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Attention: Native Vegetation Regulation
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Locked Bag 10
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Delivered by email to: info@dwer.wa.gov.au

Dear Sir/Madam

CLEARING PERMIT (AREA PERMIT) APPLICATION WITHIN PART OF LOT 3000 ON DEPOSITED PLAN 44066

Overview

Peet Funds Management Limited ('the applicant') have engaged Emmerge Associates (Emmerge) to provide environment consultancy services to support the development of Burns Beach Estate within the City of Joondalup. Development has progressed over several years, with construction of road batters associated with the current development stages (stages 16 and 17) of the Burns Beach Estate requiring clearing works within part of Lot 3000 on Deposited Plan 44066.

The proposed clearing corresponds to the footprint required to construct the batters, with an additional 5 m-wide buffer area around the base of the batter should any additional clearing be required for landform stabilisation. This proposed clearing extends over 0.46 hectares (ha) and is herein referred to as the 'application area'. The location and extent of the application area is shown in **Figure 1**.

The application area represents the greatest extent of clearing that may be required to facilitate the construction of the roadside batters, with the final footprint to be determined based on ongoing liaison between the applicant and relevant agencies as part of attaining development approval for the works. The clearing extent will be reduced should steeper batters be approved, which will limit the batter footprint.

The following letter is provided in support of a clearing permit application (area permit) pursuant to Part V of the *Environmental Protection Act 1986* (EP Act) and includes the following attachments required by the Department of Water and Environmental Regulation (DWER):

- **Attachment 1** – Signed clearing permit application form.
- **Attachment 2** – Certificate of Title for Lot 3000 on Deposited Plan 44066 and attached document caveat.
- **Attachment 3** – Letter of Authority from Peet & Co Limited.
- **Attachment 4** – Flora and Vegetation Assessment (Emmerge Associates 2021).
- **Email attachments** – a shapefile of the application area (GDA 1994) has been submitted to DWER as part of the application.

1 INTRODUCTION AND BACKGROUND

The applicant is intending to progress development of Stages 16 and 17 of the Burns Beach Estate in accordance with the approved subdivision (WAPC ref: 159851, as discussed in **Section 4**). As part of the proposed works, a development application is being submitted concurrently with this clearing permit application to construct batters to support the construction of roads within the subdivision area. Similar clearing works were undertaken in Lot 3000 in 2016, with a clearing permit (CPS 7219/1) received to clear 0.49 of native vegetation for the purpose of road batters.

The application area is reserved for ‘parks and recreation’ under the Metropolitan Region Scheme and the City of Joondalup Local Planning Scheme No. 3. The application area is located within Bush Forever Site No. 322 (Burns Beach Bushland), which extends over a total area of 368 ha to the north, east and west. The application area is bounded by remnant vegetation within Bush Forever Site No. 322 to the north and east, areas that have previously been cleared of native vegetation to the west and existing residential development to the south.

The applicant is seeking to clear 0.46 ha of native vegetation within Lot 3000 which extends over approximately 144 ha. Peet & Co Limited own Lot 3000 and have provided a letter of authority for the applicant to undertake the proposed clearing (**Attachment 3**). Once development of the Burns Beach Estate is complete, Lot 3000 will be transferred to the Western Australian Planning Commission as per document caveat J505437 attached to the certificate of title. In the long-term the Department of Biodiversity, Conservation and Attractions (DBCA) will manage Lot 3000.

A flora and vegetation assessment was undertaken within the application area in December 2021 (Emerge Associates 2021) to the standard required of a ‘reconnaissance’ flora survey. This survey was undertaken with reference to the Environmental Protection Authority’s (EPA’s) relevant technical guidance documents (EPA 2016). The flora and vegetation assessment is provided as **Attachment 4**, and included the application area as part of a larger survey area.

2 SUMMARY OF ENVIRONMENTAL CONDITIONS

2.1 Historical clearing

Review of historical images available from 1953 onwards shows that the majority of the application area supports native vegetation, with only minor clearing within the southern portion occurring between October 2020 and February 2021 for a firebreak (WALIA 2022).

2.2 Flora and vegetation values

The majority of the application area supports remnant vegetation, with a single plant community, **ArSgXp** present across 0.46 ha. The remainder (0.01 ha) of the application area is a bare sand firebreak and does not contain any native vegetation. The extent of the plant communities within the application area is shown in **Figure 2**.

The **ArSgXp** community was mapped as occurring to the north and south-east of the application area, and is described as a ‘closed shrubland *Acacia rostellifera*, *Spyridium globulosum*, *Xanthorrhoea preissii* and *Alyogyne huegelii* over low open shrubland *Phyllanthus calycinus* over herbland **Trachyandra divaricata*, **Crassula glomerata* and *Clematis linearifolia* over open grassland *Austrostipa* spp. and **Lagurus ovatus*” (Emerge Associates 2021). A representative photo of the vegetation present within the application area is shown in **Plate 1**. A total of 27 species were recorded within the application area, including 21 native and six non-native species



Plate 1: Plant community **ArSgXp** in 'very good' condition

The **ArSgXp** plant community present within the application area is present in 'very good' condition as mapped using the methodology from Keighery (1994). The non-native vegetation was mapped as being in 'completely degraded' condition, with the vegetation condition shown in **Figure 3**.

No threatened ecological communities were recorded within the application area. Plant community **ArSgXp** was determined to represent floristic community type (FCT) 24 'northern Spearwood shrublands and woodlands'. FCT 24 is synonymous with the state-listed priority ecological community (PEC) 'SCP24: northern Spearwood shrublands and woodlands' (P3). At the State level, there is limited advice for the SCP24 PEC so it is unclear whether a condition threshold should be applied when identifying the PEC's presence. DBCA has historically applied 'good' condition as a threshold for the identification of conservation significant vegetation. Using good condition as a basis for identification, the 0.45 ha of the **ArSgXp** plant community within the application area represents the SCP24 PEC.

The flora survey undertaken within the application area did not identify any threatened or priority flora species. The majority of the threatened and priority flora species identified in the desktop assessment are not considered to occur in the site due to lack of suitable habitat or because they were not recorded during the field survey. The survey was unable to confirm the presence or absence of the following three priority flora species: *Conostylis bracteata* (P3), *Conostylis pauciflora* subsp. *euryrhipis* (P4) and *Conostylis pauciflora* subsp. *pauciflora* (P4) as the survey was undertaken outside of the flowering period for these species. Flowers assist in observing these species during a survey and are also required for taxonomic identification.

2.3 Fauna values

No site-specific fauna assessments have been undertaken within the application area. Given the vegetation present within the application area is in 'very good' condition and as such comprises intact native bushland, the vegetation has the potential to provide habitat for native fauna. In particular, the understorey vegetation provides coverage for ground-dwelling fauna species.

A desktop review of NatureMap (DBCA 2022) indicated that no records of conservation significant species have occurred within the application area. Based on the NatureMap results, 50 conservation significant species (threatened or priority fauna species as listed under the *Biodiversity Conservation Act 2016*) have the potential to occur within 10 km of the application area.

A likelihood of occurrence assessment was undertaken for the conservation significant species, based on known habitat preferences and the habitat present within the application area. A total of eight species are considered to have the potential to occur within the application area:

- *Apus pacificus* (pacific swift)
- *Falco peregrinus* (peregrine falcon)
- *Pandion cristatus* (osprey)
- *Zanda latirostris* (Carnaby's cockatoo)
- *Idiosoma sigillatum* (Swan Coastal Plain shield-backed trapdoor spider)
- *Isoodon fusciventer* (quenda)
- *Notamacropus irma* (western brush wallaby)
- *Neelaps calonotos* (black-striped snake)

During the flora and vegetation assessment no conservation significant fauna species were recorded within the application area. Common and widespread avifauna species were noted to be present within the application area and broader area. An assessment of the suitability of the vegetation within the application area for conservation significant species is provided in Section 6, in response to principle (b).

3 APPLICATION OF MITIGATION HIERARCHY

In accordance with *A guide to the assessment of applications to clear native vegetation* (DER 2014), the impact mitigation hierarchy has been applied in order to ensure the environmental impact from the proposed clearing is minimised.

3.1 Avoidance

The proposed batters have been designed to minimise the clearing required to facilitate the safe construction of the road whilst allowing for a minor grade into the surrounding vegetation. This grade will assist in the revegetation of the batters post-construction, and will allow for natural recruitment of vegetation from the adjacent Bush Forever Site No. 322. Where possible, further avoidance of vegetation within the application area will occur where practicable during clearing, particularly if steeper batters are the preferred outcome of the regulatory agencies assessing the development application.

3.2 Minimisation

Where avoidance is not possible, mitigation measures will be undertaken to minimise the duration, intensity and/or extent of impacts native vegetation (including direct, indirect and cumulative impacts).

Prior to the commencement of revegetation works within the application area, minimisation of clearing impacts will occur through the installation of jute matting and windbreak fencing (as required) to prevent erosion of soil impacting the adjacent vegetation. Weed and dieback management will be controlled through the clearing process, including ensuring that all vehicles are washed down prior to entering the application area. A pre-clearing fauna inspection will occur within the application area, to ensure that no fauna values are impacted during the proposed clearing works.

3.3 Rehabilitation

Rehabilitation aims to return specific biodiversity features to an area following exposure to impacts that cannot be completely avoided or minimised. Rehabilitation of the entire application area is proposed, and will aim to restore the maximum environmental value that is reasonably practicable through revegetation, control of weeds, disease and feral animals.

A revegetation plan will be prepared to restore the batters post-construction. Revegetation of the batters will rehabilitate the entire application area, including the existing track which does not support any vegetation, resulting in a net increase in vegetation within the application area. The intent of the revegetation will be to restore the batters to the plant community that is being removed, and species included will be those that are removed during clearing. Given the small size of the application area, the likelihood of success of rehabilitation is increased due to the intensive revegetation effort that will occur. The rehabilitation of the batters will replace both the flora and fauna values removed during the clearing process, allowing for the application area to provide contiguous habitat values to the broader Bush Forever Site No. 322.

The revegetation plan will be prepared to DBCA specifications, and will include (but not limited to) information pertaining to landform stabilisation, weed control, hygiene, species lists and densities and evaluation criteria. Due to the proposed clearing occurring within Bush Forever Site No. 322, it is likely that a revegetation plan will be required to be prepared through conditions imposed on the clearing permit. Regardless of whether a condition is imposed on the clearing permit, the applicant has committed to preparing a revegetation plan to ensure that the environmental values of Bush Forever Site No. 322 are not impacted within the application area in the long-term.

3.4 Offset

Environmental offsets address residual significant environmental impacts that remain after on-site avoidance, minimisation and rehabilitation measures have been applied. According to Principle Two of the *WA Environmental Offsets Policy* (Government of Western Australia 2011); while environmental offsets may be appropriate for significant residual impacts or risks, they will not be applied to minor environmental impacts (i.e. where the residual impact is not considered to be significant, no offset will be required). Environmental offsets will only be applied where the residual impacts of a project are determined to be significant, after avoidance, minimisation and rehabilitation have been pursued.

The applicant has applied the first three steps in the mitigation hierarchy; Avoid, Minimise and Rehabilitate in the construction of the batters to reduce the environmental impact and therefore the residual impacts. The requirement for environmental offsets has been considered unnecessary, as the project will have no significant residual impacts. The application of the mitigation hierarchy for the proposed clearing has been demonstrated under each of the ten clearing principles, where applicable, in **Section 5** below.

4 PLANNING INSTRUMENTS AND OTHER ENVIRONMENTAL APPROVALS

A development application is being lodged concurrently with the clearing permit to facilitate the construction of the batters. No further planning approvals are required.

Condition 10 of the subdivision approval specifically prohibits and subdivisional works resulting in impacts to vegetation within Bush Forever Site No. 322. Based on this, the proposed clearing is not exempt under Clause 9 of Schedule 6 of the *Environmental Protection Act 1986* and a clearing permit is required.

Lot 3000 is currently owned by Peet & Co Limited, with a caveat attached to the certificate of title that Bush Forever Site No. 322 will be transferred to the Western Australian Planning Commission once development within the Burns Beach Estate is complete. DBCA will manage Lot 3000 in the long-term.

5 PROPOSED CLEARING OF NATIVE VEGETATION

As outlined above, the proposed clearing is sought to facilitate the construction of roadside batters adjacent to Stages 16 and 17 of the Burns Beach Estate. The proposed clearing will require the removal of 0.45 ha of plant community **ArSgXp** in 'very good' condition.

The remainder of the application area (0.01 ha) supports bare areas without any vegetation.

6 RESPONSE TO EP ACT CLEARING PRINCIPLES

When assessing clearing permit applications, DWER has regard to the ten clearing principles contained in Schedule 5 of the EP Act so far as they are relevant to the matter under consideration.

In support of this purpose permit clearing application, consideration and responses to the ten clearing principles is provided in the following sections.

Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.

The application area is located on the Swan Coastal Plain, which is recognised as an area of high biological diversity (EPA 2007). As discussed above, plant community **ArSgXp** was determined to represent FCT 24, in addition to representing the ‘northern Spearwood shrublands and woodlands’ PEC. This FCT was identified as being ‘well reserved’ in Gibson *et al.* (1994).

A total of 27 species were recorded within the application area, including 21 native and six non-native species. No threatened or priority flora were recorded within the application area. This is lower than the mean species richness of FCT 24 of 41.8 species, indicating that the application area does not contain a high level of floristic diversity. In addition, the species recorded within the application area are common species that are widespread through the Quindalup Dunes, with no locally significant flora species recorded.

Due to the small size of the application area and given no threatened flora are considered likely to occur, the application area is not considered to represent a high level of floral diversity. In addition, due to the small extent of clearing, the vegetation provides only limited fauna habitat, which will be replaced as part of the revegetation works of the batters.

Therefore, the vegetation within the application area does not comprise a high level of biological diversity, and clearing is not at variance to principle (a). In addition, the proposed rehabilitation of the application area will result in re-establishment of existing vegetation and associated biodiversity.

Principle (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 indigenous to Western Australia.

Due to the small extent of clearing, the application area does not provide significant habitat for meta-populations of fauna, and provides only limited habitat for threatened fauna species. In addition, prior to clearing a fauna inspection will be undertaken within the application area, to ensure that no fauna is present.

A desktop review of NatureMap (DBCA 2022) indicated that eight conservation significant species could occur within the application area based on the vegetation present within the application area as part of a larger range.

Apus pacificus (pacific swift), *Falco peregrinus* (peregrine falcon) and *Pandion cristatus* (osprey) may opportunistically fly over or utilise habitat within the application area as part of a much larger home range. However, the application area is considered unlikely to provide important habitat for these species, particularly the peregrine falcon and osprey, given the lack of trees and cliffs that are utilised by these species.

Limited foraging habitat for *Zanda latirostris* (Carnaby’s cockatoo) is present within the application area. However, this is limited to *Acacia saligna* and *Xanthorrhoea preissii*, which are secondary food plants that do not represent an important food source for Carnaby’s cockatoo. The presence of significant areas of native vegetation containing primary food plants to the north and west of the application area, including *Banksia* spp. provides higher quality foraging habitat for Carnaby’s cockatoo. In addition, no trees are present within the application area, so no roosting or breeding habitat is present.

Vegetation within the application area may provide habitat for *Idiosoma sigillatum* (Swan Coastal Plain shield-backed trapdoor spider). Given that this species is widespread on the Swan Coastal Plain, the small extent of vegetation within the application area and the larger areas of vegetation to the north and west, the proposed clearing will be unlikely to impact this species.

Vegetation within the application area may provide habitat for *Isoodon fusciventer* (quenda), *Notamacropus irma* (western brush wallaby) and *Neelaps calonotos* (black-striped snake). However, these species are only likely to utilise the application area as part of a larger home range, including contiguous vegetation to the north and west, and due to the small size of the application area it is unlikely that a population would reside in the application area.

Therefore, clearing within the application area is not considered to be at variance with Principle (b). Based on the fauna species known to utilise the application area, or deemed possible to occur, the removal of vegetation is unlikely to have a significant impact on a habitat for fauna indigenous to Western Australia. In addition, the proposed rehabilitation of the application area will result in re-establishment of existing fauna habitat values.

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

No threatened or priority flora species were recorded within the application area.

The majority of the threatened and priority flora species identified in the desktop assessment are not considered to occur in the application area due to lack of suitable habitat or because they were not recorded during the field survey. The survey was unable to confirm the presence or absence of three priority flora species: *Conostylis bracteata* (P3), *Conostylis pauciflora* subsp. *euryrhipis* (P4) and *Conostylis pauciflora* subsp. *pauciflora* (P4), given the survey was undertaken outside of the flowering period for these species, and flowers assist in observing these species during a survey and are also required for taxonomic identification. Whilst it is not possible to confirm the presence or absence of these species, given that no unidentified *Conostylis* specimens were recorded, it is considered unlikely that these species are present within the application area.

Rare flora are those that were previously declared ‘rare’ under Section 23F of the *Wildlife Conservation Act 1950*, which are now considered ‘threatened flora’ under Section 5(1) of the *Biodiversity Conservation Act 2016*. Threatened species refers to those considered to be ‘critically endangered’, ‘endangered’ or ‘vulnerable’. As priority species are not afforded protection under the *Biodiversity Conservation Act 2016*, these are not considered to be rare flora.

As no rare (‘threatened’) flora are present, or are considered to possibly occur within the application area, the proposed clearing is not at variance to Principle (c).

Principle (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.

No threatened ecological communities (TECs) are present within the application area. The vegetation within the application area is representative of the state-listed ‘SCP24: northern Spearwood shrublands and woodlands’ priority ecological community (PEC), which extends to the north and north-west. This PEC does not represent a federal TEC.

As no TECs are present within the application area, clearing is not at variance to Principle (d).

Principle (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.

Vegetation complex mapping for the Swan Coastal Plain undertaken by Heddle *et al.* (1980) indicates that the application area occurs within an area mapped as the ‘Quindalup complex’.

The Quindalup complex has 60.49% of its pre-European extent remaining on the Swan Coastal Plain with 9.84% under formal protection across the Swan Coastal Plain (Government of Western Australia 2019). Within the City of Joondalup, 13.05% of the original extent of the Quindalup complex is remaining (Government of Western Australia 2019).

The Environmental Protection Authority's (EPA) (2006) *Guidance Statement No. 10. Guidance for the Assessment of Environmental Factors – Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region* identified a standard level of native vegetation retention of at least 10% of the pre-clearing extent of the vegetation complex in 'constrained areas' such as the Swan Coastal Plain portion of the Perth Metropolitan Region.

There are extensive areas of Quindalup complex vegetation remaining on the Swan Coastal Plain, with close to 10% of the complex under formal protection. In addition, the proposed clearing of approximately 0.45 ha of vegetation represents 0.003% of the complex remaining of the Swan Coastal Plain. Therefore, the vegetation within the application area is not considered to be a significant remnant of the Quindalup complex.

Based on the small amount of vegetation proposed to be removed, the proposed clearing is not considered to be at variance with Principle (e).

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

A review of the *Geomorphic Wetlands of the Swan Coastal Plain* dataset (DBCA 2021) indicates that no wetlands are mapped within the application area. A review of the *Hydrography Linear (Hierarchy)* online dataset (DWER 2020) indicates that there are no mapped watercourses within the application area. In addition, the flora and vegetation survey did not identify any wetland or riparian vegetation within the application area (Emerge Associates 2021).

Therefore, the clearing is not at variance with Principle (f).

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

Examination of broad scale physiographic mapping places the application area within the Quindalup Dunes which comprises calcareous sands (Gozzard 2011). Given the soil conditions within the application area, the key risk for land degradation is soil erosion. This is supported by soil landscape quality mapping which indicates that there is a 50-70% risk of high to extreme wind erosion risk within the application area (DPIRD 2019).

The proposed clearing of vegetation is unlikely to cause substantial wind erosion within the application area, given the small amount of vegetation to be cleared, and mitigation measures to be employed during clearing, including dust suppression and surface stabilisation where required. Due to the proposed clearing occurring within Bush Forever Site No. 322, it is likely that a revegetation plan will be required to be prepared through conditions imposed on the clearing permit. Once clearing has occurred and the batters have been established, these will be revegetated in line with the revegetation plan which will be prepared to support the proposed clearing. Revegetation will occur with native species that reduce erosion within dune environments, and will include the application of jute mapping to secure the batters whilst vegetation is establishing.

Based on the above, the proposed clearing is not at variance to Principle (g).

Principle (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.

The application area is located within Bush Forever Site No. 322 (Burns Beach Bushland). Bush Forever Site No. 322 includes vegetation within the application area and extends to the north, west and east.

The revegetation works that will be implemented post-construction of the batters will allow for the restoration of all vegetation that is required to be cleared. As part of the revegetation of the batters, ongoing weed management will be undertaken to ensure that no indirect impacts occur to the adjacent vegetation through the introduction of weeds. In addition, whilst the revegetation is

establishing, jute matting will be used to stabilise the landform, to prevent the erosion of soil material into the adjacent conservation site.

Dieback management will be controlled through the clearing process, including ensuring that all vehicles are washed down prior to entering the application area and ensuring that no dieback infected mulch, soil or fill is used during clearing or revegetation works.

The proposed clearing may be at variance to Principle (h) given the location of the application area within Bush Forever Site No. 322. However, based on the small size of the application area, the impact mitigation measures that will be implemented through the clearing process (including revegetation of the application area) the clearing is unlikely to have a significant residual impact on the surrounding conservation area.

Principle (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.

Deterioration in quality of surface water or underground water can occur as a result of activities that result in sedimentation, increased nutrient levels, changes to pH (through acid sulfate soils), salinity or changes in water regimes of groundwater dependent ecosystems. Given that there are no surface water features within or adjacent to the application area, the proposed clearing only has the potential to impact groundwater.

Acid sulfate soil (ASS) risk mapping prepared by DWER (2017) indicates that the application area has no known risk of ASS occurring within 3 m of the natural soil surface. Therefore, there is no risk of acidification of soils within the application area as part of the proposed clearing.

Water quality mapping taken from the *Perth Groundwater Map* (DWER 2021b) indicates that groundwater salinity within the application area is 500-1000 mg/L, with a depth to groundwater of 39 m. Given the small size of the application area and the depth to groundwater, it is unlikely that the proposed clearing will impact groundwater quality through a change in salinity. In addition, as no potential contaminants will be brought into the application area during the clearing process, the proposed clearing is unlikely to cause a deterioration in the quality of groundwater.

It is therefore unlikely that the proposed clearing will cause ASS or other issues that could cause a deterioration in water quality within or surrounding the application area, and therefore the proposed clearing is not at variance with Principle (i).

Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Flood mapping prepared by DWER (2021a) indicates that the application area is not located within a floodplain area. In addition, no wetlands or water features are located within the application area. Due to the small amount of vegetation proposes to be removed and the significant depth to groundwater (39 m), the proposed clearing is unlikely to cause an increase in groundwater levels that would increase the risk of flooding.

Based on the above, the proposed removal of native vegetation within the application area will not cause or exacerbate an incidence of flooding. The proposed clearing is not considered to be at variance with Principle (j).

7 SUMMARY AND CLOSING

The application proposes to clear 0.45 ha of native vegetation within a 0.46 ha footprint, and contains:

- One native plant community in ‘very good’ condition.
- A state-listed priority ecological community ‘SCP24: northern Spearwood shrublands and woodlands’ (P3).
- Limited potential habitat for eight conservation significant fauna species.

- Vegetation within Bush Forever Site No. 322

The proposed clearing is considered to be consistent with the majority of the EP Act Clearing Principles. It is noted that the proposed clearing may not be consistent with Principle (h). However, based on the small amount of clearing, and the proposed impact mitigation measures (including revegetation of the application area that will occur post-construction of the batters), the clearing is not considered to have a significant impact on the Bush Forever site.

The applicant has applied the impact mitigation hierarchy through the batter design process, and will continue through the construction of batters including further minimisation of clearing where possible. The rehabilitation of the batters post-construction with native vegetation will ensure that the flora and fauna values removed during the clearing process will be restored. This rehabilitation will allow for the application area to provide contiguous habitat values to the broader Bush Forever Site No. 322, and ensure that no significant residual impacts occur as part of the proposed clearing.

Should you have any questions regarding the content of this letter, please do not hesitate to contact the undersigned.

Yours sincerely
Emerge Associates



Sean Moylan

ENVIRONMENTAL CONSULTANT

cc: Kris Tilaka

Encl: Figure 1: Application Area Location
Figure 2: Plant Communities and Priority Ecological Community
Figure 3: Vegetation Condition
Attachment 1: Signed Clearing Permit Application Form
Attachment 2: Certificate of Title for Lot 3000 on Deposited Plan 44066
Attachment 3: Letter of Authority from Peet and Co.
Attachment 4: Flora, Vegetation and Fauna Assessment (Emerge Associates 2021)

General References

Department of Biodiversity, Conservation and Attractions (DBCA) 2021, *Geomorphic Wetlands, Swan Coastal Plain (DBCA-019)*, <<https://catalogue.data.wa.gov.au/dataset/geomorphic-wetlands-swan-coastal-plain>>.

Department of Biodiversity, Conservation and Attractions (DBCA) 2022, *NatureMap*, <<https://naturemap.dbca.wa.gov.au/>>.

Department of Environment Regulation (DER) 2014, *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986*, Perth.

Department of Primary Industries and Regional Development (DPIRD) 2019, *Soil landscape land quality - Wind Erosion Risk*, <<https://catalogue.data.wa.gov.au/dataset/soil-landscape-land-quality-wind-erosion-risk>>.

Department of Water and Environmental Regulation (DWER) 2017, *Acid Sulfate Soil – Swan Coastal Plain Database (DWER-055) (Dataset)*, <<https://catalogue.data.wa.gov.au/dataset/acid-sulphate-soil-risk-map-swan-coastal-plain-dwer-055>>.

Department of Water and Environmental Regulation (DWER) 2020, *Hydrography Linear (Heirarchy) (DWER-031)*.

Department of Water and Environmental Regulation (DWER) 2021a, *FPM Floodplain Area (DWER-020)*, <<https://catalogue.data.wa.gov.au/dataset/fpm-floodplain-area>>.

Department of Water and Environmental Regulation (DWER) 2021b, *Perth Groundwater Map*, <<https://maps.water.wa.gov.au/Groundwater/>>.

Emerge Associates 2021, *Reconnaissance Flora and Vegetation Assessment - Part Lot 3000 on Deposited Plan 44066, EP15-020(17)--025 RAW, Version 1*.

Environmental Protection Authority (EPA) 2006, *Guidance Statement No. 10. Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region*, Perth.

Environmental Protection Authority (EPA) 2007, *State of the Environment Report: Western Australia 2007*, Perth.

Environmental Protection Authority (EPA) 2016, *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment*, Perth.

Gibson, N., Keighery, B., Keighery, G., Burbidge, A. and Lyons, M. 1994, *A Floristic survey of the southern Swan Coastal Plain*, Department of Conservation and Land Management and the Conservation Council of Western Australia, Perth.

Government of Western Australia 2011, *WA Environmental Offsets Policy*.

Government of Western Australia 2019, *2018 South West Vegetation Complex Statistics. Current as of March 2019*, WA Department of Biodiversity, Conservation and Attractions, Perth.

Gozzard, J. 2011, *Sea to scarp - geology, landscape, and land use planning in the southern Swan Coastal Plain*, Geological Survey of Western Australia.

Hedde, E. M., Loneragan, O. W. and Havel, J. J. 1980, 'Vegetation Complexes of the Darling System Western Australia', in Department of Conservation and Environment (ed.), *Atlas of Natural Resources Darling System Western Australia*, Perth.

Keighery, B. 1994, *Bushland Plant Survey: A guide to plant community survey for the community*, Wildflower Society of WA (Inc), Nedlands.

Western Australian Land Information Authority (WALIA) 2022, *Landgate Map Viewer*, <<https://map-viewer-plus.app.landgate.wa.gov.au/index.html>>.

Part Lot 3000 on Deposited Plan 44066 Native Vegetation Clearing Permit Application – Supporting Information

Figures



Figure 1: Application Area Location

Figure 2: Plant Communities and Priority Ecological Community

Figure 3: Vegetation Condition

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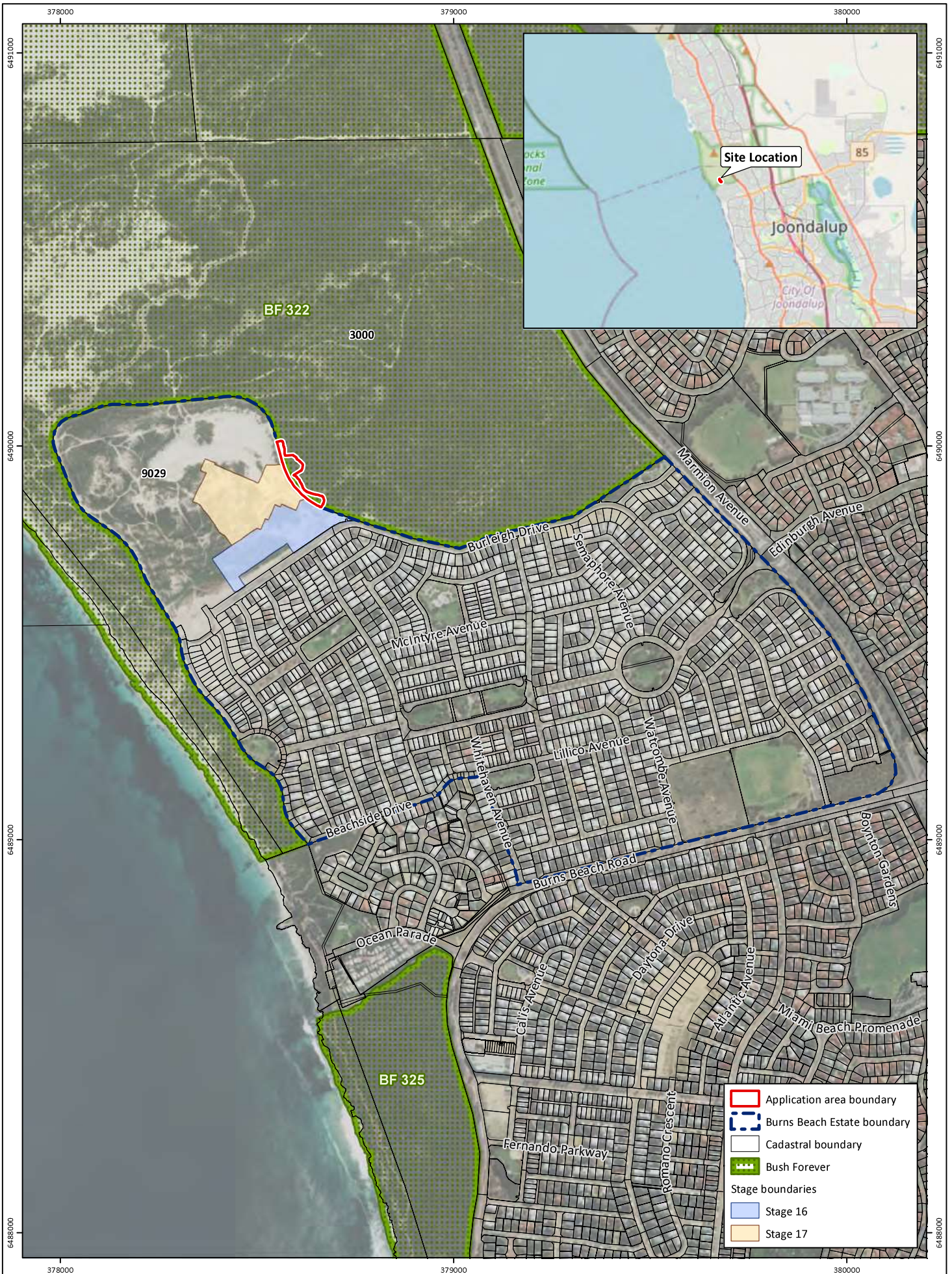


Figure 1: Application Area Location

Plan Number:
EP15-020(17)-F54
Drawn: SCM
Date: 16/02/2022
Checked: SCM
Approved: ADB
Date: 17/02/2022



0 100 200 300
Metres
Scale: 1:12,500@A4
GDA 1994 MGA Zone 50

Project: Clearing Permit Application Area
Part Lot 3000 on Deposited Plan 44066
Client: Peet Funds Management Limited



378600

378700

6490000

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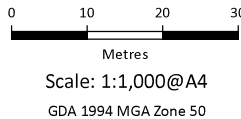
Application area boundary
 Cadastral boundary
 Northern Spearwood shrublands and woodlands PEC (P3)
 Plant community
 ArSgXp
 Bare ground



Figure 2: Plant Communities and Priority Ecological Community

Project: Clearing Permit Application Area
 Part Lot 3000 on Deposited Plan 44066
Client: Peet Funds Management Limited

Plan Number:
 EP15-020(17)-F55
Drawn: SCM
Date: 16/02/2022
Checked: SCM
Approved: ADB
Date: 17/02/2022



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Application area boundary

Cadastral boundary

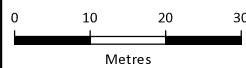
Vegetation condition

- Pristine
- Excellent
- Very good
- Good
- Degraded
- Completely degraded



Figure 3: Vegetation Condition

Plan Number:
EP15-020(17)-F56
Drawn: SCM
Date: 16/02/2022
Checked: SCM
Approved: ADB
Date: 17/02/2022



Scale: 1:1,000@A4
GDA 1994 MGA Zone 50



Project: Clearing Permit Application Area
Part Lot 3000 on Deposited Plan 44066

Client: Peet Funds Management Limited