



Government of **Western Australia**
Office of the **Appeals Convenor**
Environmental Protection Act 1986

Appeals Convenor's Report to the Minister for Environment

Appeal against grant of Clearing Permit CPS 8878/1
Lot 2919 on Deposited Plan 203096, Rosa Brook



Appellant	Margaret River Regional Environment Centre
Applicant	Papillon Holdings Pty Ltd
Authority	Department of Water and Environmental Regulation (DWER)
Appeal No.	004 of 2023
Date	April 2023

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Cover image: SW Environmental Pty Ltd (2020) *Basic and Targeted Fauna Survey Lot 2919 Rosa Brook Rd, Rosa Brook*. Report prepared for Stream Environment and Water Pty Ltd (for Papillon Holdings Pty Ltd), December 2020. Photo 3 page 24.

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Acknowledgement of Country

The Office of the Appeals Convenor acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community.

We pay our respects to all members of the Aboriginal communities and their cultures, and to Elders past, present and emerging.

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1 Executive summary

1.1 Decision under appeal

This report relates to appeals against the decision of the Department of Water and Environmental Regulation (DWER) to grant Clearing Permit CPS 8878/1 to Papillon Holdings Pty Ltd under Part V of the *Environmental Protection Act 1986* (EP Act).

During the assessment process, and in recognition of the environmental values present, Papillon Holdings reduced the application area from 5.215 hectares (ha) to 2.32 ha of native vegetation to avoid and minimise the extent and impacts of the proposed clearing:

- northern portion reduced by about 4.9 per cent from 2.03 ha to 1.93 ha to avoid conservation significant flora identified along the eastern boundary
- southern portion reduced by about 88 per cent from 3.19 ha to 0.39 ha to minimise impacts to conservation significant flora, a 'conservation category' wetland (CCW), and conservation significant fauna that may use the wetland (Section 3.1).

The clearing permit was granted on 30 January 2023, and authorises the clearing of up to 2.32 ha of native vegetation on Lot 2919 on Deposited Plan 203096, Rosa Brook (Figure 1; revised application area). The proposed clearing is for the purpose of construction of a dam (northern portion) and expansion of a soak (southern portion).



Figure 1 Area authorised to be cleared under the clearing permit (cross-hatched yellow)¹

¹ Department of Water and Environmental Regulation (2023) *Clearing Permit granted under section 51E of the Environmental Protection Act 1986: Area Permit Number CPS 8878/1 and Decision Report*. 30 January 2023.

1.2 Grounds of appeal and appellant concerns

The Margaret River Regional Environment Centre (appellant) raised concerns in relation to loss of connectivity and fauna habitat and cumulative impacts, the need for the proposed clearing, the adequacy of the conditions, and impacts associated with the end land use, and is seeking for the clearing not to be allowed. The appellant's concerns are summarised in Table 1 and detailed in Section 3.7.

Table 1 Summarised grounds of appeal

Ground	Main concerns the appellants submitted
Impacts on environmental values	<p>The vegetation should be left intact to maintain connectivity with the adjacent State Forest.</p> <p>Cited information from the Nature Conservation Margaret River on the status of the western ringtail possum² and revegetation of habitat.</p> <p>The local community has revegetated 2.5 ha of habitat for the western ringtail possum, yet the application allows the destruction of 0.39 ha of existing habitat.</p> <p>Cited information from the Australian Conservation Foundation on the status of three threatened black cockatoo species: Baudin's cockatoo³, Carnaby's cockatoo⁴ and the forest red-tailed black cockatoo⁵.</p> <p>Old and dead trees containing hollows, both standing and fallen, provide habitat for several species in addition to black cockatoos, including possums, bats, many mouse-sized animals, phascogales, the numbat⁶, chuditch⁷, echidna⁸, black goanna⁹ and carpet python¹⁰, and provide shelter for kangaroos and wallabies.</p> <p>The proposed clearing is an incremental clearing impact.</p>
Relevant planning and other matters	<p>The legislative context cannot stop this proposed development; the system is predicated on facilitating clearing. It should be incumbent on proponents to prove the need for a proposal and how it contributes to local ecology health.</p> <p>It is not acceptable in the drying climate for water to be collected in this area.</p>
Conditions inadequate	<p>Condition 4 ('Directional clearing'): Does not consider nocturnal animals nor availability of alternative habitat.</p> <p>Condition 5 ('Fauna management – western ringtail possum and brush-tailed phascogale'): Relocation to alternative habitat unlikely to be successful.</p> <p>Condition 6 ('Fauna management – habitat trees'): Does not consider all species. Does not specify actions if masked owl¹¹ are found (also no offset). No evidence that Baudin's cockatoo or the forest red-tailed black cockatoo use artificial hollows.</p> <p>Condition 8 ('Offsets – revegetation and rehabilitation requirements'): The planting of 500 marri¹² seedlings is not an immediate solution to the loss of fauna habitat, they will take many years to provide foraging, roosting and breeding sites.</p>

² *Pseudocheirus occidentalis*: 'Critically Endangered' under WA *Biodiversity Conservation Act 2016* (BC Act) and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

³ *Zanda baudinii*: 'Critically Endangered' under IUCN Red List; 'Endangered' under BC Act and EPBC Act.

⁴ *Zanda latirostris*: 'Endangered' under BC Act and EPBC Act

⁵ *Calyptorhynchus banksii* subsp. *naso*: 'Vulnerable' under BC Act and EPBC Act.

⁶ *Myrmecobius fasciatus*: 'Endangered' under BC Act and EPBC Act.

⁷ *Dasyurus geoffroyi*: 'Vulnerable' under BC Act and EPBC Act.

⁸ *Tachyglossus aculeatus*: not threatened.

⁹ *Varanus tristis*: not threatened.

¹⁰ *Morelia spilota*: not threatened.

¹¹ *Tyto novaehollandiae* subsp. *novaehollandiae*: 'Priority 3' listing by the Department of Biodiversity, Conservation and Attractions (DBCAs).

¹² *Corymbia calophylla*

Ground	Main concerns the appellants submitted
Impacts from end land use	<p>This is not the place geographically for this enterprise.</p> <p>Environmental impacts of dam construction include: changes in waterway flow regimes and water quality; operational impacts such as release of fertiliser-contaminated water; creation of a barrier to the movement of aquatic fauna.</p> <p>Potential downstream impacts of dams include: quality and quantity of a water resource. Water quality has both aesthetic (taste, appearance and odour) and health-related (pathogens, chemical and physical contaminants) components.</p>

The appellant also submitted that it was not given an opportunity to object to the application, which is outside the scope of this appeal and is addressed in Section 2.4 ('Other matters').

1.3 Key issues and conclusions

The appeal relates to whether DWER's decision to approve the proposed clearing was justified. To address the concerns, we considered three questions in the context of the issues raised in the appeal: what environmental values are likely to be impacted by the proposed clearing; is the proposed clearing consistent with planning instruments and other relevant matters; and considering the above, should the clearing permit have been granted, and if so, are the conditions appropriate to manage impacts?

We summarise our conclusions for these issues below. Section 2 of this report details our reasoning, and Section 3 contains supporting information.

What are the environmental values of the revised application area?

By the available information there is no question that the revised application area contains important environmental values.

The native vegetation proposed to be cleared is largely in 'Very Good' condition, and includes 0.39 ha of 'very high quality' habitat for the western ringtail possum, 1.93 ha of 'high quality' foraging habitat for three threatened black cockatoo species, 61 trees with a diameter at breast height (DBH) of greater than 50 centimetres (cm) (of which 3 trees containing 5 hollows have potential for breeding use by black cockatoos), a local linkage that may be used by ground-dwelling fauna (as well as the western ringtail possum), and several water features. We agree with DWER's findings, including that the proposed clearing will result in significant residual impacts in relation to threatened fauna, namely the western ringtail possum and three threatened black cockatoo species.

However, we accept DWER's advice that the likelihood of the western ringtail possum occurring within the revised application area is low, given that no evidence of its presence was found during the Fauna Survey¹³ or a site inspection conducted by the Department of Biodiversity, Conservation and Attractions (DBCA), and noting the low number of records in the local area.

¹³ SW Environmental Pty Ltd (2020) *Basic and Targeted Fauna Survey Lot 2919 Rosa Brook Rd, Rosa Brook*. Report prepared for Stream Environment and Water Pty Ltd (for Papillon Holdings Pty Ltd), December 2020.

What planning instruments or other matters are relevant to the proposal?

We conclude that DWER had regard for relevant planning instruments and other matters, including the need for other approvals, and note that the Shire of Augusta-Margaret River (Shire) has issued a development approval for the proposal which requires measures to be undertaken to minimise the risk of erosion and sedimentation and to establish a 10 metre (m) landscape buffer around the proposed expanded dam in the northern portion.

We also note that the clearing purpose is consistent with the Shire's Local Planning Strategy¹⁴. The Local Planning Strategy sets out its long-term vision and planning direction for land use and development in the region, and while it does not specifically mention avocado or tea-tree plantations, it does support the sustainable use and development of rural land for agriculture, horticulture, and forestry while also identifying the need to protect and enhance the natural environment, water resources, and agricultural land values. It is in this context the Shire has issued a development approval for the proposal.

In addition, DWER has given in-principle agreement in relation to approvals required under the water legislation.

Should the clearing permit have been granted, and if so, are the conditions appropriate to manage impacts?

On balance, we consider that it was open to DWER to grant the clearing permit, despite the vegetation being part of a significant habitat for multiple conservation significant fauna (including the western ringtail possum and three threatened species of black cockatoos), as well as providing habitat for non-threatened arboreal hollow-using fauna in the area.

If the clearing permit is granted, we recommended that additional conditions are required to address impacts to a broader range of arboreal hollow-using fauna and note that while our assessment of the offset package (against the WA environmental offsets framework) indicates that its value exceeds the minimum requirements for western ringtail possum habitat, we find the value in relation to black cockatoo foraging habitat and nesting hollows is insufficient to fully offset the significant residual impacts.

On the loss of nesting hollows in particular, we note there appears to be no evidence that Baudin's cockatoo uses artificial hollows, raising questions as to whether this impact is capable of being offset in the manner put forward by DWER.

Against this, we note the clearing permit application was submitted to DWER in early 2020 and was not the subject of a decision until early 2023. We also understand from Papillon Holdings that the need for an offset was not raised by DWER until late 2022.¹⁵ Papillon Holdings has advised that 500 marri (*Corymbia calophylla*) seedlings have been purchased for planting this winter. We also note that the shortfall in the offset appears to be due to two mistakes by DWER in its verification of the adequacy of the offset package, namely its miscalculation of the area of significant residual impact remaining and use of 'Endangered' rather than 'Critically Endangered' for the conservation status of Baudin's cockatoo.

¹⁴ Western Australian Planning Commission (2022) *Shire of Augusta-Margaret River Local Planning Strategy*. 18 January 2022.

¹⁵ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 2.

Given the above, while it is our view that there is a shortfall in the offset to counterbalance the impacts to black cockatoos, it is open to the Minister to accept DWER's approach in this case. We also note the development approval requires the establishment of a 10 m landscape buffer (incorporating native plants) around the proposed expanded dam in the northern portion, which provides some additional value.

If the Minister accepts the current offset, we recommend he writes to DWER to request it reviews the suitability of artificial hollows to replace Baudin's cockatoo nesting habitat.

1.4 Recommendation to the Minister

We recommend that condition 6 is broadened to apply for all trees containing hollows within the revised application area, to account for a broader range of arboreal hollow-using fauna (including non-conservation significant species) known to occur within the local area and for which suitable habitat occurs within the revised application area. This is in addition to the current requirements of condition 6, and to the following effect:

- immediately prior to undertaking the clearing of any of the trees containing hollows, the fauna specialist is to inspect those hollows for evidence of current use by any hollow-using fauna
- where any of the trees containing hollows are found to be in use by any hollow-using fauna, if clearing of the tree(s) cannot be avoided the fauna specialist is to monitor the tree(s) to determine when no longer in use by any hollow-using fauna; clearing of the tree(s) is only allowed when no longer in use by those species
- within two (2) months of clearing, a report of the fauna specialist's inspection findings of the use of any of the trees containing hollows by any hollow-using fauna (including methodology and any monitoring) must be provided to the CEO
- prior to undertaking clearing, for each hollow found to be in use by any hollow-using fauna that is subsequently cleared, a nest box relevant to the particular fauna that occupied that hollow is to be installed (in line with published guidance) in the offset site.

2 Reasons for recommendation

Broadly, the appellant questioned the adequacy of DWER's assessment, the need for the proposed clearing, the adequacy of the conditions, and the impacts from the end land use.

2.1 What are the environmental values of the revised application area?

Application area contains important environmental values

By the available information, there is no question that the revised application area contains important environmental values (Section 3.1).

On review of the *A guide to the assessment of applications to clear native vegetation*¹⁶ (Guide to Assessment) examples of clearing likely to be 'at variance' to the clearing principles, and *WA Environmental Offsets Guidelines*¹⁷ (Offsets Guidelines) residual impact significance model, we agree with DWER's conclusions that the proposed clearing will result in direct impacts on several environmental values and that the loss of western ringtail possum habitat and black cockatoo foraging habitat constitute significant residual impacts.

The matter of whether these impacts can be adequately managed, mitigated and counterbalanced through the conditions on the clearing permit is considered in Section 2.3.

Vegetation corridors

The appellant submitted that the vegetation proposed to be cleared is adjacent to remnant vegetation contiguous with State Forest and should be left intact to preserve connectivity.

The decision report notes that the Shire's development approval for the proposal requires the establishment of a 10 m landscape buffer around the proposed expanded dam in the northern portion.¹⁸ In its appeal response, DWER advised this would include 'planting of *Melaleuca* and *Kunzea* species' and considered that 'the planting of these species would likely re-establish a corridor of vegetation'.¹⁹

For its part, Papillon Holdings advised that there is limited ecological connectivity downstream of Lot 2919 as the land is largely cleared farmland with existing culverts, tracks, soaks and dams acting as barriers to aquatic fauna.²⁰

By Figure 1, we note that while the proposed clearing within the northern portion will remove a vegetated linkage between the road reserve and the State Forest within Lot 2919, a direct linkage between the road reserve and the State Forest is maintained outside Lot 2919. In addition, a vegetated linkage between remnant vegetation to the west of Lot 2919 and the State Forest will not be severed by the proposed clearing in the southern portion.

We note the revised application area is within 150 m of a South West Regional Ecological Linkage²¹ (SWREL). On review of available datasets, we understand the SWREL in this case is a north-south linkage west of the revised application area; the original application area traversed this SWREL, however direct impacts are avoided by the revised application area.

¹⁶ Department of Environment Regulation (2014) *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986*. December 2014.

¹⁷ Government of Western Australia (2014) *WA Environmental Offsets Guidelines*. August 2014.

¹⁸ Department of Water and Environmental Regulation (2023), decision report, pages 5, 7 and 18.

¹⁹ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 3.

²⁰ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 5.

²¹ Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*. Western Australian Local Government Association and Department of Environment and Conservation, Perth.

Western ringtail possum habitat

The appellant noted the status of the western ringtail possum and the local community's efforts to re-establish habitat for the species, and objected to the removal of existing habitat.

The Fauna Survey did not record the western ringtail possum within the study area and concludes that this species is 'unlikely' to occur, however recognises that some species 'are more cryptic, nocturnal or would not have been detected during the diurnal reconnaissance visit (such as bats, possums, reptiles)'.²²

The decision report notes the revised application area contains '0.39 hectares of vegetation (including both marri and [jarrah²³] forest and blackbutt²⁴ and bullich²⁵ woodland areas) within the southern [portion] provide significant very high quality habitat for western ringtail possum', and 'an ecological linkage present between vegetation to the north of Rosa Brook road and the Blackwood State Forest to the east' which may be used by this species.²⁶

In its appeal response DWER agreed with the appellant that 'the proposed clearing of the southern [portion] may have significant impacts upon western ringtail possum habitat'. DWER noted these impacts remained after Papillon Holdings' efforts to avoid and minimise the proposed clearing, and considered that 'an offset to mitigate impacts to western ringtail possum habitat was appropriate to address these impacts'.²⁷

In relation to the northern portion, DWER noted that on the Swan Coastal Plain the species has 'been known to utilise fringing vegetation around wetlands with dense *Melaleuca* and *Kunzea* species²⁸', and considered the establishment of a 10 m landscape buffer in line with the development approval may 'be utilised by western ringtail possum'. DWER concluded that 'impacts to western ringtail possum from the proposed clearing have been appropriately managed and offset through permit conditions', and further that:

Noting the above, it is considered that impacts to western ringtail possum from the proposed clearing have been appropriately managed and offset through permit conditions. ...

It is considered that the likelihood of western ringtail possum individuals present within the clearing area is relatively low due to the following:

- No evidence of western ringtail possum was found in either the fauna survey (Attachment 2) or by DBCA during their site inspection (Attachment 4), although it is noted the survey methodology of both of these assessments may be a limitation for the detection of western ringtail possum; and
- The density of western ringtail possum records within the local area is low, with the vast majority of western ringtail possum records within the Swan Coastal Plain management zone designated by DBCA²⁹ located to the west.³⁰

During its assessment DWER obtained the following advice from DBCA:

[Northern portion:] No signs of Western Ringtail Possum (WRP) were observed, however there are records within 2km of the site. The area could possibly support a low density WRP population, especially given the linkage with the adjacent forest block, however habitat was of low suitability for WRP due to limited mid storey connectivity - the southern area appeared much more likely to support WRP.

²² SW Environmental Pty Ltd (2020), page 25.

²³ *Eucalyptus marginata*

²⁴ *Eucalyptus patens*

²⁵ *Eucalyptus megacarpa*

²⁶ Department of Water and Environmental Regulation (2023), decision report, page 7.

²⁷ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 2.

²⁸ Shedley, E. and Williams, K. (2014) *An assessment of habitat for western ringtail possum on the southern Swan Coastal Plain*. Report prepared for the Department of Parks and Wildlife, Bunbury, Western Australia.

²⁹ Department of Parks and Wildlife (2017) *Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan*. Wildlife Management Program No. 58.

³⁰ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), pages 3 and 8.

[Southern portion:] The site provided much more likely WRP habitat than the northern area – particularly the patches of *Allocasuarina* and adjacent wetland vegetation. No WRP scats were found in the dense leaf litter. However, the dense leaf litter made searching quite difficult. In ideal WRP habitat, DBCA found evidence of owl roosting (pellets etc.). There is a WRP record 1.7km north of the property along the same creek line as the clearing application (though it is no longer linked via vegetation corridor) indicating the site may support low density WRP population.³¹

The western ringtail possum is listed as one of 20 mammal species in the *Threatened Species Strategy 2021-2031*,³² and referenced in the *Strategy Action Plan 2021-2026* (which Objective 1 states 'By 2026, all priority species on track for improved trajectory by 2031').

The western ringtail possum Recovery Plan³³ (WRP Recovery Plan) states that habitat critical to the survival of the species is thought to include 'high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation and other threats', and that long-term species survival 'requires linkages between suitable habitat patches and as such habitat critical to survival incorporates this'.³⁴

The WRP Recovery Plan indicates that the Rosa Brook locality is about 13 kilometres (km) south and east of the 'Swan Coastal Plain' management zone. While management zones are a priority focus, the WRP Recovery Plan notes:

Western ringtail possums recorded outside of these three key management zones could be managed with the same general priorities and recovery actions assigned to the nearest key management zone unless further review indicates they should be managed differently.³⁵

The WRP Recovery Plan states the following about this species preferred habitat in the 'Swan Coastal Plain' management zone:

Populations on the Swan Coastal Plain management zone ... are associated with stands of myrtaceous trees (usually peppermint trees (*Agonis flexuosa*)) growing near swamps, water courses or floodplains, and at topographic low points which provide cooler and often more fertile conditions ... Habitat critical to survival comprises long unburnt mature remnant peppermint woodlands with high canopy continuity and high nutrient foliage with minimal periods of summer moisture stress, and habitat connecting patches of remnants ... These habitats are considered critical to the survival of the species given the optimal densities that they can support. However the extent of fragmentation between remnant patches and continued loss or degradation has important implications on the long-term viability of the populations that depend on them.³⁶

Available information indicates that western ringtail possum home ranges vary from 0.5 ha in high quality habitat up to five (5) ha in drier inland areas.³⁷ By this, the 0.39 ha extent of the southern portion is unlikely to comprise the entire home range of any individual.

For its part Papillon Holdings submitted that there is a low possibility of the western ringtail possum in the revised application area due to an absence of peppermint trees.³⁸

By the above, there is no question that the revised application area contains suitable habitat for the western ringtail possum.

³¹ Department of Biodiversity, Conservation and Attractions (2021) *Species and Communities Branch wetlands advice for clearing permit application CPS 8878/1*. 21 June 2021. Page 3.

³² Department of Agriculture, Water and the Environment (2021) *The Australian Government's Threatened Species Strategy 2021-2031*. Commonwealth of Australia, Canberra.

³³ Department of Parks and Wildlife (2017).

³⁴ Department of Parks and Wildlife (2017), page 8.

³⁵ Department of Parks and Wildlife (2017), page 7.

³⁶ Department of Parks and Wildlife (2017), page 8.

³⁷ Shedley, E. and Williams, K. (2014).

³⁸ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 6.

However, we accept DWER's advice that the likelihood of this species occurring within the revised application area is low, given no evidence of it was found during the Fauna Survey or DBCA's site inspection, and noting the low number of local records. Notwithstanding, DWER considered the loss of western ringtail possum habitat constitutes a significant residual impact which requires counterbalancing.

Black cockatoo habitat

The appellant submitted that the proposed clearing will contribute to the loss of foraging, roosting and breeding habitats for all three threatened black cockatoo species.

The Fauna Survey recorded observations of Carnaby's cockatoo and forest red-tailed black cockatoo as well as feed residue from all three threatened black cockatoo species.³⁹

The decision report notes the revised application area contains 'very high (1.41 hectares of marri and jarrah forest) to moderate (0.52 hectares of bullich and blackbutt woodland) quality foraging habitat', three (3) trees containing five (5) hollows with potential for breeding use by black cockatoos, and is within 12 km of a breeding site and 20 km of roosting sites.⁴⁰

In its appeal response, DWER agreed the clearing of good quality foraging habitat is likely to have a significant impact on black cockatoo species, noting 'the cumulative effect of habitat loss increases the scarcity of black cockatoo foraging resources', and considered that an offset is appropriate to address the impacts. DWER further advised that:

... Noting that 73.29 per cent of remnant vegetation remains within the local area, much of which is within the conservation estate (including the adjacent Blackwood State Forest and nearby Rapids Conservation Park), the vegetation proposed to be cleared was considered a less significant ... foraging resource than similar vegetation in more constrained areas ...

... The loss of [five] nesting hollows is considered likely to have a significant impact upon Baudin's cockatoo and the forest red-tailed black-cockatoo, noting that the Application Area is within the breeding range for these species and that loss of nesting hollows is contributing to their decline ...⁴¹

During its assessment DWER obtained advice from DBCA, which states the following in relation to black cockatoos (based on a site inspection by DBCA):

[Northern portion:] Several tree hollows, possibly suitable for Cockatoos, were noted in the area. Foraging evidence from Baudin's Cockatoo was observed but it is highly likely that all 3 species utilise the area.

[Southern portion:] All 3 Cockatoo species would be expected to utilize the site for feeding and potentially roosting and nesting in some of the tree hollows observed.⁴²

By the above, DBCA identified that:

- the northern portion contains several tree hollows that are possibly suitable for black cockatoos, and contains evidence of foraging of two species, and is likely to be used by all three threatened black cockatoo species
- the southern portion is likely to be used by all three threatened black cockatoo species for foraging and potentially also roosting and nesting.

In relation to the second point above, we understand DBCA's advice was provided within the context of the original application area, noting that by Papillon Holdings' avoidance and minimisation measures, habitat trees containing hollows of suitable size for breeding use by black cockatoos appear to have been avoided within the southern portion (Section 3.3).

³⁹ SW Environmental Pty Ltd (2020), pages 34-37.

⁴⁰ Department of Water and Environmental Regulation (2023), decision report, pages 7-8.

⁴¹ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), pages 3-4.

⁴² Department of Biodiversity, Conservation and Attractions (2021), page 3.

Carnaby’s cockatoo is listed as one of 20 bird species in the *Threatened Species Strategy 2021-2031*,⁴³ and is referenced in the *Strategy Action Plan 2021-2026* (for which Objective 1 states ‘By 2026, all priority species on track for improved trajectory by 2031’). This species was once very numerous in Western Australia; since the late 1940s it has suffered a 30 per cent contraction in range, a 50 per cent decline in population, and between 1968 and 1990 disappeared from more than a third of its breeding range⁴⁴.

Baudin’s cockatoo and the forest red-tailed black cockatoo both occur in the humid and sub-humid forests of south-west Western Australia. These species have similar breeding and feeding requirements and face similar threats.⁴⁵

Extensive published literature documents downward trends in population estimates of all three threatened black cockatoos species, mainly attributed to land clearing and associated loss of breeding and foraging habitats across their ranges. Threatening processes for these species, and habitats critical to their survival, are outlined in Table 2.

Table 2 Threatening processes and critical habitats for black cockatoos

Carnaby’s cockatoo ⁴⁶	Baudin’s cockatoo / forest red-tailed black cockatoo ^{47,48}
Threatening processes	
Habitat loss due to clearing or degradation; competition for available nest hollows; loss of individuals due to illegal activities; collisions with motor vehicles; disease.	Loss of individuals by illegal shooting; injury or death from feral honeybees; habitat loss; processes resulting in shortages of and competition for nest hollows; climate change (likely to exacerbate threatening processes by changes to biodiversity/ ecosystem function).
Habitat critical to survival	
<p>Eucalypt woodlands that provide nest hollows for breeding, together with nearby vegetation that provides feeding, roosting and watering habitat that supports successful breeding.</p> <p>Woodland sites known to have supported breeding previously and which could be used in future, if adequate food/water resources are available/re-established nearby.</p> <p>In the non-breeding season the vegetation that provides food resources as well as the sites for nearby watering and night roosting that enable effective use of available food resources.</p>	<p>Areas currently occupied by these species, and areas not currently occupied due to recent fire but capable of supporting populations when sufficiently recovered.</p> <p>Natural vegetation in which these species nest, feed and roost, and through which they can move from one occupied area to another.</p> <p>Suitable vegetation within the recorded range in which undiscovered populations may exist.</p> <p>All marri, karri and jarrah forests, woodlands and remnants in the south-west of WA receiving more than >600 mm of annual average rainfall.</p>

By the above, there is no dispute that the proposed clearing will impact on black cockatoo habitat. DWER considered the loss of black cockatoo foraging habitat constitutes a significant residual impact which requires counterbalancing with an offset.

⁴³ Department of Agriculture, Water and the Environment (2021)
⁴⁴ Department of Parks and Wildlife (2013) *Carnaby’s Cockatoo (Calyptorhynchus latirostris) Recovery Plan*. Wildlife Management Program No.52.
⁴⁵ Department of Environment and Conservation (2008) *Forest black cockatoo (Baudin’s cockatoo Calyptorhynchus baudinii and forest red-tailed black cockatoo Calyptorhynchus banksii naso) Recovery Plan*.
⁴⁶ Department of Parks and Wildlife (2013)
⁴⁷ Department of Environment and Conservation (2008)
⁴⁸ Threatened Species Scientific Committee (2018) *Conservation Advice Calyptorhynchus baudinii Baudin’s cockatoo*. Department of the Environment and Energy, Canberra.

Trees with hollows

The appellant submitted that old and dead trees containing hollows, both standing and fallen, provide habitat for a range of other native fauna in addition to black cockatoos.

By the Fauna Survey and decision report, the revised application area contains 61 trees with a DBH of greater than 50 cm that may develop hollows in the medium to longer term.^{49,50} A ground survey (as part of the Fauna Survey) found that of these, 17 trees contain 21 hollows. From this we understand the revised application area contains 14 trees containing 16 hollows unsuitable for breeding use by black cockatoos.

For its part, Papillon Holdings submitted that none of the trees are more than 50 years old.⁵¹

We reviewed available information on the specifications of artificial hollows (as a proxy for natural hollows) for those species referred to in the appeal that are known to occur within the local area and for which suitable habitat occurs within the revised application area. We find that some of the tree hollows within the revised application area could potentially be used by arboreal hollow-using species other than black cockatoos (Sections 3.3, 3.4 and 3.5).

In its appeal response, DWER acknowledged that the western ringtail possum, masked owl, western false pipistrelle⁵² and south-western brush-tailed phascogale⁵³ are likely to utilise tree hollows, and that the quokka⁵⁴, southern brown bandicoot/quenda⁵⁵ and western brush wallaby⁵⁶ may use ground hollows. DWER considered the numbat is unlikely to be present, given there are no records within the local area. DWER further advised that:

While the application area may provide habitat for other fauna species the assessment identified that no species of conservation significance ... are likely to be present ... The clearing is not considered likely to have a significant impact on these species, within context of the size of the application area relative to the extensive ... vegetation surrounding it.⁵⁷

The likelihood of these species occurring within the revised application area is considered in the decision report. DWER identified that suitable habitat is present for some species, however concluded that (with the exception of the western ringtail possum):

... the proposed clearing is not likely to result in significant impacts to habitat for these species, noting the extent ... relative to the surrounding ... abundance of native vegetation ... within lands managed by DBCA for conservation, which is likely to comprise vegetation in similar or better condition than that ... within the application area.⁵⁸

The above non-arboreal hollow-using species typically have larger home ranges than the overall extent of the proposed clearing, and suitable habitat for at least two of these appears limited to the southern portion (Section 3.5). Given this, we consider that while the revised application area may contain ground hollows suitable for use by some non-arboreal hollow-using fauna, the risk of impacts from the proposed clearing on individuals appears to be low.

Cumulative impacts

The appellant submitted that the proposed clearing constitutes an incremental impact in the contexts of land clearing and loss of biodiversity.

⁴⁹ Department of Water and Environmental Regulation (2023), decision report, pages 7-8.

⁵⁰ SW Environmental Pty Ltd (2020), page 35.

⁵¹ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 7.

⁵² *Falsistrellus mackenziei*: 'Priority 4' listing by DBCA.

⁵³ *Phascogale tapoatafa* subsp. *wambenger*: 'Special Conservation Interest' under BC Act.

⁵⁴ *Setonix brachyurus*: 'Vulnerable' under BC Act and EPBC Act.

⁵⁵ Southern brown bandicoot / quenda (*Isoodon obesulus* subsp. *fusciventer*): 'Priority 4' listing by DBCA.

⁵⁶ *Notamacropus irma*: 'Priority 4' listing by DBCA.

⁵⁷ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 4.

⁵⁸ Department of Water and Environmental Regulation (2023), decision report, page 9.

For its part, Papillon Holdings advised that it ‘conceded significant reductions in both clearing areas and dam storage capacities’ during the assessment process, including reductions in ‘the Southern Dam by 90% from our original proposal to ensure adequate protection of native vegetation’ and ‘the Northern Dam by 30 meters of tail water from our original proposal ... to ensure a particular type of Native Fern (*Netrostylis* sp. Blackwood) was protected’.⁵⁹

2.2 What planning instruments or other matters are relevant to the proposal?

EP Act states DWER to consider relevant planning and other matters

Section 51O of the EP Act sets out the principles and instruments that DWER shall have regard to when making decisions about clearing applications, which include: the clearing principles so far as they are relevant to the matter under consideration; and any development approval, planning instrument, or other matter, that the CEO considers relevant.

DWER’s Guide to Assessment sets out the considerations for these relevant matters, including by-laws and policies, local biodiversity guidelines and plans, regional planning strategies, and environmental issues within the object and principles of the EP Act.⁶⁰

Clearing purpose consistent with local planning framework

Local planning framework seeks to balance agricultural land use with environmental considerations such as water quality and biodiversity

The revised application area is subject to the Shire’s Local Planning Scheme⁶¹, which sets out the Shire’s planning aims and intentions for the Scheme area⁶², including land use zones, development standards, and planning approval requirements. It contains 14 aims, including:

1.6.1 Biodiversity and Environmental Values

... the Shire forms a significant part of this internationally recognised, global biodiversity hotspot with its forests, rivers and creeks, ocean foreshores and ... remnant vegetation.

To the extent possible under the Scheme, to ensure, that biodiversity values are protected and, where possible, enhanced and to arrest any further biodiversity decline by ensuring that future land use and development do not cause biodiversity loss or diminish its environmental values for present and future generations and, where there is uncertainty, to apply the precautionary principle. ...

1.6.4 Conservation and Heritage

To provide, where appropriate, for the preservation and protection, conservation and enhancement of areas, places and objects of cultural and natural heritage significance. ...⁶³

The Local Planning Strategy sets out the long-term vision and planning direction for land use and development in the Augusta-Margaret River region. It provides guidance for future planning and development decisions and establishes the broad framework for the Local Planning Scheme.

⁵⁹ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 3.

⁶⁰ Department of Environment Regulation (2014), page 39.

⁶¹ Department of Planning Lands and Heritage (2022) *Shire of Augusta-Margaret River Local Planning Scheme No. 1*. Gazetted 24 September 2010, last updated 5 April 2022.

⁶² Department of Planning Lands and Heritage (2022), clause 1.5.1 (a) and (b).

⁶³ Department of Planning Lands and Heritage (2022), clause 1.6.

While the Local Planning Strategy does not specifically mention avocado or tea tree plantations, it does recognise that the agriculture sector is an important part of the local economy, and it seeks to support and encourage the sustainable use and development of rural land for agriculture, horticulture, and forestry. It also identifies the need to protect and enhance the natural environment, water resources, and agricultural land values, and to balance agricultural land use with environmental considerations such as water quality and biodiversity.

From the above, it appears central to the purpose and intent of the Local Planning Scheme to encourage the sustainable use and development of rural land while halting biodiversity loss and protecting and enhancing environmental values within the Shire area. Further, the reference in the Local Planning Strategy to the preservation and enhancement of environmental values is consistent with the Local Planning Scheme' purpose and intent.

Development approval issued for proposal consistent with Local Planning Scheme

The Local Planning Scheme indicates the application area is located within 'SCA 1'. This zone is a Special Control Area within the 'Ten Mile Brook (Priority 3) Water Catchment Area', and any development (including clearing, draining and agriculture-intensive) within it is prohibited without the prior approval of the Shire and where it can be demonstrated that the land use will not adversely affect water quality within the catchment area.⁶⁴

The application form for the clearing permit indicates that the proposed clearing for the proposed expanded dam and soak is to support a proposed tea tree orchard.⁶⁵

Noting the final land use supported by the proposed clearing in this case relates to purposes for which development approval under the Local Planning Scheme is required, we invited the Shire to comment on the appeal. The Shire advised that it 'issued a development approval on 6 January 2023 for 'Intensive Agriculture (Avocado & Leptospermum Orchard) & Dams (Gully Wall Dam and Expansion of Existing Soaks)' for the above property'.⁶⁶

This is reflected in the decision report, which notes that the development approval is subject to several conditions, including:

- specified measures to be undertaken to minimise the risk of erosion and sedimentation
- establishment of a 10 m landscape buffer around the proposed expanded dam in the northern portion (which is likely to include eight (8) native species⁶⁷).

Clearing purpose consistent with water legislation

The decision report recognises that two authorisations under the *Rights in Water and Irrigation Act 1914* are required for the proposed expanded dam and soak, including:

- licence to abstract water under section 5C
- permit to interfere with bed and banks under sections 11, 17 and/or 21A.⁶⁸

DWER has advised that it has given 'in principle' agreement that these authorisations can be given for the proposal 'subject to confirmation of the development approval ... and confirmation of a clearing permit for the proposed northern dam footprint being granted'.

⁶⁴ Department of Planning Lands and Heritage (2022), clauses 4.16, 6.1 and 6.4 (pages 40, 74 and 83-84).

⁶⁵ Papillon Holdings Pty Ltd *Application for a clearing permit (area permit) Form C1*. 20 April 2020.

⁶⁶ Shire of Augusta-Margaret River advice for Appeal 004/23 (08/03/23).

⁶⁷ Department of Water and Environmental Regulation (2023), decision report, pages 5 and 14.

⁶⁸ Department of Water and Environmental Regulation (2023), decision report, page 14.

Climate change

The appellant raised the matter of a drying climate within the context of the end land use, which is outside the scope of this appeal and is addressed in Section 2.4 ('Other matters').

In the context of native vegetation clearing, while climate change is not expressly identified in the Guide to Assessment, we consider it is a relevant consideration for decision-making under the EP Act, and as such, it is within the scope of an 'other matter' (by section 51O).

This is supported by the *Native vegetation policy for Western Australia* (Native Vegetation Policy) which identifies the risk posed by climate change:

In some areas, [remaining native vegetation] is rare, significant and fragmented, and under threat from climate change, bushfires and invasive species. Cumulative impacts are leading to increasingly protracted regulatory assessments.⁶⁹

The Native Vegetation Policy also provides that regional planning processes should consider climate change as a primary consideration in developing regionally tailored objectives and priorities, including:

... managing threats to improve the condition and resilience of remnant vegetation (e.g. climate change, invasive species, inappropriate fire regimes, inappropriate water regimes and quality, unsustainable use)⁷⁰

We are therefore of the view that there may be cases where climate change predictions/risks are relevant to decisions on clearing applications. For example, if proposed clearing involves removal of habitat of a species of fauna that is seen as more susceptible to climate change impacts, that information may be relevant to whether or not the permit should be granted.

In Section 2.1 the threatening processes and critical habitat types for all three threatened black cockatoo species are tabled, and for Baudin's cockatoo in particular climate change is likely to exacerbate threatening processes. We note the revised application area contains marri and jarrah forest and bullich and blackbutt woodland largely in 'Very Good' condition, is within a local area that retains about 73 per cent remnant vegetation cover⁷¹, and is adjacent to other remnant vegetation. While the vegetation proposed to be cleared contains suitable habitat for conservation significant fauna and flora, it is not of a type in itself that is identified as being rare or under particular threat from climate-related impacts.

2.3 Should the clearing permit have been granted, and if so, are the conditions appropriate to manage impacts?

Proposed clearing will remove habitat for two 'Critically Endangered' fauna

The appellant submitted that the legislation cannot protect the environment from clearing that the appellant submits is not necessary.

In Section 2.1 we note the revised application area contains important environmental values, and will result in significant residual impacts. The native vegetation proposed to be cleared is largely in 'Very Good' condition, and includes 'very high quality' habitat for the western ringtail possum, 'high quality' foraging habitat for three threatened black cockatoo species, 61 trees with a DBH of greater than 50 cm (of which three (3) trees contain five (5) hollows that have potential for breeding use by black cockatoos), a local linkage that may be used by ground-dwelling fauna (as well as the western ringtail possum), and several water features.

⁶⁹ Government of Western Australia (2022) *Native vegetation policy for Western Australia*. Department of Water and Environmental Regulation, May 2022. Page 10.

⁷⁰ Government of Western Australia (2022), page 15.

⁷¹ Department of Water and Environmental Regulation (2023), decision report, page 18.

We agree the proposed clearing will result in the loss of habitat for multiple species of conservation significant fauna, including two ‘Critically Endangered’ species (being the western ringtail possum and Baudin’s cockatoo) which are known to be in continued decline with habitat destruction being a key threat. However, we accept DWER’s advice that the likelihood of the western ringtail possum occurring within the revised application area is low, given that no evidence of its presence was found during the Fauna Survey or DBCA’s site inspection, and noting the low number of records in the local area.

In Section 2.2 we note the proposal is consistent with the local planning framework, and that the Shire has issued a development approval for the proposal, as is required for developments of this type within ‘SCA 1’. We note that for a development approval to be issued, a proposal must demonstrate that the land use will not adversely affect water quality within the catchment area⁷². The development approval in this case is subject to conditions including a requirement to establish a 10 m landscape buffer (incorporating native species).

DWER advised that its decision to grant the clearing permit was made in accordance with section 51O of the EP Act. DWER further advised that:

While the proposed clearing was found to be at variance with clearing principles (a), (b) and (f), the Department had regard to the placement of a conservation covenant and rehabilitation within remaining vegetation within the southern portion of the Permit Holder’s property, and mitigation actions agreed to by the Permit Holder, and either conditioned on this Permit or within the Development Approval from the Shire of Augusta Margaret River ...

Noting these management actions, the Department determined the proposed clearing is unlikely to lead to long-term adverse impacts on the environmental values outlined in Section 1.4 of the Decision Report, and determined that the clearing permit for clearing of 2.32 ha of native vegetation should be granted subject to conditions to avoid, minimise and reduce the impacts and extent of clearing.⁷³

In its response to the appeal, Papillon Holdings submitted that neither the EP Act precautionary principle or the Offsets Guidelines facilitate development, and that the assessment process required various surveys, changes to specifications, and management and offsetting in favour of the environment, in addition to other necessary approvals.⁷⁴

On balance, we consider that it was open to DWER to grant the clearing permit, despite the native vegetation proposed to be cleared forming part of a significant habitat for multiple conservation significant fauna, as well as providing habitat for non-threatened arboreal hollow-using fauna in the area. If the clearing permit is granted, we recommended that additional conditions are required to address impacts to a broader range of arboreal hollow-using fauna. Further, while the value of the offsets package is insufficient to fully counterbalance the significant residual impacts in relation to black cockatoo foraging habitat, it is open to the Minister to accept DWER’s approach in this case. Our reasons follow.

Fauna management conditions should be strengthened

DWER applied conditions on the clearing permit to address the impacts of the proposed clearing as identified by its assessment (Table 3).

⁷² Department of Planning Lands and Heritage (2022), clauses 4.16, 6.1 and 6.4 (pages 40, 74 and 83-84).

⁷³ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 9.

⁷⁴ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), pages 10-11.

Table 3 Management of identified impacts

Identified impact	Clearing permit condition
Clearing generally.	Condition 2 'Avoid, minimise, and reduce impacts and extent of clearing'.
Clearing principle (a): proposed clearing will result in loss of one <i>Pultenaea pinifolia</i> (Priority 3) and a population of 11 individuals of <i>Adiantum aethiopicum</i> .	Condition 3 'Weed and dieback management'.
Clearing principle (b): proposed clearing will impact on significant habitats of the western ringtail possum (0.39 ha) and black cockatoos (1.93 ha) and constitutes significant residual impacts in this regard; proposed clearing will impact on suitable habitat for other conservation significant fauna species.	Condition 4 'Directional clearing': Slow and progressive clearing for the benefit of fauna Condition 5 'Fauna management – western ringtail possum and brush-tailed phascogale' Condition 6 'Fauna management – habitat trees' Conditions 7, 8 and 9 'Offset' (conservation covenant, revegetation and rehabilitation requirements, fencing).
Clearing principle (f): proposed clearing will remove riparian vegetation associated with watercourses and a CCW.	Conditions 7 and 9 'Offset' (conservation covenant, fencing).

Directional clearing

The appellant submitted that the requirement for slow and progressive clearing does not take into account nocturnal fauna, who will likely be injured or killed, and otherwise displaced, by the proposed clearing.

In its response to the appeal, DWER acknowledged that some animals may be harmed by the proposed clearing. In relation to this matter, DWER advised:

... Consistent with the [Guide to Assessment], the assessment has focussed on impacts to conservation significant fauna species, particularly at a species level. It is not within the scope of the Department's assessment to consider the impacts of clearing on every individual animal that may be present. The conditions applied are considered reasonable to avoid and mitigate impacts to fauna.

The remaining vegetation adjacent to the clearing activity would be similar to that which is being cleared and provide similar habitat value. Given the extent of the clearing within the context of adjacent vegetation (in particular the Blackwood State Forest towards the east), it is considered that habitat availability would not be a significant factor preventing fauna individuals from dispersing and inhabiting adjacent vegetation.⁷⁵

We note condition 4 is consistent with similar requirements in other clearing permits (Section 3.6). Given this, we consider condition 4 does not require amendment at this time.

For its part, Papillon Holdings advised that it will employ a licensed fauna spotter to oversee clearing and check hollows, and is authorised to stop the clearing if target fauna is found.⁷⁶

Fauna management – western ringtail possum and brush-tailed phascogale

The appellant submitted that the relocation of western ringtail possums (and south-western brush-tailed phascogales) is often unsuccessful due to competition for suitable nesting sites, and food resources, and stress.

⁷⁵ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 5.

⁷⁶ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 9.

In its appeal response DWER acknowledged there are multiple studies, particularly in relation to the western ringtail possum, indicating that translocation to new areas is often unsuccessful. DWER considered that relocation is suitable in this case:

... the most logical place for relocation would be within the remaining vegetation surrounding the clearing area, as close as possible to where the individual was found. Noting the size of the southern [portion] and extent of the surrounding native vegetation, relocation of individuals in this manner would ensure that relocated individuals would most likely remain within their home range (on average up to five ha⁷⁷) or at least would easily be able to access their previous home range. Relocated individuals would still have access to habitat resources within their home range and are therefore, considered to have a relatively high chance of surviving relocation. Also, noting that no evidence of western ringtail possum was found ... competition for habitat ... is not expected to be high.

The Department considers that both northern and southern clearing areas may provide habitat for the brush-tailed phascogale. There is native vegetation adjacent to both clearing areas that would provide a suitable location for relocation. Noting that the south-west brush tailed phascogale forages over a very large home range (females 20-70 ha, males 100 ha⁷⁸), should phascogales be found during the clearing, relocating them to adjacent vegetation would not be expected to move them away from their home range ...

The fauna management condition in the Permit specifies that a western ringtail possum specialist or fauna specialist [as defined in the clearing permit] is required to relocate any western ringtail possum or brush-tailed phascogale individuals that do not move into adjoining suitable habitat of their own accord ... The Department considers that such specialists would be suitably qualified and experienced to relocate these fauna species in a manner that would create as little stress to individuals as possible, and select a location for relocation that provides individuals with a good chance of survival. Furthermore, such specialists will require to obtain a fauna licence under the *Biodiversity Conservation Act 2016*, which will further regulate ... relocation in an effective manner.⁷⁹

DBCAs' *Procedures to Minimise the Risk to Western Ringtail Possums During Vegetation Clearing and Building Demolition*⁸⁰ guides development activities on smaller lots, including:

Suitable expertise on-site

A suitably experienced zoologist or WRP rehabilitator ('possum spotter') should be onsite when clearing is being undertaken, that is, during the entire duration of the clearing. The 'possum spotter' is to provide advice and direction to contractors undertaking the clearing in relation to WRP matters. The contract manager or supervisor is the person responsible for all work undertaken and the safety of all personnel on site at all times.

It is suggested that the 'possum spotter' attend the site the day before clearing commences to be familiar with the location of any WRP and dreys. A person who is required to handle WRP during a clearing event that is part of development proposal should hold a Regulation 15 (fauna relocation and/or education) or a Regulation 17 (scientific/study) license, depending on circumstances. ...

Tree removal

The 'possum spotter' with the clearing supervisor is to inspect all trees to be removed and agree on a process and timetable for clearing. Trees that have WRP currently in them may need to be left for a subsequent day when the tree may be vacant. Where possible clearing should be undertaken in a systematic manner that minimises disruption to WRP. If there is suitable habitat adjoining the development site, a clearing pattern that encourages the movement of WRP to this habitat should be adopted. ...

⁷⁷ Jones, B. (2001). *A report on the conservation status and future management of the ringtail possum population in the Harvey River valley*. Draft report to the Water Corporation, Perth.

⁷⁸ State Wide Integrated Flora and Fauna Teams (2023). *Brush-tailed Phascogale*. Retrieved from https://www.swift.net.au/cb_pages/sp_brush-tailed_phascogale.php

⁷⁹ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), pages 8-9.

⁸⁰ Department of Parks and Wildlife (2015c) *Procedures to minimise the risk to western ringtail possums during vegetation clearing and building demolition*. 19 May 2015.

In the event that a WRP is observed in a tree that is about to be cleared and there is a tree marked for retention near the tree which is to be cleared, then the tree should be gently lowered to the ground to give the animal opportunity to safely evacuate. The animal/s then need to be encouraged to move towards and occupy the trees to be retained.

If there are no trees to be retained within proximity of a tree that has a WRP and needs to be cleared, ... the WRP can be removed by the 'possum spotter' using an elevated platform or by lowering the tree to the ground [and] relocated to the nearest suitable habitat. ...

Understorey vegetation

There [is] a possibility that WRP, Southern Brown Bandicoots, etc, will be found in under and midstorey vegetation. Care needs to be taken when clearing this vegetation with a check to be undertaken by foot prior to machines entering the areas and clearing [it].⁸¹

While the revised application area is located on a large land parcel, noting that DWER identified that the proposed clearing will result in the loss of 0.39 ha of 'very high quality' habitat for the western ringtail possum within the southern portion and a linkage within the northern portion, we consider that, in context, the above procedures are broadly relevant.

We note condition 5 is generally consistent with the above procedures, in that it requires:

- inspection of the revised application area by a fauna specialist immediately prior to, and during, proposed clearing activities for the presence of the western ringtail possum and the south-western brush-tailed phascogale
- if either species is present, clearing activities must cease until the individuals have either moved on or been relocated by a fauna specialist to suitable habitat.

We also note condition 5 is consistent with similar requirements in other clearing permits (Section 3.6). Given this, we consider condition 5 does not require amendment at this time.

For its part, Papillon Holdings advised that the western ringtail possum was not recorded by the Fauna Survey, and that a licensed fauna spotter will be employed to oversee clearing.⁸²

Fauna management – habitat trees

The appellant submitted that there is no evidence that Baudin's cockatoo and the forest red-tailed black cockatoo will use artificial hollows. The appellant questioned the management actions in relation to the masked owl, as well as their likelihood of using artificial hollows. The appellant also questioned how five (5) artificial hollows designed for black cockatoos will compensate the loss of trees with hollows that may be used by other hollow-using species.

In effect, condition 6 sets out three main actions to be undertaken prior to clearing:

- inspect 'black cockatoo habitat trees'⁸³ identified in Table 5-1 of the Fauna Survey as having a 'black cockatoo breeding likelihood' of 'potential' for evidence of current breeding use by black cockatoos or the masked owl
- if an inspected tree is found to contain evidence of current breeding use by these species, clearing of that tree must be avoided or delayed until it is confirmed (by monitoring) to no longer in use by the specified species for that breeding season
- five (5) artificial hollows suitable for use by black cockatoos must be installed within marri and jarrah forest adjacent to the southern portion.

Papillon Holdings advised that a licensed fauna spotter will be employed to check hollows.⁸⁴

⁸¹ Department of Parks and Wildlife (2015), pages 1-2.

⁸² Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 10.

⁸³ Defined in the clearing permit as: 'trees that have a diameter, measured at 130 centimetres from the base of the tree, of 50 centimetres or greater (or 30 centimetres or greater for *Eucalyptus salmonophloia* or *Eucalyptus wandoo*) that contain hollows suitable for breeding by black cockatoo species'.

⁸⁴ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 9.

Baudin's cockatoo and forest red-tailed black cockatoo

In Section 2.1 we note that the revised application area contains a total of 61 trees of suitable size to develop hollows, of which three (3) trees containing five (5) hollows have potential for breeding use by black cockatoos (although no evidence of use was found).

Condition 6 sets out that five (5) artificial hollows suitable for black cockatoos must be installed within an adjacent area of marri and jarrah forest protected by a conservation covenant; designed, placed, monitored and maintained in line with DBCA guidance^{85,86}.

In relation to the use of artificial hollows by Baudin's cockatoo and the forest red-tailed black cockatoo, on review of available published literature^{87,88,89,90} we agree there are currently no records of Baudin's cockatoo using artificial hollows. We note, however, that there is published evidence of the red-tailed black cockatoo using artificial hollows.

In its appeal response, DWER acknowledged that 'there is a lack of evidence on the use of artificial breeding hollows by Baudin's cockatoo'. DWER further advised that:

... internal specialist advice ... noted that placement of artificial hollows in areas devoid of black cockatoo breeding activity may be of limited benefit because, as raised by the Appellant, black cockatoo species tend to display nest site fidelity⁹¹ and as such, may not visit these areas for breeding purposes and use these hollows the Department notes that no breeding was recorded in the fauna survey ... within the area in which artificial hollows were conditioned on the Permit to be installed.

The Department recognises that the installation of artificial hollows at the site of impact may be an imperfect mitigation strategy noting the potential limitations outlined above. Nonetheless, the Department remains of the view that this mitigation approach is appropriate and reasonable in the case of the current permit, given that:

- Installation of the artificial hollows at the site of impact best addresses the local impact, i.e. the conditions will ensure there will be no net loss of hollows at the site of impact for at least the ten year monitoring period;
- The Department does not consider it practical or reasonable to extend the timeframe for the maintenance of artificial hollows beyond the 10 years specified in the conditions ...
- Installation of the artificial hollows further afield, for example closer to known breeding records, would be likely to preclude the Permit Holder from being able to conduct the required monitoring and maintenance, noting that such a location would be outside their landholding.

The Department also considers the mitigation approach to be reasonable and appropriate in light of the broader benefits to black cockatoos, including the security and improvement of potential future breeding habitat, that will result from the ... offset being imposed ...⁹²

In this regard DWER noted the offset site includes five (5) trees containing six (6) hollows with potential for breeding use by black cockatoos, and a further 68 potential nesting trees that 'are likely to develop hollows in the medium to long term'.⁹³

⁸⁵ Department of Parks and Wildlife (2015a) *How to design and place artificial hollows for Carnaby's cockatoo*. Fauna Notes: Artificial hollows for Carnaby's cockatoo. Last updated 28/04/15.

⁸⁶ Department of Parks and Wildlife (2015b) *How to monitor and maintain artificial hollows for Carnaby's cockatoo*. Fauna Notes: Artificial hollows for Carnaby's cockatoo. Last updated 28/04/15.

⁸⁷ Johnstone R.E. and Kirkby, T. (2017) *Black Cockatoo Research Project: Progress Report for Housing Authority 2017*. Western Australian Museum. Page 13.

⁸⁸ <https://forums.birdlife.org/2022-1-long-billed-black-cockatoo-zanda-baudinii-revise-global-status/>

⁸⁹ South32 Worsley Alumina Pty Ltd (2022) *Offset Implementation Plan: Offset 4 Black Cockatoo Artificial Hollows Installation*. Version 1.0, January 2022. Environmental Review Appendix L07.

⁹⁰ Department of Biodiversity, Conservation and Attractions (2023) *Fauna Notes: Artificial hollows for black cockatoos*. Last updated 8 February 2023.

⁹¹ Saunders, D.A., White, N.E., Dawson, R. and Mawson, P.R.M. (2018) *Breeding site fidelity, and breeding pair infidelity in the endangered Carnaby's Cockatoo *Calyptorhynchus latirostris**. In: *Nature Conservation* 27: 59-74.

⁹² Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 6.

⁹³ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 6.

DWER concluded that:

... while uncertainties remain about the overall benefit of five artificial nesting hollows within the southern portion of the property, placement of a conservation covenant ... is expected to deliver an adequate mitigation benefit for these impacts in the long term by securing an ongoing source of potential future hollows.⁹⁴

We note the requirement to install artificial hollows at a 1:1 ratio is consistent with similar requirements in other clearing permits (Section 3.6). We consider, however, that artificial hollows should be characterised as an 'offset' rather than as 'mitigation' in this case. This is based on DWER's advice that the loss of five (5) hollows 'is considered likely to have a significant impact upon Baudin's cockatoo and the forest red-tailed black-cockatoo', and is consistent with the Offsets Guidelines (noting the artificial hollows are to be installed in adjacent remnant vegetation and not within the revised application area) which state:

... Unlike mitigation actions which occur on-site as part of the project and reduce the direct impact of that project, offsets are undertaken outside of the project area⁹⁵ and counterbalance significant residual impacts.⁹⁶

For DWER's consideration, we also note that DBCA has recently published new guidance *Artificial Hollows for Black Cockatoos*⁹⁷ as relevant to all three threatened black cockatoo species (developed in conjunction with Birdlife Australia and the WA Museum).

Masked owl

In Section 2.1 we note DWER's finding that the masked owl is likely to utilise tree hollows within the revised application area, and its consideration that the proposed clearing is not 'likely to have a significant impact' on this species 'within context of the size of the application area relative to the extensive remnant vegetation surrounding it'.⁹⁸

In its appeal response, DWER advised:

In regards to the Appellant's query about what will be done if there are masked owls in tree hollows, the Department notes that Condition 6(b)-(c) of the Permit states:

(b) Where *black cockatoo habitat trees* in Condition 6(a) are identified with *evidence* of current breeding use by *black cockatoo species* or masked owl, and *clearing* of that tree cannot be avoided, that tree must be monitored by a *fauna specialist* to determine when it is no longer in use for that breeding season.

(c) Clearing of the black cockatoo habitat trees in Condition 6(a) must only occur when they are not in use by black cockatoo species or masked owl.

The Permit condition refrains the clearing of the tree if a masked owl is found within a habitat tree. The Department considers that this condition will adequately mitigate impacts to masked owl individuals found nesting in habitat trees.⁹⁹

By the above, DWER appears to be satisfied that the masked owl will not be impacted by the loss of breeding hollows within the revised application area given the extent of nearby vegetation, and has not applied a condition requiring artificial hollows for this species.

In the following section we consider whether impacts from the loss of hollows found to be in current use by arboreal hollow-using fauna other than black cockatoos should be mitigated; our findings in this regard are also applicable to the masked owl.

⁹⁴ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 8.

⁹⁵ Project area refers to the proposal footprint (Part IV) or the application area (Part V).

⁹⁶ Government of Western Australia (2014), page 3.

⁹⁷ Department of Biodiversity, Conservation and Attractions (2023) *Fauna Notes: Artificial hollows for black cockatoos*. Last updated 8 February 2023.

⁹⁸ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 4.

⁹⁹ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 5.

Other arboreal hollow-using fauna

In Section 2.1 we note the revised application area contains 17 trees containing 21 hollows, some of which may be used by arboreal hollow-using fauna other than black cockatoos.

We note that by the reference to 'black cockatoo habitat trees' having a 'black cockatoo breeding likelihood' of 'potential' in Table 5-1 of the Fauna Survey, the requirements of conditions 6(a)-(d) appear to be limited to the three (3) trees containing five (5) hollows; they do not appear to apply for the remaining 14 trees containing 16 hollows unsuitable for breeding use by black cockatoos, but which may be suitable for other arboreal fauna.

We also note the requirements of condition 6(e)-(f) to install five (5) artificial hollows specifically relate to black cockatoos. In this regard, there appears to be no mitigation to address the loss of hollows currently used by other arboreal hollow-using fauna.

Given this, we recommend that condition 6 is broadened to apply for all trees containing hollows within the revised application area, to account for a broader range of arboreal hollow-using fauna (including non-conservation significant species) known to occur within the local area and for which suitable habitat occurs within the revised application area. This is in addition to the current requirements of condition 6, and to the following effect:

- immediately prior to undertaking the clearing of any of the trees containing hollows, the fauna specialist is to inspect those hollows for evidence of current use by any hollow-using fauna
- where any of the trees containing hollows are found to be in use by any hollow-using fauna, if clearing of the tree(s) cannot be avoided the fauna specialist is to monitor the tree(s) to determine when no longer in use by any hollow-using fauna; clearing of the tree(s) is only allowed when no longer in use by those species
- within two (2) months of clearing, a report of the fauna specialist's inspection findings of use on the use of any of the trees containing hollows by any hollow-using fauna (including methodology and any monitoring) must be provided to the CEO
- prior to undertaking clearing, for each hollow found to be in use by any hollow-using fauna that is subsequently cleared, a nest box relevant to the particular fauna that occupied that hollow is to be installed (in line with published guidance) in the offset site.

Value of offsets package lower than assessed by DWER

Offsets package

DWER determined that the loss of 2.32 ha of native vegetation results in the following significant residual impacts:

- loss of 0.39 ha of 'very high quality' western ringtail possum habitat (southern portion)
- loss of 1.93 ha of 'high quality' foraging habitat for black cockatoos (northern portion).

DWER applied the following offsets package:

- giving of a conservation covenant under the *Soil and Land Conservation Act 1945* over 8.05 ha¹⁰⁰ of remnant vegetation adjacent to the southern portion (condition 7)
- planting, monitoring and maintenance of 500 marri seedlings within the marri and jarrah forest portion of the conservation covenant area (condition 8)
- installing a fence around the perimeter of the conservation covenant area (condition 9).

¹⁰⁰ Determined from: DWER's online Clearing Permit System database: <https://cps.dwer.wa.gov.au/main.html>. By contrast the decision report refers to '8.03' ha (page 14) as well as '6.23' plus '1.82' ha (totalling 8.05 ha) (pages 34-36), and DWER's response to Appeal 004/23 refers to '8.03' ha (pages 2 and 6) as well as '14.26' ha (page 8).

We consider the loss of five (5) hollows with potential for breeding use by black cockatoos to also be a significant residual impact, given DWER’s advice that their loss is ‘likely to have a significant impact upon Baudin’s cockatoo and the forest red-tailed black-cockatoo’. In this context, the offsets package should have also considered the five (5) artificial hollows within the conservation covenant area proposed by Papillion Holdings.

In its appeal response, DWER advised it used the *WA Environmental Offsets Calculator*¹⁰¹ (State Calculator) to determine the suitability of the offsets package for each of the environmental values to be offset, with separate calculations undertaken to ‘assess the areas of marri and jarrah vegetation that were both placed under conservation covenant and rehabilitated ... and remaining areas of vegetation that were placed under conservation covenant with no rehabilitation ...’.¹⁰²

In this case a single offset site is applied to the two significant residual impacts (Figure 2). We consider this approach is reasonable, given the habitats of the western ringtail possum and black cockatoos often overlap.



Figure 2 Areas (cross-hatched red) subject to requirements for artificial hollows and 500 marri seedlings (**left**), and a conservation covenant and fencing (**right**)¹⁰³

The appellant challenged the adequacy of the offsets package, and submitted that the marri seedlings will take many years to provide useful habitat for black cockatoos.

As part of our investigation, we reviewed the offsets package within the context of the WA environmental offsets framework (outlined in Section 1.1). Our conclusions are set out below.

¹⁰¹ Government of Western Australia (2021a) *WA environmental offsets calculator*. Department of Water and Environmental Regulation, October 2021.

¹⁰² Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 3.

¹⁰³ Department of Water and Environmental Regulation (2023), clearing permit, Figures 2 and 3.

Planting of 500 marri seedlings

In its appeal response, DWER provided the following advice:

... While the Department acknowledges that [the] seedlings will take many years to develop hollows ... (possibly a minimum of 130 years for birds and mammals¹⁰⁴) this offset was not contrived to offset impacts of the clearing on other fauna species that utilise tree hollows. Nonetheless, these marri plantings are expected to provide other ecosystem functions for other fauna species in the short to medium term, such as shade for other plant species and animals, food for some herbivore species, leaf litter providing habitat for smaller fauna, and canopy connectivity for arboreal species. The purpose of planting of marri seedlings was not to offset the loss of black cockatoo breeding or roosting habitat. Impacts to black cockatoo breeding habitat have been mitigated through conditions to install artificial hollows and through retention of suitable and potential breeding trees included within the conservation covenant area ... The Department's assessment considered that the proposed clearing was not considered likely to have a significant impact on black cockatoo roosting habitat.

Research has shown that black cockatoos feed from Myrtaceous food sources in rehabilitated jarrah-marri forest from as little as eight years post planting¹⁰⁵, however, it is considered that it would take longer than this for marri plants to develop sufficient food materials (i.e. fruits producing seeds) to significantly improve the foraging value of this area of land. Similarly, it is considered that it would take approximately 15 years for marri trees to grow large enough to improve canopy connectivity such that it would create a significant benefit for western ringtail possum. Noting the above, while the Department considers that the marri seedlings will take some time to develop foraging habitat ..., this has been factored into the offset calculations and the resultant extent of the offset required.¹⁰⁶

By contrast, we received the following advice from DBCA for another appeal¹⁰⁷ indicating that marri seedlings are likely to take longer than 15 years to provide foraging habitat:

In relation to revegetation of *C. calophylla* it takes about seven to eight years before fruits are produced, and more than 20 years to provide foraging habitat for black cockatoos¹⁰⁸

For its part, Papillon Holdings suggested that the appellant has not considered the broader context of planting which includes tree shields, weed management, surveys and reporting.¹⁰⁹

'Conservation significance' for black cockatoos should be corrected

We note that DWER's offset calculations in relation to black cockatoo foraging habitat were based on a 'Conservation significance' of 'Endangered' for black cockatoos.

The *Environmental offsets metric: Quantifying environmental offsets in Western Australia*¹¹⁰ sets out a process for determining the conservation significance for environmental values:

For environmental values within the categories of species ... and ecological community, the option selected must relate to the level of threat for that particular environmental value.

The level of threat is informed using the International Union for Conservation of Nature (IUCN) Red List criteria or the state's ranking. Where the Commonwealth and state ranking are inconsistent for a particular species or ecological community, the highest level of threat should be used.¹¹¹

¹⁰⁴ Whitford, K.R. and Williams, M.R. (2001). *Survival of jarrah (Eucalyptus marginata Sm.) and marri (Corymbia calophylla Lindl.) habitat trees retained after logging*. In: *Forest Ecology and Management* 146: 181-197.

¹⁰⁵ Lee, J., Finn, H. and Calver, M. (2013) *Feeding activity of threatened black cockatoos in mine-site rehabilitation in the jarrah forest of south-western Australia*. In: *Australian Journal of Zoology*, 61 (2). pp. 119-131.

¹⁰⁶ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 10.

¹⁰⁷ [Appeal 034/22](#) (Clearing Permit [CPS 8958/1](#)).

¹⁰⁸ Department of Biodiversity, Conservation and Attractions advice for Appeal 034/22, 21 March 2023.

¹⁰⁹ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 5.

¹¹⁰ Government of Western Australia (2021b) *Environmental offsets metric: Quantifying environmental offsets in Western Australia*. Department of Water and Environmental Regulation, October 2021.

¹¹¹ Government of Western Australia (2021b), page 6.

Noting Baudin's cockatoo has a conservation status of 'Critically Endangered' on IUCN Red List, we consider the 'Conservation significance' applied in the offset calculations should be 'Critically Endangered' for black cockatoos, consistent with recent appeal determinations¹¹².

'Significant impact' for black cockatoo foraging habitat should be corrected

We note that DWER's offset calculations in relation to 'high quality' foraging habitat for black cockatoos were based on the loss of '1.85' ha¹¹³ of foraging habitat. By contrast, the decision report makes multiple references to the loss of '1.93' ha¹¹⁴ of foraging habitat.

We accessed mapping of the revised application area on DWER's online Clearing Permit System database¹¹⁵ to clarify this matter. The mapping indicates that the northern portion is 1.93 ha in total area. Given this, we consider the 'Significant impact' applied in the offset calculations should be '1.93' ha for black cockatoo foraging habitat.

Value of offsets package for black cockatoos lower than minimum required

The offsets package in this case:

- primarily focusses on the setting aside of land for conservation through the giving of a conservation covenant over 8.05 ha of remnant vegetation adjacent to the southern portion, leading to a decrease in the risk of loss of the offset site over time
- has an on-ground management component through perimeter fencing, and the planting of 500 marri seedlings, and installation of five (5) artificial hollows within a portion of the covenanted area, leading to an increase in the quality of the habitat over time.

We undertook revised calculations using the State Calculator. While our assessment indicates the value of the offsets package exceeds the minimum requirement in relation to western ringtail possum habitat, we find the value in relation to black cockatoo foraging habitat and nesting hollows is insufficient to fully offset the significant residual impacts. On the loss of nesting hollows in particular, we note there appears to be no evidence that Baudin's cockatoo uses artificial hollows, raising questions as to whether this impact is capable of being offset in the manner put forward by DWER.

Against this, we note the clearing permit application was submitted to DWER in early 2020 and was not the subject of a decision until early 2023. We also understand from Papillon Holdings that the need for an offset was not raised by DWER until late 2022.¹¹⁶ Papillon Holdings also advised that 500 marri seedlings have been purchased for planting this winter.

Given the above, while it is our view that the offset is insufficient to counterbalance the impacts to black cockatoos, it is open to the Minister to accept DWER's approach in this case. We note that in this regard that the offset provides some counterbalancing of impacts, and includes a requirement to fence the offset area. We also note the development approval requires the establishment of a 10 m landscape buffer (incorporating native plants) around the proposed expanded dam in the northern portion, which provides some additional value.

If the Minister accepts the current offset, we recommend he writes to DWER to request it reviews the suitability of artificial hollows to replace Baudin's cockatoo nesting habitat, and how an increase in 'Quality' value should be calculated where revegetation is proposed within higher quality remnant vegetation.

¹¹² Including: [Appeal 058/21](#) (21/09/22), [Appeal 010/22](#) (01/11/22), and [Appeal 040/21](#) (23/11/22).

¹¹³ Department of Water and Environmental Regulation (2023), decision report, pages 34 and 36.

¹¹⁴ Department of Water and Environmental Regulation (2023), decision report, pages 1, 2, 7, 10 and 14.

¹¹⁵ <https://cps.dwer.wa.gov.au/main.html>

¹¹⁶ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), page 2.

Papillon Holdings required to avoid, minimise and reduce clearing

Condition 2 on the clearing permit requires Papillon Holdings to avoid, minimise and reduce the extent and impacts of clearing on environmental values.

We consider this sends a clear message that, while the clearing permit authorises the clearing of up to 2.32 ha of native vegetation, further opportunities to avoid, minimise and reduce the impacts of that clearing must be considered.

Papillon Holdings required to keep records and report to DWER

Condition 10 ('Records that must be kept') on the clearing permit requires the Shire to maintain records for specified activities conducted in accordance with the clearing permit.

In relation to authorised clearing activities generally, the records that must be kept include:

- the species composition, structure, and density of the cleared area
- the date, location, size (ha) and direction the clearing was undertaken
- actions taken to avoid, minimise, and reduce the impacts and extent of clearing
- actions taken to minimise the risk of the introduction and spread of weeds and dieback
- actions taken to manage and mitigate impacts to western ringtail possums and south-western brush tailed phascogales.

Papillon Holdings is also required to maintain records in relation to:

- the inspection, occupancy and clearing of black cockatoo habitat trees
- the installation, monitoring and maintenance of artificial nesting hollows
- actions taken to give a conservation covenant (offset)
- the planting, monitoring and maintenance of 500 marri seedlings (offset)
- actions taken in relation to fencing (offset).

Condition 11 ('Reporting') requires these records to be provided to DWER on request.

2.4 Other matters

Opportunity to comment on clearing applications

The appellant submitted it was not given an opportunity to object to the original application, and that interest groups often do not become aware of clearing applications until it is too late.

DWER provided the following advice on these matters:

The Application for clearing was advertised from 11 May 2020 for public comment for 21 days, providing opportunity for submissions to the Department regarding the proposed clearing. Clearing permits applications for public comment can be found on the Department's website (<http://www.der.wa.gov.au/our-work/clearing-permits/clearing-permit-applications>). Should the Appellant wish to be notified when clearing permit applications are available for public comment, they are encouraged to subscribe to email updates via the link on the above webpage.¹¹⁷

End land use: proposed dam, expanded soak and irrigation of orchards

The appellant submitted that the proposed dams are large and intrusive and have associated downstream impacts, that this is not the place geographically for this enterprise, and that it is not acceptable for water to be collected in this area in these times of the drying climate.

¹¹⁷ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 10.

DWER provided the following advice on these matters:

Post clearing land use

This Permit was granted to facilitate the construction of the two dams, and not for the avocado and *Leptospermum* orchards, although the Department recognises that the water from the newly constructed dams will be used to irrigate these orchards. The suitability of conditions on the property and water availability for avocado and *Leptospermum* orchards are not relevant factors in the assessment of this Permit. The Department notes that the Shire of Augusta Margaret River has granted development approval ... for the avocado and *Leptospermum* orchards and the two dams.

Waterways

The Department recognises that the construction and operation of dams can impact waterway flow regimes, water quality and movement of aquatic fauna.

Prior to the grant of this Permit, the Department advised the Permit Holder that the required Section 5C licence to take water and Section 11/17/21A Permit to interfere with bed and banks under the *Rights in Water and Irrigation Act 1914* would be approved subject to confirmation of a clearing permit for the proposed northern dam footprint being granted. Following the grant of this Permit, the above approvals were issued to the Permit Holder, subject to conditions, allowing the Permit Holder to construct the proposed dams on their property. In its assessments and decision-making for these applications, the Department had regard to the impacts of the dam activities on the environment.

The assessment of the application for a clearing permit considered the impacts of the clearing on waterbodies and water quality (refer to Section 3.2.4 of the Decision Report), consistent with Schedule 5 of the EP Act and published guidance.¹¹⁸

In its response to the appeal, Papillon Holdings advised that:

- the existing dam and soak to be expanded were previously used to irrigate a vineyard
- the proposed expanded dam will not obstruct water flow, and will include a bypass to ensure the watercourse receives appropriate water flows at all times to maintain viability, including during low rainfall events
- the proposed expanded dam and soak will provide benefits as a water source and refuge/habitat for wildlife, and a water source for fire fighting
- the largest avocado enterprise in the Southern Hemisphere is 25 km from the revised application area, with a further two avocado orchards located about six (6) km away
- a Shire-approved nutrient and fertiliser run-off management plan will be adhered to, and buffers are maintained in accordance with DWER's Water Quality Protection Notes
- the results from an EM Survey conducted in 2021 by Environmental and Agriculture Testing (WA) found that the soil on Lot 2919 has a very low risk of fertiliser run off
- the orchard has tensiometers wired into the irrigation system which measure the water holding capacity of the root zone and prevents over-watering.¹¹⁹

¹¹⁸ Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23), page 11.

¹¹⁹ Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23), pages 3-5.

3 Supporting information

3.1 DWER's assessment of the clearing application

On 20 April 2020, Papillon Holdings applied to DWER for an 'area' permit under section 51E of the EP Act to clear 5.217 ha of native vegetation on Lot 2919 (2062 Rosa Brook Road), Rosa Brook, in the Shire of Augusta-Margaret River.¹²⁰ Papillon Holdings subsequently reduced this to 2.32 ha to avoid and minimise impacts to environmental values (Figure 3).

The decision report reflects Papillon Holdings' measures to avoid and minimise the extent and impacts of the proposed clearing:

- northern portion reduced by about 4.9 per cent from 2.03 ha to 1.93 ha to avoid conservation significant flora¹²¹ identified along the eastern boundary
- southern portion reduced by about 88 per cent from 3.19 ha to 0.39 ha to minimise impacts to conservation significant flora¹²², a CCW, and conservation significant fauna that may use the wetland (including the western ringtail possum, quokka and water-rat/rakali¹²³).¹²⁴

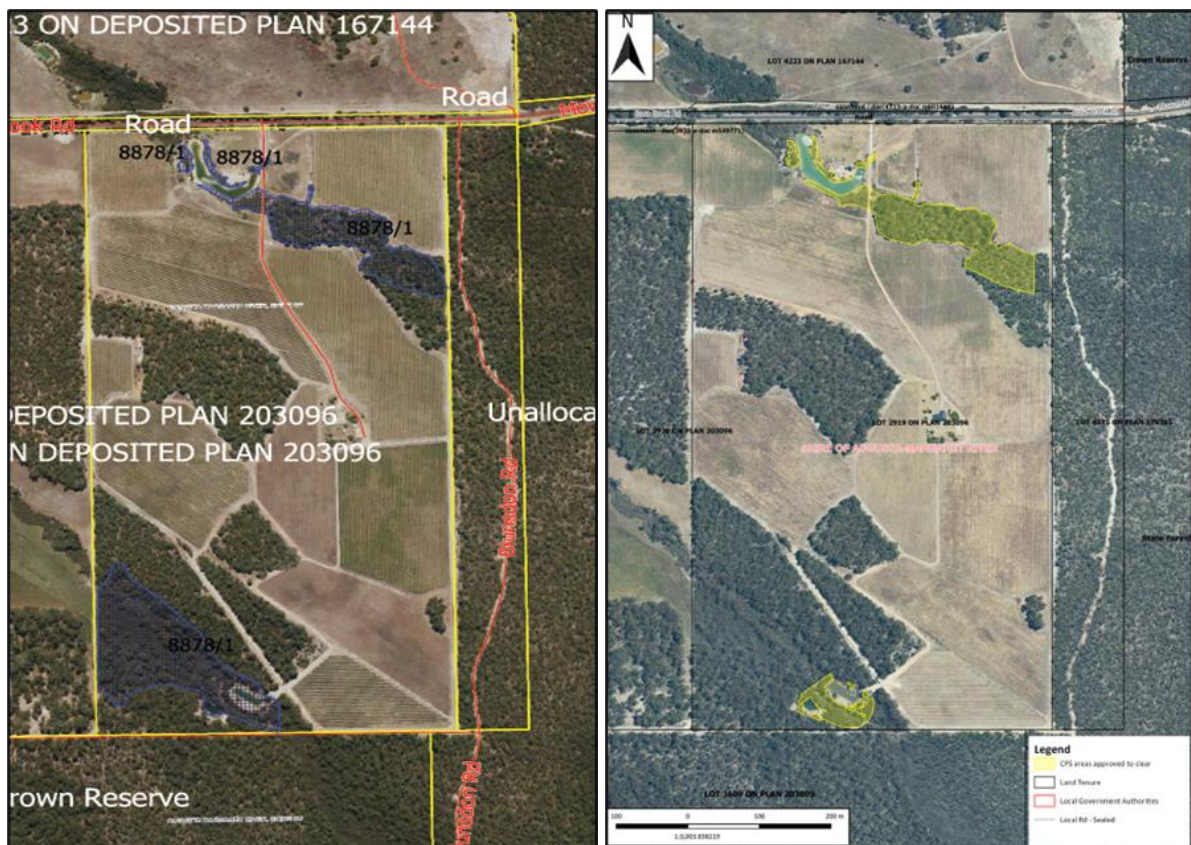


Figure 3 Original application area of 5.215 ha (left; cross-hatched blue)¹²⁵ and revised application area of 2.32 ha (right; cross-hatched yellow)¹²⁶

¹²⁰ Papillon Holdings Pty Ltd *Application for a clearing permit (area permit) Form C1*. 20 April 2020.

¹²¹ *Netrostylis* sp. Blackwood River (Priority 3), *Lambertia rariflora* subsp. *rariflora* (Priority 4).

¹²² *Dampiera heteroptera* (Priority 3), *Pultenaea pinifolia* (Priority 3), *Lambertia rariflora* subsp. *rariflora* (Priority 4).

¹²³ *Hydromys chrysogaster*. 'Priority 4' listing by DBCA.

¹²⁴ Department of Water and Environmental Regulation (2023), decision report, page 5.

¹²⁵ <https://ftp.dwer.wa.gov.au/permit/9047/CPS%209047-1%20-%20Map.PDF>

¹²⁶ Department of Water and Environmental Regulation (2023), clearing permit/decision report, Figure 1.

The clearing application was advertised for public comment for 21 days on 11 May 2020. One public submission was received, raising concerns in relation to:

- the importance of all remaining foraging habitat for black cockatoos and the need to replace through revegetation any that is cleared
- the importance of retaining night roosts and breeding habitat for black cockatoos
- the need to consider cumulative impacts
- the need to refer impacts on black cockatoos under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

By its decision report, DWER had regard for the site characteristics, relevant datasets, the findings of Papillon Holdings' Fauna Survey¹²⁷ and Flora and Vegetation Survey¹²⁸, expert advice from DBCA (including a site inspection), the 10 clearing principles set out in Schedule 5 of the EP Act, and relevant planning and other matters. DWER found the proposed clearing 'is at variance' with principles (a), (b) and (f), 'may be at variance' with principle (i), and 'is not likely to be at variance' with the remaining principles, and that the revised application area:

- contains remnant vegetation consisting of two primary vegetation units largely in 'Very Good' condition¹²⁹:
 - open forest of marri and jarrah over open woodland of *Banksia grandis* (bull banksia) and *Allocasuarina fraseriana* (sheoak) over shrubland and sedgeland
 - open woodland of bullich and blackbutt over closed shrubland of *Taxandria linearifolia* over mixed sedgeland^{130,131}
- contains suitable habitat for up to 15 conservation significant fauna¹³²; and the proposed clearing will result in the loss of:
 - 0.39 ha of 'very high quality' habitat for the western ringtail possum within the southern portion, and will remove a linkage within the northern portion (low habitat suitability 'due to limited mid storey connectivity') that may be used by this species¹³³
 - 1.93 ha of 'high quality' foraging habitat for all three threatened black cockatoo species (comprising 1.41 ha 'very high' quality marri and jarrah forest, and 0.52 ha 'moderate' quality bullich and blackbutt woodland)¹³⁴
 - three (3) trees containing five (5) hollows with potential for breeding use by black cockatoos, the loss of which is 'likely to have a significant impact upon Baudin's cockatoo and the forest red-tailed black cockatoo'¹³⁵
- contains suitable habitat for up to 22 conservation significant flora¹³⁶; the proposed clearing will result in the loss of:
 - one (1) *Pultenaea pinifolia* (Priority 3)
 - 11 *Adiantum aethiopicum* (common maidenhair, not threatened but locally important)
- is within 150 m of a South West Regional Ecological Linkage¹³⁷ (SWREL) and is part of a local ecological linkage; the proposed clearing will remove a linkage between the Rosa

¹²⁷ SW Environmental Pty Ltd (2020).

¹²⁸ Stream Environment and Water Pty Ltd (2020) *Reconnaissance and Targeted Flora and Vegetation. Survey: Lot 2919 Rosa Brook Road*. Report prepared for SW Hydrology (for Papillon Holdings Pty Ltd), November 2020.

¹²⁹ As per the condition scale described in: Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

¹³⁰ Department of Water and Environmental Regulation (2023), decision report, pages 7-9 and 18.

¹³¹ Stream Environment and Water Pty Ltd (2020) *Reconnaissance and Targeted Flora and Vegetation. Survey: Lot 2919 Rosa Brook Road*. Report prepared for SW Hydrology (for Papillon Holdings Pty Ltd), November 2020.

¹³² Department of Water and Environmental Regulation (2023), decision report, pages 6-10 and 23.

¹³³ Department of Water and Environmental Regulation (2023), decision report, pages 6-7.

¹³⁴ Department of Water and Environmental Regulation (2023), decision report, pages 7-8.

¹³⁵ Department of Water and Environmental Regulation (2023), decision report, pages 7-8.

¹³⁶ Department of Water and Environmental Regulation (2023), decision report, pages 11 and 22-23.

¹³⁷ Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009).

Brook Road reserve (north) and the Blackwood State Forest (east) which may be used by ground dwelling fauna (and potentially the western ringtail possum)

- intersects two minor watercourses, a CCW, a dam and two soaks; the proposed clearing will impact on riparian vegetation growing in association with these (0.28 ha in northern portion, 0.23 ha in southern portion), and may result in short term impacts to water quality
- contains soils with moderate to high susceptibility to wind erosion, subsurface acidification, waterlogging, water erosion and phosphorus export; the proposed clearing is unlikely to result in significant land degradation impacts given the end land use
- is about 120 m (northern portion) and 220 m (southern portion) from the Blackwood State Forest, about 270 m (northern portion) from the Rapids Conservation Park, and adjacent (southern portion) to a Crown reserve for timber and government requirements; the proposed clearing is unlikely to impact on environmental values of these areas
- is within mapped vegetation types and a local area¹³⁸ that retain more than 30 per cent of their original extents, above the threshold for biodiversity conservation in Australia
- does not contain any threatened flora, or threatened or priority ecological communities.¹³⁹

After consideration of the information and the avoidance and mitigation measures proposed by Papillon Holdings, DWER determined that an offset is required to counterbalance the loss of western ringtail possum habitat and black cockatoo foraging habitat.

Clearing Permit CPS 8878/1 was granted on 30 January 2023, authorising the clearing of up to 2.32 ha on Lot 2919, subject to conditions. These requirements include:

- ceasing clearing after 21 February 2025
- avoiding and minimising extent and impacts of clearing
- weed and dieback management
- directional clearing for the benefit of fauna
- inspection of clearing footprint immediately prior to clearing for the presence of western ringtail possum and south-western brush-tailed phascogale (and management actions)
- inspection of black cockatoo habitat trees prior to clearing for the presence of black cockatoos or masked owl (and management actions should these be found)
- an offsets package
- keeping records of clearing activities and providing these to DWER on request.

The decision to grant the clearing permit was published on DWER's website. Consistent with section 51E(7), the clearing permit describes the boundaries of the area that may be cleared.

¹³⁸ Described in the decision report as a 10 kilometre radius around the application area.

¹³⁹ Department of Water and Environmental Regulation (2023), decision report, pages 2, 6-14, and 18-25.

3.2 Vegetation units and condition within Flora and Vegetation Survey study area

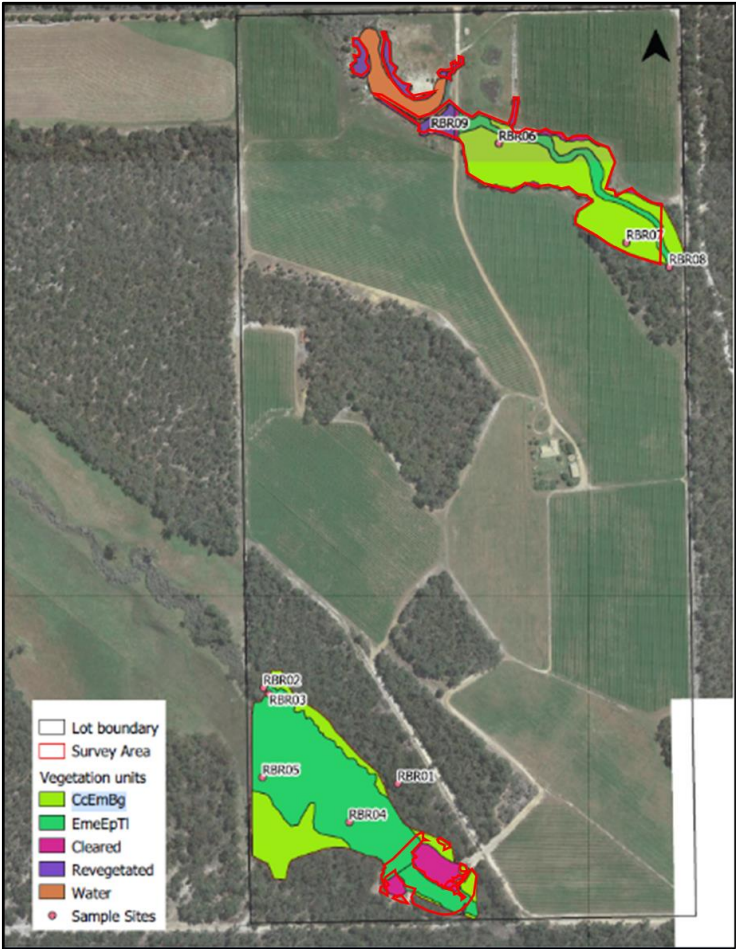


Figure 4 Vegetation units¹⁴⁰ (approximate location of revised application area indicated by red outline)

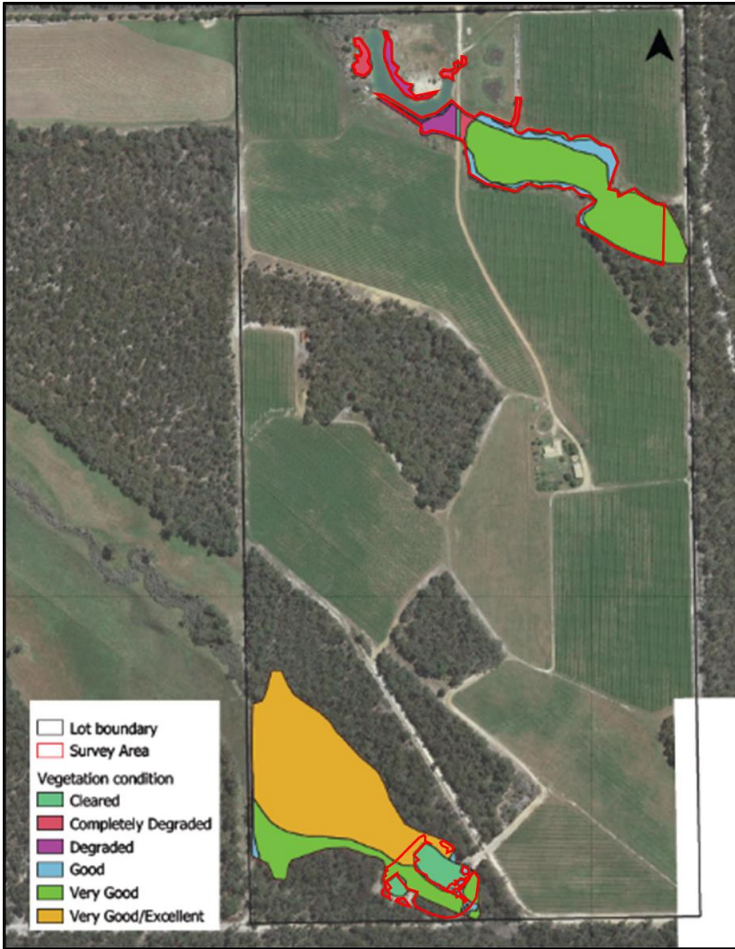


Figure 5 Vegetation condition¹⁴¹ (approximate location of revised application area indicated by red outline)

¹⁴⁰ Stream Environment and Water Pty Ltd (2020), Figure 5 page 16.

¹⁴¹ Stream Environment and Water Pty Ltd (2020), Figure 6 page 17.

3.3 Habitat trees within Fauna Survey study area



Figure 6 Habitat trees north¹⁴² (approximate location of revised application area northern section indicated by red outline)

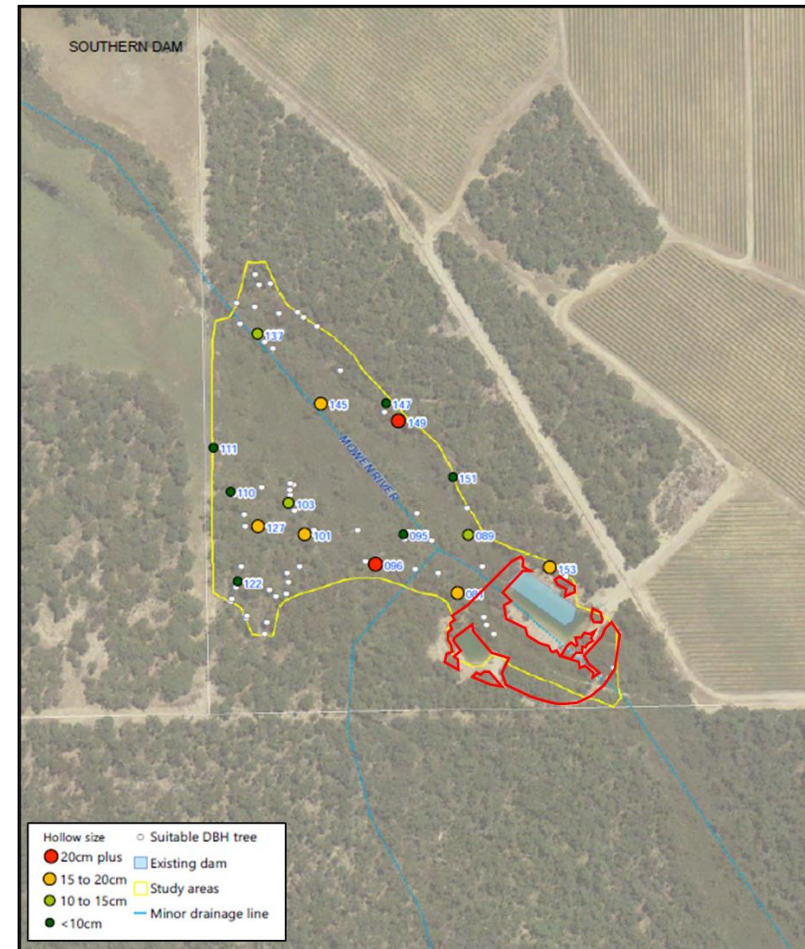


Figure 7 Habitat trees south¹⁴³ (approximate location of revised application area southern portion indicated by red outline)

¹⁴² Adapted from: SW Environmental Pty Ltd (2020), Figure 5 Appendix A-1.

¹⁴³ Adapted from: SW Environmental Pty Ltd (2020), Figure 5 Appendix A-1.

3.4 Habitat trees containing hollows within revised application area

A list of habitat trees containing hollows within the revised application area is in Table 4.

Table 4 Habitat trees containing hollows within revised application area¹⁴⁴

ID	Species	Hollow number	Hollow diameter	Hollow height	Hollow orientation	Hollow evidence of use	Black cockatoo breeding likelihood? ¹⁴⁵
10	Jarraah	1	10-15 cm	<10 m	Knot angle suitable	No	Not likely
11	Jarraah	1	<10 cm	10-15 m	Knot angle suitable	No	-
15	Jarraah	1	10-15 cm	-	Spout angle suitable	No	Not likely
18	Marri	1	>20 cm	10-15 m	Vertical	No	Not likely
30	Dead	1	10-15 cm	<10 m	Vertical	No	Not likely
31	Jarraah	1	<10 cm	<10 m	Knot angle suitable	No	-
33	Jarraah	1	<10 cm	10-15 m	Knot angle suitable	No	-
34	Jarraah	1	<10 cm	<10 m	Spout angle not suitable	Small cavity	-
35	Jarrah	2	<10 cm	10-15 m	Spout angle suitable	No	-
			<10 cm	10-15 m	Spout angle suitable	Small cavity	-
41	Dead	2	10-15 cm	10-15 m	Knot angle suitable	No	Not likely
			<10 cm	10-15 m	Knot angle suitable	No	-
42	Jarrah	2	10-15 cm	10-15 m	Knot angle suitable	No	Potential
			10-15 cm	<10 m	Knot angle suitable	No	Potential
45	Jarraah	1	15-20 cm	-	Knot angle suitable	No	Potential
46	Jarrah	2	10-15 cm	-	Knot angle suitable	Fresh chews	Potential
			10-15 cm	-	Knot angle suitable	No	Potential
49	Dead	1	<10 cm	-	Spout angle suitable	Small cavity	-
50	Jarraah	1	10-15 cm	-	Spout angle suitable	No	Not likely
54	Jarraah	1	10-15 cm	-	Spout angle suitable	Small cavity	Not likely
60	Jarraah	1	<10 cm	-	Knot angle suitable	No	-

¹⁴⁴ Adapted from: SW Environmental Pty Ltd (2020), Table 5-1 page 36 and Table 7-1 page F-17.

¹⁴⁵ Based on typical black cockatoo breeding hollow attributes such as orientation, access, chamber size or use by other animals.

3.5 Preferences and likelihood of some hollow-using fauna

Based on the available information^{146,147}, Table 5 sets out the specifications of artificial hollows (as a proxy for natural hollows) for those species referred to in the appeal that occur within the local area and for which suitable habitat occurs within the revised application area, along with the likelihood of those species being present and a summary of comments (where provided) from the Fauna Survey and decision report.

Table 5 Preferences and likelihood of some hollow-using fauna

Species	Likelihood ¹⁴⁸	Hollow diameter	Hollow height	Fauna Survey comments ¹⁴⁹	Decision report comments ¹⁵⁰
Western ringtail possum	Possible / Unlikely	Medium sized	3-6 m	Mostly inhabits peppermint and peppermint-tuart associations. Home ranges vary from 0.5-1.5 ha in dense peppermint to 2.5-5.6 ha in eucalypt forests. Nearest record 9 km away.	Suitable very high quality habitat in southern portion (marri, jarrah, bullich and blackbutt woodland). Northern portion could support low densities, however low suitability due to limited mid storey connectivity.
Brushtail possum ¹⁵¹	Possible	Medium sized	3-6 m	-	-
Pygmy possum ¹⁵²	Unknown	Small, ~3.5 cm	-	-	-
Western false pipistrelle	Possible	Unknown	Unknown	Given presence of trees with hollows it cannot be ruled out. If present would be directly impacted by loss of roosting and foraging habitat and potential mortality of roosting individuals during clearing.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.

¹⁴⁶ Department of Conservation and Land Management (1997) *Nest Boxes for Wildlife*. Wildlife Notes No. 3, 3 January 1997. Land for Wildlife scheme.

¹⁴⁷ Thomson, C.N. (2006)

¹⁴⁸ Derived from online mapping at <https://australian.museum/learn/animals/> and <https://bie.ala.org.au/species/https://biodiversity.org.au/afd/taxa/a581c303-95b9-4e2f-8fdc-103e394dd85f>, and information in SW Environmental Pty Ltd (2020).

¹⁴⁹ SW Environmental Pty Ltd (2020), pages 28-34 and E-8.

¹⁵⁰ Department of Water and Environmental Regulation (2023), decision report, pages 6-11.

¹⁵¹ *Trichosurus vulpecula*: not threatened.

¹⁵² *Cercartetus concinnus*: not threatened.

Species	Likelihood ¹⁴⁸	Hollow diameter	Hollow height	Fauna Survey comments ¹⁴⁹	Decision report comments ¹⁵⁰
Lesser long-eared bat ¹⁵³	Possible	<3-8 cm	4->6 m	-	-
Greater long-eared bat ¹⁵⁴	Possible	Unknown	-	-	-
Chocolate wattled bat ¹⁵⁵	Possible	<3 cm	4-6 m	-	-
Southern forest bat ¹⁵⁶	Possible	<3 cm	4->6 m	-	-
Yellow-footed antechinus / mardo ¹⁵⁷	Possible	Small, ~3.5 cm	Low	-	-
Masked owl	Possible / Possible visitor	Unknown	-	No evidence of nesting observed (whitewash or pellets). Unlikely to be nesting as study area likely to have limited foraging value given extent of nearby habitat.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.
South-western brush-tailed phascogale	Possible	Small entrance	1.5-5 m	Suitable habitat likely to be part of a larger home range of about five (5) ha. Loss of an individual unlikely to have a significant impact on the local population.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.
Chuditch	Possible	Medium sized	Ground level	Not recorded. Suitable habitat likely to be part of a larger home range. Impact from proposed clearing likely to represent a small part of habitat for any local individuals.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.

¹⁵³ *Nyctophilus geoffroyi*: not threatened.

¹⁵⁴ *Nyctophilus major / timoriensis*: not threatened.

¹⁵⁵ *Nyctophilus / Chalinolobus morio*: not threatened.

¹⁵⁶ *Vespadelus regulus*: not threatened.

¹⁵⁷ *Antechinus flavipes*: not threatened.

Species	Likelihood ¹⁴⁸	Hollow diameter	Hollow height	Fauna Survey comments ¹⁴⁹	Decision report comments ¹⁵⁰
Quokka	Possible	-	Ground level	Suitable habitat in southern portion (bullich swamp and dense understorey connected by drainage line to State Forest). Possible runnels and scat observed. May occur in low densities.	Southern portion contains suitable habitat. Northern portion may act as (non-significant) corridor. Proposed clearing unlikely to result in significant impacts at species level.
Southern brown bandicoot / quenda	Possible	-	Ground level	Not recorded (no diggings). Suitable habitat (mainly southern portion) likely to be part of a larger home range. Low risk of impacts given extent of proposed clearing and extent of nearby habitat.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.
Western brush wallaby	Possible	-	Ground level	Suitable habitat (mainly southern portion) likely to be part of a larger home range. Low risk of impacts given extent of proposed clearing and extent of nearby habitat.	Proposed clearing unlikely to result in significant impacts to suitable habitat, noting its extent relative to that of surrounding vegetation in conservation estate.
Echidna	Possible	Large	Ground level	-	-
Black goanna	Unknown	3-5 cm	Any	-	-
Carpet python	Unknown	1-10 m	Any	-	-

3.6 Review of fauna management conditions on some other clearing permits

Table 6 Review of fauna management conditions on some other clearing permits

Clearing Permit	Description	Directional clearing	Inspect areas for conservation significant species, manage if found	Inspect habitat trees for conservation significant species, manage if found	Install artificial hollows	Offset or revegetation
CPS 8878/1	Granted 30/01/23 (under appeal), 2.32 ha for dam construction, habitat for WRP, BCs and SWBTP	✓	✓ (WRP and SWBTP)	✓ (BCs and masked owl)	✓ (1:1)	Offset
CPS 9341/1	Granted 28/03/23, 19.21 ha for road work, habitat for BCs	✓	-	-	-	Offset
CPS 9812/1	Granted 16/03/23, 0.21 ha for road work, habitat for BCs	✓	-	✓ (BCs only)	✓ (1:1)	Revegetation
CPS 9879/1	Granted 15/02/23, 0.26 ha for road work, habitat for WRP, BCs and SWBTP	-	✓ (WRP and SWBTP)	-	-	Offset
CPS 9512/1	Granted 09/02/23, 3.52 ha for dam construction, habitat for BCs	✓	-	-	-	Revegetation
CPS 9742/1 (Appeal 045/22)	Granted 21/12/22, 0.45 ha for road work, habitat for WRP and BCs	✓	-	-	-	Offset
CPS 9339/2 (Appeal 018/22)	Amended 20/12/22, 0.188 ha for road work, habitat for BCs	✓	-	-	-	Revegetation
CPS 9286/2 (Appeal 021/22)	Amended 20/12/22, 30.78 ha for extractive industry, habitat for BCs	✓	-	✓ (BCs only)	✓ (1:1)	Offset
CPS 9333/2 (Appeal 010/22)	Amended 06/12/22, 0.12 ha for road work, habitat for WRP and BCs	✓	-	-	-	Offset
CPS 9184/1	Granted 23/11/22, 0.205 ha for road work, habitat for BCs	-	-	✓ (BCs only)	✓ (1:2)	Revegetation

Clearing Permit	Description	Directional clearing	Inspect areas for conservation significant species, manage if found	Inspect habitat trees for conservation significant species, manage if found	Install artificial hollows	Offset or revegetation
CPS 9237/3 (Appeal 058/21)	Amended 04/11/22, nine (9) trees for road work, habitat for BCs	-	✓ (WRP and SWBTP)	✓ (BCs only)	✓ (1:1)	Offset
CPS 9340/1	Granted 29/09/22, 2.12 ha for road work, habitat for BCs	✓	-	✓ (BCs only)	✓ (1:1)	Revegetation
CPS 8830/2 (Appeal 002/22)	Amended 27/07/22, 3.27 ha for primary production, habitat for BCs maybe WRP	✓	-	-	-	-
CPS 9365/2 (Appeal 004/22)	Amended 21/06/22, 4.4 ha for mineral exploration, habitat for BCs / other fauna	✓	-	✓ (all conservation significant)	-	-
CPS 9288/1	Granted 28/03/22, 0.481 ha for road work, habitat for BCs	✓	-	✓ (BCs only)	✓ (1:1)	Offset
CPS 9419/1	Granted 09/12/21, 1.82 ha for dam construction, habitat for WRP, BCs and SWBTP	✓	-	-	-	-
CPS 9357/1 (Appeal 003/22)	Granted 06/12/21, 57 trees for road work, habitat for BCs / other fauna	✓	-	-	-	-
CPS 9281/1 (Appeal 001/22)	Granted 06/12/21, 57 trees for road work, habitat for malleefowl	✓	-	-	-	-
CPS 9168/1	Granted 09/07/21, 27.3 ha for road work, habitat for WRP and BCs	-	✓ (WRP only)	✓ (BCs only)	✓ (1:1)	Offset
CPS 8628/1	Granted 08/04/21, 6.7 ha for extractive industry, habitat for WRP and BCs	✓	✓ (WRP only)	-	-	Revegetation

3.7 Appellant’s detailed concerns

The appellants’ detailed concerns are set out in Table 7.

Table 7 Detailed grounds of appeal

Ground	Main concerns the appellants submitted
Impacts on environmental values	<p>Clearing of native vegetation is recognised as a major factor worldwide as contributing to loss of biological diversity. Land clearance is listed as a key threatening process under the Commonwealth's <i>Environment Protection and Biodiversity Act 1999</i>. The proposed clearing is an incremental clearing impact.</p> <p>We see that the property adjoins State Forest and the bush which edges or fringes the Forest should be left intact even if on private property. Any clearing of adjacent forest destroys connectivity.</p> <p><u>Removal of 0.39 hectares of very high quality western ringtail possum habitat</u></p> <p>Quotes from outside organisations in italics:</p> <p><i>The Western Ringtail Possum (Pseudocheirus occidentalis) is a critically endangered arboreal marsupial that is only found in South-Western Australia. While once widespread from Perth to Albany, this species is now listed as critically endangered. It has been estimated that the remaining population size in the wild is less than 8,000 mature individuals, with a decreasing trend. Recent research predicts there is a 92% likelihood that they will be extinct within 20 years if action to protect populations and their habitat isn't enacted immediately. (Nature Conservation Margaret River)</i></p> <p><i>Habitat enhancement – 2.5 hectares of revegetation with native seedlings have been undertaken over 5 years to enhance local western ringtail possum habitats. Volunteers, school groups and local businesses got involved in planting activities and make a difference to the strategic habitats that support Western ringtail possums. (Nature Conservation Margaret River).</i></p> <p>We are celebrating the work of volunteers, school children, businesses and conservation groups for revegetating 2.5 ha of western ringtail possum habitat which will take decades to mature, yet this clearing permit is allowing the destruction of 0.39 ha of existing high quality habitat.</p> <p><u>Removal of 1.93 hectares of high quality black cockatoo foraging habitat</u></p> <p>Quotes from outside organisations in italics:</p> <p><i>Baudin’s black-cockatoo is an endangered species and protected under the federal Environmental Protection and Biodiversity Conservation (EPBC) Act. Fewer than 15,000 Baudin’s cockatoos are alive in the wild.</i></p> <p><i>Carnaby’s black-cockatoo is a Commonwealth endangered species under the EPBC Act, and is also ‘Specially protected fauna’ under the WA Wildlife Conservation Act. In Western Australia, the Carnaby’s cockatoo is considered ‘likely to become extinct’ in the wild.</i></p> <p><i>The red-tailed black-cockatoo’s forest (or Karrak) subspecies (Calyptorhynchus banksii naso) is a vulnerable species protected under the EPBC Act and WA Biodiversity Conservation Act. This sub-species ranges from Gingin north of Perth to Albany in the south-west of WA. Fewer than 15,000 Karraks are alive in the wild.</i></p> <p><i>All Western Australian species of black cockatoo are threatened by habitat loss and degradation, competition from other birds for nesting sites and declining food supplies.</i></p> <p><i>The forest red-tailed black cockatoos are threatened by habitat loss, competition for rare nesting hollows and by injury from European</i></p>

Ground**Main concerns the appellants submitted**

honeybees. The federal government’s recovery plan for this subspecies was implemented in October 2021 with a view to reducing the burden these threats place on the species.

Baudin’s and Carnaby’s black cockatoos are particularly endangered and are considered likely to become extinct in the wild.

Like the forest red-tailed black cockatoo, these species are threatened by loss of nesting hollows due to deforestation from mining and timber industries, habitat fragmentation, loss of native food sources from urban development and bushfires. (Australian Conservation Foundation)

Removal of three trees containing five potentially suitable breeding hollows for black cockatoo species

Old and dead trees do not only contain hollows for black cockatoo species. There are many other tree hollow dependent species – In the south-west of WA, possums, phascogales and bats are our most important arboreal hollow-using mammals, though low hollows and hollow logs on the ground are also used by numbats, chuditch, echidna and numerous mouse-sized animals. Hollow-buttressed trees often shelter kangaroos and wallabies. In the south-west of WA the most obvious reptilian hollow user is the black goanna which, besides hunting other hollow-dwelling fauna, will regulate its body temperature while resting by choosing a warmer or cooler position within the hollow. Carpet pythons also hibernate in hollows, sometimes up to 10 metres off the ground.

Research is showing that the endangered forest red-tailed black cockatoo and Baudin’s cockatoo, being long-lived birds are very choosy about their nesting site, returning to the same hollow year after year. ... A suitable natural hollow in a Marri tree takes 250 years to form and 500 years in a jarrah tree.

Relevant planning and other matters

Legislative context

It just goes to show how weak our legislation is when it comes to conserving our natural environment. All these documents can’t stop this patently unnecessary development from going ahead.

The whole system is predicated on facilitating humans to develop, clear, and exploit the natural environment for profit.

We do not need any more teatree plantations or avocado plantations – they use a lot of water. It should be incumbent upon the proponents to prove that their proposal is necessary and contributes to the health of the local ecology.

Conditions inadequate

Directional clearing (condition 4)

... Nocturnal animals will be asleep when clearing is undertaken. Trees and bush are pushed over and sleeping animals are killed and injured. (I have witnessed this very activity). Animals cannot simply “move in next door” – it is unlikely that the habitat will be suitable, and if it is, it will already be occupied by other animals. Clearing is a death sentence – whether it be a quick death or a slow death.

Management of western ringtail possum and south-western brush-tailed phascogale (condition 5)

This is a heartbreaking activity for a fauna handler – to find live sleeping animals before they are killed or injured and attempt to relocate them to another habitat. This is quite often unsuccessful due to competition for suitable nesting sites and food resources. The animals are stressed by this activity.

Trees with suitable hollows to be inspected (condition 6)

What will the owner do if there are masked owls in the hollows? How will a natural hollow be compensated for with an artificial hollow? Can it be guaranteed that the masked owls will nest next year in the artificial hollow? Is the owner being tricked into thinking that their “artificial hollow solution” is an effective mitigation technique when research shows that it is very difficult to mimic nature effectively.

Ground**Main concerns the appellants submitted**Five artificial hollows to be installed (condition 6)

How does this in any way compensate all the other hollow-dependent species for the loss of their mature tree homesites?

If [a] tree is logged, research ... shows that there is no evidence that Baudin's or Red-tailed cockatoos will use artificial nest boxes. Only Carnaby's cockatoos have been found in artificial nest boxes.

Revegetation offset (condition 8)

The offsets offered in lieu of clearing is planting of 500 Marri seedlings. These take years to mature and are not a solution for the many species who live in the existing trees and bush. All three species of our cockatoos are endangered and are very prevalent in Rosa Brook and Margaret River as they have less to forage on and are finding it more and more difficult to find roosting and nesting sites in old growth trees.

Marri seedlings will take many years before they provide foraging or roosting sites – and hundreds of years to provide nesting sites.

Impacts from end land use

These dams are large and intrusive and should not be permitted to be constructed on these water courses, creeks and river systems as well as a natural soak. The water to be stored in the dams is to be used to irrigate a tea tree orchard (leptospermum) and avocado trees. In their natural range, tea trees grow in water-saturated, riparian or swampy soils. Therefore, in cultivation they require constant access to water in order to thrive.

This is not the place geographically for this enterprise nor is it acceptable in these times of the drying climate for water to be collected in this area.

The potential environmental impacts of rural dam construction on water resources include: changes in waterway flow regimes and water quality as a result of dam construction; impacts caused during the operation of the dam, e.g. release of contaminated water (this could be an issue with these dams if the proponent uses fertilisers on the orchards); and formation of a waterway barrier that impedes the movement of aquatic fauna (this does not appear to be a factor with these dams).

The potential downstream impacts of these dams can affect both the quality and quantity of a water resource. Water quality has both aesthetic (e.g. taste, appearance and odour) and health-related components (e.g. pathogens, chemical and physical contaminants).

Fertiliser use in this sandy, sensitive wetland setting is also inappropriate as the microbes that inhabit these soils are not adapted to nutrient rich runoff.

Other matters

We ... complain that at this late stage it is unfortunate that we were not given the opportunity to object to the original application back in May 2020. So often groups such as ours which have a local membership and avid interest in clearing applications do not become aware until it is basically too late.

Appendix 1 Appeal process

The Minister assesses the merits of a decision

Environmental appeals follow a merits-based process. This means the Minister can consider all the relevant facts, legislation and policy aspects of the decision and decide whether it was correct and preferable.

For clearing permits, the Minister can overturn the original decision to grant the permit if this was the basis of the original appeal submission. Alternatively, if the appeal submission was against the conditions of the permit, the Minister may modify the conditions only.

The appeal investigation will consider the extent to which conditions can address the issues raised, as well as any new information that may not have been available at the time of the original decision.

While process issues can be raised in an appeal, the focus of investigations will be on the substantive environmental matters relevant to DWER's conditions.

We report to the Minister, as does the decision-making authority

To decide an appeal's outcome, the Minister for Environment must have a report from both:

- the Appeals Convenor (see section 109(3) of the EP Act), and
- the authority that originally made the decision under appeal (see section 106(1)).

To properly advise the Minister in our report, our investigation included:

- reviewing DWER's decision and appeal reports
- meeting with the appellant (04/04/23)
- meeting with Papillon Holdings (03/03/23)
- reviewing DWER's response to the appeal
- reviewing other information, policy and guidance as needed (Table 8).

Table 8 Documents we reviewed in the appeals investigation

Document	Date
Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23).	28 March 2023
Department of Biodiversity, Conservation and Attractions advice for Appeal 034/22 (21/03/23).	21 March 2023
Papillon Holdings Pty Ltd response to Appeal 004/23 (16/03/23).	16 March 2023
Shire of Augusta-Margaret River response to Appeal 004/23 (08/03/23).	8 March 2023
Department of Biodiversity, Conservation and Attractions (2023) Fauna Notes: Artificial hollows for black cockatoos . Last updated 8 February 2023.	8 February 2023
Department of Water and Environmental Regulation (2023) Clearing Permit granted under section 51E of the Environmental Protection Act 1986: Area Permit Number CPS 8878/1 and Decision Report . 30 January 2023.	30 January 2023
Department of Water and Environmental Regulation (2022) Draft Procedure for environmental offsets metric inputs: For use with the WA environmental offsets metric . Consultation draft. May 2022.	May 2022

Document	Date
Government of Western Australia (2022) Native vegetation policy for Western Australia . Department of Water and Environmental Regulation, May 2022.	May 2022
Department of Planning Lands and Heritage (2022) Shire of Augusta-Margaret River Local Planning Scheme No. 1 . Gazetted 24 September 2010, last updated 5 April 2022.	5 April 2022
Western Australian Planning Commission (2022) Shire of Augusta-Margaret River Local Planning Strategy . 18 January 2022.	18 January 2022
Environmental Protection Authority response to Appeal 045/21 (07/01/22)	7 January 2022
South32 Worsley Alumina Pty Ltd (2022) Offset Implementation Plan: Offset 4 Black Cockatoo Artificial Hollows Installation . Version 1.0, January 2022. Environmental Review Appendix L07.	January 2022
Department of Agriculture, Water and Environment (2022) Referral guideline for 3 WA threatened black cockatoo species . Commonwealth of Australia, 2022.	2022
Government of Western Australia (2021a) WA environmental offsets calculator . Department of Water and Environmental Regulation, October 2021.	October 2021
Government of Western Australia (2021b) Environmental offsets metric: Quantifying environmental offsets in Western Australia . Department of Water and Environmental Regulation, October 2021.	October 2021
Department of Biodiversity, Conservation and Attractions (2021) <i>Species and Communities Branch wetlands advice for clearing permit application CPS 8878/1</i> . 21 June 2021. Attachment to Department of Water and Environmental Regulation response to Appeal 004/23 (28/03/23).	21 June 2021
Department of Agriculture, Water and the Environment (2021) The Australian Government's Threatened Species Strategy 2021-2031 . Commonwealth of Australia, Canberra.	2021
SW Environmental Pty Ltd (2020) Basic and Targeted Fauna Survey Lot 2919 Rosa Brook Rd, Rosa Brook . Report prepared for Stream Environment and Water (on behalf of Papillon Holdings Pty Ltd), December 2020.	December 2020
Stream Environment and Water Pty Ltd (2020) Reconnaissance and Targeted Flora and Vegetation Survey: Lot 2919 Rosa Brook Road . Report prepared for SW Hydrology (for Papillon Holdings Pty Ltd) November 2020.	November 2020
Papillon Holdings Pty Ltd Application for a clearing permit (area permit) Form C1 . 20 April 2020. Also see: https://cps.dwer.wa.gov.au/main.html	April 2020
Threatened Species Scientific Committee (2018) Conservation Advice Calyptorhynchus baudinii Baudin's cockatoo . Department of the Environment and Energy, Canberra.	2018
Johnstone R.E. and Kirkby, T. (2017) Black Cockatoo Research Project: Progress Report for Housing Authority 2017 . Western Australian Museum.	2017
Department of Parks and Wildlife (2017) Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan . Wildlife Management Program No.58.	2017
Department of Parks and Wildlife (2015c) Procedures to minimise the risk to western ringtail possums during vegetation clearing and building demolition . 19 May 2015.	19 May 2015

Document	Date
Department of Parks and Wildlife (2015a) How to design and place artificial hollows for Carnaby's cockatoo . Fauna Notes: Artificial hollows for Carnaby's cockatoo. Last updated 28/04/15.	28 April 2015
Department of Parks and Wildlife (2015b) How to monitor and maintain artificial hollows for Carnaby's cockatoo . Fauna Notes: Artificial hollows for Carnaby's cockatoo. Last updated 28/04/15.	28 April 2015
Department of Environment Regulation (2014) A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environmental Protection Act 1986 . December 2014.	December 2014
Government of Western Australia (2014) WA Environmental Offsets Guidelines . August 2014.	August 2014
Shedley, E. and Williams, K. (2014) An assessment of habitat for western ringtail possum on the southern Swan Coastal Plain . Report prepared for the Department of Parks and Wildlife.	2014
Department of Parks and Wildlife (2013) Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan . Wildlife Management Program No.52.	2013
Government of Western Australia (2011) WA Environmental Offsets Policy . September 2011.	September 2011
Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report . Western Australian Local Government Association and Department of Environment and Conservation, Perth.	2009
Department of Environment and Conservation (2008) Forest black cockatoo (Baudin's cockatoo Calyptorhynchus baudinii and forest red-tailed black cockatoo Calyptorhynchus banksii naso) Recovery Plan .	2008
Department of Conservation and Land Management (1997) Nest Boxes for Wildlife . Wildlife Notes No. 3, 3 January 1997. Land for Wildlife scheme.	3 January 1997