



1. Application details

Permit application details

Permit application No.: 8163/1
Permit type: Purpose Permit

Applicant details

Applicant's name: GO2 Building Pty Ltd
Application received date: 9 August 2018

Property details

Property: Lot 304 on Deposited Plan 50257, Dirk Hartog
Local Government Authority: Shire of Shark Bay
Localities: Dirk Hartog Island

Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.27		Mechanical Removal	Building or structure

Decision on application

Decision on Permit Application: Refuse
Decision Date: 21 February 2020
Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing may be at variance with principle (a) and is not likely to be at variance with the remaining clearing principles.

Through assessment it was determined that the application area is likely to provide suitable habitat for conservation significant species, and the proposed clearing may impact, significant habitat for *Thryptomene repens* (Priority 2) and *Ptilotus alexandri* (Priority 2). A targeted flora and vegetation survey of the area was undertaken, however it was determined to not be adequate to determine if the application area provides significant habitat.

Given the amount of time that has passed and the applicant has provided insufficient information to identify the impacts of the proposed clearing, the Delegated Officer considered that the proposed clearing may result in unacceptable environmental impacts on conservation significant flora. Therefore, the Delegated Officer determined to refuse to grant a clearing permit.

2. Site Information

Clearing Description The application is for the proposed clearing of 0.27 hectares of native vegetation within Lot 304 on Deposited Plan 50257, Dirk Hartog, for the purpose of constructing dwellings and associated fire hazard reduction areas.

Vegetation Description The vegetation within the application area is mapped as Beard vegetation association 41 which is described as Shrublands; teatree scrub (Beard, 1975).

The vegetation within the application area was described as "Scattered shrubs of *Acacia ligulata*, over Open Heath in some areas of *Diplolaena grandiflora* and *Acacia ligulata*, over Low Closed Heath of *Thryptomene baeckeacea*, *Frankenia pauciflora*, *Acacia ligulata*, *Atriplex bunburyana* and *Atriplex vesicaria*. Other common species included *Senecio pinnatifolius*, *Acanthocarpus preissii* and *Spinifex longifolius* as well as numerous Poaceae weed species (Introduced Grasses)." (Ecosystem Solutions, 2019).

Vegetation Condition The condition of the vegetation within the application was determined based on a review of aerial imagery and the flora survey undertaken by DHI Environmental (2008). A more recent survey undertaken in 2019 identified the site as in good condition (Trudgen, 1988) however, based on the photographs provided the area is still in very good condition (Ecosystem Solutions, 2019).

Very good condition is described as containing some relatively slight sings of damage caused by human activities e.g. vehicle tracks (Trudgen, 1988).

Soil and Landform Type: The majority of the application area is mapped as Edel Land system, described as Coastal plains, cliffs, dunes, mudflats and beaches; various vegetation (Schoknecht *et al.*, 2004).

Comments:

The local area referred to in the assessment of this application is defined as a 20 kilometre radius measured from the perimeter of the application area. The local area contains over 99.9 per cent native vegetation cover.



Figure 1: Application area

3. Avoidance and minimisation measures

The original application was for the proposed clearing of three hectares of native vegetation within Lot 304 on Deposited Plan 50257, Dirk Hartog, for the purpose of constructing dwellings and associated fire hazard reduction areas.

On 22 November 2018, the application area was reduced to 0.27 hectares as the applicant could only provide planning approval for envelopes 17 and 23 (GO2 Building Pty Ltd, 2018).

4. Assessment of application against clearing principles

Seventeen priority flora species have been recorded within the local area. The applicant provided a flora survey undertaken by DHI Environmental in 2008. This survey did not have appropriate methodology including timing and quadrats and is more than ten years old. The survey is not considered adequate, with many of the specimens collected not identified to species level. It is noted that the survey did not include information on the botanist who undertook the survey and their experience or whether specimen identifications were confirmed by the WA Herbarium. The Department of Biodiversity, Conservation and Attractions (DBCA) advised that some of the taxa not identified to species level may represent taxa of conservation significance (DBCA, 2018a). The applicant provided a flora survey for the application area undertaken in 2019, however it was determined that this survey was not adequate (see Section 5).

Two of the 17 priority flora known to occur in the local area both occur in coastal areas in low shrublands and open heath in white or cream or silty sand. DBCA advised that similar habitat is expected to occur in the application area and therefore it is possible that these priority flora may be present (DBCA, 2018a).

Thryptomene repens (Priority 2) is known from 5 WA Herbarium records in 2 locations. Due to the highly restricted known distribution of this species, any newly recorded populations would be of conservation significance (DBCA, 2018a). *Ptilotus alexandri* (Priority 2) is known from 9 WA Herbarium records in 5 locations. There is little information recorded on the number of individual plants at these locations, so any newly recorded populations may be of conservation significance (DBCA, 2018a).

The flora and vegetation survey undertaken in 2019 did not identify these species in the desktop survey, and as such did not specifically target these species during the targeted flora survey (Ecosystem Solutions, 2019). The survey also indicated that *Thryptomene baeckeacea* was a common species within the application, however the closest verified record is over 260 kilometres south of the application area (Western Australian Herbarium 1998-). This species this may be a misidentification of *Thryptomene repens*.

DBCA advised that “targeted surveys should focus on conservation significant taxa known to occur in similar habitat in the local area (including, but not limited to, those taxa noted above). The proponent should request a search of the Department’s flora databases prior to the targeted surveys to ensure that the most up-to-date data are used to support the targeted searches. The database searches should be at a scale appropriate to the region, noting the extent of similar habitat types. In this case, given the large areas of water within the search area, a minimum 50 kilometre radius is recommended to encompass an appropriate area of similar coastal habitats” (DBCA, 2018a). The flora and vegetation survey undertaken in 2019 used a 5 kilometre search radius for its desktop survey (Ecosystem Solutions, 2019).

Seventeen terrestrial fauna species, listed threatened under the *Biodiversity Conservation Act 2016* (BC Act) have been recorded within the local area (DBCA, 2018b). Noting the habitat requirements of these species, and the type and condition of the vegetation within the application area, the application area may comprise suitable habitat for many of these species. Noting that Dirk Hartog island retains approximately 100 per cent of its pre-European vegetation, the 0.27 hectares of vegetation within the application area is not likely to comprise significant habitat for conservation significant fauna.

There are no threatened ecological communities or priority ecological communities recorded within the local area.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The Yalgoo Interim Biogeographic Regionalisation of Australia bioregion retains approximately 4 923 840 hectares (97 per cent) of its pre-European extent of native vegetation, and the mapped Beard vegetation association retains approximately 287 hectares (100 per cent) of its pre-European extent within the Yalgoo IBRA Bioregion (Government of Western Australia, 2018). On this basis, and noting the extent of the proposed clearing, the extent of native vegetation within the local area, the application area is not likely to be significant as a remnant of native vegetation in an area that has been extensively cleared.

According to available databases, there are no watercourses or wetlands within the application area. The closest watercourse is a non-perennial lake which is located approximately 700 metres north of the application area. The coastline is located approximately 70 metres south east of the application area.

According to available databases, the nearest conservation area is Dirk Hartog Island National Park, located approximately 8 metres from the application area. Noting the size of the application area, impacts to Dirk Hartog Island National Park are expected to be minimal.

Noting the small size of the application area, the proposed clearing is not likely to cause appreciable land degradation, or cause deterioration in the quality of surface or underground water, or cause or exacerbate the incidence or intensity of flooding.

Given the above, the proposed clearing may be at variance with principle (a), and is not likely to be at variance with the remaining clearing principles.

Planning instruments and other relevant matters.

The application area is located within and adjacent to the Shark Bay World Heritage Area. The Shark Bay World Heritage Area Advisory Committee provided the following advice on the original application of three hectares:

- The proponent is seeking to clear land around blocks for which there is no Shire planning approval (for 4 of the 6 areas). Only 2 of the envelopes have planning approval endorsed by Council, the others are the subject of future revised planning applications;
- This proposal is to clear 3 hectares in 6 envelopes for bushfire management purposes. There is no approved bushfire management plan or bushfire attack level report, however the extent of the proposed clearing may be to reduce the potential BAL rating caused by existing vegetation;
- Members have indicated support for minimal clearing, with the maintenance of the cleared area also kept to a minimum, as cleared land in this sensitive coastal environment is likely to be subjected to a severe wind erosion risk with revegetation on or near coastal areas/dunes posing additional challenges due to site conditions, with salt spray and winds contributing significantly to surface erosion; and
- As the builder has previously contacted the DBCA Shark Bay District Manager requesting approval to clear areas extending into the National Park, it should be noted that any clearing must be contained within the freehold block boundary (SBWHAC, 2018).

The Shire of Shark Bay provided the following comments with regards to the clearing application:

- The Shire understands that The GO2 People are progressing revised plans for the development. The revised plans have substantially different floor plans and elevations than the designs approved in 2015.
- Revised plans for building envelopes 17 and 23A were approved by Council in June 2018 under the existing 2015 planning approval. Clearing of these two areas is therefore supported by the Shire as long as the locations are generally consistent with the revised approved plans.
- Despite the above, the Shire advised The GO2 People that they would need to lodge a new planning application for any revised plans for the remainder of the building envelopes. The Shire’s understanding is that The GO2 People do not intent to proceed with the designs approved in 2015, so a new planning approval needs to be lodged for revised designs and any different building envelope locations. No new planning application has been lodged therefore the Shire does not support the clearing of the remaining 4 areas. It is premature to clear in the absence of planning approval.

- The Minister for Planning recently approved a new Shire of Shark Bay Local Planning Scheme No 4 which requires any development on Lot 304 to be guided by a Local Development Plan. The issue of clearing can be examined holistically and in the context of a Bushfire Management Plan as part of a future Local Development Plan and future planning applications.
- There is no approved Bushfire Management Plan or Bushfire Attack Level report for Lot 304 and the Shire support for a Clearing Permit should not be construed as any guarantee that the extent of the clearing will meet the requirements of any future Bushfire Management Plan and/or Bushfire Attack Level assessments.
- One of the clearing areas is not consistent with the 2015 planning approval.

A Bushfire Attack Level report for one envelope (17) has been provided, however it has not been approved by the Shire as it identified that development would be in the flame zone (Shire of Shark Bay, 2019). There was no reference to a report for the second envelope (23A).

The applicant amended the application area on 21 November 2018 to only include the 2 envelopes which have approvals endorsed by the council, a total of 0.27 hectares of native vegetation (GO2 Building Pty Ltd, 2018).

No Aboriginal sites of significance have been mapped within the application area.

The clearing permit application was advertised on the DWER website on 4 October 2018 with a 21 day submission period. No public submissions have been received in relation to this application.

5. Applicant's submissions

To address the impacts identified above, a request for more information letter was sent to GO2 Building Pty Ltd on 1 February 2019 which also contained a preliminary assessment report. As no response was provided to the previous letter, a 21 day intent to refuse was issued on 9 August 2019. A response was received on 26 August 2019 indicating that a targeted flora and vegetation survey was to be undertaken in the upcoming weeks. A further extension was granted on the delivery of the report on 10 September 2019, with the information due on 15 November 2019.

A targeted flora and vegetation survey was provided on 16 December 2019. The survey was reviewed and determined to be inadequate for the following reasons:

- Only a 5 km search radius was used for desktop searches
 - The preliminary assessment outlines a minimum 50 km radius for database searches due to the large areas of water within the search area, as advised by DBCA (DBCA, 2018)
 - A 5 kilometre radius for desktop searches is not recommended for any region in Western Australia, a minimum radius of 10 kilometres is acceptable in well surveyed areas such as the Swan Coastal Plain, with larger search radiuses recommended for less well surveyed areas.
- As the search radius was only 5 kilometres the two flora species outlined in the preliminary assessment and the 30 day letter (*Thryptomene repens* (P2) and *Ptilotus alexandri* (P2)) were not identified in the desktop searches, and as such were not specifically targeted, with the survey stating that "all potentially suitable habitats within the Site were systematically searched for significant flora or vegetation, with specific targets being based on the Department of Biodiversity Conservation and Attractions database records [5 kilometres radius database search]." (Ecosystem Solutions, 2019).
- A species outlined in the vegetation community description and within Relevés, *Thryptomene baeckeacea*, has not been recorded within the local area. The nearest record is approximately 260 kilometres to the south of the application area. As no samples were verified or photographs of the plant provided, this may be a misidentification of *Thryptomene repens*, the Priority 2 species outlined in the preliminary assessment which was not specifically targeted in the flora survey.
- The potential misidentification of a common species within the application area draws to question the validity of other identifications.
- The vegetation condition was determined to be good, due to extensive evidence of past grazing. This assessment is contrary to the excellent condition assigned in 2008 (DHI Environmental 2008). A review of the photographs provided with the 2019 flora survey indicate that the vegetation is in excellent condition, with the low heath consistent with natural environmental conditions rather than grazing.

4. References

- Beard, J. (1975) The Vegetation Survey of Western Australia. *Plant Ecology* **30**: 179.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2018a) Species and Communities Branch flora advice for Clearing Permit application CPS 8163/1. Received by DWER 18 December 2018 (DWER Ref: A1754756).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2018b) Wildlife Conservation (Specially Protected Fauna) Notice 2018.
- Ecosystem Solutions (2019). Flora Significance Assessment. Lot 304 Sunday Island Bay, Dirk Hartog Island. Unpublished report prepared for DHI Development Pty Ltd.
- GO2 Building Pty Ltd (2018) Email correspondence from applicant with amended clearing area. Received by DWER on 22 November 2018 (DWER Ref: A1742128).
- Government of Western Australia. (2018) 2017 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of December 2017. WA Department of Biodiversity, Conservation and Attractions.

- Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs' Resource Management Technical Report No. 280. Department of Agriculture.
- Shark Bay World Heritage Advisory Committee (SBWHAC) (2018) Supporting information for clearing permit application CPS 8163/1. Received by DWER on 23 October 2018 (DWER Ref: A1731732)
- Shire of Shark Bay (2018) Supporting information for clearing application CPS 8163/1. Received by DWER 6 November 2018 (DWER Ref: A1736376)
- Trudgen, M.E. (1988). A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.
- Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/> Accessed January 2020.

5. GIS Datasets

Publicly available GIS Databases used (data.wa.gov.au):

- Soil and Landscape Mapping – Best Available
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Geomorphic Wetlands
- IBRA Vegetation Statistics
- Remnant Vegetation
- Groundwater Salinity Statewide (DWER-026)
- Contours (DPIRD-073)
- Flood Risk (DPIRD-007)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Regional Parks (DBCA-026)
- Bush Forever Areas – 2000 (DPLH-019)
- Aboriginal Heritage Places (DPLH-001)
- Local Planning Scheme – Zones and Reserves (DPLH-071)

Restricted GIS Databases used:

- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- TECs and PECs