

**PROPOSED GRAVEL EXTRACTION
308 SCENIC DRIVE, YATHROO
ENVIRONMENTAL ASSESSMENT**

Prepared for

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1.0 INTRODUCTION

Breakaway Earthmoving, the owner of 308 Scenic Drive, Yathroo, proposes to establish a commercial gravel pit on a portion of the property to supply gravel to external clients for road base, building construction and other uses.

308 Scenic Drive is a farming property used for sheep grazing, hay production and cropping. It has an area of approximately 768 hectares and is located about 18km south-east of the town of Dandaragan in the Shire of Dandaragan. The proposed gravel pit occupies about 1.3ha in the north-east of the property and is located on a gravelly rise partly occupied by cleared paddock and partly by native vegetation. Figure 1 shows an aerial view of the site and surroundings.

The property is zoned Rural under the Shire of Dandaragan Local Planning Scheme No. 7.

This environmental assessment report has been prepared in support of applications by Breakaway Earthmoving for a clearing permit, development approval and extractive industry licence.

2.0 SITE DESCRIPTION

2.1 Geology, Landforms and Soils

The site is located on the Dandaragan Plateau. The surrounding landform consists of a gently undulating plateau ranging in elevation from about 180m to 230m AHD. The site is located on a southwest-facing low rise with an elevation of 200m to 204m AHD. Figure 2 shows the topography of the site and surroundings.

The Geological Survey of Western Australia (GSWA) described the landform in the vicinity of the site as “Gently undulating plateau with areas of sandplains and some laterite, on Cretaceous sediments. The soils were described as slope deposits, including colluvium and sheetwash.

The Dandaragan Land Resources Survey (DPIRD) mapped the site as 222Da_1a: Dandaragan 1 Crest Phase, consisting of “Hillcrests and very gently to gently inclined hillslopes; red to pale sandy gravels, shallow red to pale sands over duricrust, some red to yellow deep sands.”

Site inspection showed the soil over most of the application area to be gravelly with little or no topsoil. At the lower end of the application area adjacent to the paddock there is a thin covering of pale yellow-brown sand.

The iron-rich gravel soils of the proposed extraction area are derived from weathering of laterite. Test pitting within the site has shown that the gravel extends to a depth of two to three metres over laterite and red gravelly clay.

2.2 Hydrology

There is no surface water expression within the site. Sheet runoff may occur over the ground surface for short periods during intense rainfall events.

Groundwater is likely to occur at depths of several metres to tens of metres. A production bore near the farm homestead, about 700m east of the site, produces high quality water for stock from a depth of about 40m (I. McGregor, pers. comm.).

The site is within the Gingin Groundwater Area, within which allocations and licensing are managed under the Gingin Groundwater Allocation Plan (DoW, 2015). The site is within the Victoria Plains subarea for the superficial aquifer and the Cataby and Cowalla subareas for the confined aquifers.

The site is within the Minyolo - Caren Caren surface catchment of the Moore - Hill Rivers basin. Like the Gingin Groundwater Area, the Moore - Hill Rivers Basin is a proclaimed catchment, within which surface water use is subject to licensing.

No groundwater or surface water will be used for the proposed extraction operation.

2.3 Vegetation and Flora

2.3.1 Vegetation Types

The vegetation of the site is mapped by Beard (1981) as Dandaragan 999 (Medium Woodland; Marri, e3Mi).

Bayley Environmental Services surveyed the site in December 2020. The survey was carried out at the level of Reconnaissance Survey (EPA, 2016), using multiple walked traverses during which all plant taxa observed that could not be identified on site were collected and pressed for identification by Dr Frank Obbens of the WA Herbarium. Given the seasonal timing of the survey, some annual plants could only be collected as dead material and some plants lacked flowers and fruit. Nevertheless, nearly all plants collected were able to be identified to species level.

The survey found the vegetation to be a dense shrub heath dominated by *Banksia strictifolia* and *Calothamnus quadrifidus*, with *Melaleuca radula* and *Hypocalymma angustifolium* as common secondary species. The ground cover species were relatively sparse, probably due to a combination of the dense shrub layer, stony soil and past disturbance. *Ptilotus polystachyus* was dominant in some heavily disturbed areas.

Although the vegetation technically meets the description of Beard Association 999, Marri is almost absent from the application area, being present only as one or two saplings. This is most likely due to the gravelly soil and poor water availability within the application area. Mature Marri trees are present on the outside of the application area where clayey soils may retain more soil moisture.

2.3.2 Vegetation Condition

The condition of the vegetation was assessed as fully cleared (no native species) in the paddock, Completely Degraded (one or two native species) in the area adjacent to the paddock, degraded (sparse native species with large bare areas, regenerating) in the east of the site and Very Good (dense native vegetation with few weeds or bare ground) in the central part of the application area.

The highest condition was assessed as Very Good rather than Excellent due to the relatively low number of native species and evidence of past disturbance by grazing.

Figure 3 shows the vegetation condition ratings.

2.3.3 Flora

The vegetation survey found a total of 25 native species on the site. This is considered somewhat low for a site of this size, possibly due to the effects of past grazing and removal of some ground cover species.

Very few weeds were present in the application area, consisting mostly of pasture species such as bearded oat grass (*Avena barbata*) in cleared and disturbed areas adjacent to the paddock. Weed penetration into the uncleared areas was very low.

2.3.4 Rare and Significant Flora

No Declared Rare Flora (DRF) or Priority Flora (PF) were found on the site.

A search of the DBCA Threatened & Priority Flora and WA Herbarium databases returned a list of 73 threatened and priority flora taxa within a 20km radius of the application area. These included twelve Threatened taxa, eight Priority 1, eleven Priority 2, twenty nine Priority 3 and thirteen Priority 4 taxa. Appendix A shows the results of the database search.

Based on the habitat descriptions in Florabase and the database searches, 38 of the listed species have habitat preferences (e.g. marri woodland, lateritic/gravelly soils, dry slopes and ridges) that give them the potential to occur in the application area. Of these, only one (*Drosera prophylla*) is an annual herb and would not have been visible at the time of the survey. The remainder are all shrubs, trees or perennial herbs, and would have been visible at the time of the survey. A number of the listed species occur mainly or only in damp or wet areas, and would be unlikely to be present.

Most of the listed species have flowering periods either before or after December, and few were flowering at the time of the survey (although a number held dead flower material). However, all species collected during the survey were able to be at least provisionally identified to species level.

It is therefore concluded that the likelihood of Threatened or Priority species being present in the application area is low.

2.3.5 Threatened and Priority Ecological Communities

The DBCA Threatened and Priority Ecological Communities lists two Priority Ecological Communities as occurring within a 30km radius of the application area:

- SCP29: Banksia-dominated woodlands of the Swan Coastal Plain; and
- SCP23b: *Banksia attenuata* – *Banksia menziesii* woodlands.

SCP29 is listed as Priority 3(iii) (poorly known). It typically occurs on Bassendean and Spearwood sands and occasionally on Quindalup sands, but also occurs on sandy soils

of the Ridge Hill Shelf, Whicher Scarp and Dandaragan Plateau. The closest mapped occurrence to the application area is on sandy soil about 1,200m to the north-east. Extensive areas of this PEC occur on sandy soils more than 15km to the south-west.

SCP23b is listed as Priority 3(i) (poorly known). It occurs on Bassendean sands from Melaleuca Park (Mandurah) to Gingin. The nearest occurrence to the application area is south of the Moore River, 16.5km south of the site.

Both SCP29 (as Swan Coastal Plain Banksia Woodlands) and SCP23b are also listed as Threatened Ecological Communities (Endangered) under the Commonwealth EPBC Act 2000.

Neither of these ecological communities, nor any other Threatened or Priority Ecological Community, are present in or near the application area.

2.3.6 Local and Regional Representation

The area south of Dandaragan is used for extensive cropping and grazing and is very heavily cleared. Table 2.1 summarises the status of the site vegetation types in the Swan Coastal Plain Bioregion, the Shire of Dandaragan and within 15km of the site. The data in the table are sourced from the following:

- 2013 Native Vegetation extent by Vegetation complexes on the Swan Coastal Plain south of Moore River (Local Biodiversity Program, 2013).
- CAR Analysis Report 2009. WA Department of Environment & Conservation, Perth www2.landgate.wa.gov.au/slip/portal/services/files/carreserveanalysis2009.xls.
- Vegetation Extent-By-Type GIS database (Department of Agriculture, 2005).
- Swan Coastal Plain Vegetation Complexes GIS database (DPaW, 2016).
- CALM Estate GIS database (CALM, 2009).

Table 2.1 Remnant Vegetation Status

<i>Vegetation Unit</i>	<i>Pre-European Extent (km²)</i>	<i>Current Extent (km²)</i>	<i>% Remaining</i>	<i>% In DBCA-managed Land</i>
Remnant Vegetation				
Swan Coastal Plain Bioregion	15,012	5,879	39	16
Shire of Dandaragan	6,705	2,959	44	18
15km Radius	701	97	14	0.3
Dandaragan 999 (Beard, 1981)				
Swan Coastal Plain Bioregion	1,157	135	12	2.5
Shire of Dandaragan	918	91	10	0.13
15km Radius	422	40	9.5	0

The table shows that the remnant vegetation overall is well represented both locally and regionally, but that its formal reservation status in the local area is poor. The Dandaragan 999 vegetation association is moderately represented at the shire and regional level, but its representation at the local level and its reservation at all levels is poor. Figure 4 shows the local and regional representation and reservation.

2.4 Fauna

No native fauna were seen during the daylight site inspection, and few signs of fauna were observed. These were limited to sparse kangaroo scats, sheep droppings and a few rabbit scratchings. No birds were seen or heard in the application area.

The heath vegetation of the site would be expected to provide a source of food for birds during flowering and fruiting season, particularly species such as honeyeaters and possibly some parrots.

The DBCA Threatened Fauna Database lists 28 Threatened or Priority Fauna taxa as occurring within a 40km radius of the application area. These include three mammal species, seventeen bird species, one reptile and seven invertebrates. These species are listed in Table 2.2.

Table 2.2 Threatened and Priority Fauna Recorded Within 40m of the Site

<i>Scientific Name</i>	<i>Common Name</i>	<i>WA Status</i>	<i>EPBC Status</i>
Mammals			
<i>Dasyurus geoffroii</i>	Chuditch	VU	VU
<i>Hydromys chrysogaster</i>	Rakali	P4	
<i>Notamacropus irma</i>	Western brush wallaby	P4	
Birds			
<i>Actitis hypoleucos</i>	Common sandpiper	MI	MI
<i>Calidris acuminata</i>	Sharp-tailed sandpiper	MI	MI
<i>Calidris ferruginea</i>	Curlew sandpiper	CR	CR
<i>Calidris melanotos</i>	Pectoral sandpiper	MI	MI
<i>Calidris ruficollis</i>	Red-necked stint	MI	MI
<i>Calyptorhynchus latirostris</i>	Carnaby's black-cockatoo	EN	EN
<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo'	White-tailed black-cockatoo	EN	EN
<i>Falco peregrinus</i>	Peregrine falcon	OS	
<i>Hydroprogne caspia</i>	Caspian tern	MI	MI
<i>Leipoa ocellata</i>	Malleefowl	VU	VU
<i>Oxyura australis</i>	Blue-billed duck	P4	
<i>Platycercus icterotis xanthogenys</i>	Western rosella (inland)	P4	

<i>Plegadis falcinellus</i>	Glossy ibis	MI	MI
<i>Pluvialis fulva</i>	Pacific golden plover	MI	MI
<i>Thinornis rubricollis</i>	Hooded dotterel	P4	
<i>Tringa glareola</i>	Wood sandpiper	MI	MI
<i>Tringa nebularia</i>	Common greenshank	MI	MI
Reptiles			
<i>Neelaps calonotos</i>	Western black-striped snake	P3	
Invertebrates			
<i>Hylaeus globuliferus</i>	Woollybush bee	P3	
<i>Idiosoma dandaragan</i>	Dandaragan Plateau shield-backed trapdoor spider	P2	
<i>Idiosoma mcclementsorum</i>	Julimar shield-backed trapdoor spider	P2	
<i>Idiosoma</i> sp.	an <i>Idiosoma</i> trapdoor spider	EN/P	
<i>Leioproctus contrarius</i>	a short-tongued bee	P3	
<i>Throscodectes xederoides</i>	Mogumber bush cricket	P3	
<i>Westralunio carteri</i>	Carter's freshwater mussel	VU	VU

Few of the species in Table 2.2 would be likely to occur in the application area. The Chuditch and Western Brush Wallaby could occur, although the small size and isolation of the site make this unlikely.

Most of the listed bird species are shoreline or wetland species and would not be present. Carnaby's Black-cockatoo and the "White-tailed black cockatoo" (probably Carnaby's) may use the site periodically to feed, although none were seen or heard during the survey and no evidence of feeding was found beneath the Marri trees around the site.

The flora species found in the application area included only two species listed in the available literature (including Valentine & Stock, 2008; Johnston, 2013; and Groom, 2011) as black cockatoo food species. These were *Acacia saligna* and Marri (*Corymbia calophylla*), both of which were very minor and occasional occurrences in the application area, although Marri was common in areas surrounding the site. It is therefore considered unlikely that the application area would be a significant food source for black cockatoos.

The Western Black-striped snake is unlikely to be present due to the stony soils, which would not suit its burrowing habit.

2.5 Landscape

The extraction area is potentially visible from a short (700m) section of Rows Road about 0.7-1.3km to the south-west. However, the view from this section of Rows Road is obstructed by roadside vegetation, meaning that the site will not be visible. Other than this, the extraction area will be visible only from farmland more than 1.6km from the

site. It is therefore concluded that landscape effects will not be a significant issue for the proposal.

2.6 Aboriginal Heritage

The Department of Planning Lands & Heritage (DPLH) online Aboriginal Sites Database shows no registered Aboriginal heritage sites within less than 13km from the proposed extraction area.

3.0 PROPOSED GRAVEL EXTRACTION

3.1 Available Sand Resource

The usable gravel resource is estimated to extend to a depth of 2m to 3m before meeting gravelly clay. Over the approximately 1.3ha of the proposed extraction area, this implies an extractable resource in the order of 22,000m³ to 35,000m³ of gravel. This allows for the pre-stripping of approximately 0.3m of topsoil for use in rehabilitation.

3.2 Area and Depth of Excavation

The quarry will be excavated to a maximum depth of approximately 3m, depending on the depth of the resource. The quarry will cover an area of approximately 1.3ha.

3.3 Access Roads

Access to the quarry will be from Rows Road via an existing crossover and access track. Figure 1 shows the alignment of the access road. Rows Road has clear sightlines for approximately 400m north and 500m south of the crossover.

3.4 Duration and Staging of Extraction

The extraction will be undertaken in one stage, beginning at the southern (paddock) edge and proceeding north.

The quarry will initially produce about 200 tonnes per week, increasing according to demand up to a maximum of 1,000 tonnes per week (up to 25,000 tpa). The total lifetime of the quarry will be in the order of three years.

3.5 Method of Excavation

A wheeled loader will be used to strip the vegetation and topsoil/overburden to a depth of 0.3m. The topsoil will be either windrowed for later rehabilitation or placed directly onto previously quarried areas.

The loader will then be used to excavate the gravel and stockpile it or load it directly onto trucks.

3.6 Overburden Management

Approximately 4,000m³ of gravelly topsoil will be removed to a depth of up to 0.3m to expose the gravel resource. Initially, the topsoil will be windrowed for later use in rehabilitation. Later, as the pit progresses, stripped topsoil and vegetation debris will be placed directly onto newly completed areas of the pit.

3.7 Plant and Equipment

One wheeled loader (CAT 966H or similar) will be kept at the site and used to excavate and load the gravel.

On-site refuelling of the loader will be carried out by a mobile tanker. On-site maintenance will be limited to routine oil changes. Major maintenance will be carried out off-site. No fuel or oils will be stored or discharged on site.

3.8 Hours of Operation

Gravel extraction will occur during daylight hours (generally 8am to 5pm) on any day of the week. Given the site's location and isolation, there are not expected to be any impacts from noise or dust outside of the property.

3.9 Truck Movements

Gravel will be transported from the quarry by single-bodied side tipper trucks or pocket road trains in loads of up to 50 tonnes. Deliveries will occur only during daylight hours between Monday and Friday. This will require up to about 4-6 truck movements (in/out) on those days. Rowes Road already carries heavy trucks and agricultural machinery and is able to handle the extra traffic.

3.10 Workforce

The quarry will be operated by one or two persons. There will be no on-site accommodation or facilities. Lunchroom and toilet facilities are located at the existing farmhouse and workshops, about 750m from the quarry.

3.11 Drainage Management

The gravelly soils of the site will generate runoff under heavy rainfall conditions. Under current conditions, runoff from the extraction area will flow out to the adjacent paddock

where it will soak into the sandy soils. Once the pit is created, runoff will be captured in the pit where it will soak away.

There is no requirement for drainage management.

3.12 Noise and Dust

The nearest off-site residences are located approximately 700m north and 1.25km north-west of the extraction area and are screened by terrain and vegetation. Noise propagation in the direction of these residences is expected to be very low.

Dust may be generated by excavation, crushing, truck loading, truck movements and wind action on exposed surfaces. The main potential for dust generation will occur during the stripping of topsoil, which contains more fine material and particulate organic matter. The potential for dust generation during excavation and loading of gravel will be much lower.

No topsoil stripping will occur when the wind speed is greater than 20km/hr from the south or south-east. No excavation or truck loading will occur in winds of greater than 40km/hr from the south or south-east. Progressive rehabilitation of quarried areas will mean that no more than 1ha of sand is exposed at any one time, thus reducing the potential for dust generation.

Mechanical equipment used at the quarry will be limited to a front-end loader and trucks carrying the sand. These will be fitted with standard noise attenuation equipment. No blasting or rock-breaking will be required.

3.13 Dieback Management

The Murdoch University Centre for Phytophthora Science and Management (Groves *et al.*, 2009) lists six of the plant species found on the site as susceptible to dieback caused by *Phytophthora cinnamomi*. Another eight species are listed as resistant to dieback.

The presence of susceptible species indicates that the extraction area is currently free of dieback. The site is at low risk of infection given its location on a stony rise, so that dieback infection will only occur if infected soil or plant material is directly imported to the upper parts of the site.

Dieback hygiene measures will be implemented to ensure that the site remains dieback-free. All plant and machinery (including loaders, trailers etc.) used in the quarry will be cleaned down using water jets or compressed air and inspected prior to entry to the site. Trucks transporting gravel will be restricted to designated areas at the lower end of the

site and will not access areas where topsoil is stored or in situ. No soil or plant material (other than seed from dieback-free sources, if required) will be imported to the site.

3.14 Rehabilitation and Final Land Use

Rehabilitation will be progressive and will take place immediately behind the extractive front. Rehabilitation will consist of terrain reshaping and the re-establishment of native vegetation. The topsoil and vegetation debris stripped prior to excavation will be saved and re-spread over the surfaces of the restored landform to allow for the establishment of native vegetation from the seed bank in the topsoil.

If after two years native regrowth is seen to be inadequate, the rehabilitated surface will be seeded with native species using seed gathered from the adjacent area to promote regrowth. Where practical the stripped topsoil and vegetation debris from each extraction block will be spread immediately onto restored surfaces to minimise double handling and stockpiling.

Regrowth following quarrying is expected to be rapid. An area of approximately 600m² cleared and excavated as a test pit before 2017 had by December 2020 grown back naturally to the point where it was distinguishable on the ground only by the lower density of vegetation cover.

3.15 Public Safety

The extraction area is on private property and is not accessible to the public. Due to the absence of any deep excavation, the site will not pose a risk to the public except in the immediate vicinity of operating machinery. The site is currently fenced with post and wire fencing; this will remain in place during the extraction operation.

No explosives or other hazardous materials will be kept or used on the site.

4.0 ENVIRONMENTAL ASSESSMENT

4.1 Vegetation Clearing

The full quarrying programme will require the clearing of about 6,900m² of native vegetation in Degraded to Very Good condition.

4.2 Assessment Against the Clearing Principles

- a) **Native vegetation should not be cleared if it comprises a high level of biological diversity.**

Summary: Proposal is not likely to be at variance to this principle.

The wording of this principle suggests that, to be regarded as having a “high level” of biological diversity, then the diversity of the vegetation should be relatively high compared to other vegetation, either of the same type or of different types.

The site survey in December 2020 found a total of 25 native species in the 6,900m² site. This number is considered low by comparison with the Kwongan sandplain heath vegetation, which is known for its high species richness.

These results suggest that the vegetation of the application area has relatively low diversity. This may be due in part to the impact of previous grazing.

- 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 indigenous to Western Australia.**

Summary: Proposal is not likely to be at variance to this principle.

Few of the fauna species listed by the DBCA as occurring within 30km of the application area have habitat preferences that match those present in the application area. Carnaby's Black-Cockatoo occurs in woodland, shrubland or Kwongan heath, feeding on Hakea, Dryandra or Banksia species (DBCA, 2017). However, only two recognised Carnaby's Cockatoo food species (*Acacia saligna* and *Corymbia calophylla*) were present in the application area, and both were present in very low numbers.

The small size and isolation of the application area make it unlikely that any significant fauna would be resident in or dependent upon the site.

- c) **Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.**

Summary: Proposal is not likely to be at variance to this principle.

No Declared Rare Flora or Threatened Flora listed under the Western Australian *Wildlife Conservation Act 2006* or the Commonwealth EPBC Act 1999 were found by the vegetation survey, and none are considered likely to be present.

- d) **Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.**

Summary: Proposal is not likely to be at variance to this principle.

No Threatened or Priority Ecological Communities listed under the Western Australian *Wildlife Conservation Act 2006* or the Commonwealth EPBC Act 1999 were found by the vegetation survey, and none are considered likely to be present.

- 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.**

Summary: Proposal may be at variance to this principle.

The property (308 Scenic Drive) totals 768ha, of which 106ha (13.8%) is mapped by the DBCA as remnant vegetation. The application area represents less than 0.1% of the total property and less than 0.7% of existing remnant vegetation on the property.

Table 2.1 shows that the area within 15km of the site is heavily cleared, with 14% of the original vegetation remaining and only 0.3% reserved.

Native vegetation is well represented and reserved within the Shire of Dandaragan, with 44% of the original extent remaining and 18% reserved. These are above the level for the Swan Coastal Plain Bioregion as a whole.

- f) **Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

Summary: Proposal is not likely to be at variance to this principle.

The application area is located on elevated dry land. The nearest mapped wetland in the DBCA Geomorphic Wetland Database is a degraded sumpland, part of a chain of

lakes and damplands, located 1.2km to the north-east. The application area contains no wetland-dependent or riparian vegetation.

- g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

Summary: Proposal is not likely to be at variance to this principle.

Land degradation may be taken to mean erosion, salinisation, nutrient leaching or other events that reduce the capability of the land or other areas downgradient to support biological production.

The application area is situated on elevated soils with no significant risk of salinisation. After quarrying, the site will be rehabilitated to native vegetation.

The proposed gravel extraction operation will begin with clearing vegetation and stripping topsoil to a depth (nominally) of 300mm. The vegetation debris and topsoil will be windrowed for use in rehabilitation.

- 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.**

Summary: Proposal is not likely to be at variance to this principle.

There are no conservation areas near the application area. The closest DBCA-managed reserve is the Bundarra Nature Reserve, located 10.6km to the south-southeast.

- 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.**

Summary: Proposal is not likely to be at variance to this principle.

The proposed extraction operation will maintain several metres clearance between the pit floor and the maximum groundwater level. The operation will not involve the use of any chemicals, fertilisers or other potentially contaminating materials.

Refuelling of machinery on site will be carried out by a mobile tanker. No fuel, oils or other environmentally hazardous materials (e.g. pesticides) will be stored on site.

Machinery used on the site will be properly maintained to prevent leakage of oils, fuel and hydraulic fluid. In the unlikely event of a spill or significant leak, the spilled fluid and

any spill-affected soil will be cleaned up and placed in a sealed container or removed from the site within 24 hours.

- j) **Native vegetation should not be cleared if clearing the vegetation is likely to cause or exacerbate the incidence or intensity of flooding.**

Summary: Proposal is not likely to be at variance to this principle.

The application area is situated on elevated ground which is not at risk of flooding.

5.0 REFERENCES

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Figures

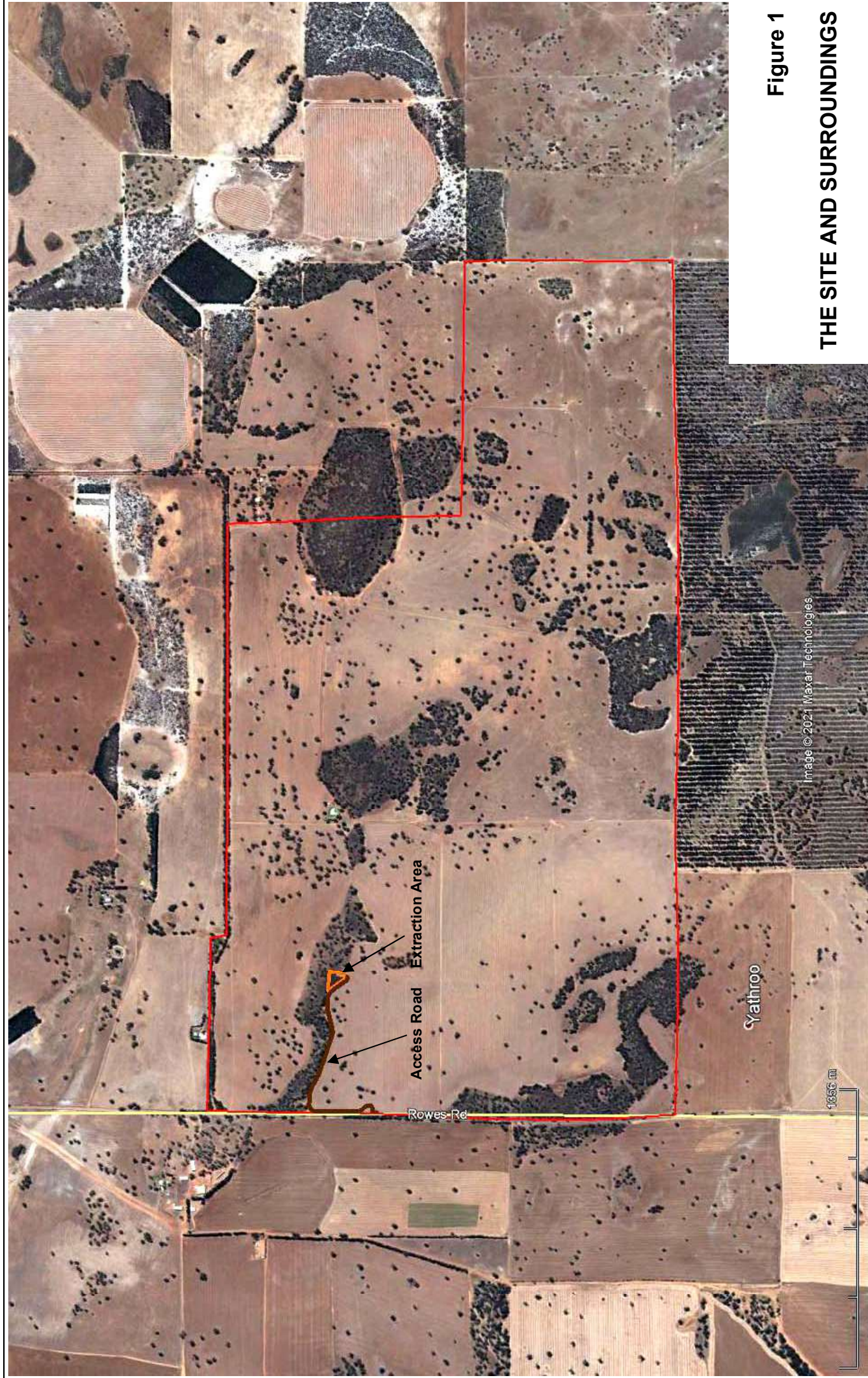


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Figure 1

THE SITE AND SURROUNDINGS



Figure 2

TOPOGRAPHY

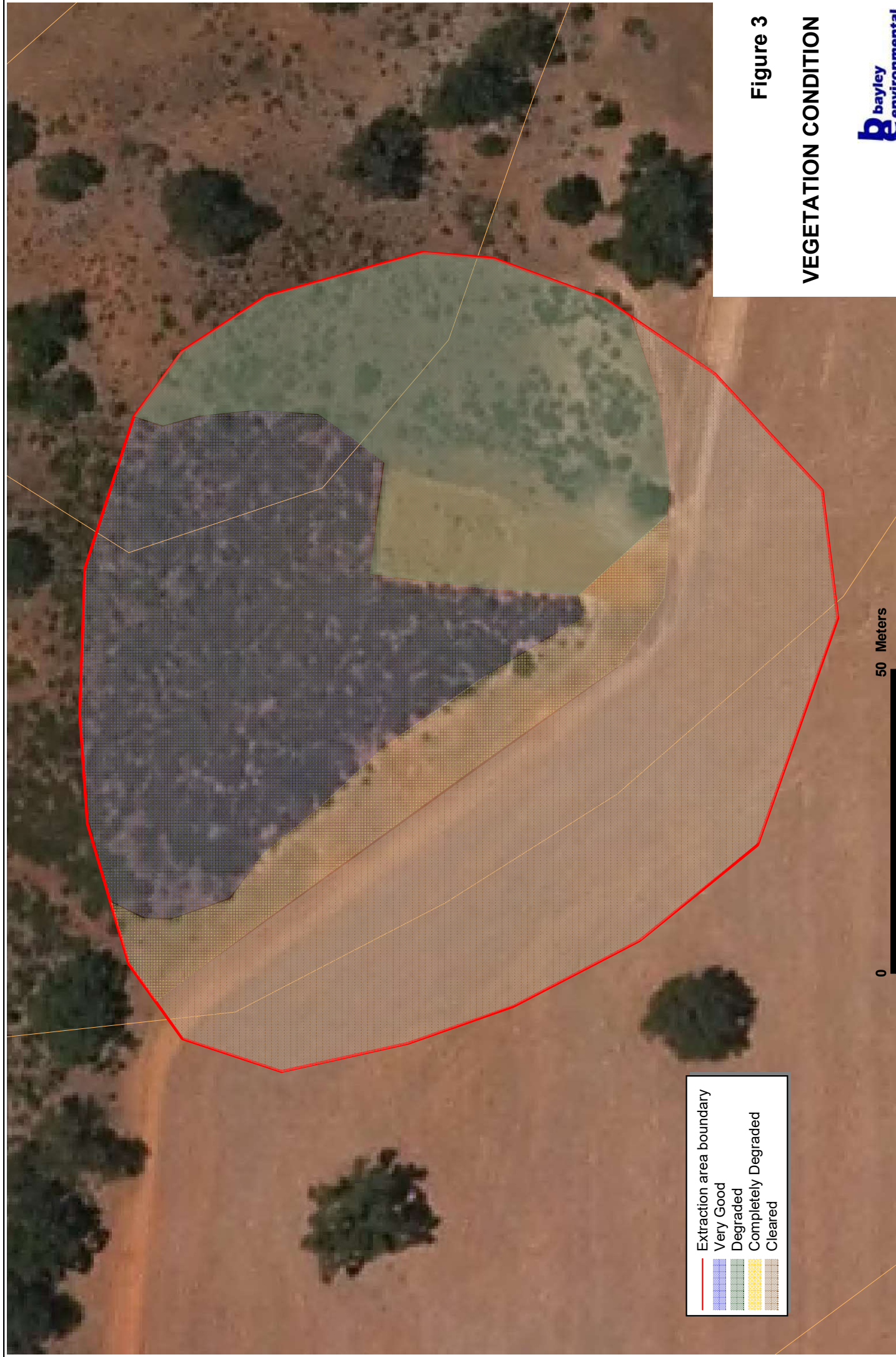


Figure 3

VEGETATION CONDITION

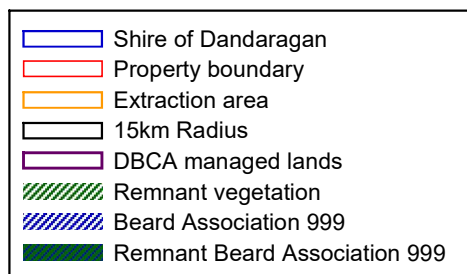
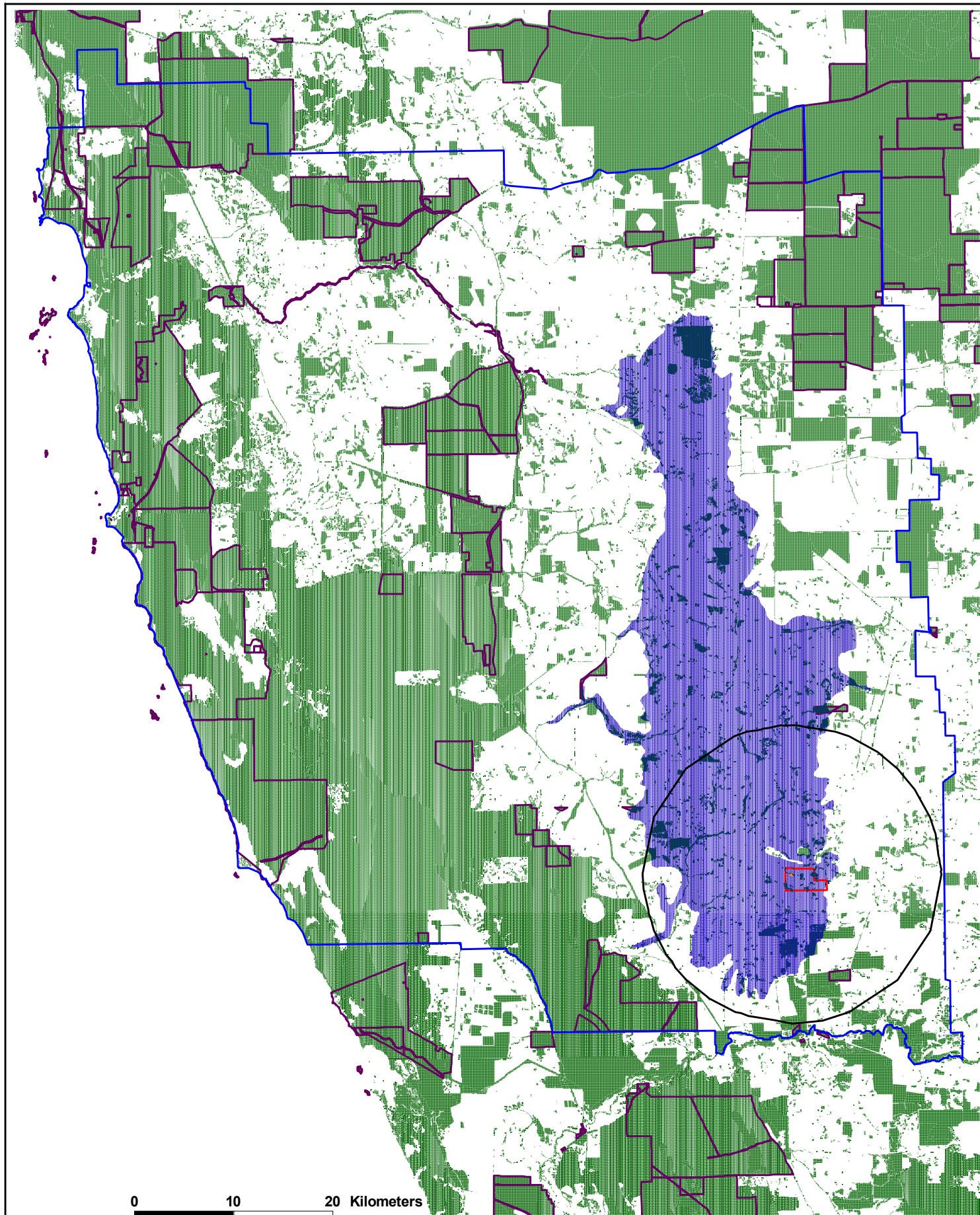


Figure 4

REMNANT VEGETATION STATUS