Our ref: DOC19/935855
Senders ref: SSD 9874

Mr Rob Beckett
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Planning and Assessment
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GPO Box 39
SYDNEY NSW 2001

Via email:
rob.beckett@environment.nsw.gov.au

2 December 2019

Dear Mr Beckett

Subject: Walla Walla Solar Farm – Environmental Impact Assessment

Thank you for your email dated 25 October 2019 seeking comments from the Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment (the Department) about the Environmental Impact Statement (EIS) for the Walla Walla Solar Farm (SSD 9874), in Greater Hume Shire.

BCD has statutory responsibilities relating to biodiversity (including threatened species, populations, ecological communities, or their habitats), Aboriginal cultural heritage and flooding.

We have reviewed the exhibited EIS against the Secretary's Environmental Assessment Requirements (SEARs) provided by the Department to the proponent on 7 March 2019.

BCD considers that the EIS **does** meet the Secretary's requirements for Aboriginal cultural heritage (ACH) assessment, contingent on the applicant addressing issues 1 to 3 identified in **Attachment A**.

BCD considers that the EIS **does** meet the Secretary's requirements for flooding, contingent on the applicant addressing issue 4 identified in **Attachment A**.

BCD considers that the EIS **does not** meet the Secretary's requirements for biodiversity. The Biodiversity Development Assessment report (BDAR) requires more work to be compliant with the Biodiversity Assessment Method (BAM).

While the assessment and offsetting for clearing of paddock trees is allowable, BCD is concerned about the large number of mature habitat trees being removed from the landscape. The considerable benefits of paddock trees to biodiversity and threatened species, particularly hollow-dependent fauna, are well documented.

A summary of our assessment, advice and recommended conditions of approval is provided in **Attachment A.** Detailed comments are in **Attachment B**.

All plans required as a Condition of Approval that relate to flooding, biodiversity or ACH should be developed in consultation and to the satisfaction of BCD, to ensure that issues identified in this submission are adequately addressed.

If you have any questions about this advice, please contact Miranda Kerr, Senior Biodiversity Conservation Officer, via rog.southwest@environment.nsw.gov.au or 02 6022 0607.

Yours sincerely

Andrew Fisher
Senior Team Leader Planning
South West Branch
Biodiversity and Conservation Division
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ATTACHMENT A BCD Assessment Summary for Walla Walla Solar Farm Environmental Impact Statement (SSD 9874)
ATTACHMENT B Detailed comments for Walla Walla Solar Farm Environmental Impact Statement (SSD 9874)

ATTACHMENT A BCD Assessment Summary for Walla Walla Solar Farm Environmental Impact Statement (SSD 9874)

Key Issues

1.	*Aboriginal cultural heritage*	Historic Heritage information contained within the ACHAR (Section 3.2.3) is not relevant to ACH. **Recommended action:** • *Remove sections relating to historic heritage from the ACHAR*
	Extent and Timing	Pre-determination

2.	*Aboriginal cultural heritage*	An up-to-date unexpected finds protocol for Aboriginal cultural heritage, including skeletal remains, must be developed and implemented before construction begins.
	Extent and Timing	Pre-construction
	Recommended conditions of development consent:	*An appropriate unexpected finds protocol is developed prior to the commencement of construction, and to the satisfaction of the Department, that includes the following:* *If any Aboriginal object is discovered and/or harmed in, or under the land, while undertaking the proposed development activities, the proponent must:* *1. Not further harm the object* *2. Immediately cease all work at the particular location* *3. Secure the area to avoid further harm to the Aboriginal object* *4. Notify Department of Planning, Industry and Environment as soon as practical on 131555, providing any details of the Aboriginal object and its location* *5. Not recommence any work at the particular location unless authorised in writing by Department of Planning, Industry and Environment.* *If skeletal remains are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and contact made with NSW Police and Department of Planning, Industry and Environment.*

3.	*Aboriginal cultural heritage*	Proposed minimum 10m buffer around the two scarred trees (Walla Solar Farm 495496 and Walla Solar Farm 497946) and the three cultural tree sites (Walla Solar Farm 496602, Walla Solar Farm 496812 and Walla Solar Farm 497199) may be inadequate. **Recommended actions:** • *A physical barrier (visible protective fencing) should be installed as a buffer relevant to, and outside, the canopy dripline of each identified tree*

	Extent and Timing	Pre-construction

4.	*Flooding*	The Site Flood Assessment Report concludes that the development is compatible with the flood risks and that it is not expected to cause adverse impacts to surrounding properties with appropriate design. BCD agree with this conclusion if design flood extents and heights are refined, and infrastructure is designed and located commensurate with newly defined flood risks.
	Extent and Timing	Post-approval
	Recommended conditions of development consent:	• *The detailed design phase for flooding includes a more detailed 2D flood model developed with the use of a higher resolution Digital Elevation Model to refine the design flood heights and* extents *for use in the appropriate design and location of infrastructure on the site.*

5.	*Biodiversity*	The Biodiversity Development Assessment Report (BDAR) (Appendix H) does not meet the SEARs. Elements of the proposal described in the EIS that potentially impact biodiversity have not been included in the assessment. The assessment must consider all zones and PCTs on the development site, as per Section 6 of the BAM. PCT 278 'Riparian Blakely's Red Gum' was not sampled during the floristic survey. There is no vegetation integrity score and it has not been entered in the BAM-C. This under-represents the habitat suitability, credit obligations of habitat loss in subsequent parts of the BAM. Section 7.1.1 (page 83) introduces 'partial clearing' as the impact to Zone 4, consisting of 23 ha of grassland derived from PCT 76 *Grey Box Woodland* that has no evidence of past cropping. BCD strongly disagrees with the future integrity score for Zone 4. Insufficient evidence has been provided to justify the assertion that construction and operation of the solar farm has a lower impact on derived native grassland than other vegetation types, or to justify the degree of impact presented in the BDAR. The BDAR, including assessment of serious and irreversible impacts to candidate entities, should be revised following inclusion of PCT 278 and revision of impacts to Zone 4. **Recommended actions:** • *Provide a complete map of elements of the proposal as described in the EIS, including water tanks, materials lay-down areas, screening plantings and asset protection zones associated with the security fence, and confirm that they have been included in the assessment.* • *Supply all digital data required by the BAM, including a digital version of the development footprint as shown on Figure 6-1 (page 79) with a 10 m asset protection zone outside the security fence.*

		• *Assess impacts to PCT 278 'Riparian Blakely's Red Gum' (Vegetation Zone 10) according to the BAM. The threatened species listings and wider assessment in the BDAR should reflect the output of the updated assessment.* • *Complete plot sampling for the development site. Based on the area of each PCT in the development site provided in Table 3-5 (page 41), three more plots in Zone 9 and two in Zone 10 to achieve BAM compliance.* • *Include the impacts of proposed screening planting along the eastern site boundary in the assessment and its location in the development footprint.* • *Ensure that potential impacts to native vegetation due to revegetation and rehabilitation works are identified and addressed in the BDAR.* • *Revise the BAM calculator and BDAR to ensure that the assessment of biodiversity impacts and offset obligation include all zones on the development site, as per Section 6 of the BAM. Adjustment to the BAM calculator is to be completed before impacts are identified and assessed according to BAM Sections 7 to 11. The offset requirement is likely to be an underestimate as a result of the missing Zone 10.* • *Undertake threatened fauna survey in Zone 10 (PCT 278) and revise the credit calculator accordingly.* • *Justify why nocturnal bird surveys were performed over two nights, instead of five separate nights as recommended in the Threatened Biodiversity Survey and Assessment Guideline (DEC 2004).* • *Revise the future vegetation integrity score for Zone 4 to 0 and recalculate the credit requirement. Insufficient evidence is provided to justify the assertion that construction and operation of the solar farm has a lower impact on derived native grassland than other vegetation types, or to justify the degree of impact presented in the BDAR.* • *Revise the Assessment of Serious and Irreversible Impacts (SAII) to Box-Gum Woodland EEC after PCT278 (Zone 10) is incorporated into the BDAR and BAM-C. The assessment of SAII will also include the removal of mature paddock trees associated with the EEC.* • *Revise mitigation measures in the EIS to match the BDAR (Table 8-1) and to ensure stockpiling and material laydown areas are only within the assessed development footprint and not within any areas of mapped native vegetation.* • *Mitigation measure LU4 in the EIS (Table 6-6, page 139) is to have regard for recommendations for pest plant and animal management in the BDAR (Table 8-1, pages 98-102).*
	Extent and Timing	Pre-determination

ATTACHMENT B Detailed comments for Walla Walla Solar Farm Environmental Impact Statement (SSD 9874)

Aboriginal cultural heritage

The Aboriginal Cultural Heritage Assessment Report (ACHAR) does meet the Secretary's requirements.

The ACHAR is consistent with requirements identified by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) ("the Code").

Unexpected finds procedure

The 'unexpected finds procedure' for construction activity must include an appropriate protocol for encountering skeletal remains.

BCD advises against notifying registered Aboriginal parties (RAPs) of the discovery of skeletal remains until the Police have confirmed whether the remains pre-date European occupation and are Aboriginal in origin.

We recommend the following conditions of development consent:

- *A Cultural Heritage Management Plan CHMP is developed prior to the commencement of construction, and to the satisfaction of the Department, that clearly details the following:*
    - *clear marking and protection of any ACH constraints, within or near to, proposed activities*
    - *an appropriate unexpected finds protocol, including the following:*

      If any Aboriginal object is discovered and/or harmed in, or under the land, while undertaking the proposed development activities, the proponent must:

      1. *Not further harm the object*
      2. *Immediately cease all work at the particular location*
      3. *Secure the area to avoid further harm to the Aboriginal object*
      4. *Notify the Department of Planning, Industry and Environment as soon as practical on 131555, providing any details of the Aboriginal object and its location*
      5. *Not recommence any work at the particular location unless authorised in writing by Department of Planning, Industry and Environment.*

      If skeletal remains are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access, and contact made with NSW Police and Department of Planning, Industry and Environment.

Flooding

BCD has reviewed the flooding component in Section 6.7 (page 180) of the EIS and the Walla Walla Solar Farm – Site Flood Assessment Report (EIS Appendix J).

The EIS does address the Secretary's requirements for flooding.

We note the following:

- A simple HEC-RAS 1D hydraulic model has been developed in compliance with previous recommendations by the Department and is fit-for-purpose for use in this environmental impact assessment.
- The 5%, 1% AEP design events and the PMF event have been modelled for the purposes of appropriately locating major and sensitive infrastructure away from areas of significant inundation and for assessing impacts external to the site post-development.
- The flood assessment identifies significant inundation of the site, particularly along the floodplains of Back and Middle creeks bisecting the site. It must be noted that these are ephemeral streams that only flow during local intense rainfall events.

- The assessment states that the risks due to flooding are “low” due to the development being largely excluded from the 5% AEP flood extent and sensitive infrastructure being located above the 1% AEP flood extent.
- The assessment also states that the risk to life is “extremely low” due to the remoteness and lack of permanent residents and that external flood impacts can be mitigated by appropriate site infrastructure design.
- The assessment makes the conclusion that the development is compatible with the flood risks and that it is not expected to cause adverse impacts to surrounding properties with appropriate design. BCD agrees with this conclusion if, during the detailed design phase, the design flood extents and heights are refined, and infrastructure is designed and located commensurate with the newly defined flood risks.

BCD supports the recommendation that during the detailed design phase a more detailed 2D flood model is developed with the use of a higher resolution Digital Elevation Model to refine the design flood heights and extents for use in the appropriate design and location of infrastructure on the site.

Recommended condition of development consent:

- *The detailed design phase for flooding includes a more detailed 2D flood model developed with the use of a higher resolution Digital Elevation Model to refine the design flood heights and extents for use in the appropriate design and location of infrastructure on the site.*

Biodiversity

The Biodiversity Development Assessment Report (BDAR) at Appendix H does not meet the Secretary’s requirements for biodiversity.

Specific comments on the BDAR and related sections in the EIS are as follows:

Biodiversity Development Assessment Report

The Executive Summary (page ix) states that 52 paddock trees are being removed, which is inconsistent with the table of direct impacts (7-1, page 82) that indicates 53 trees are directly impacted.

Introduction (Section 1, page 10)

There should be a map of the project elements listed in Section 1.1 (page 10). A map of development footprint within the site is provided Figure 6-1 (page 79) and indirect impacts are mapped in Figure 7-1 (page 89).

Section 1.1 does not include all the project elements described in the EIS. The impact of each component should be clearly described, or reference made to the EIS. For example, include a description of the width and height of vegetation removal required for constructing a ‘minor access point’ and whether the asset protection requires a vehicle track. The footprint does not appear to include electrical cables to connect the arrays, asset protection zone setbacks outside the security fence and additional water tanks as described in the EIS. The footprint of the solar array and location of screening plantings were not included with the supplied spatial data.

A digital version of development footprint shown on Figure 6-1 (page 79) has not been provided. Shapefiles do not indicate the 10 m asset protection zone (APZ) and setbacks outside the security fence that are described in the EIS (Section 7.4.2, page 264). For example, **Attachment C** to this review shows the mapped location of the security fencing as being less than 10 m from vegetation to be retained.

Figure 10-3 (page 112-3) shows proposed screening planting along the eastern site boundary, outside the security fence. This does not appear to have been included in the assessment of impacts.

Recommended actions:

- *Provide a complete map of elements of the proposal as described in the EIS, including water tanks, materials lay-down areas, screening plantings and asset protection zones associated with the security fence, and confirm that they have been included in the assessment.*
- *Supply all digital data required by the BAM, including a digital version of the development footprint as shown on Figure 6-1 (page 79) with a 10 m asset protection zone outside the security fence.*

Native Vegetation (Section 3, page 23)

The assessment must consider all zones and PCTs on the development site, according to Section 6 of the BAM. PCT 278 'Riparian Blakely's Red Gum' was not sampled during the floristic survey. There is no vegetation integrity score and it has not been entered in the BAM-C. This under-represents the habitat suitability, credit obligations of habitat loss in subsequent parts of the BAM.

The assessor must identify and map the distribution of PCTs and all TECs on the subject land (BAM Section 5.2.11). The intent of the plot-based survey at this stage is to identify the PCTs and must be designed to sample the expected environmental variation and address any gaps in the site information (BAM Section 5.2.1.7). This survey is not linked to the expected development footprint, partly due to the likelihood that the footprint will change during the early design phase.

Section 3.4.1 (page 36) states that the number of plots for each PCT was consistent with the BAM. The description for PCT 278 'Riparian Blakely's Red Gum' in Table 3-4 (page 33) and Table 3-5 (page 41) mention that the minimum number of plots was not sampled in Zones 9 and 10 because they fell outside the development footprint. Based on the area of each PCT in the development site provided in table 3-5 (page 41), three more plots are required to be sampled in Zone 9 and two in Zone 10 to achieve BAM compliance.

PCT 278 is considered by the assessors to be part of the *White Box – Yellow Box – Blakely's Red Gum Woodland* endangered ecological community (EEC) listed under the BC Act and to conform to the critically endangered Box-Gum Woodland listed on the EPBC Act (Table 3-4, page 33).

It appears that the footprint was changed over the course of the assessment with the addition of the security fence and associated APZ, resulting in direct impacts to PCT 5 in Zone 9 and PCT 278 in Zone 10 that have not been fully assessed. Figure 10-2 (page 113) also maps 'vegetation screening and plantings' as occurring within Zone 10.

PCT 278 is included in the spatial data supplied to BCD as Zone 9 but is referred to as Zone 10 in Table 3-5 of the BDAR (page 41). Spatial data provided to the Department does not include complete coverage of vegetation zones. The zones are labelled on the impacted vegetation dataset, but not on the site vegetation data as shown on the map on Figure 3-6 (page 43).

The description for PCT 278 (page 33) also refers to PCT 9, which does not occur on the site. This reference is assumed to relate to Zone 9.

Other PCTs are adequately sampled and described as per BAM.

<u>Category 1 land (Section 3.2, page 23)</u>

As per our previous correspondence with NGH Environmental (BDAR Appendix A), BCD supports the assessment of Category 1 land and its exemption from the BAM assessment.

<u>Paddock trees</u>

While the assessment and offsetting for clearing of paddock trees is allowable, BCD is concerned about the large number of mature habitat trees being removed from the landscape. The considerable benefits of paddock trees to biodiversity and threatened species, particularly hollow-dependent fauna, are well documented. BCD questions whether there is a more appropriate site for the proposal that does not result in loss of mature paddock trees.

Recommended actions:

- *Assess impacts to PCT 278 'Riparian Blakely's Red Gum' (Vegetation Zone 10) according to the BAM. The threatened species listings and wider assessment in the BDAR should reflect the output of the updated assessment.*
- *Complete plot sampling for the development site. Based on the area of each PCT in the development site provided in table 3-5 (page 41), three more plots in Zone 9 and two in Zone 10 to achieve BAM compliance.*
- *Include the impacts of proposed screening planting along the eastern site boundary in the assessment and its location in the development footprint.*
- *Revise the BAM calculator and BDAR to ensure that the assessment of biodiversity impacts and offset obligation include all zones on the development site, as per Section 6 of the BAM. Adjustment to the BAM calculator is to be completed before impacts are identified and assessed according to BAM Sections 7 to 11. The offset requirement is likely to be an underestimate as a result of the missing Zone 10.*

Threatened species (Section 4, page 46)

According to Table 4-3 (page 58), seven candidate threatened flora species were excluded from potentially occurring in five vegetation zones after survey determined the habitat was substantially degraded habitat in zones 1 (VI = 12.4), 2 (VI = 20.2), 4 (VI = 16.2), 6 (VI = 11.4) and 8 (VI = 5.6). BCD agrees with this assessment.

PCT 278 was not included in BAM-C. All the candidate species associated with PCT 278 in the Lower Slopes sub-region were identified by BAM-C as candidate threatened species (ecosystem and species credits) for other vegetation zones within the development site. It appears to have been included in the threatened flora surveys so it's unlikely that additional threatened flora survey will be required for PCT 278. Threatened fauna survey does not appear to have been carried out in PCT 278.

Survey methods for threatened flora described in Section 4.1.5 (pages 67-68) state that the survey transects were 10 m apart, as per the NSW Guide for Surveying Threatened Plants (OEH 2016). The maximum distance between parallel field traverses is 10 m for forbs and grasses and 20 m for medium shrubs (relevant to *Acacia ausfeldii* for this proposal). The submitted GPS tracks of flora survey transects show variability in distance between transects, sometimes being 30 or 40 m apart. BCD understands that the unusually dry conditions and site management history enable greater visibility of *Acacia ausfeldii* due to a depleted understorey, as explained in the survey methods. The number of person hours indicates that the survey effort was reasonable for threatened flora.

The survey for nocturnal birds was undertaken over two nights (BDAR pages 65-66). Departmental survey guidelines for nocturnal bird call playback recommend visits over a minimum of five separate nights for Barking Owl (DEC 2004). The description of survey effort for nocturnal mammals (page 62) does not state the length of time for each spotlight survey on 11 and 26 June.

Recommended actions:

- *Undertake threatened fauna survey in Zone 10 (PCT 278) and revise the credit calculator accordingly.*
- *Justify why nocturnal bird surveys were performed over two nights, instead of five separate nights as recommended in the Threatened Biodiversity Survey and Assessment Guideline (DEC 2004).*

Avoid and minimise impacts (Section 6, page 77)

BCD recognises that access points and site compound have been located to avoid biodiversity values. Mortality due to entanglement on barbed wire is a recognised threat for Squirrel Gliders, so we support the proposal to avoid its use on the security fence. We also support the use of vehicle speed restrictions to avoid animal strike.

BCD commends the proponent on seeking advice about local rehabilitation and revegetation from the Holbrook Landcare Network (Appendix I to the BDAR). However, we recommend the proponent ensure that potential impacts to native vegetation due to revegetation and rehabilitation works are identified and addressed in the BDAR. For example, soil disturbance for revegetation, such as ripping, and other works may have negative impacts to threatened ecological communities if appropriate techniques and mitigation measures are not used.

Installation of nest boxes requires an ongoing commitment to maintenance and monitoring.

Recommended actions:

- *Ensure that potential impacts to native vegetation due to revegetation and rehabilitation works are identified and addressed in the BDAR.*

Impact assessment (Section 7, page 82)

Section 7.1.1 (page 83) introduces 'partial clearing' as the impact to Zone 4. Zone 4 is 23 ha of grassland derived from PCT 76 Grey Box Woodland that has no evidence of past cropping. It was assessed as not being a component of the 'Inland Grey Box Woodland' TEC.

Section 7.1.1 indicates that the effect of installation and operation of the solar array over the life of the project is approximately 13% of the vegetation integrity score if the site was completely cleared. This assessment comprises 10% of the total impact due to vegetation removal to account for the area where posts, inverter blocks and access roads will be installed, and 3% of the impact of total clearing for impacts of the solar panel array.

The BCD does not agree with the conclusion that native vegetation beneath the solar arrays is subject to reduced impacts. Insufficient evidence has been provided to justify the statements in Section 7.1.1.

The assessment has not considered the full range of impacts of construction and operation of the solar farm on the derived grassland. The assessment must include the potential impacts of vehicle movement between the panels and indirect impacts of shading on the full range of species that potentially occur within the derived grassland.

Impacts should include, at least, consideration of shading and species diversity, concentration of rainfall and rain shadows beneath the panels, soil erosion potential in storm events, temperature changes beneath the panels, and changes to specific habitat requirements for threatened species. Slashing under panels to maintain a vegetation height of 15 cm outside the APZ and potential strategic grazing have also been mentioned in the EIS (page 265-266), but are not included as potential impacts to native vegetation and threatened species habitat.

According to Figure 4-3 (page 69) Flame Robin was recorded foraging in Zone 4 (PCT 76 derived grassland), confirming that this vegetation zone provides threatened species habitat.

Section 6.2.1 '*Impacts…associated with human-made structures or non-native vegetation*' (page 80) states that the priority within the development site was to reduce impacts to native vegetation and woodland areas and that the development footprint was placed on open pastures and cleared land. The inclusion in this section of grassland derived from PCT 76, which can be part of state and Commonwealth-listed threatened ecological communities, is potentially misleading.

Section 7.1.4 (page 85) summarises the total loss of hollow-bearing trees as 72 (including vegetation zones and paddock trees). This assessment does not include clearing in PCT 278.

<u>Impact summary</u>

The list of impacts in Table 7-7 is generally acceptable but does not include clearing of PCT 278 or potential impacts due to the presence of the solar array (to justify the small reduction in vegetation integrity score for Zone 4).

The assessment of impacts should include the following aspects of the proposal: clearing for fence construction and material laydown areas, Rural Fire Service requirements for modification to vegetation and vegetation management including slashing under panels, 10 m asset protection

zone proposed outside the perimeter security fence (EIS Section 7.4.3, page 264) with a minimum 4 m vehicle carriageway, a 10 m setback for woody plantings and the location of six 20,000 litre water tanks and associated access (EIS Section 7.4.2, pages 261-263).

There is no mention of a no-go buffer between areas of clearing or disturbance for fence construction and screening plantings and remnant native vegetation.

Requirement to offset (Section 10, page 107)

Table 10-1 (page 107) gives the future vegetation integrity score for Zone 4 as 3.6, however BAM-C and Table 7-3 (page 84) list it as 14.1.

The calculation of credits for Zone 4 provides 13% of the credits required for direct impact to the zone and subsequent sterilisation of threatened species habitat. A rough estimation of the credits required to offset impacts to Zone 4 (PCT 76 derived grassland) is an additional 174, resulting in an approximate total of 200 credits for that zone.

Recommended actions

- *Revise the future vegetation integrity score for Zone 4 to 0 and recalculate the credit requirement. Insufficient evidence is provided to justify the assertion that construction and operation of the solar farm has a lower impact on derived native grassland than other vegetation types, or to justify the degree of impact presented in the BDAR.*

Serious and Irreversible Impacts (SAII)

The assessment of serious and irreversible impacts (SAII) to the Box Gum Woodland EEC is incomplete. The judgement of the decision maker regarding the risk of serious and irreversible impact must be informed by the direct and indirect impact of the net loss of the SAII candidate EEC across the development site. A complete assessment of direct and indirect impacts associated with the vegetation zones that form part of the EEC is required, including impacts to PCT 278 (Zone 10) and paddock trees.

Prior to clearing for agriculture, paddock trees assessed on the site were components of either PCT 76 or PCT 277. PCT 76 is part of the *Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions* endangered ecological community and PCT 277 is a component of the *White Box – Yellow Box – Blakely's Red Gum Woodland* EEC. We consider the assessment of serious and irreversible impacts to the *White Box – Yellow Box – Blakely's Red Gum Woodland* EEC should include paddock trees that provide habitat for threatened fauna that are part of the EEC. While the remnant *Eucalyptus microcarpa* (Grey Box) paddock trees have been identified as remaining component of PCT 76 Inland Grey Box Woodland, they could also be a component of the *White Box – Yellow Box – Blakely's Red Gum Woodland* EEC.

The assessment should provide information relating to all scattered paddock trees that may be associated with the SAII candidate EEC. Impacts include cumulative loss of hollows and reduction of connectivity between vegetation remnants.

The assessment should be revised following inclusion of impacts to PCT 278 into the calculator and associated updates to the BDAR.

Recommended actions

- *Revise the Assessment of Serious and Irreversible Impacts (SAII) to Box-Gum Woodland EEC after PCT 278 (Zone 10) is incorporated into the BDAR and BAM-C. The assessment of SAII will also include the removal of mature paddock trees associated with the EEC.*

Mitigation measures (Section 8, page 96)

BCD generally supports the mitigation measures in Section 8. There must be a commitment to long-term management of nest boxes for this action to be worthwhile.

Table 6-43 of the EIS (EIS Section 6.8.8, page 224) includes safeguards and mitigation measures for impacts to biodiversity. Measure BD6 is not fully consistent with the BDAR (Table 8-1, page 99) and should be revised to include the missing points. We also recommend the wording of point 2 in this measure be revised to ensure that no stockpiling or storage of materials occurs within the dripline of trees, or in any native vegetation to be retained (areas mapped as native vegetation). Stockpiles and material laydown areas are to be within the assessed development footprint where clearing is to occur.

Measures presented in Table 8-1 (pages 98-102) to mitigate the impact of pest plants and animals are not reflected in the EIS. Pest and weed plans are included as Measure LU4 in the list of measures to mitigate land use impacts (EIS Table 6-6, page 139). Mitigation presented in the BDAR will be disregarded if there is no clear path for implementation. Measure LU4 should be revised to ensure the resulting plans incorporate relevant measures from the BDAR.

We appreciate the labelling of mitigation measures in the EIS. It would be helpful if the BDAR used the same annotation to assist with our review.

Recommended actions

- *Revise mitigation measures in the EIS to match the BDAR (Table 8-1) and to ensure stockpiling and material laydown areas are only within the assessed development footprint and not within any areas of mapped native vegetation.*
- *Mitigation measure LU4 in the EIS (Table 6-6, page 139) is to have regard to recommendations for pest plant and animal management in the BDAR (Table 8-1, pages 98-102).*

ATTACHMENT C **Sample of digital data provided for the development site, showing proposed security fence in pink bisecting native vegetation to be retained (mapped in green)**