in the humid zone; and
- HR (Hester) - Tall open forest to open forest of *Eucalyptus marginata* subsp. *marginata*-*Corymbia calophylla* on lateritic uplands in perhumid and humid zones.

The three vegetation complexes currently have between 29.38% and 73.68% of the pre-European extent remaining within the South West Forest Region, between 1.49% and 14.96% of the current extent within Class I-IV conservation reserves, and between 15.34% and 67.12% of the current extent within DBCA ,managed lands (Table 2).



**Table 2 Pre-European and current extent of vegetation represented within the project area (Government of Western Australia 2018).**

Vegetation System / Association	Pre-European Extent (ha)	Current Extent (ha)	% Pre-European Extent Remaining	Current Extent in Class I-IV Reserves (ha)	% Current Extent in Class I-IV Reserves	Current Extent DBCA Managed Lands (ha)	% Current Extent DBCA Managed Lands
<b>State-wide</b>							
3 Medium forest; jarrah-marri	2,661,404.62	1,803,437.48	67.76	485,223.00	26.91	1,469,765.60	81.50
<b>IBRA Region</b>							
JAF - Jarrah Forest	2,390,591.54	1,604,101.56	67.10	385,183.08	24.01	1,299,263.74	81.00
<b>IBRA Sub-Region</b>							
JAF02 - Southern Jarrah Forest	1,482,491.85	880,655.65	59.40	274,167.05	31.13	691,319.44	78.50
<b>Local Government Authority</b>							
Shire of Bridgetown-Greenbushes	121,152.70	68,275.41	56.35	16,006.81	23.44	59,243.12	86.77
<b>Mattiske and Havel Complexes</b>							
Balingup Complex BL	59,446.57	17,466.47	29.38	883.65	1.49	9,120.37	15.34
Catterick Complex CC1	27,385.55	16,733.59	61.10	1,875.21	6.85	15,210.18	55.54
Hester Complex HR	32,249.57	23,762.74	73.68	4,825.98	14.96	21,647.46	67.12



## 4 PROPOSED ACTIVITIES

This NVCP Supporting Information is to assist the DWER in its assessment of the “Application for new permit or referral to clear native vegetation” for the clearing of up to 0.893ha of native vegetation to provide an easement for the 132kV powerline corridor from the Hester Road Western Power Substation to the Greenbushes Mine-site expansion approved under Ministerial Statement 1111 and Mining Act approvals.

## 5 VEGETATION CLEARING

The extent of native vegetation clearing has been minimised during the planning and design phase of the project with consideration the following restrictions:

- Minimum clearance requirements have been defined by Western Power in their document “Western Power Clearances advice” (Western Power 2019);
- The Western Power Clearance advice defines the minimum requirements for clearances around new overhead power lines. These requirements state that:
  - ...further clearances of up to ten (10) metres (the Management Zone) either side of the proposed pole location/line route should be assessed and all trees and saplings with the potential to grow to become large trees within the Management Zone should be removed prior to construction”;
- Clearing of large trees within a minimum of 10m either side of the Power Pole therefore cannot be avoided. The clearance of smaller trees which are unlikely to grow and interfere with the Powerline will be kept wherever possible; and
- The location of the 132kV Powerline has been chosen to use existing easements wherever practicable to avoid additional clearing. In areas where there are no existing easements, powerlines will be located in areas that will have minimal impact on agricultural areas or native vegetation, such as cleared farmland or other partly cleared areas to avoid additional clearing.

Vegetation will be undertaken via mechanical clearing following the same protocols implemented at other project areas within the mine expansion (subject to receiving appropriate approvals). To further reduce any potential impact on the environment, Talison will undertake activities in accordance with ground disturbance permitting procedures that apply to activities within the Development Envelope. These include ensuring that an appropriately qualified and experienced fauna spotter is on site during clearing activities to assess tree hollows for fauna occupation, to handle and move significant fauna if required, to administer emergency care to injured and or displaced fauna if required, and to ensure access to a care facility for injured fauna if required.

## 6 REHABILITATION

Cleared native vegetation at the site will be mulched *in situ* to reduce bulk, and it is proposed that this material will be spread within the cleared corridor to reduce the potential for introduced species to establish on disturbed surfaces.



## 7. ASSESSMENT AGAINST 10 CLEARING PRINCIPLES

Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<b>a. Native vegetation should not be cleared if it comprises a high level of biological diversity</b>			
<p>The field survey recorded 54 plant taxa from 26 families and 45 genera from the project area. There were three vegetation types recorded, with within the proposed clearing footprint characterised by Jarrah-Marri forest or parkland cleared Marri forest planted with exotic eucalypts on gravelly sandy loam soils on lateritic hill crests and slopes.</p> <p>Vegetation condition was reduced across the entire project area, rated as good (54%), degraded (23%) or completely degraded (23%). Multiple historical disturbances were compounded by the small and isolated nature of the remnants amongst predominantly cleared agricultural land. Many of the remnants comprised exotic eucalypts and all supported highly disturbed understorey strata (parkland cleared). Disturbances including grazing by domestic stock, elevated numbers of kangaroos, surface soil disturbance, colonisation of weeds from adjacent pasture, and altered surface drainage.</p>	<p>Clearing of native vegetation required for construction of the 132 kV powerline within the easement will not exceed 0.893 hectares, and will not impact on any areas supporting significant biodiversity.</p> <p>Vegetation was determined to be of low conservation value owing to the high level of disturbance and reduced vegetation condition, combined with the small area and inability to consolidate the native vegetation remnants into larger blocks.</p>	<p>To minimise impact of the clearing on the environment, Talison Lithium proposes the following control measures;</p> <ul style="list-style-type: none"> <li>- The maximum extent of native vegetation clearing will not exceed 0.893 hectares;</li> <li>- All earthmoving machinery will be cleaned and inspected for weeds prior to entry into the project area;</li> <li>- Clearing will be undertaken in accordance with <i>ENV-FM-015 Clearing &amp; High-Risk Ground Disturbance Permit</i> (Attachment 1); and</li> <li>- Clean native vegetation mulch will be spread along disturbed surfaces within the 132 kV powerline easement to minimise potential for future colonisation by introduced species.</li> </ul>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>





Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<b>b. Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.</b>			
<p>The flora and vegetation survey confirmed the occurrence of Jarrah and Marri trees forming a Forest canopy (15-30 m tall, 30-70% foliar cover). The two vegetation types represented within the proposed clearing footprint were considered to be well represented and well reserved within DBCA managed state forest within the Greenbushes region.</p> <p>A reconnaissance vertebrate fauna survey was completed within the project area in October 2018 (Onshore Environmental 2019). Fauna habitat linked with native vegetation remnants was described as 'Hill Slope', with potential for tree hollows to support four conservation significant fauna species:</p> <ul style="list-style-type: none"> <li>- Forest Red-tailed Black-Cockatoo;</li> <li>- Baudin's Cockatoo;</li> <li>- Carnaby's Cockatoo; and</li> <li>- South-western Brush-tailed Phascogale.</li> </ul> <p>There was no evidence of foraging, roosting or breeding by Black Cockatoos observed from the project area. There was one tree with a hollow recorded, but it was deemed unsuitable for use by Black Cockatoos.</p>	<p>The proposed clearing of 0.893 hectares of native vegetation within small isolated native remnants within the 132kV powerline easement will remove trees that may have potential to offer habitat to conservation significant species in the future, particularly the clearing of trees with a DBH &gt;50cm.</p>	<p>Undertake a targeted assessment within the project area to confirm the presence of potential breeding trees. If breeding trees are confirmed within the project area, ensure a trapping program is conducted prior to clearing, with a fauna spotter on site during the clearing process.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>



Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<b>c. Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.</b>			
<p>None of the plant taxa recorded from the project area were determined to be:</p> <ul style="list-style-type: none"> <li>- Threatened Flora under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act);</li> <li>- Threatened Flora under the Western Australian <i>Biodiversity Conservation Act (2016)</i> (BC Act);</li> <li>- Priority flora as listed by the Department of Biodiversity Conservation and Attractions (DBCA); or</li> <li>- Range extensions occurring outside their current known distribution.</li> </ul>	<p>No Threatened flora taxa were identified within the project area during the detailed flora and vegetation survey.</p>	<p>No management requirements necessary.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>
<b>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.</b>			
<p>Field assessment confirmed that the two vegetation type recorded from the proposed clearing footprint within the project area were not aligned with any known Commonwealth or State listed Threatened Ecological Communities (TECs) or State listed Priority Ecological Communities (PECs) represented within the South West Region.</p>	<p>No TECs or PECs were recorded within the project area.</p>	<p>No management requirements necessary.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>



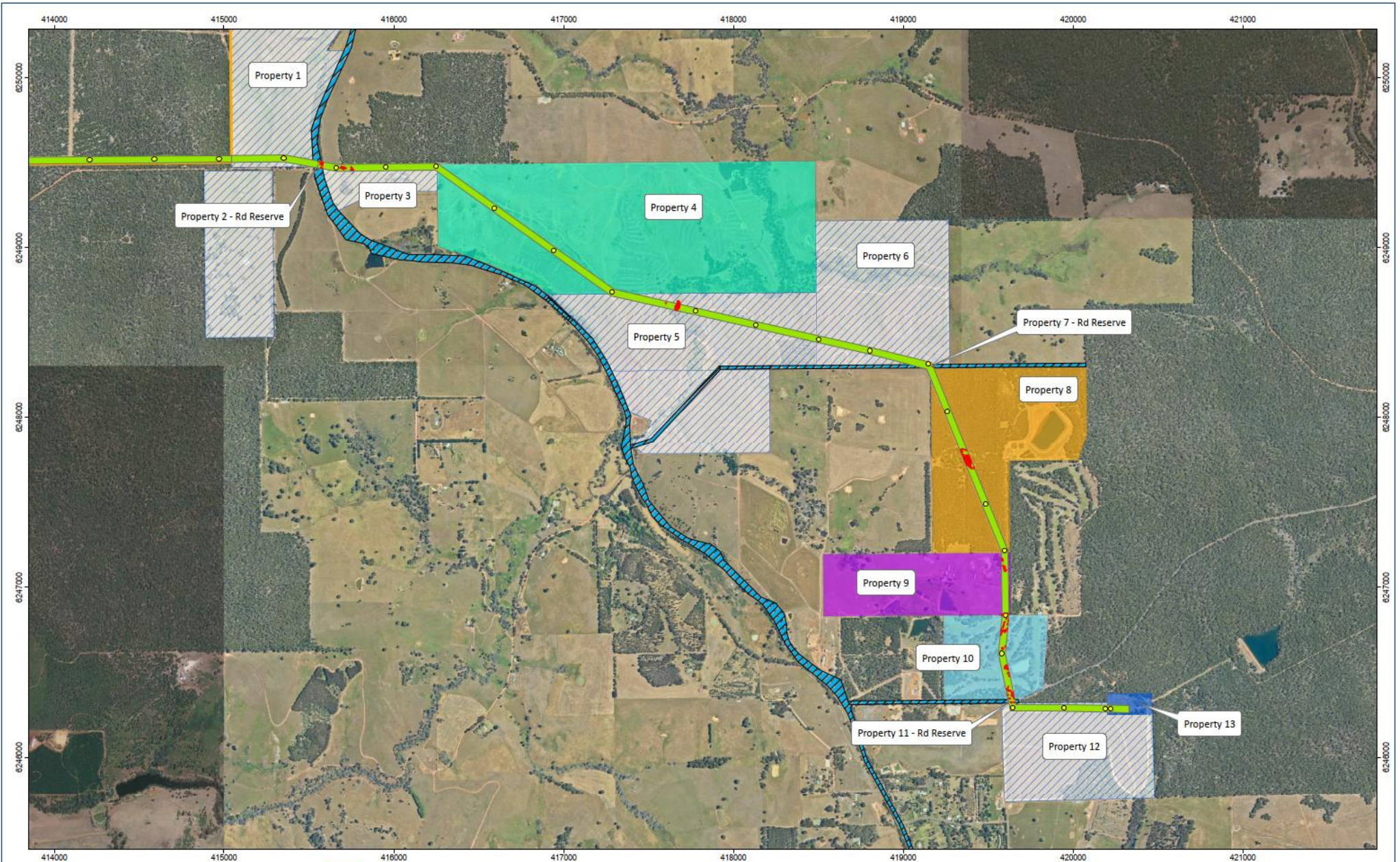
Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<p><b>e. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.</b></p>			
<p>A single Beard vegetation association was represented within the project area; 3 Medium forest; jarrah-marri. When considering representation at the State level, Beard vegetation association 3 currently has 67.76% of the pre-European extent remaining. The project area is located within the Jarrah Forest Bioregion, specifically within the Southern Jarrah Forest Subregion. When considering the representation of vegetation association 3 at the IBRA regional and sub-regional levels, 67.10% and 59.40% of the pre-European extent remains respectively. The project area falls entirely within the Shire of Bridgetown-Greenbushes. At this local level 56.35% of the pre-European extent remains for vegetation association 3.</p>	<p>Vegetation within the project area is determined to be well represented at the state-wide, bioregional [IBRA region and IBRA sub-region] and local government authority levels.</p>	<p>While the maximum clearing extent is relatively small (0.893 hectares), the actual clearing footprint will be minimised wherever possible. Furthermore, clean native vegetation mulch will be spread along disturbed surfaces within the 132kV powerline easement to minimise potential for future colonisation by introduced species.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>
<p><b>f. Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.</b></p>			
<p>The project area occurs on elevated lateritic hills slopes within the Darling Plateau System (Tille 1996). The proposed clearing footprint within the 132 kV easement does not intersect watercourse or wetlands.</p>	<p>No clearing will be undertaken within areas associated with a watercourse or wetland.</p>	<p>No management requirements necessary.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>



Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<p><b>g. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</b></p>			
<p>The project area occurs over lateritic hills with deep soil profiles comprising friable gravelly loam. A large proportion of this landform has been historically cleared for annual pasture or tree farms, with no evidence of appreciable land degradation on the uplands. The maximum area to be cleared is less than one hectare and within isolated native remnants that have historically been impacted by multiple disturbances, including severe fire impacts, resulting in a reduction to vegetation condition.</p>	<p>The project area has previously been influenced by multiple disturbances and condition has been reduced. As such, the small amount of proposed clearing is unlikely to cause appreciable land degradation.</p>	<p>Talisson Lithium proposes the following control measures to reduce potential for long term degradation of the project area:</p> <ul style="list-style-type: none"> <li>- The maximum extent of native vegetation clearing will not exceed 0.893 hectares;</li> <li>- All earthmoving machinery will be cleaned and inspected for weeds prior to entry into the project area;</li> <li>- Clearing will be undertaken in accordance with <i>ENV-FM-015 Clearing &amp; High-Risk Ground Disturbance Permit</i> (Attachment 1); and</li> <li>- Clean native vegetation mulch will be spread along disturbed surfaces within the 132 kV easement to minimise potential for future colonisation by introduced species.</li> </ul>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>
<p><b>h. Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.</b></p>			
<p>The proposed clearing is restricted to small and isolated native remnants occurring within predominantly cleared agricultural land. There are no adjacent conservation areas.</p>	<p>The proposed clearing of 0.893 hectares will not impact on any conservation areas.</p>	<p>No management requirements necessary.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>



Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome- Assessment of Variance with Clearing Principle
<b>i. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.</b>			
<p>The project area occurs on elevated lateritic hills slopes with a deep friable gravelly loam soil profile with high infiltration capacity.</p> <p>The 132 kV powerline corridor passes over the Hester Brook drainage line, but there will be no requirement to clear native vegetation associated with the drainage line complex, and the design has ensured that no power poles will be positioned within the drainage line vegetation.</p>	<p>Clearing will be restricted to 0.893 hectares and on elevated lateritic hills. The small area of proposed native vegetation clearing, combined with the <i>in situ</i> environment, will ensure there is no deterioration in the quality of surface or ground water.</p>	<p>Management practices, including spreading of cleared vegetation mulch, will ensure there is no uncontrolled surface water run-off from the project area.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>
<b>j. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.</b>			
<p>The proposed area of clearing is relatively small (0.893 hectares) and occurs on elevated hills slopes that are not at risk from flooding and unlikely to increase the potential for surface water run-off.</p>	<p>The potential impact for clearing of the vegetation that is likely to cause, or exacerbate, the incidence or intensity of flooding was determined to be negligible.</p>	<p>All cleared areas will be stabilised during construction of the 132 kV powerline to ensure there is no uncontrolled surface water run-off from the project area.</p>	<p>The proposed vegetation clearing is unlikely to be at variance with this principle.</p>

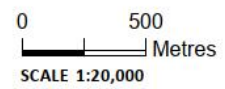


**PROPERTY DETAILS AS DESCRIBED IN NVCP APPLICATION**

- Native Veg along Power Corridor requiring clearing
- Mine Development Envelope
- Bridgetown Golf Club
- PoleLocations\_20220215\_Rev2
- Talison Owned Property
- John & Terri Saunders
- Transmission\_40mCorridor\_15Feb2022
- Western Power SubStation
- Recruit Treefarm Australia Pty Ltd
- Road Reserve
- Water Corporation



Date: 18/05/2022  
 Internal Ref: 0110\_00\_2022  
 Drawn: DB  
 Requested: FB



Datum: GDA94  
 Projection: MGA Zone 50





# Clearing & High-Risk Ground Disturbance Permit ENV-FM-015

TALISON

This form should be completed using guidance from ENV-PR-5003.

## SECTION A - EXECUTOR AND ACTIVITY DETAILS

Section A to be completed by PERMIT EXECUTOR

Executor Name		Executor Contact No.	
Executor Email			
Contractor Company(s) (if applicable)			
Contractor Contact Name(s) (if applicable)		Contractor Contact No.	
Contractor's radio channel			
Name of Talison Asset Owner / Coordinator for Area			

The clearing permit **will automatically expire** \_\_\_\_\_ months after the date of approval unless the Environment Department is kept informed of the progress/status of the clearing task

Location of Clearing/Disturbance			
Purpose of Clearing/ Disturbance			
Has the disturbance boundary been marked out by Survey?	<input type="checkbox"/> Yes - <b>Areas to be cleared/disturbed must be surveyed and marked prior to permit being authorised</b>		
Description of Survey Mark-up	Tape colour: _____		
Reason for Clearing	<input type="checkbox"/>	Clearing for Mine Operations	
	<input type="checkbox"/>	Maintenance & Protection of Infrastructure	
	<input type="checkbox"/>	Clearing under PoW	PoW Number: _____
	<input type="checkbox"/>	Clearing for Rehabilitation	
	<input type="checkbox"/>	Clearing for Mine Expansion	
	<input type="checkbox"/>	Clearing for Other Purposes:	_____
Area of Disturbance (ha)			
Method of Clearing / Disturbance			
Equipment			
Access requirements	<input type="checkbox"/>	Existing Tracks to be used	
	<input type="checkbox"/>	New tracks required (provide details)	
Does the proposal include transportation of material from one location to another location?	<input type="checkbox"/>	Topsoil – Stockpiled within clearing footprint	
	<input type="checkbox"/>	Subsoil	
	<input type="checkbox"/>	Vegetation – Mulch stockpile within clearing footprint	
	<input type="checkbox"/>	Weed Burden	
	<input type="checkbox"/>	Other: Timber (offsite – FPC, Simcoa/Thomas)	
Proposed location of stockpiles (if known)			
Proposed location of washdown facilities (if known)			

Executor is to return the completed permit application to the Environmental Administrator for processing.



# Clearing & High-Risk Ground Disturbance Permit ENV-FM-015

TALISON

This form should be completed using guidance from ENV-PR-5003.

## SECTION B – CLEARING & HIGH-RISK ENVIRONMENTAL DISTURBANCE PERMIT REVIEW

Section B and Authorisation be completed by ENVIRONMENT DEPARTMENT

Permit Number:

### Review:

Talison Tenement	
Domain Name	
Sub-Domain Name	

Dieback Status	Infested		Uninfested
	Uninterpretable		NOT MAPPED

CHECKS	YES	NO	NA	Comment
Is the disturbance covered by Clearing Permit 5056/2?				
Is the disturbance covered by a Mining Proposal?				
Is the disturbance covered by a heritage survey?				
Desktop: pre-disturbance survey complete & correct?				
In field pre-disturbance inspection completed?				
Disease & weed assessment conducted & special instructions required?				
Fauna trapping/spotting required and provisions in place?				
Known cockatoo habitat within/adjacent to area has been marked, inspected for activity and protected?				
Targeted survey for Eucalyptus relictus completed and none found within the clearing area				
Previously rehabilitated area within/adjacent to area?				
Environmental management/monitoring assets (incl. bores, CPEs, noise loggers) identified & protected?				
Known historical workings in area?				
Have relevant external stakeholders been informed?				

### ENVIRONMENTAL SPECIAL INSTRUCTIONS:

- Dieback management required (details attached in Hygiene Management Plan), including:
  - Machine hygiene (washdown) required pre and post clearing
  - Machine hygiene (washdown) Clean on Entry required (refer to ENV-PR-8001 / ENV-FM-035)
- New equipment/vehicles require hygiene inspection (refer to ENV-PR-8001 / ENV-FM-020)
- Salvage management required (details attached in Salvage Management Plan), including:
  - Environment officer to salvage seeds before clearing
  - Topsoil and subsoil to be stockpiled (details provided in Salvage Management Plan attached)
  - Volume of topsoil and location dumped to be reported to Environment Department
  - Survey to pick up where topsoil is removed/stockpiled
- No material to be removed from area without Environmental Officer approval
- Dust control required
- Operator training required (details provided below)
- Notify Environmental Dept before clearing and/or topsoil collection commences
- Environmental Officer to conduct regular inspections during disturbance activities
- High weed content soil / mulch to be buried
- Vegetation to be buried in situ
- Vegetation to be buried in area specified by Environmental Officer
- Post clearing survey pick-up required
- Fauna Trapping/Spotter required (trapping to commence 5 days prior to clearing)
- Waste Management controls required (details provided below)





# Clearing & High-Risk Ground Disturbance Permit ENV-FM-015

TALISON

This form should be completed using guidance from ENV-PR-5003.

**DETAILS OF SPECIAL INSTRUCTIONS:** *(Environmental Coordinator to add/delete as appropriate)*

**The disturbance activity is to be conducted in accordance with the following attachments:**  
*(Environmental Coordinator to add/delete as appropriate)*

**Training Requirements:**

**Fauna Requirements (see ENV-PR-0005):**

**Authorisation:**

**Environmental and Community Superintendent (or delegate)**

Name	Signature	Date

**Manager- Safety, Environment & Community (or delegate)**

Name	Signature	Date

**Acceptance / Receipt:**

**SECTION C – ACCEPTANCE/RECEIPT**

*Section C to be completed by PERMIT EXECUTOR*

**Clearing & High-Risk Ground Disturbance Permit EXECUTOR (or delegate)**

*By signing this Clearing and High-Risk Ground Disturbance Permit the Executor acknowledges all special instructions applied to the Permit and acknowledges responsibility for ensuring all special instructions are adhered to during the execution of the Permit.*

Name	Signature	Date

**Permit Validity Period:**

Date of Approval:		Date of Expiry:	
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# Clearing & High-Risk Ground Disturbance Permit ENV-FM-015

TALISON

This form should be completed using guidance from ENV-PR-5003.

## SECTION D – JOB COMPLETION

*Section D to be completed by PERMIT EXECUTOR*

Updated survey data has been provided by the Survey Department  N/A  Yes

Final Disturbed Area (ha)  Location of final pick-up spatial file

I confirm that all Permit Conditions were complied with  (yes or no)

If no – provide details

### Permit Completed By:

#### Permit EXECUTOR (or delegate)

<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Signature	Date

*Executor is to return the completed and signed permit to the Environment Department to be formally closed out.*

### Permit Closed By:

#### Environmental and Community Superintendent (or delegate)

<input type="text"/>	<input type="text"/>	<input type="text"/>
Name	Signature	Date

Permit work inspected  Yes  No Comment:

All work was carried out as conditioned in the Permit  Yes  No

Clearing and disturbance register/database updated  Yes

Shapefiles updated  Yes

Comment: