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Attention: Native Vegetation Clearing Referral
Department of Water and Environmental Regulation
8 Davidson Terrace, Joondalup WA 6027

Delivered by email to: info@dwer.wa.gov.au

Dear Sir/Madam

NATIVE VEGETATION CLEARING REFERRAL FOR LOT 359 MURRAY ROAD, BRABHAM REFERENCE 9940/1

1 BACKGROUND

The Department of Communities and Peet Limited (Peet) (the proponent) previously engaged Emmerge Associates (Emmerge) to prepare and submit a clearing referral to DWER for the removal of 13 trees to accommodate an approved Development Application with the City of Swan for the construction of a wetland and drainage infrastructure located within Lot 359 Murray Road, Brabham (herein referred to as 'the site').

Correspondence received from DWER (reference is 9536/1) dated 24 January 2022 confirmed that a clearing permit was not required for the proposed clearing of 13 native trees for the following reasons:

- The area proposed to be cleared (the area) is small relative to the total remaining native vegetation within the region in which the area is situated.
- There are no known or likely significant environmental values identified within the area
- The state of scientific knowledge about native vegetation within the region in which the area is situated is adequate, and
- There are no issues that would arise as a result of the proposed clearing that are likely to require conditions to manage or mitigate effects on the environment.

Clearing commenced in accordance with the determination for 9536/1, however the proponent subsequently advised of a minor amendment to the design of the wetland which requires the adjustment of the clearing footprint and therefore the trees required to be cleared, as well as confirming that four trees that were previously identified to be cleared can now be retained.

The clearing that commenced on site aligned with the new amended design and therefore the eight trees which have been cleared were not specifically identified on the Schedule 1 Map provided in Ref 9536/1. The trees that have been cleared are the same species identified in the previous referral and are all within the same general area (**Figure 1**). All other trees and native vegetation remain in situ as confirmed by a site visit conducted by Lead Environmental Consultant Toni Burbidge with the proponent on 25 August 2022. The proponent has since stopped work in this area until a further clearing permit referral is progressed to an outcome with DWER. As per the previous referral, the

wetland area will be rehabilitated to accommodate the stormwater generated from within the Brabham development to the west of the site.

A new clearing permit referral (REF 9536/1) was lodged with DWER on 1 November 2022 to respond to the revised clearing needs to progress the revised wetland and drainage infrastructure works. A response was received from DWER dated 16 November 2022 advising the clearing referral was incomplete and had been returned without assessment due to IBSA requirements not being met. The correspondence also noted that clearing referral 9940/1 had identified eight trees within Referral Notice REF 9536/1 that had already been cleared but were not within the Schedule 1 Map. These eight trees were previously included in the total of 23 native trees requested to be cleared as shown in **Figure 1** that was submitted with Clearing Referral 9940/1, and so no further amendment to the clearing permit referral was necessary and therefore is being relodged with DWER as per this correspondence package which now addresses the IBSA requirements.

2 CLEARING REFERRAL AREA

The referred clearing is situated within the southern portion of the site and runs parallel to the eastern drainage line as shown in the attached **Figure 1**. The referred clearing falls within the total wetland rehabilitation footprint of 5.52ha. Based on historic flora and vegetation survey, the full extent of vegetation (described as native plant community **Mr**) within the wetland rehabilitation footprint is 0.75ha in total.

The clearing referral applies to only single trees within the clearing footprint that are required to be removed due to earthworks for the widening of the drainage corridors, introduction of natural weirs and the ultimate rehabilitation of the wetland and drainage lines. A clearing footprint of 0.09 ha of native vegetation comprising a total of 23 native trees is required (herein referred to as “the clearing footprint”). This is an increase of 0.02ha from the 0.07ha assessed in referral 9536/1 and includes the eight trees that have already been cleared. While it is contended that the cleared native vegetation is included within and covered by the previous clearing permit referral, in order to allow a comprehensive and holistic assessment by DWER of all the proposed clearing, this historically cleared vegetation has been included in this new clearing permit referral.

All other vegetation within the wetland rehabilitation footprint and the remainder of the site will be retained. The remainder of native plant community **Mr** identified within the site is being retained (approximately 0.66 ha), as shown in **Figure 1**.

On this basis the proponent refers the proposed native vegetation clearing to the Department of Water and Environmental Regulation (DWER) under Section 51DA of the amended *Environmental Protection Act 1986* (EP Act) to determine whether a clearing permit is required.

This letter provides updated information on existing environmental conditions and relevant environmental considerations within the site and provides an assessment of the proposed clearing against all criteria listed in Section 51DA(4) of the EP Act. Based on a preliminary assessment against these criteria undertaken by Emerge, there are reasonable grounds to suggest that the clearing within the clearing area would result in very low environmental impacts.

3 SITE VISIT ASSESSMENT

The site encompassing the clearing area is located approximately 19 km north-east of the Perth Central Business District within the City of Swan and is bounded by Murray Road to the west, Woollcott Avenue to the south and rural residential land holdings to the north and east. The site was predominantly cleared prior to 1965; however, it has remained largely unused to the present time (Landgate 2021). Presently the site comprises scattered native vegetation patches and single trees or shrubs, whilst the northern extent of the eastern drainage line in the clearing area is predominantly vegetated.

An environmental context of the flora and fauna at the site was provided as supporting information to referral 9536/1 and showed historical clearing with individual scattered trees and patches of

native vegetation. Results of a fauna assessment identified no potential black cockatoo habitat within the clearing area.

The flora assessment identified the majority of the site as being in 'Completely Degraded' condition comprising cleared or parkland cleared areas consisting of scattered native trees and shrubs. One native plant community (**Mr**) was identified in the clearing area, growing in association with the existing drainage lines, in particular the eastern drainage line. The plant community has been identified as 'tall closed shrubland *Melaleuca raphiophylla* over forb/sedgeland of *Rumex crsipus*, *Cotula coranopifolia*, *Juncus pallidus*, *Alternanthera nodiflora* and *Isolepis cernua*' in 'Degraded' condition, in accordance with the Keighery scale (1994)

Due to the degraded vegetation condition within the site, the vegetation was unable to be assigned a floristic community type (FCT) and was not identified as being representative of a threatened or priority ecological community. In addition, no threatened or priority flora species were identified within the site including the clearing area.

Lead Environmental Consultant Toni Burbidge visited the site 25 August 2022 with the proponent. This site visit focussed on the clearing undertaken to date, the revised clearing footprint, and the assessment of trees to be retained or removed in addition to those identified within referral 9536/1.

The site visit identified the species of trees that were removed were predominantly *Melaleuca raphiophylla* along with a small eucalypt, likely *Eucalyptus camaldulensis* (**Plate 1**). The removed tree locations are identified in **Figure 1**.



Plate 1: Trees removed predominantly *M.raphiophylla* .

No vegetation clearing has occurred within close proximity to the drainage line to date. Note the peg in the foreground which demarcates the toe of batter for the new drainage alignment in **Plate 2**.



Plate 2: Vegetation still present on site visit 25 August 2022 with demarcation peg in foreground

There are a large number of *M.raphiophylla* that will be retained across the site. **Plate 3** demonstrates the stand of multi stemmed melaleucas that will be retained to the north of the clearing.



Plate 3: Melaleuca raphiophylla multi stemmed trees to be retained to the north of the clearing area.

It was identified on site with the proponent that there are three multi stemmed melaleucas that must be cleared for the alignment of the wetland construction, however the adjacent trees within the proximity of the toe of the batter can be pruned by a qualified arborist due to the multi stemmed nature of the trees, resulting in most of the tree being retained. **Plate 4** shows an example of a multi stemmed tree that will have the trunk pruned to allow for the retention of canopy and remaining tree on site.



Plate 4: Multi stemmed Melaleuca to be pruned for retention of the majority of the tree.

The proponent has also agreed to clearing approved trees in a progressive nature on site allowing for these trees to be assessed for removal, retention or pruning if they are in conflict with the proposed civil works. The civil design of the batters was discussed on site and where possible, batters will be steepened to aid in tree retention. This means, that whilst 21 trees is the maximum required to be removed, there may be some that due to the measures stated above can be retained or modified for retention.

4 APPROVALS CONTEXT

In accordance with the provisions of the City of Swan's *Local Planning Scheme No 17* and the *Planning and Development (Local Planning Schemes) Regulations 2015*, approval to commence rehabilitation works to create a wetland ecosystem within the site and the clearing area has been granted on 13 March 2020.

5 CLEARING REFERRAL

Attachment 1 contains the signed application for 'New Permit of Referral to Clear Native Vegetation Form' for processing by DWER.

Attachment 2 contains the Certificate of Title for the site.

Attachment 3 Development application and approval: Rehabilitation works to create wetland ecosystem – Lot 359 (No.10) Murray Road, Henley Brook

6 PROPOSED REVEGETATION

The approved rehabilitation of the wetland and drainage lines within the clearing area would include the planting of native trees, shrubs and grasses including *Melaleuca raphiophylla*, *Melaleuca vimina*, *Melaleuca pressii*, *Isolepsis nodosa*, *Lepidosperma longitudinale*, *Baumea articulata* and *Juncus pallidus*. Additionally, the rehabilitation would ultimately result in 70% of the areas abutting the drainage lines to be revegetated, with all side slopes of the drainage lines fully vegetated to stop potential erosion and improve water quality. The approved development application for the clearing area, provided as **Attachment 3**, provides the comprehensive list of native species that would be used during the rehabilitation process and outlines the Landscape Master Plan for the clearing area.

7 RESPONSE TO THE CLEARING REFERRAL CRITERIA

Under Section 51C of the EP Act, clearing of native vegetation is an offence unless a clearing permit has been obtained, or unless:

- An exemption applies
- The proposed clearing was referred to DWER who determined that a permit is not required because the clearing is exempt, or the clearing satisfies all the referral criteria.

DWER's referrals process supports a risk-based approach to assessing native vegetation clearing proposals by establishing a pathway to assess very low impact clearing activities that are deemed not to require a permit. When assessing the clearing referral, DWER have regard to the referral criteria listed in Section 51DA(4) of the EP Act. A clearing permit is required if the referral does not meet all of the criteria.

In support of this clearing referral, the four referral criteria highlighted in the EP Act have been considered and responded to, which are detailed further in **Table 1** below.

Table 1: EP Act clearing referral criteria

EP Act Section 51DA(4) Criteria	Response to the EP Act Clearing Referral Criteria
<p><i>Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation</i></p> <ul style="list-style-type: none"> • Relative to the total remaining vegetation in the region where the proposed clearing is located, and • Relative to the total remaining vegetation of the ecological community that the vegetation proposed to be cleared forms a part of 	<p>The site is located within the Metropolitan Perth Region Scheme constrained area. The 'constrained area' of Metropolitan Perth is the Swan Coastal Plain IBRA portion of the Perth Region Scheme. The Native Vegetation Clearing Referrals Guideline ('the Guideline') (DWER 2021) states that if the extent of the proposed clearing is more than 1 ha, a clearing permit is required. The proposed clearing would involve the removal of 0.09 ha of native vegetation including a total of 23 trees, which is anticipated to result in a very low environmental impact. All remaining native vegetation within the clearing area and the broader site would be retained.</p> <p>Vegetation complex mapping for the Swan Coastal Plain undertaken by Hedde et al. (1980) indicates that the site occurs within an area mapped as the 'Southern River' complex, which is described as 'open woodland of <i>Corymbia calophylla</i> – <i>Eucalyptus marginata</i> – <i>Banksia</i> spp. with fringing woodland of <i>Eucalyptus rudis</i> – <i>Melaleuca raphiophylla</i> along creek beds', which shares some characteristics identified within the site. The southern river complex has 18.43% of its pre-European extent remaining on the Swan Coastal Plain, which is above the 10% threshold for remaining extent of native vegetation in the Swan Coastal Plain region as highlighted in the Guideline.</p> <p>A review of the current native vegetation extent dataset (DPIRD-005), within a 5 km buffer of the site, indicates that the threshold for remaining native vegetation surrounding the boundary of the site is above the 10% as highlighted in the Guidelines. There is an estimated</p>

EP Act Section 51DA(4) Criteria	Response to the EP Act Clearing Referral Criteria
	<p>total of 1890 ha of native vegetation within a 5 km radius of the clearing area, as shown in Figure 4.</p> <p>Due to the degree of historical disturbance and the present condition of the site, native vegetation was not identified to be considered part of any threatened ecological and/or priority ecological community. Additionally, the plant communities present within the site were considered too degraded to assign a ‘floristic community type’ with any degree of certainty due to the low number of native species remaining.</p> <p>Overall, the proposed clearing is not considered to be at variance with this criterion and ultimately would result in very low environmental impacts as required by the Guidelines and the EP Act.</p>
<p><i>Criterion 2: There are no known or likely significant environmental values within the area</i></p> <ul style="list-style-type: none"> • Biological values (e.g. flora, fauna, ecological communities) • Conservation values (e.g. impact to ecological linkages, conservation areas and heritage values) • Land and water resource values (e.g. wetlands and watercourses, water resources, land and soil quality) 	<p>The existing vegetation within the site was determined to be in predominantly ‘Completely Degraded’ condition dominated by non native flora species. Plant community Mr identified within the clearing area is described as ‘tall closed shrubland <i>Melaleuca raphiophylla</i> over forb/sedgeland of <i>Rumex crispus</i>, <i>Cotula coronopifolia</i>, <i>Juncus pallidus</i>, <i>Alternanthera nodiflora</i> and <i>Isolepis cernua</i>’, identified in ‘Degraded’ condition and is the only plant community that would be impacted by the proposed clearing. Plant community Mr occurring within the clearing area was considered too degraded to assign a FCT due to the low native species diversity. The dominant species present within the clearing area is <i>Melaleuca raphiophylla</i>, a wetland species identified along the drainage line. No threatened or priority flora species were identified within the clearing area, nor anywhere else within the site. Furthermore, no threatened or priority ecological communities were identified within the site including the clearing area, likely due to the degraded condition.</p> <p>No potential black cockatoo habitat trees or other priority and/or threatened fauna habitat was identified within the clearing area. Due to the historical disturbance of the site and the small size of the clearing area, the fauna habitat values within the site and clearing area are considered to be significantly reduced and likely only provide habitat for a range of common and widespread species. One priority four species, <i>Isoodon fusciventer</i> (quenda), is known to occur within the broader area of the site and it is possible that they may utilise the site; however, the vegetation within the majority of the site including the clearing area does not provide suitable habitat for the species as it does not contain the dense vegetation understorey that this species prefers. The broader site does provide trees potentially suitable for use by species of threatened black cockatoo including a total of 14 trees with a greater than 50 cm diameter at breast height (suitable black cockatoo habitat tree), one of which has a suitable hollow for black cockatoo breeding. The northern portion of the site also contains a limited amount of black cockatoo foraging habitat, which would remain and not be impacted by the proposed clearing in the clearing area.</p> <p>A review of the <i>Geomorphic Wetlands of the Swan Coastal Plain</i> dataset indicates that one multiple use wetland (MUW) unique feature identifier (UFI) #13396, which extends to the east and west of the site is present across the entire site. Additionally, a review of the <i>Hydrography</i> dataset (maintained by DWER) identifies that the drainage lines discharge into St. Leonards Creek to the north-west of the site. The western drainage line is identified as a minor, non-perennial watercourse within the dataset, whilst the eastern drainage line is identified as a minor drain, which based on observations on the site is also non-perennial. There are no specific retention measures that are required for MUWs; however, they do still form a hydrological function which will be retained and enhanced through the proposed wetland rehabilitation and necessary removal of some native vegetation within the clearing area. Additionally, the ultimate rehabilitation and associated revegetation of the wetland and drainage line within the site</p>

EP Act Section 51DA(4) Criteria	Response to the EP Act Clearing Referral Criteria
	<p>is expected to improve the structural stability of the drainage lines, likely significantly improve water quality and overall likely improve wetland condition and hydrological functions. There are no conservation category wetlands (CCW) or resource enhancement wetlands (REW) within direct vicinity of the site and the clearing area. The nearest CCW and REW are located approximately 1 km to the east and 0.9 km to the south-east of the site respectively.</p> <p>The site is not within an area with high risk of decreasing water quality, rising groundwater levels or increasing salinity such as a public drinking water supply area according to the DWER Public Drinking Water Source Areas dataset. The ultimate rehabilitation of the wetland and drainage lines within the site would likely result in improved hydrological functions and water quality over time.</p> <p>Acid sulfate soil (ASS) mapping prepared by DWER indicates that the site has been classified as having no known risk of ASS occurring within 3 m of the natural soil surface. Additionally, the DWER Contaminated Sites Database does not indicate any contamination within the site and the site's broader surrounds.</p> <p>The site is not associated with or is in close vicinity of a Bush Forever site or environmentally sensitive area. Bush Forever Site 200 is located approximately 1 km south-west of the site and Bush Forever Site 302 is located 1 km to the east.</p> <p>The site is not situated within or in near proximity to a registered Aboriginal Heritage site. The nearest registered Aboriginal Heritage site occurs approximately 1.4 km to the east of the site namely the Swan River.</p> <p>Overall, there are no known or likely significant environmental values within the site including the clearing area and the proposed clearing is not considered to be at variance with this criterion.</p>
<p><i>Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate</i></p>	<p>The site is located within the Swan Coastal Plain. Various databases, spatial datasets and other relevant readily available information is available for the site and the broader region. Additionally, a botanist and an ecologist from Emerge visited the site and undertook a reconnaissance flora and vegetation survey in 2018.</p> <p>The proposed clearing would be undertaken in an area that is included and covered by various environmental databases, spatial datasets and other relevant readily available information and is therefore not considered to be at variance with this criterion.</p>
<p><i>Criterion 4: Conditions will not be required to environmental impacts</i></p>	<p>The proponent has actively ensured that the least amount of native vegetation would be cleared as part of the rehabilitation of the wetland and drainage line within the site. As outlined above, the clearing area comprises native vegetation in 'Degraded' condition and does not support habitat for threatened or priority fauna and flora species or any threatened or priority ecological communities. It is anticipated that the approved rehabilitation of the wetland and drainage lines within the site would result in improved environmental values and attributes within the site and in particular the clearing area, which would likely provide future habitat for native flora and fauna species.</p> <p>Due to the detailed outline of the clearing area within the site, the anticipated very low environmental impact resulting from the proposed clearing and the approved landscape master plan highlighting the significant extent of revegetation within the clearing area, it is not anticipated that any conditions would be required to minimise, mitigate, offset or otherwise manage effects on the environment; therefore, the proposed clearing is not at variance with this criterion.</p>

Summary and closing

It is proposed to clear a footprint of 0.09 ha of native vegetation comprising a total of 23 native trees of native vegetation in 'Degraded' condition, whilst the broader site comprises predominantly cleared or parkland cleared areas in 'Completely Degraded' condition, with scattered patches of native vegetation.

The proponent is modifying the implementation of its civil design to steepen batters, prune multi stemmed trees by an arborist and adopt a progressive clearing approach allowing identification of trees that may be retained within the civil construction footprint. All trees approved to be cleared will be demarcated to avoid the risk of incorrect trees being removed. Supervision on site will also be provided during the clearing phase of the wetland's civil construction.

Emerge suggests that the proposed clearing will only result in a very low environmental impact and is not at variance with the four referral criteria as outlined in the EP Act and the Guideline, which have been addressed in detail within this letter. In summary:

- The native vegetation within the site including the clearing area in the southern portion was identified as 'Completely Degraded' and 'Degraded' condition and does not represent a high level of biological diversity.
- There are no threatened or priority ecological communities, priority and/or threatened fauna and flora species likely to occur within the clearing area, whilst the northern portion of the site provides some potential habitat for black cockatoo species and quenda.
- Due to the degraded condition of vegetation within the site, no FCT was able to be assigned to any native vegetation within the site including the clearing area.
- One MUW was identified within the site including two drainage lines. There are no specific retention measures that are required for MUWs; however, they do still form a hydrological function which will be retained and enhanced through the proposed wetland rehabilitation and necessary removal of some native vegetation within the clearing area.
- The proposed clearing would result in the removal of 0.09 ha of native vegetation comprising a total of 23 trees and is therefore relatively small compared to the remaining vegetation in the broader region (Swan Coastal Plain).
- There are no known or likely significant environmental values within the clearing area.
- The state of scientific knowledge of native vegetation within the region in which the proposed clearing is to take place (Swan Coastal Plain) is adequate.
- Emerge does not anticipate that any conditions would be required to manage environmental impacts in relation to the proposed clearing, as the proposed clearing is anticipated to only result in very low environmental impacts and the ultimate approved rehabilitation and associated revegetation of the wetland and drainage lines within the site would likely increase the environmental values and attributes within the site.

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

Yours sincerely
Emerge Associates

A handwritten signature in blue ink, appearing to read 'J. Hick', with a large loop on the left and a long horizontal stroke on the right.

Jason Hick
PRINCIPAL ENVIRONMENTAL CONSULTANT

cc:

Encl: Attachment: Application for new permit
Attachment 2: Certificate of title
Attachment 3: DA approval Rehabilitation works to create wetland System
Figure 1: Proposed Clearing Extent
Figure 2: Plant Communities
Figure 3: Vegetation Condition
Figure 4: Local Native Vegetation Extent

General References

DWER 2021, *Guideline Native Vegetation Clearing Referrals*

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.

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.

Online References

Landgate 2021, *Landgate Map Viewer*, viewed 20 December 2021, < <https://map-viewer-plus.app.landgate.wa.gov.au/index.html> >