ATTACHMENT A OEH REVIEW OF ISSUES FOR THE CURRAWARRA SOLAR PROJECT RESPONSE TO SUBMISSIONS (SSD 8437)

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
1	Cultural Heritage Management Plan should be developed in consultation with Registered Aboriginal Parties and include protocols for unexpected finds, including human remains, prior to construction activity occurring. It should include a description of the proposed salvage procedure for the Aboriginal objects that will be harmed by the project (in accordance with Requirement 26 of the *'Code of Practice for Archaeological Investigation of Aboriginal objects in NSW),* an unexpected finds protocol and a clear mitigation strategy (including fencing) to ensure that the Aboriginal objects that are to be avoided during construction are not harmed.		Resolved, subject to recommended conditions of consent in Attachment B. ***Recommended further action:*** *1. 1 Finalise the artefact salvage/relocation process and complete and submit an **Aboriginal Site Impact Recording Form** and submit to AH/MS Registrar*	Pre-construction
2	The potential for Superb Parrot and Major Mitchell's Cockatoo to use hollow-bearing trees (HBTs) for nesting within the development site has not been adequately assessed. Survey in May and August would not have detected use by these species which breed in spring/sum mer. A spring survey of HBTs within the development footprint is required to confirm whether they are being used for breeding by Superb Parrot or Major Mitchell's Cockatoo. The Biodiversity Assessment Report (BAR) needs to be revised once these results are known.	Targeted surveys for the Superb Parrot were undertaken in December 2017. These surveys included observation of bird species utilising vegetation and paddock trees whilst threatened flora surveys were being undertaken. Walked transects searching wet and inundated areas for Floating Wallaby Grass *Amphibromus fluitans* were undertaken across the development envelope, which allowed for checks of hollow-bearing trees located within the development envelope to be undertaken. Additionally, a 20 minute area search was undertaken within remnant vegetation in the south-west of the proposal site where the species had been previously identified. Superb Parrots were identified during these surveys within the patch of remnant vegetation in the south-western corner of the proposal,	The RTS states that a bird utilisation survey was conducted while targeted threatened flora surveys were being undertaken. It does not detail how many HBTs were assessed, what was recorded at each tree, or the attributes used to determine that a HBT is not being used for breeding by Superb Parrot or Major Michell's Cockatoo. It is also not clear if five large hollows identified within the development footprint as having the potential to be utilised as a breeding resource by Major Mitchell's Cockatoo (BAR page 63) were re-surveyed in Spring. ***Recommended further action:*** *2.1. Confirm whether a targeted spring survey of all HBTs proposed for removal was undertaken as described in the OEH response to EIS exhibition.* **A survey for the presence of breeding Superb Parrot and Major Mitchell's Cockatoo was**	Pre-determination

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
		outside of the development envelope. Five birds were identified foraging at the corner of Mayrung Road and Russells Road at 6:40am – 6:48am on 14 December 2017. The birds were foraging within trees that would not be impacted by the development in an area where the species had previously been identified on-site. The species was not identified at any other location on the site, and was not utilising any hollow-bearing tree within the study site as a breeding resource. No superb parrots were observed during the dusk survey. Bird species observed were the Eastern Rosella, Red-rumped Grass Parrot, Blue Bonnet and Noisy Miner. No superb parrots were observed anywhere else on-site. Major Mitchell's Cockatoos were not detected within the site during any of the surveys. **The BAR and BioBanking Credit Calculations are not considered to require updating to generate species credits for these species.**	**undertaken within the development footprint by two ecologists in December 2017. The survey was conducted while undertaking threatened flora survey within inundated drainage channels and areas of vegetation identified as threatened flora habitat. Surveys included walked parallel transects and two 20-minute bird surveys at dawn and dusk in the south-western corner of the site where the species had previously been identified. Walked transects included the length of the central road within the site, as well as areas of native vegetation in the north-west of the site and drainage channels in the north east of the site.** **As a comprehensive Hollow-bearing Tree (HBT) survey had been completed during previous surveys, which recorded tree species, height, Diameter at Breast Height, and hollow size classes and locations, an additional comprehensive survey of each individual HBT was not undertaken during the December survey.** **The surveyors were instructed to continually scan for Superb Parrots and Major Mitchell's Parrots, and if present on site, follow them until they were no longer on site. This occurred on the morning of the 14th of December when five birds were identified foraging in trees on site (outside the development envelope), which were then followed to the west of the site until they were no longer in site.** **Approximately ten person-hours were spent traversing the site during the targeted breeding parrot survey, in addition to the 56 person hours spent traversing site during previous bird surveys, vegetation surveys and targeted *Crinia sloanei* survey. This survey effort is considered sufficient to have detected the Superb Parrot (which has been identified on site several**	

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
			times), and Major Mitchell's Cockatoo, a conspicuous species. **Superb Parrots were identified on site during surveys in both May and December, indicating that they are present within and adjacent to the site on a permanent basis and utilising the site as foraging habitat. However, the species was not identified utilising hollow-bearing trees on site as a breeding resource, and during each detection was only identified on site foraging. As such, the species is not considered to generate species credits.** **No Major Mitchell's Cockatoos were detected during repeated surveys of the site, across winter and summer. Were the species utilising any trees within the development footprint as a breeding resource, the survey effort is considered sufficient to have detected them within or adjacent to the site. As such, the species are not considered breeding on site, and thus do not generate species credits.** 2.2. *If spring survey of all HBTs* was *not undertaken,* a *targeted HBT survey* as *described in the OEH response to EIS exhibition is required.* **A spring survey of each individual HBT was not undertaken. As described above, surveys across the site are considered likely to have detected the species, were they utilising the site as a breeding resource.** 2.3. *Provide the assessment method and results from the spring survey of all HBTs proposed for removal within the development footprint. The results must include an assessment of whether each tree is being used for breeding by Superb Parrot or Major Mitchell's Cockatoo.*	

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
			As discussed in point 2.1 above, the assessment method was based on the detection of the species on site, then tracking the movements of the species, were they detected, to determine whether the species were utilising the site as a breeding resource. The Superb Parrot was identified within trees outside of the development envelope (and specifically avoided by the proponent to minimise impacts to the species), and the individuals were followed until they were no longer on site, leaving site to the west. The species was not detected again during the December survey. As the species was not found across the remainder of the site, no individual Hollow-bearing Trees were inspected. **This methodology was discussed with Peter Ewin of OEH during a phone conference on the 22nd of August 2017. It was understood by NGH Environmental that a survey targeting the bird species, rather than searching each individual Hollow-bearing Tree would be sufficient. Further, the submission from OEH did not state a requirement that each individual tree was to be inspected for species presence. Were this included in the OEH submission, the survey would have been conducted in this manner.** 2.4. *If revision of the BAR is required, it should be completed before development approval to ensure the offset credit requirement is revised and complete.* **The revision of the BAR is not considered necessary as neither species were identified breeding within the development site, and thus are not considered to generate species credits.**	

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
3	Hollow-bearing trees should not be removed during spring to early summer to avoid the main breeding period for hollow-dependent fauna		Resolved	Pre- and Post-determination
4	Spring survey is required for four plant species: a spear grass (*Austrostipa wakoolica*), Silky Swainson-pea *(Swainsona sericea),* Slender Darling Pea *(Swainsona murrayana)* and Winged Peppercress *(Lepidium monoplocoides).* The BAR needs to be revised once these results are known.	Areas of native vegetation were surveyed for *Austrostipa wakoolica*, *Swainsona sericea*, *Swainsona murrayana* and *Lepidium monoplocoides* using parallel field transects within areas of suitable habitat as identified within the BAR (NGH, 2017).These included areas of PCTs 15, 16 and 80 containing native understorey. Three species of *Austrostipa* were identified during these surveys; *Austrostipa scabra*, *Austrostipa aristiglumis* and *Austorostipa blackii*. No *Austostipa wakoolica* observed. No *Lepidium monoplocoides* were observed during surveys. One *Lepidium* species, (*Lepidium pseudohyssopifolium*) was identified during previous surveys of the development envelope. No *Swainsona murrayana or Swainsona sericea* were identified during surveys. One pea forb was identified during previous surveys, which was identified during this survey as the exotic *Astragalus hamosus*. Surveys were also undertaken to check for the presence of *Amphibromus fluitans.* Irrigation channels and dams were checked for the presence of the species; however, the majority of irrigation channels were dry and cleared, and the species was not detected. **The BAR is not considered to require updating for these species.**	We note that targeted fauna survey was undertaken in December 2017. The Threatened Species Profile Database lists September and October as the months when Swainsona sericea can be identified during field survey. Swainsona sericea is a species credit species and must be assessed in accordance with Section 6.5 of the FSA ***Recommended further action:*** *4.1. Confirm if surveys for Swainsona sericea were undertaken during September or October.* **It is acknowledged that the species was not surveyed during the period identified within the Threatened Species Profile Database. However a targeted survey was conducted in December 2017 and included walked parallel transects, and any plants within the *Swainsona* genus would likely have been present at that time in a vegetative state with leaves present. Were *Swainsona* present on site, any individuals would have flowered and fruited by the time of survey, thus would have been identifiable.** **The pea-like forb detected on site during initial surveys in May and August, and during targeted surveys in December was not able to be identified to species level as the sample of the plant wilted in the heat in December. However, the plant is considered likely to be the exotic species *Astragalus hamosus*. The NSW PlantNET description for *Swainsona sericea* states that the species has "*stems densely pubescent with medifixed hairs, hairs appressed or with both ends raised*". An example of *Swainsona sericea* is provided in Photograph 1 below. The plants detected on site were not densely pubescent, as**	Pre-determination

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
			shown in Photograph 2. The plant shown in Photograph 2 is likely *Astragalus hamosus*, and we are able to confirm that is not *Swainsona sericea*. **Furthermore, *Swainsona sericea* was assessed as having a low likelihood of occurrence within the vegetation due to the highly degraded nature of the roadside vegetation. This vegetation is subject to regular slashing, and has a disturbed soil profile. The surveys conducted within the site have identified all flora species present as above ground vegetation at time of survey, and were individuals of the *Swainsona* genus present, they would have been identified during surveys. As such, adequate survey is considered to have been conducted to assess the occurrence of the species on site.** *4.2. S. sericea must be included in the assessment unless adequate justification that it is not present on the proposal site is given in accordance with FBA Paragraph 6. 5. 1. 3.* **As discussed above, surveys undertaken in August and December are considered adequate for the detection of the species, were the species present on site. The species was included as a species requiring survey as it could not be ruled out as a species requiring further assessment in accordance with FBA Paragraph 6.5.1.3**	
5	The patch of native vegetation approximately 300 metres north-east of the large dam on the proposal site is shown on numerous maps in the report and on OEH aerial imagery (dated 21 December 2011). A site inspection confirmed that it is no longer on the site. This needs to be	The purview of the Biodiversity Assessment Report and associated surveys is to assess the current state of biodiversity, including vegetation presence, within the site. The scope of the BAR and EIS does not include or require an assessment or the provision of evidence of	OEH strongly recommends that the proponent ensure any recent native vegetation clearing on the proposal site has approval under the Native Vegetation Act 2003. **Noted.**	Pre-determination

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
	explained in the BAR and EIS Main Report, and clearance approval documentation provided.	clearing approvals which occurred prior to the commencement of the assessment.		
6	The BAR contains some minor issues that require clarification: **Credit Report** The Final Credit Report (Appendix E) shows that 90 credits would be created by the proposed development, requiring an area of 7.06 ha to offset, which is consistent with the output of the credit calculator. Table 13-1 (BAR, page 102) shows a total of 9.7 ha using the credit conversion tool. This error needs to be corrected. **Vegetation to be cleared** The upgrades to five road intersections (BAR, Figures 3-12 to 3-16) will each require the removal of a small amount of native vegetation. Given this they need to be included within the development envelope and shown on Figure 3-11. It is assumed that the figures for the vegetation clearance at these intersections are included in the figures presented in the BAR and EIS Main Report, but this needs to be confirmed and demonstrated by the proponent. The area of vegetation to be cleared is taken to be 7.06 ha (BAR, page vii and elsewhere) but different figures are provided through the BAR and EIS: • The EIS Main Report (page xiv) states that 'the amount of native vegetation to be removed [is] 3.8 hectares', but this does not include the other areas referred to on the same page. • BAR (page vii) states that 'a total of 7.06 ha of native vegetation ... will be cleared'. However, the figures presented in the following two paragraphs (0.44 + 2.976 + 2.6 + 2.7) sum to 8.716 ha. There are other inconsistencies in the figures presented:	SEE SUBMISSIONS REPORT	**Credit Report** Resolved **Vegetation to be cleared** Resolved **Paddock Trees** The table provided in the 'RES response' column does not indicate how many trees were included in the paddock tree assessment so OEH is not able to determine if the calculation is correct. ***Recommended further action:*** *6.1. The number of paddock trees to be removed for the development, and how many of these are hollow-bearing, need to be clearly stated.* **Tree numbers used for the RTS and used to update the paddock tree calculator are provided in Table 1 below.** **In summary, 41 paddock trees (as distinct from trees contained within mapped vegetation patches) will be removed, of which 19 contain hollows. 39 of these trees are in Zone 4.3, and two trees are in Zone 2.** **Up to eight Hollow-bearing Trees occurring within mapped vegetation patches will be cleared in addition to those isolated paddock trees.** *6.2. Additional data about the number of trees and effective clearing area for each 0.4 ha tree zone need to be provided to assist interpretation of the table on page 56 (RTS).* **As described in the RTS, an indicative sampling area of 0.4 ha has been applied to the paddock trees assessed for removal through the paddock**	Pre-determination

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
	• BAR Table 3-5 adds up to 7.063 ha but 7.064 ha is stated repeatedly throughout the BAR • BAR (page 92) states that 'the proposal would remove 67.064 ha of vegetation'. The correct figure is 7.063 ha according to Table 3-5. • In the EIS Main Report (page xiv) the area of PCT 80 to be cleared sums to 3.411 ha, however Table 3-3 of the BAR (page 27) includes 0.01 ha of derived native grassland, giving a total of 3.412 ha. These inconsistencies must be clarified and presented correctly in the BAR and EIS Main Report.		**tree calculator. Advice provided by OEH (email dated 06/02/2018) suggested that a buffer should be placed around each tree to replicate the PFC of each tree (40%). Table 2 details the calculations undertaken and shows that the Zone 4.3 sampling area was calculated as 0.8247 ha and the Zone 2 sampling area was calculated as 0.0919 ha. When these areas were applied to the paddock tree calculator, calculator showed the zones as being Moderate/good condition. Advice was sought from the OEH biobanking team to clarify the issue, however no response was provided in over six weeks.** **As the intent of the paddock tree calculator is to account for impacts to trees that do not form part of vegetation patches (i.e. >100 m from other trees), and the trees exist over an entirely exotic understory, sampling areas were tested to determine what area would show the zones as low condition (as was the intent as discussed verbally with OEH). This sampling area was 2 ha for Zone 4.3 and 15.6 ha for Zone 2. As such, a sampling area of 0.4 ha was applied to each tree (39 being removed in Zone 4.3, two being removed in Zone 2). These effective clearing areas have then been used as the zone areas for Zones 4.3 and 2 within the BCC.**	
7	If vegetation maintenance during construction or operation includes clearing or lopping that is additional or different to that included in the BAR (dated 9 November 2017), then it must be assessed for biodiversity impacts and documented in accordance with the FBA, unless otherwise agreed by OEH. The assessment must be undertaken by a person accredited in accordance with s142B(1)(c) of the *Threatened Species Conservation Act 1995.*		Resolved	Pre-determination
8	Table 8-2 of the EIS Main Report provides a summary of mitigation measures and states that		Resolved	Post-determination

Issue	OEH Issue (identified in EIS response)	RES response	OEH response to RTS	Timing
	a Construction Management Plant and a Flora and Fauna Management Plan will be prepared. To ensure that these actions are carried out at the appropriate time, OEH request that the following details are supplied for each action: • who will be responsible for individual actions (including the position title of the officer responsible) • outcome or measure of success • when the action will be completed. These details should be completed before the start of construction to clearly identify the proponent's commitments for management and mitigation. OEH have noticed that Cultural Heritage and Environmental Management Plans have not been required by OPE for some recently approved developments. If conditions do not require the preparation of individual plans, OEH will need to see more detail for actions relating to biodiversity and Aboriginal cultural heritage before the start of construction.		If conditions do not require the preparation of individual plans, OEH will need to see more detail for actions relating to biodiversity and Aboriginal cultural heritage before the start of construction.	

Table 1 – Paddock Tree Data

Tree Species	Hollows	Height (m)	DBH (cm)	PCT	Zone	Average Crown PFC (%)	Crown Diameter (m)	Sample Area (ha)	Zone Effective Clearing Area (ha)
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Allocasuarina luehmannii	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	3.9
Allocasuarina luehmannii	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Stag	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	

Tree Species	Hollows	Height (m)	DBH (cm)	PCT	Zone	Average Crown PFC (%)	Crown Diameter (m)	Sample Area (ha)	Zone Effective Clearing Area (ha)
Stag	No	0	0	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	No	0	0	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	No	0	0	80	4.3	40	10.6	0.4	
Stag	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Calitris glaucophylla	No	0	0	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	No	0	0	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	No	0	0	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	60	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	70	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	70	80	4.3	40	10.6	0.4	
Stag	Yes	14	60	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	15	80	80	4.3	40	10.6	0.4	
Eucalyptus melliodora	Yes	14	90	80	4.3	40	10.6	0.4	

Tree Species	Hollows	Height (m)	DBH (cm)	PCT	Zone	Average Crown PFC (%)	Crown Diameter (m)	Sample Area (ha)	Zone Effective Clearing Area (ha)
Eucalyptus microcarpa	Yes	15	60	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	15	70	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	8	70	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	14	80	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	60	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	10	80	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	90	80	4.3	40	10.6	0.4	
Eucalyptus microcarpa	Yes	12	70	80	4.3	40	10.6	0.4	
Eucalyptus melliodora	Yes	14	140	80	4.3	40	10.6	0.4	
Calitris glaucophylla	Yes	12	60	80	4.3	40	10.6	0.4	
Eucalyptus melliodora	Yes	15	70	80	4.3	40	10.6	0.4	
Eucalyptus melliodora	Yes	15	70	80	4.3	40	10.6	0.4	
Eucalyptus largiflorens	No			15	2	40	15.3	0.4	0.6

Tree Species	Hollows	Height (m)	DBH (cm)	PCT	Zone	Average Crown PFC (%)	Crown Diameter (m)	Sample Area (ha)	Zone Effective Clearing Area (ha)
Eucalyptus largiflorens	Yes	16.5	150	15	2	40	15.3	0.4	

Table 2 – Paddock Tree Sampling Area Calculations as per OEH advice 06/02/2018

Zone	Crown Diameter (m)	Crown Radius (m)	Canopy Area (m2) (40% of sample area)	Cleared Buffer (m2) (60% of sample area, 1.5x canopy area)	Total Sample Area (m2) (100% of sample area)	Radius of sample area (m)	Number of trees in zone	Area of Zone (sum of all polygon areas per zone) (dissolved) (m)
Currawarra PCT 15 Zone 2	15.3	7.65	183.85	275.775	459.625	12.1	2	919
Currawarra PCT 80 Zone 4.3	10.6	5.3	88.25	132.375	220.625	8.38	39	8247

Photograph 1 – *Swainsona sericea* (https://canberra.naturemapr.org/Community/Sighting/1948178)

Photograph 2 – Fabaceae sp. within the north-eastern corner of Parfreys Road site

ATTACHMENT B OEH recommended conditions of development consent for the Currawarra Solar Project (SSD 8437)

1.1 BIODIVERSITY

1. *The removal of hollow-bearing trees is not to occur during spring to early summer to avoid the main breeding period for hollow-dependent fauna.*
2. *All clearing of native vegetation, which is additional or different to that included in the Biodiversity Assessment Report dated xx 2018, and will be cleared, lopped or trimmed for construction or operation of the proposal, must be assessed for biodiversity impacts and documented accordance with the Framework for Biodiversity Assessment, unless otherwise agreed by OEH. The assessment must be undertaken by a person accredited in accordance with s142B(1)(c) of the Threatened Species Conservation Act 1995.*

1.2 ABORIGINAL CULTURAL HERITAGE

3. *A Cultural Heritage Management Plan be developed for the site prior to the commencement of any construction works. The CHMP should include Aboriginal site induction material to be supplied to staff and contractors carrying out ground disturbance activities on site.*
4. *Develop an Unexpected Finds Protocol to be included in the CHMP for the management of unexpected finds for all potential ACH and incorporate the following process. Notifying members of the public (RAPs) should only occur after any skeletal remains have been determined through the Coroner's Office to be Aboriginal in origin.*

   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 OEH 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 OEH.*

   In the event that skeletal remains are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and NSW Police and OEH contacted.

5. *Protective fencing be established around each scar tree site with buffer zone sufficient to protect tree root system and any associated areas of subsurface potential.*
6. *Site induction must be provided for any contractors or works crews (construction and operation) and clear identification of any known sites on any associated plans.*

Tim Stuckey

From: Mike Whitbread <Mike.Whitbread@res-group.com>
Sent: Thursday, 26 April 2018 11:11 AM
To: Tim Stuckey
Cc: Clay Preshaw
Subject: RE: Currawarra Solar - More Information Request

Hi Tim

As discussed last week, please find responses to your queries below.

The revised plan will follow next week due to staff holiday.

Regards,

Mike

Mike Whitbread
Project Development Manager

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Home Safe - Every Day

From: Tim Stuckey [mailto:Tim.Stuckey@planning.nsw.gov.au]
Sent: Tuesday, 17 April 2018 5:29 PM
To: Mike Whitbread
Cc: Clay Preshaw
Subject: Currawarra Solar - More Information Request

Afternoon Mike,

To enable the Department to continue its assessment on the Currawarra Solar project, can you please provide/confirm the following information:

- Maximum number of daily vehicle movements (light, heavy and over-dimensional) during the peak traffic period;
  - Light 254
  - Heavy 65 as proposed by our likely EPC contractor (Previous maximum figure of 48 was indicative based on 18 month time frame. Given contractor experience on large-scale solar in the last 6 months, they feel there is a possibility construction could be completed more quickly eg. 12-15 months then the 90 day peak period may get compressed to 60 days and increase this maximum daily number.)
  - Over-dimensional 1 (assuming worst case – could be delivered outside peak period. Shown in both peak and non-peak figures)

- Maximum number of daily vehicle movements (light, heavy and over-dimensional) during the non-peak traffic period;
    - Light 100 as proposed by likely EPC contractor (12 months construction period but 3 months of design and commissioning leaving onsite construction which would more likely span a 9 month period, changed from previous 49 vehicles)
    - Heavy 9
    - Over-dimensional 1 (assuming worst case – could be delivered outside peak period. Shown in both peak and non-peak figures)

- Confirmation of whether the development would impact the Aboriginal scarred trees and European survey marker trees;

    Scar trees ST1 and ST2 would be avoided by the works as detailed in the ACHA. The European survey marker tree would also be avoided and is not on our proposed final transport route which would use Lakers Rd, not Woodbury Rd.
- Confirmation of whether TransGrid has provided consent for the connection into its overhead 132 kV transmission line;

    We are in ongoing discussion and negotiation with TransGrid. We have been issued a TransGrid Connection Process Agreement and are currently negotiating final terms.
- Duration of construction noise exceedances experienced at R1 and R6;

    We have received advice from our specialist acoustic consultants Renzo Tonin & Associates (RT&A) as detailed below.

    In Table 4.4 of the RT&A report they have identified that exceedances at Receiver R1 would typically occur when the works are taking place along the boundary of the site and closest to the receiver location. So the duration of the exceedance would depend on;
    how long the works would take place at this location
    type of plant and equipment is being used.
    Based on the noise levels the small pile driving rig that would be utilised would produce the highest noise levels and would produce the highest noise exceedance when working on its own.

    In relation to Receiver R6, exceedances would occur when works are along the boundary of the site and closest to the receiver location. However, exceedances are only predicted when the three noisiest plant items are operating concurrently (small pile driving rig, Crane and Drum Roller (or Wheeled loader or Dump truck), as presented in Table 4.4 of RT&A's acoustic report. When equipment are working on their own, then no exceedances are predicted. Again, it would depend on how long the works would take place along the boundary at a point closest to the receiver.

    As you can see it will is not possible to provide duration of construction noise exceedances at these two properties, at least until detailed design and programming have taken place by an appointed EPC contractor.

    The EIS included a Construction Noise Management Plan (CNMP) (pages 40 to 53 of Appendix G of the EIS). The CNMP acknowledges that predicted construction noise levels do not comply at residences R1 and R6. Table 4-3 of this plan identifies a number of measures that would allow for a reduction in noise levels (eg. acoustic barriers, acoustic enclosures etc.).
    Section 5.3 of the plan identifies that 'Where noise level exceedances cannot be avoided, then consideration may be given to implementing time restrictions and/or providing periods of repose for residents, where feasible and reasonable. That is, daily periods of respite from noisy activities may also be scheduled for building occupants during construction hours'.
    Section 6 of the plan includes requirement for monitoring and complaints resolution.
    Implementation of the CNMP that includes a framework for noise management during construction will mitigate impact on residences R1 and R6.
    Could you please confirm if the above information is sufficient as a response to your request?

- Revise the main project layout map (Appendix A – RTS) to include the development footprint boundary.

    This plan will follow next week

Please call me with queries on any of this.

Regards

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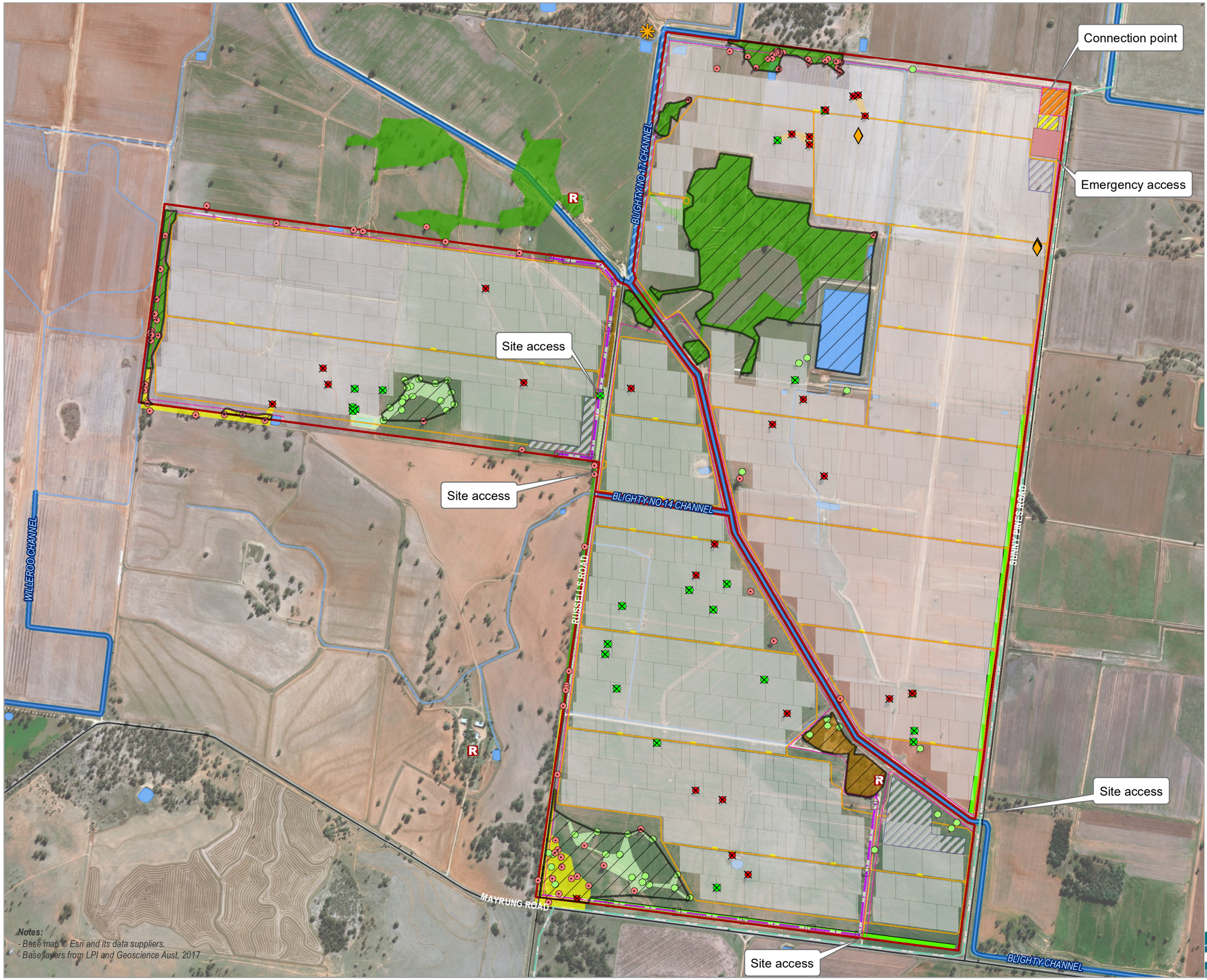
PROPOSAL LAYOUT AND SITE CONSTRAINTS

Currawarra Solar Farm



- Development exclusion zone (excluding rehabilitation undertaken in accordance with the Biodiversity Management Plan)
- Artefact (ACHA)
- Scarred tree (ACHA)
- Residence/receiver
- Hollow bearing tree
- Hollow bearing tree to be removed
- Paddock tree
- Paddock tree to be removed
- Currawarra solar farm boundary
- Proposed security fence (indicative)
- Proposed 22kV pylons
- Proposed 22kV powerline reroute
- Murray irrigation easement corridor
- Proposed new access track
- Power Conversion Unit with hardstand
- Proposed energy storage facility
- Proposed transformer and utility facility
- Temporary construction compound, laydown and parking
- Transgrid subdivided area (substation and connection)
- Proposed array

Vegetation: condition

- PCT15: Low
- PCT15: Moderate to good
- PCT80 (EEC derived grassland): Low
- PCT80 (EEC): Low
- PCT80 (EEC): Moderate to good
- Planted vegetation
- Existing transmission lines
- Local road
- Drainage channel
- Other waterbody
- Murray Irrigation feature buffer (10m)
- Proposed landscaping

0 100 200 400 m

A3 @ 1:13000
Ref: SW124_C constraints
Author: SP Date: 1/05/2018

Notes:
- Base map © Esri and its data suppliers.
- Base layers from LPI and Geoscience Aust, 2017

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