

Addendum Report for the Arcadia Development Tamworth NSW

Regarding the proposed residential subdivision of:

Lots 1 and 2 in DP1213875 | Lot 6 in DP121122 | part of Lot 1 in DP1198645



Prepared by:

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for

Tamworth Regional Council



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1. Background

In 2015, I (Wendy Hawes) of The Envirofactor Pty Ltd undertook a flora and fauna assessment of the proposed Arcadia residential development (refer Figure 1). This assessment was undertaken at the behest of Mr Roger Garment on behalf of Mr John Smyth, as a requirement of the statutory matters that must be included as part of the then:

- Section 5A of the *NSW Environmental Planning and Assessment Act 1979 (EP&A Act)*, and
- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

In 2021, Mitchell Gillogly, Team Leader - Development Assessment of Tamworth Regional Council (TRC) engaged myself to provide an addendum to the 2015 report. This addendum required due to modifications to the proposed development, as well as legislative changes that had occurred in the intervening years with regard to threatened species and ecological communities.

The purpose of this report is to provide an update of the previous flora and fauna assessment (The Envirofactor 2015) in respect of the development modifications and legislative changes for an area of approximately 275.5ha proposed for residential development. As a consequence, this report must be read in conjunction with The Envirofactor (2015) report.

A summary of my (Wendy Hawes) qualifications and expertise is detailed in Appendix 1.

2. Consultant's brief

The following is the brief received by email on 17th February 2021 from Mitchell Gillogly.

Council (Tamworth Region Council) are seeking to lodge a Planning Proposal for the Arcadia residential area in Tamworth. A meeting was held with the Department of Planning, Industry and Environment (DPIE) who advised an addendum to the Flora & Fauna Assessment, prepared by The Envirofactor (attached), would be required to address changes in legislation, namely the Biodiversity Conservation Act 2016.

For your benefit the key changes proposed as part of the Planning Proposal are as follows (refer Figure 2);

- *Remove R2 – Low Density Zone and Replace with R1 – General Residential Zone (Same as rest of Arcadia)*
- *Slightly increase the size of the B2 – Neighbourhood Centre zone*
- *Change the minimum lot size to 450m², and*
- *Implement a 10 dwellings per/ha density requirement.*

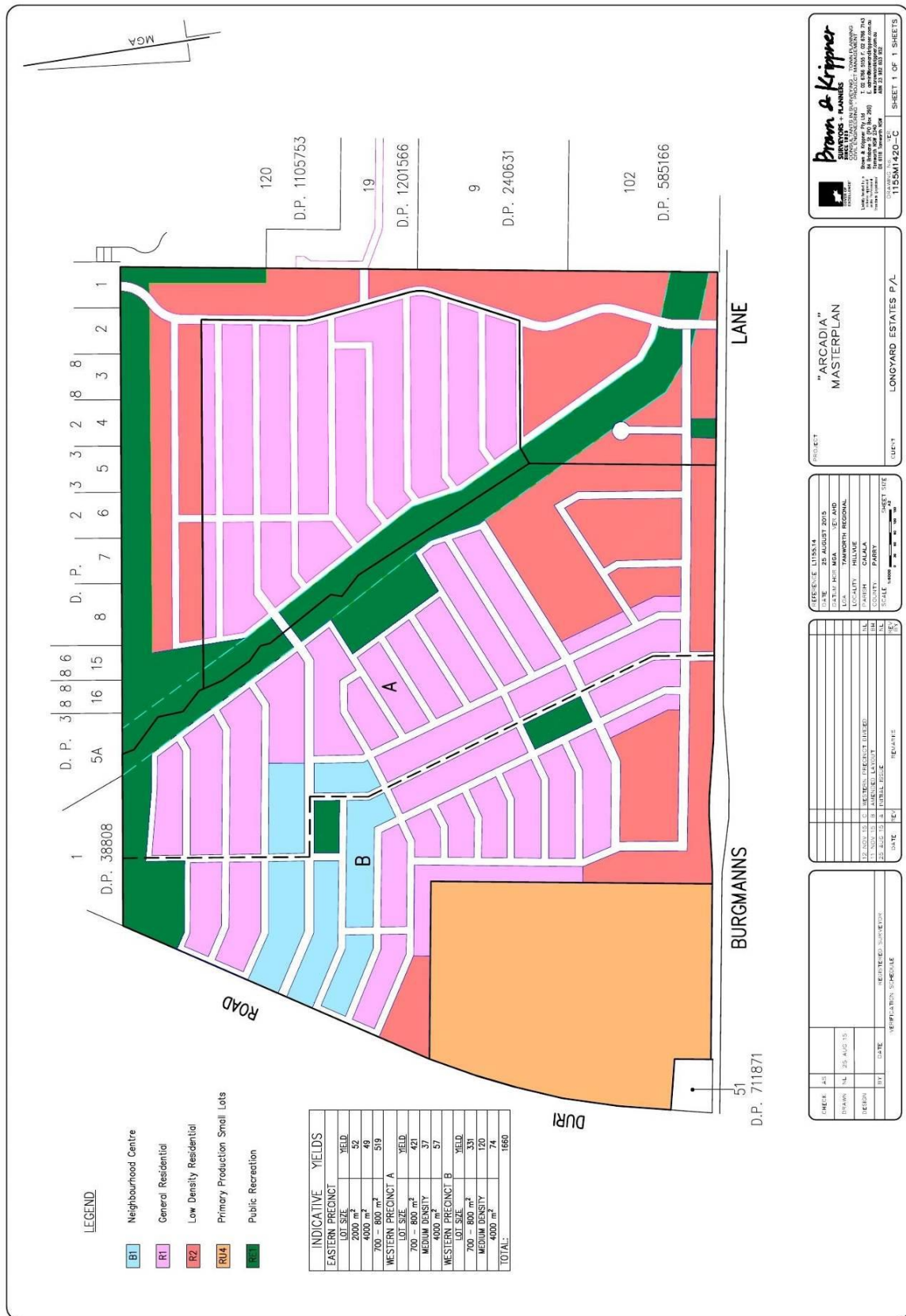
FIGURE 1: Proposed Subdivision Plan (2015) for the Arcadia Development, relevant to the 2015 Flora and Fauna Assessment

FIGURE 2: Proposed Subdivision Plan (2019) for the Arcadia Development, relevant to this addendum report



3. Legislative changes with regard to threatened species and ecological communities

Since the previous assessment (The Envirofactor 2015) was undertaken there have been NSW legislative changes to the *Environment Planning and Assessment Act 1979* (EP&A Act) and *Threatened Species Conservation Act 1995* (TSC Act). The TSC Act has been repealed and replaced by the *Biodiversity Conservation Act 2016* (BC Act).

Although threatened species and ecological community listings were transferred from the schedules of TSC Act to the schedules of the BC Act, due to the time which has passed there have been subsequent additions, deletions and change of threat status for a number of species and ecological communities now listed under BC Act.

The s5A *Assessment of Significance* (7-part test) under the EP&A Act has now become the 'Test for determining whether proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats' (5-part test) under in Part 7.3 of the BC Act.

As shown in Table 1, the primary difference between the previous 7-part test and the now 5-part test has been the removal of the requirement to assess the impact of any development on endangered populations [criteria (b)] and whether the proposed development is consistent with the requirements of any recovery or threat abatement plans [criteria (e)]. Given no endangered populations or their habitats were considered present on the Arcadia residential development site it is deemed the threatened species assessment as undertaken in the 2015 assessment is still valid. The exception being new species/ecological communities listings or those whose conservation status has changed since 2015.

To establish those threatened species and ecological communities that have been listed and/or whose legislative status has changed since the previous report (The Envirofactor 2015) was drafted, various threatened species databases were accessed including:

- NSW Department of Planning Industry and Environment (DPIE) –NSW *BioNet Atlas* (previously the *Atlas of NSW Wildlife*)
- Commonwealth *Atlas of Living Australia*
- Commonwealth Department of Agriculture Water and the Environment (DAWE) – *Protected Matters Search Tool*.

As indicated by these databases, species/ecological communities whose conservation status has changed include:

- *White Box Yellow Box Blakely's Red Gum Woodland* previously listed as an endangered ecological community under the BC Act is now listed as *White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland* a critically endangered ecological community under the BC Act
- swift parrot (*Lathamus discolor*) previously endangered under the EPBC Act is now critically endangered, and

TABLE 1: Comparison of Threatened Species Legislative Assessment Criteria under the EP&A Act – 7-part test (now repealed) and BC Act – 5-part test (in force)

NSW LEGISLATIVE ASSESSMENT CRITERIA	
s5A EP&A Act (now repealed)	Part 7.3 BC Act
(a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life-cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction	(a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life-cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction
(b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction	
(c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed: <ul style="list-style-type: none"> i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction. 	(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity: <ul style="list-style-type: none"> i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction
(c) in relation to the habitat of a threatened species, population or ecological community: <ul style="list-style-type: none"> i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and ii) whether the area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community 	(c) in relation to the habitat of a threatened species or ecological community: <ul style="list-style-type: none"> i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and ii) whether the area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality
(d) whether the proposed action is likely to have an adverse effect on critical habitat (either directly or indirectly)	(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)
(e) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan	
(f) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process	(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

- white-throated needletail (*Hirundapus caudacutus*) previously listed as a migratory species under the EPBC Act now listed as vulnerable under this Act.

Only one new threatened species likely to occur on the Arcadia project area has been listed since 2015. This species, the dusky woodswallow (*Artamus cyanopterus cyanopterus*), is listed as a vulnerable species under BC Act.

4. Impact of the revised Arcadia development on threatened species /ecological communities

4.1. Changes to the development proposal

As detailed in the brief (refer s2) and shown schematically in Figures 1 and 2, the proposed changes to the Arcadia residential development include:

- Removal of the R2 – Low Density Zone and replacing it with a R1 – General Residential Zone (as per the rest of Arcadia)
- Slight increase the size of the B2 – Neighbourhood Centre Zone
- Changing the minimum lot size to 450m², and
- Implementing a 10 dwellings per/ha density requirement.

These changes do not however substantially change the 2015 flora and fauna assessment. This is because in the 2015 assessment it was presumed that, with the exception of the area along marked as public reserve along Burke's Gully (refer Figure 1) now identified as open space/drainage reserve (refer Figure 2) and the area along the electricity easement, all other areas within the development would be cleared. The mitigation recommendations outlined in the report (The Envirofactor 2015) were considered to compensate the potential impact of the clearing, which would comprise derived grassland and isolated paddock trees in poor condition.

Threatened species/ecological communities whose status has changed or are new listings since the 2015 assessment will be assessed using the appropriate 'test of significance' (refer s5 below).

Although not a substantial change to the development proposal this addendum, unlike the 2015 report, on advice from Tamworth Regional Council does not include Lot 1 in DP 233288, the proposed access from Bylong Road in the north east corner (refer Figures 1 and 2). For the purposes of this addendum this omission means:

- total area of the Arcadia development is approximately 275.5ha
- proposed clearing for the Arcadia development is approximately 233.6ha of derived grassland with or without isolated paddock trees in poor condition.
- retention and enhancement of approximately 25ha comprising derived grassland (21ha) and woodland (4ha) in poor condition along Burke's Gully (refer Figure 2), and
- retention of 16.9ha of derived grassland within the electricity easement along the northern boundary (refer Figure 1).

4.2. NSW threatened species assessment

As stated above, under the NSW *BC Act* only one new vulnerable species the dusky woodswallow (*Artamus cyanopterus cyanopterus*), likely to occur on the project area, has been listed since 2015. An assessment of the potential impact on the dusky woodswallow under part 7.3 of the *BC Act* (5-part test) appears below.

A change in conservation status has occurred for *White Box Yellow Box Blakely's Red Gum Woodland*. This ecological community previously listed as endangered under the *BC Act*, is now listed as the critically endangered ecological community (CEEC) *White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland* (NSW TSSC 2020). However, this change in status notwithstanding, it is considered the assessment undertaken in 2015 for the previously endangered ecological community (EEC) remains valid for the CEEC in 2021. This is due to:

- no substantive change in the description of the CEEC when compared to the EEC (NSW TSSC 2020)
- the 7-part test and 5-part test assessment criteria being identical for both EECs and CEECs
- no substantial change in the area of impact, ie the area to be cleared and/or disturbed
- the presumption in the 2015 assessment that the entire Arcadia development site supported the EEC now CEEC, and
- mitigation of potential clearing impacts across the wider development site will still occur through the retention and enhancement of the open space/drainage reserve, as per the 2015 assessment.

Consequently, providing the mitigation measures outlined in section 12 of The Envirofactor 2015 report are implemented, it is considered no further assessment is required regarding the impact of the Arcadia residential development on the *White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland* CEEC.

4.2.1. 5-part test for the impacts on the dusky woodswallow

The factors to be taken into account in deciding 'significance' in the context of whether the development is likely to significantly effect a threatened species or ecological community, or its habitat, are shown in Table 1. This assessment has been carried out in accordance with the NSW *'Threatened Species Test of Significance Guidelines' (OEH 2018)*.

-
- (a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life-cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,**

A local population for purpose of this assessment is the population that occurs on the project area which comprises the Arcadia residential development area. It also includes connected habitat within remnant vegetation on private land to the south and/or west of the project area.

The project plan as shown in Figure 2 will impact on approximately 275.5ha of land comprising approximately 271.5ha of derived grassland and 4.0ha of woodland adjoining existing residential development on the outskirts of Tamworth, NSW. It is proposed to retain and potentially enhance the 4.0ha of woodland vegetation and approximately 21ha of derived grassland within and adjacent to Burke's Gully (refer Figure 2) as well as retention of 16.9ha of derived grassland long the northern boundary of the project area as part of a powerline easement (refer Figure 1).

The actions proposed as part of the proposal which may potentially impact on the life-cycle of the dusky woodswallow (*Artamus cyanopterus cyanopterus*) is the removal of 233.6ha of derived exotic grassland with or without isolated old growth white box, yellow box and Blakely's red gum trees, increased predation from domestic pets (dogs and cats) and further potential for weeds (garden escapees).

Habitat loss and/or degradation as a result of; clearing, increased weed invasion, under-shrubbing and 'tidying-up', are all significant threats for the dusky woodswallow. The derived exotic grassland areas provide very limited habitat for this species. Their preferred habitat is the small patch of woodland vegetation (approximately 4ha) in Burke's Gully. However, the small size of the woodland area, its isolation and proximity to existing residential development make it at best marginal habitat for this species.

Under the development proposal the 4ha woodland patch in Burke's Gully, will be retained as public reserve. It will be expanded and enhanced as regeneration and/or replanting occurs in areas of derived grassland within the gully corridor. Although there will initially be disturbance to this woodland patch as a result of the construction of a storm water retention basin, this disturbance will be temporary. This notwithstanding, it is considered mitigation recommendations (outlined in section 12 of The Envirofactor 2015 report) that require the protection of the woodland, replanting of 3 white box (*Eucalyptus albens*), yellow box (*E. melliodora*) or Blakely's red gum (*E. blakelyi*) trees for each 1 removed will ensure habitat for this species is retained on-site. Consequently, it is unlikely the loss of 233.6ha of marginal habitat will place a viable local population of dusky woodswallow at risk of extinction.

(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

- i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**
- (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction**

This factor is not relevant to the assessment of the impacts of the Arcadia residential development on the dusky woodswallow, as this species is neither an endangered or critically endangered ecological community.

(c) *in relation to the habitat of a threatened species or ecological community:*

(i) *the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and*

The subdivision area comprises approximately 275.5ha, comprising 4.0ha of woodland and approximately 271.5ha of derived exotic grassland. These vegetation communities are in poor to very poor condition as a result of historic clearing, cropping, pasture improvement, on-going grazing and weed invasion. At best this vegetation constitutes marginal habitat for the dusky woodswallow.

As discussed previously, the proposed development will involve the removal of 233.6ha highly modified habitat for residential development; houses and their associated infrastructure (fencelines, powerlines and tracks). It is however proposed to retain and potentially enhance the existing habitat values of approximately 25ha within an area designated as a public reserve along Burke's Gully (refer Figure 2). It is considered the implementation of mitigation recommendations (outlined in section 12 of The Envirofactor 2015 report) will ensure habitat for the dusky woodswallow is retained on-site.

(ii) *whether the area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and*

While the highly modified vegetation on the project area has connectivity with similarly disturbed vegetation to the south, across Duri/Werris Creek Road to the west and along Burke's Gully to the north-west, it abuts existing residential development to north, east, south-east and south-west. Consequently, the area generally forms a habitat cul-de-sac within existing residential development. However, the proposed retention and enhancement of vegetation within a public reserve along Burke's Gully (25ha) will ensure the continued connectivity along the ephemeral drainage line. Similarly, the retention of existing derived grassland within the powerline easement along the northern boundary will maintain what connectivity exists with the small woodland patch adjoining the access corridor off Bylong Road. Consequently, areas of currently interconnected habitat will not be isolated or fragmented by the proposed subdivision for any threatened species, population or ecological community

(iii) *the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality*

As outlined previously, the Arcadia residential development will involve the removal of 233.6ha of highly modified grassland habitat in very poor condition adjacent to existing residential housing. This vegetation is at best marginal habitat for the dusky woodswallow. The degree of landscape clearing means there are extensive areas of similar quality habitat within the locality and region, indicating its removal is unlikely to be significant for the dusky woodswallow. Additionally, any potential to fragment existing habitat has been minimised by the retention and enhancement of a 25ha corridor along Burke's Gully and the

retention of 16.5ha of derived grassland within the powerline easement along the northern boundary (refer Figure 2). As a consequence, the area of habitat to be removed as part of the proposed development is not considered critical to the long-term survival of the dusky woodswallow.

(d) *whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)*

The Arcadia residential development site does not contain, nor lie within the locality of, any declared area of outstanding biodiversity value under the *BC Act* (DPIE website, <https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/areas-of-outstanding-biodiversity-value/area-of-outstanding-biodiversity-value-register>, accessed 2021). Further, the proposed action will not have any off-site impacts that will affect any areas of declared outstanding biodiversity value within the catchment. It is therefore considered, that no area of outstanding biodiversity value will be affected (either directly or indirectly) by the proposed Arcadia development.

(e) *whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process,*

The following key threatening processes declared under the *BC Act* and *FM Act* are considered relevant to the proposed residential subdivision in relation to habitat for the dusky woodswallow:

Clearing of Native Vegetation

Clearing of native vegetation is recognised as a major factor contributing to the loss of biological diversity (NSW Scientific Committee 2001). As discussed previously, the proposal will remove 233.6ha of derived grassland in very poor condition.

While the Arcadia development will result in the operation of this key threatening process (ie native vegetation will be cleared) the landscape setting of the area (ie adjoining existing residential development) and poor condition make it at best marginal habitat for the dusky woodswallow. Areas of better structured woodland (4.0ha) as well as areas of derived grassland (21ha) will be protected and enhanced by encouraging overstorey regeneration, replanting and weed control (as outlined in section 12 of The Envirofactor 2015 report) within a public reserve along Burke's Gully (refer Figure 2). It is therefore considered unlikely the loss of this marginal habitat will significantly affect any local population of dusky woodswallow, and thereby increase the impact of this key threatening process.

Invasion of native plant communities by exotic perennial grasses

Exotic perennial grasses [eg Coolatai grass (*Hyparrhenia hirta*), African lovegrass (*Eragrostis curvula*), phalaris (*Phalaris aquatica*), buffel grass (*Cenchrus ciliaris*), Rhodes grass (*Chloris gayana*) and kikuyu (*Pennisetum clandestinum*)] have the capacity to invade native plant communities, competing with, and excluding native species (NSW

Scientific Committee 2003a). The invasion of these grasses also reduces habitat value for many native fauna species.

The woodland patch and derived grassland areas on the project area are already highly infested with exotic species, including Rhodes grass. Consequently, the proposed development is unlikely to significantly increase the impact of this key threatening process.

Removal of dead wood and dead trees

The ongoing removal of standing dead trees and fallen timber as part of the process of clearing, under-shrubbing and/or 'tidying up', as well as for collection for firewood, is recognised as a major factor contributing to the loss of biodiversity (NSW Scientific Committee 2003b). Fallen timber is an important habitat for insects the primary food resource for the dusky woodswallow, while standing dead trees provide important perching sites from which the dusky woodswallow can hunt/hawk insects.

Standing dead timber is generally absent from the project areas but a small amount of fallen dead timber is present within the woodland patch within Burke's Gully. Under the proposed development this area will be retained as public reserve (25ha) and this resource preserved on the project area. Mitigation measures outlined in section 12 of The Envirofactor 2015 report will increase the availability of this resource within the public reserve. Mitigation measures will thereby ensure this important habitat element is retained on site in the medium to long-term. Hence, the proposed development will not significantly increase the impact of, this threatening process.

4.2.2. 5-part test conclusion

It is the conclusion of this part 7.3 assessment that the proposed residential subdivision will have no significant impact on the dusky woodswallow providing:

- mitigation recommendations outlined in section 12 of The Envirofactor 2015 report are implemented, and
- approximately 25ha of vegetation (woodland and derived grassland) along Burke's Gully is retained as public reserve, and
- 16.5ha of derived grassland is retained within the electricity easement along the northern boundary.

Providing these conditions are adhered to the proposed development is considered unlikely to:

- place a viable local population of dusky woodswallow at risk of extinction, or
- remove, modify, fragment or isolated habitat important to the long-term survival of the dusky woodswallow, or
- have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly), or
- result in the operation of, or increase the impact of, a key threatening process.

4.3. Commonwealth EPBC Act threatened species assessment

As outlined in s3, since 2015 there have been changes to the conservation status of two species listed under the *EPBC Act*. The swift parrot (*Lathamus discolor*) previously listed as endangered is now critically endangered, while the white-throated needletail (*Hirundapus caudacutus*), listed as a migratory species is now also listed as vulnerable.

Both the swift parrot and white-throated needletail were assessed in the 2015 report in accordance with their previous conservation status under the *Significant Impact Guidelines 1.1* (DoE 2013).

Notwithstanding their change in conservation status, it is considered the 2015 assessment remains valid. This is due to:

- no substantial difference in the area of impact (ie the area to be cleared and/or disturbed), and
- mitigation of potential clearing impacts through the retention and enhancement of the open space/drainage reserve, as per the 2015 assessment, and
- *Swift Parrot* - no distinction is drawn in the *Assessment of Significance* between critically endangered and endangered species, ie the assessment criteria are identical (DoE 2013). The 2015 assessment outcome for this species therefore remains applicable, and
- *White-throated needletail* – the assessment criteria for vulnerable species versus migratory species do differ under the *Assessment of Significance*. Under the DoE (2013) guideline only ‘important populations’ of vulnerable species are assessed. ‘Important populations’ of vulnerable species are defined those where the project area either lies near the limit of their distribution, or they have a restricted and/or patchy distribution making individual populations important for maintenance of genetic diversity (DoE 2013). Neither of these is true for the white-throated needletail. This species has a distribution that extends from coastal NSW west to the inland plains, and there is no indication it has a patchy distribution (DPIE threatened species profile database: <https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=20354>, accessed 2021). There is also no indication that the population that may occur on the Arcadia development area is important for the maintenance of genetic diversity. This species would therefore, not be considered as having an ‘important population’ on the project area, and would not be assessed as a vulnerable species under the ‘*Assessment of Significance*’.

Despite its change in status this species is still listed as a migratory species under *EPBC Act* therefore the 2015 assessment of the potential impacts on this migratory species remains pertinent in 2021.

5. Conclusion

The conclusion of this assessment is that no significant impact will result for any NSW or Commonwealth listed threatened species or ecological communities as a consequence of the revised 2019 Arcadia residential subdivision plan. This is providing; all development activities are restricted to previously cleared and/or modified land (ie areas of derived grassland) and mitigation recommendations as outlined in section 12 of The Envirofactor 2015 report are implemented. This is due to the highly degraded nature of the vegetation to be impacted, it's very poor condition, proximity to existing residential development, the proposed protection and enhancement of 25ha that includes a 4ha remnant woodland patch as public reserve and retention of 16.9ha of existing derived grassland within a powerline easement. The mitigation recommendations outlined in The Envirofactor 2015 report will ensure habitat for flora and fauna species is retained on-site and that existing habitat is not adversely modified or isolated.

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APPENDIX 1:

CONSULTANT'S RESUME SUMMARY

Wendy Hawes is a qualified Ecologist with a Bachelor of Science and Master of Science (preliminary) from the University of New England. As a result of her previous and current employment, she has over 20 years' experience in flora, fauna and threatened species survey, assessment and provision vegetation management advice on public and private land on the north-west slopes of NSW. In respect to vegetation on the north-west slopes her expertise includes:

- participation on the Commonwealth DEWR expert panel to establish a threshold definition for *White Box Yellow Box Blakely's Red Gum grassy woodland and derived native grasslands* critically endangered ecological community.
- preparing the draft National Recovery Plan for the Commonwealth listed critically endangered ecological community (CEEC) *White Box Yellow Box Blakely's Red Gum grassy woodland and derived native grasslands*.
- participation in the NSW Department of Planning Industry and Environment (DPIE) expert panel for the mapping of the NSW listed *White Box Yellow Box Blakely's Red Gum grassy woodland and derived native grasslands* CEEC.
- numerous on-ground assessments for clearing applications and compliance actions under NSW legislation (*State Environmental Planning Policy No 46, Native Vegetation Conservation Act 1997* and *Native Vegetation Act 2003*).
- identification of High Conservation Value areas of Box Gum Woodland on Travelling Stock Routes within the northern tablelands, north west slopes area for the Grassy Box Woodland Conservation Management Network.
- numerous threatened species assessments under the NSW *Threatened Species Conservation Act 1995* (known as the 7-part test), NSW *Biodiversity Conservation Act 2016* (known as the 5-part test) and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (significance assessment guidelines) for clearing and development activities.
- training NSW agency staff in the identification and/or assessment of vegetation communities and fauna habitat for assessment, compliance and incentive funding. Including, Border Rivers Gwydir, Central West and Namoi CMA staff, involved in the identification of this community for the Commonwealth *Multiple Ecological Community Stewardship* program. Northern Tablelands, North West and Central West Local Land Services (LLS) Sustainable Land Management staff involved in the assessment and provision of landholder advice regarding threatened species and ecological communities. NSW DPIE Compliance and Biodiversity Development Assessment Reporting (BDAR) staff involved in the identification of this community to ensure compliance with the requirements of the *BC Act*.
- development of DVD series on the '*History of Box Gum Grassy Woodland*' for the Grassy Box Woodland Conservation Management Network.

- participation on CSIRO and NSW Department of Environment Climate Change and Water (DECCW) expert panel to determine benchmarks for native vegetation communities, used in the Property Vegetation Planning Tool for the assessment of clearing applications and delivery of incentive funding under the NSW *Native Vegetation Act 2003*.