

Your ref:  
Our ref: 12560977

08 September 2021

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## Wedgefield Industrial Estate Clearing - Mulgara Fauna Assessment

Dear David

# 1. Background

DevelopmentWA is undertaking subdivision works in Wedgefield, Port Hedland. There is an existing Environmental Management Plan developed by GHD in 2011, which sets out protocols for clearing and was based on the assumption of Mulgara being present.

The Brush-tailed Mulgara (*Dasymercus blythi*) is a muscular carnivorous marsupials with short round ears and short tapering tails. They are light reddish-brown or tan above and whitish below. Males are generally larger than females. The Brush-tailed Mulgara is a Priority 4 species that is Near Threatened. This species is close to Vulnerable, but not listed as Conservation Dependent. Small scattered populations of Mulgara have been found in arid regions through Central and Western Australia, including Pilbara and Port Hedland areas.

Before clearing future lots within the Wedgefield subdivision, DevelopmentWA has committed to assess each area for actual presence of Brush-tailed Mulgara (*Dasymercus blythi*) and report this to the Department of Biodiversity Conservation and Attractions (DBCA), to confirm the clearing protocols are appropriate, or if Mulgara are not present, not required.

DevelopmentWA want to initially clear approximately 7 hectares (ha) in Stage 3 of the subdivision associated with Lots 350, 351 and 352 (yellow shaded area as presented in Figure 1). DevelopmentWA has indicated there will be future subdivision stages to also be assessed for Mulgara, in Stages 4 and 5 as presented by the two black outlined polygons in Figure 2; however, the initial 7 ha area is the priority for DevelopmentWA. The timing of the clearing works has become quite urgent, as there is machinery on standby associated with construction works on immediately adjoining land.

## 1.1 Scope and limitations

DevelopmentWA has requested GHD's assistance to determine if there is evidence of Mulgara present within Lots 350, 351 and 352. If additional areas can be assessed while on site at the same time (i.e. parts of Stages 4 and 5), this would be beneficial, although not essential under this scope.

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This letter will be used to inform DevelopmentWA of appropriate fauna management actions and clearing protocols. The letter may also be supplied to DBCA as evidence of work undertaken with respect to Mulgara presence prior to clearing.

This letter has been prepared by GHD for DevelopmentWA and may only be used and relied on by DevelopmentWA for the purpose agreed between GHD and DevelopmentWA.

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The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

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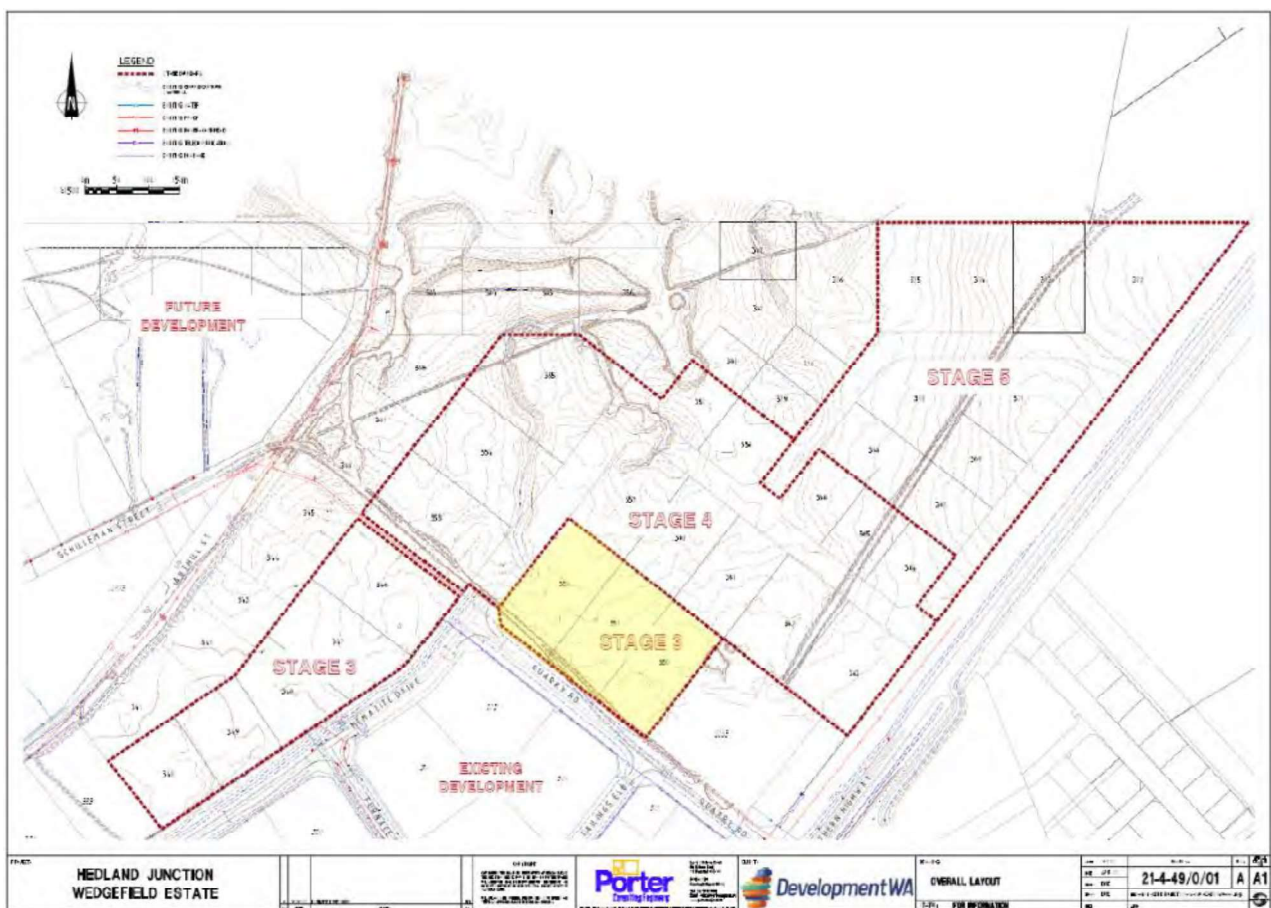


Figure 1 Wedgefield subdivision (Stage 3 Survey area presented as yellow shaded area)

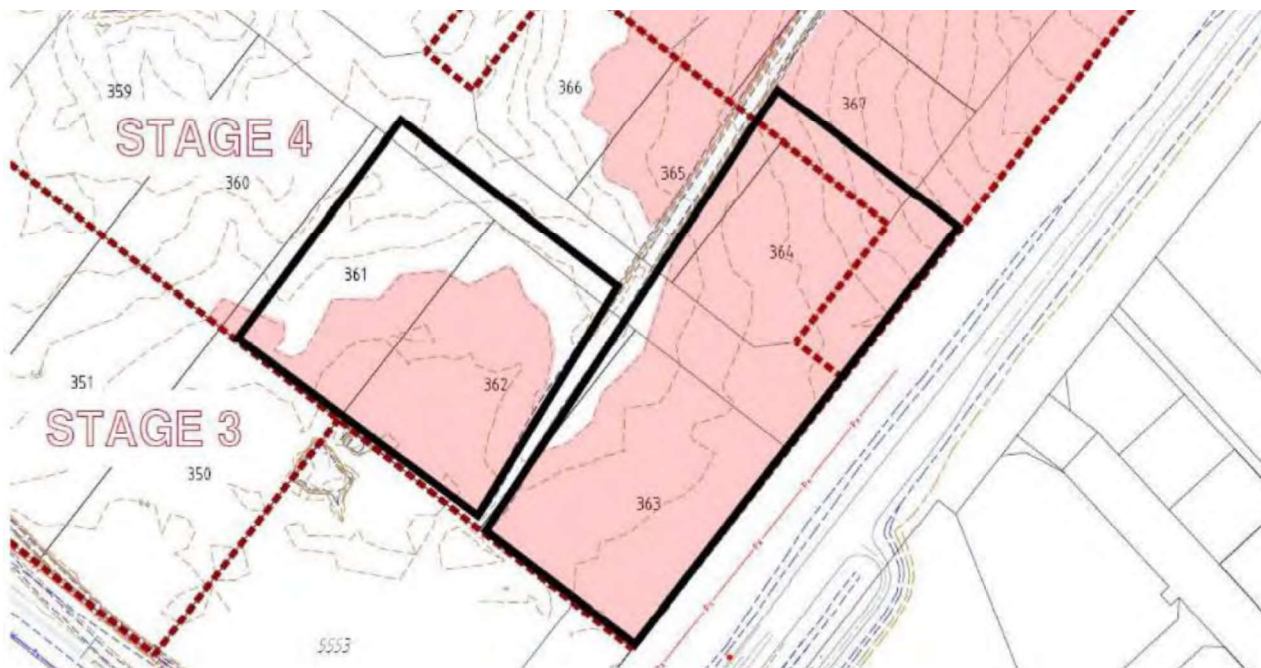


Figure 2 Wedgefield subdivision (Stages 4 and 5 Survey area presented by black border)

## 2. Site Assessment

### 2.1 Field preparation

GHD contacted Allan Holland, Operations Manager at DeGrey Civil, who is the contractor in possession of the site to liaise with them regarding access and identifying the areas they intend to clear.

Robert Browne-Cooper, Senior Zoologist met with Allan when arriving in Port Hedland before attending the Wedgefield subdivision. This provided an opportunity to confirm clearing areas, site access, complete pre-start and site induction.

### 2.2 Site visit

Robert Browne-Cooper completed the site visit on 8 September 2021. Robert is a highly experienced Zoologist, having worked on over 200 desktop and field survey projects over the last 20 years covering many biogeographic regions in Western Australia particularly southwest and Pilbara. Robert has well developed technical skills, a wealth knowledge of Pilbara fauna ecology, having been directly involved in over 30 Pilbara fauna assessment for mining and related infrastructure projects including several target Mulgara surveys in the Port Hedland area.

The site visit involved traversing the entire of the Stage 3 area, which comprises Lots 350, 351 and 352 using a transect spacing of 10 – 20 metres on foot so as to provide sufficient coverage to search for evidence of Mulgara, including diggings, burrows and scats.

Portions of the Stages 4 and 5 were also searched including the entirety of Lots 361 and 362, and parts of of Lots 363, 365 and 367, employing the same survey methodology as for Stage 3. It was not possible to survey the remaining Lots within Stages 4 and 5, due to time constraints. A tracklog showing coverage is presented in Figure 3.

Where Mulgara evidence was observed, the location was recorded on a handheld GPS, with representative photos taken. Where active Mulgara burrows were identified, these were flagged while in the field to assist with managing potential impacts appropriately during clearing.

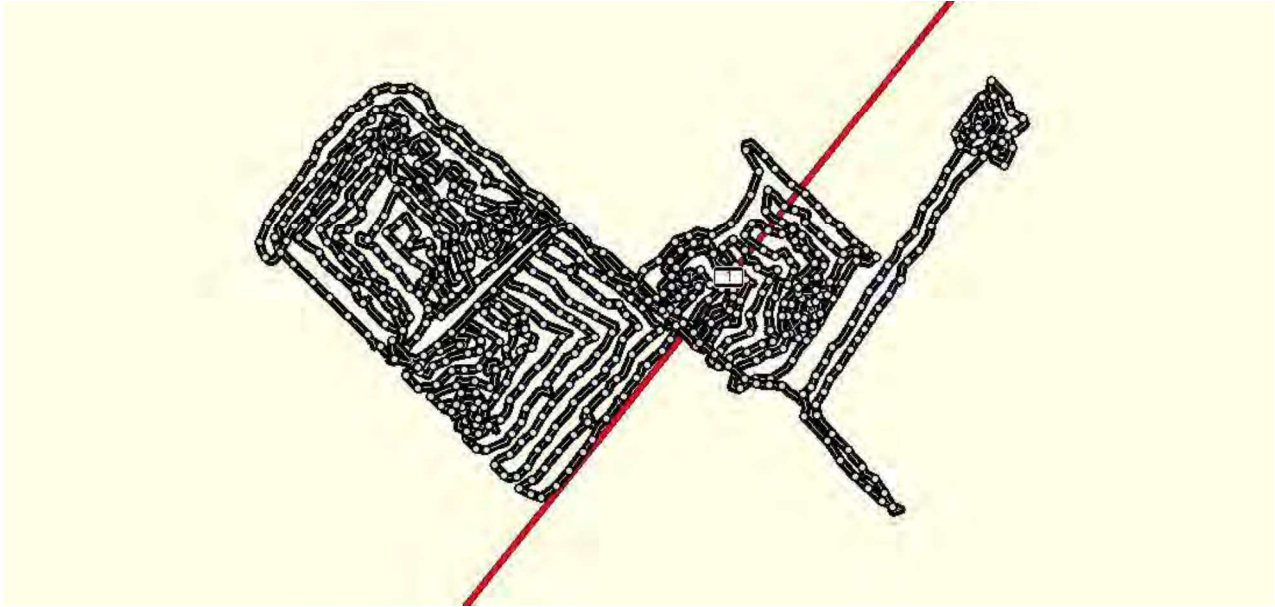


Figure 3 Survey effort tracklog


## 2.3 Results




The site conditions encountered on the day of the survey, including vegetation coverage, wind, and weather did not constrain the effectiveness or results of the assessment .




Evidence of Mulgara was detected within Stage 3 including three active burrows likely to have at least one resident Mulgara. All three active burrows are in a loose cluster of approximately 15 metres radius and may comprise the home range of a single animal. In addition to active burrows, two non-active burrows were detected within Stage 3. These were assessed as being disused or abandoned due to dilapidation. All burrows detected are detailed in Table 1.


Mulgara burrows were also detected within Stages 4 and 5. Although the entire area presented by the black border in Figure 2 was not assessed, the survey did result in the detection of one active Mulgara burrow and two inactive (abandoned) burrows. These observations are also detailed in Table 1.

Table 1 Burrow Observations

Observation	Coordinates	Stage No.	Photo
Active Mulgara burrows			
M3. Active Mulgara burrow, entrance clear, scat, footprints. Burrow flagged.	50 K 667549 7746470	Stage 3	

Observation	Coordinates	Stage No.	Photo
<p>M4. Active Mulgara warren with 3 burrows, entrance clear, fresh footprints, fresh spoil mound. Burrow flagged.</p>	<p>50 K 667560 7746460</p>	<p>Stage 3</p>	
<p>M5. Active Mulgara burrow, entrance clear, fresh footprints, fresh spoil. Burrow flagged.</p>	<p>50 K 667554 7746481</p>	<p>Stage 3</p>	
<p>M8 Active Mulgara warren with 2 burrows, entrance clear. Burrow flagged.</p>	<p>50 K 668011 7746704</p>	<p>Stage 5</p>	

Observation	Coordinates	Stage No.	Photo
Inactive / abandoned Mulgara burrows			
M1. Old / abandoned Mulgara burrow. Burrow appears collapsed. Not flagged	50 K 667576 7746633	Stage 3	
M2. Old / abandoned Mulgara burrow. Burrow appears collapsed. Not flagged	50 K 667578 7746639	Stage 3	
M6. Old / abandoned Mulgara burrow. Leaf litter build-up in entrance. Not flagged.	50 K 667846 7746561	Stage 4	

<p>M7. Old / abandoned Mulgara burrow. Leaf litter build-up in entrance. Not flagged.</p>	<p>50 K 667994 7746725</p>	<p>Stage 5</p>	
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### 3. Discussion

Although there is active ground disturbance within the vicinity of the areas assessed by this scope, Mulgara continue to persist. The distribution and proximity of the burrows in relation to each other within Stage 3 suggest only a small number of (potentially only one) individuals are currently utilising this area to be cleared.

Based on the detection of an active burrow within a portion of Stage 5 area, it is apparent Mulgara are present within this portion of the subdivision as well. The relevant areas of Stages 4 and 5 presented in Figure 2 not assessed as part of this field visits should be surveyed for presences of active burrows so they can be flagged prior to clearing.

Based on the presence of a small number of active mulgara burrows within the Lots surveyed, the fauna management actions and clearing protocols listed in the Environmental Management Plan (GHD 2011) should be employed. Specific consideration should be given to the following management measures:

- Clearing will occur outwards from already disturbed or developed areas to allow fauna to escape into remaining vegetated areas (Measure 24)
- A sequential clearing plan that avoids isolating fauna in 'islands' and allows for fauna to escape and relocate (Measure 41)
- Active Mulgara burrows to be flagged and not cleared until the animals have had an opportunity to escape (24 to 48 hrs depending on the distance from the disturbance) (Measure 42)

The flagging of active burrows identified during this field survey will facilitate compliance with Measure 42, as listed above.

Allowing any resident animals to relocate following partial clearing in the immediate vicinity should avoid significant impacts on the species.

Regards



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