

19 July 2018



Elle Donnelly
Senior Planner | Resource and Energy Assessments
Department of Planning and Environment | NSW Government
GPO Box 39
Sydney NSW 2001

Delivering Energy. Powering Communities.

Dear Elle,

Thank you for recent discussions regarding the Department of Planning and Environment's (DPE's) assessment of the Sapphire Solar Farm (the project). CWP understands the DPE require additional information to clarify a number of matters prior to finalisation of the assessment. This information is generally in the context of CWP providing a final definitive development footprint (including cable route and access road alignments) (referred to as the 'revised development footprint'). This letter provides a discussion of the outstanding items, including supporting figures. The detail is set out according to the following four topics:

- 1) Review of the environmental impacts;
- 2) Revision of the cadastral land parcel alterations;
- 3) Additional information regarding threatened flora presence; and,
- 4) Additional information regarding bushfire risk of vegetation surrounding the solar panel areas.

1. Environmental Impacts Review

The development footprint has been refined during the assessment process in response to DPE and agency responses, as well as during the progress of detailed design and is shown in Attachment 1. In some places this has led to a reduction of the impact area, and in others the revised development footprint has diverted slightly (or been realigned slightly) from those shown in the Environmental Impact Statement (EIS) (EcoLogical Australia, January 2018).

For clarity and certainty, CWP's approach in preparing this response has been to review the revised development footprint in the context of the EIS and Response to Submissions (RTS) (CWP, March 2018) documentation. That is, to analyse the impacts predicted from the revised development footprint as a review of those reported in the EIS and provide an updated impact assessment where required. These responses have been prepared by the specialists that contributed to the EIS and are attached to this letter as:

- Attachment 2: EIS general review and analysis (including relevant figures);
- Attachment 3: Biodiversity review including vegetation mapping and updates to credit calculations;
- Attachment 4: Heritage review;
- Attachment 5: Traffic review; and,
- Attachment 6: Hazards review.

The EIS review process in these attachments concluded that the changes created by the revised development footprint are relatively minor in nature with all impacts substantially as reported in the EIS. It further states that accordingly, the proposed mitigation measures are considered appropriate to manage potential impacts associated with the revised development footprint.

Of note is that the revised development footprint has resulted in a reduction of impacts to higher value biodiversity areas, i.e. those areas which generate credits required to offset the project's impacts when applying the Framework for Biodiversity Assessment (detail is provided in Attachments 2 and 3 to this letter).

2. Cadastral Land Parcel Review

Subsequent to the impact assessment review, adjustments and amendments are required to the cadastral land affected by the project, from that reported in the ES. That is for two reasons: firstly, a subdivision of a land parcel created a new land parcel at a similar time as the ES was lodged and was not reported as being part of the "Land to be Developed" (ES page ii). An updated table of land parcels affected (as per ES page ii) is presented in Attachment 7 to this letter. Secondly, the minor alterations to the development footprint have resulted in minor changes to the proposed indicative land subdivision for lease purposes (as per Table 3-2 of the ES, as replaced by Table 4.1 of the RIS), accordingly an updated table and figure are presented in Attachment 7.

3. Threatened Flora Presence

During the ES and RIS processes the biodiversity assessment included identification of threatened flora samples of the species *Dichanthium setosum* with tentative certainty, because some of the samples were lodged with the Royal Botanic Gardens Herbarium in Sydney awaiting identification. In recent weeks, since the ES and RIS process, those identifications have been received with a large number of the tentative *D. setosum* identifications confirmed as being the common species *D. sericeum* and not the threatened species.

The impact assessment undertaken during the ES and RIS committed the project to avoidance of impacts to *Dichanthium setosum* as well as the identified locations of *Thesium australe*. This commitment is reaffirmed following the species identifications in the ES review process in Attachment 2. Locations of species occurrence that will be avoided are shown in the relevant figure in Attachment 3.

4. Bushfire Risk and Surrounding Vegetation

Analysis has occurred following the ES during the RIS process regarding the buffer distances between the solar panel areas (also referred to as the PV array areas) and surrounding vegetation. The majority of the vegetation around the PV array areas is grassland with scattered trees, consistent with the agricultural setting. There are some patches of woodland vegetation which occur in relative isolation, with a notable patch of woodland vegetation north of the PV array area east of the Western Feeder Road.

The vegetation types in the area of 20m surrounding the PV arrays as well as 20m buffers from any surrounding woodland vegetation are shown in the attached figure series in Attachment 8. Grassland and woodland patches have been broadly assigned using crown separation guidance in Table A2.1 of Planning for Bush Fire Protection (RFS2006) (i.e. open forest – grassy woodland – grassland).

We hope that the information provided in this response provides the information required for the DPE to progress the assessment and we look forward to receiving the DPE's assessment decision on the project. Please contact us for further details or clarifications.

Yours sincerely,



Matthew Flower

CWP Renewables Pty Ltd

matthew.flower@cwprenewables.com.au

Phone: (02) 4013 4640

Attachments

1. Development Footprint Figures
2. EIS general review and analysis (including relevant figures)
3. Biodiversity review
4. Heritage review
5. Traffic review
6. Hazards review
7. Cadastral land parcels to be developed and land subdivision for lease purposes
8. Vegetation surrounding the solar panel areas

Attachment 1

Development Footprint Figures

Figure List

Figure 1.1: SSF Development Footprint

Figure 1.2: SSF Footprint Comparison Overview

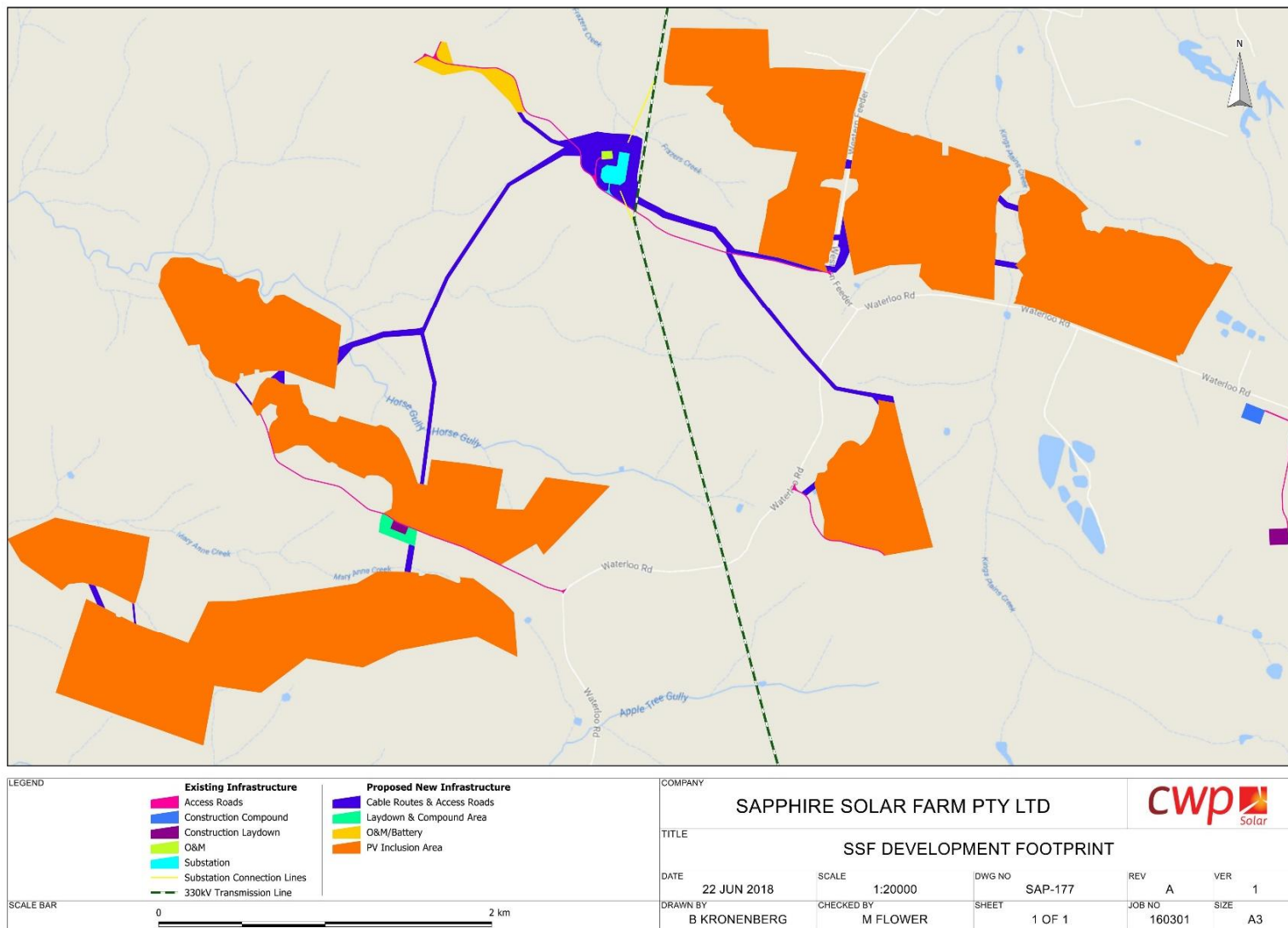


Figure 1.1: SSF Development Footprint

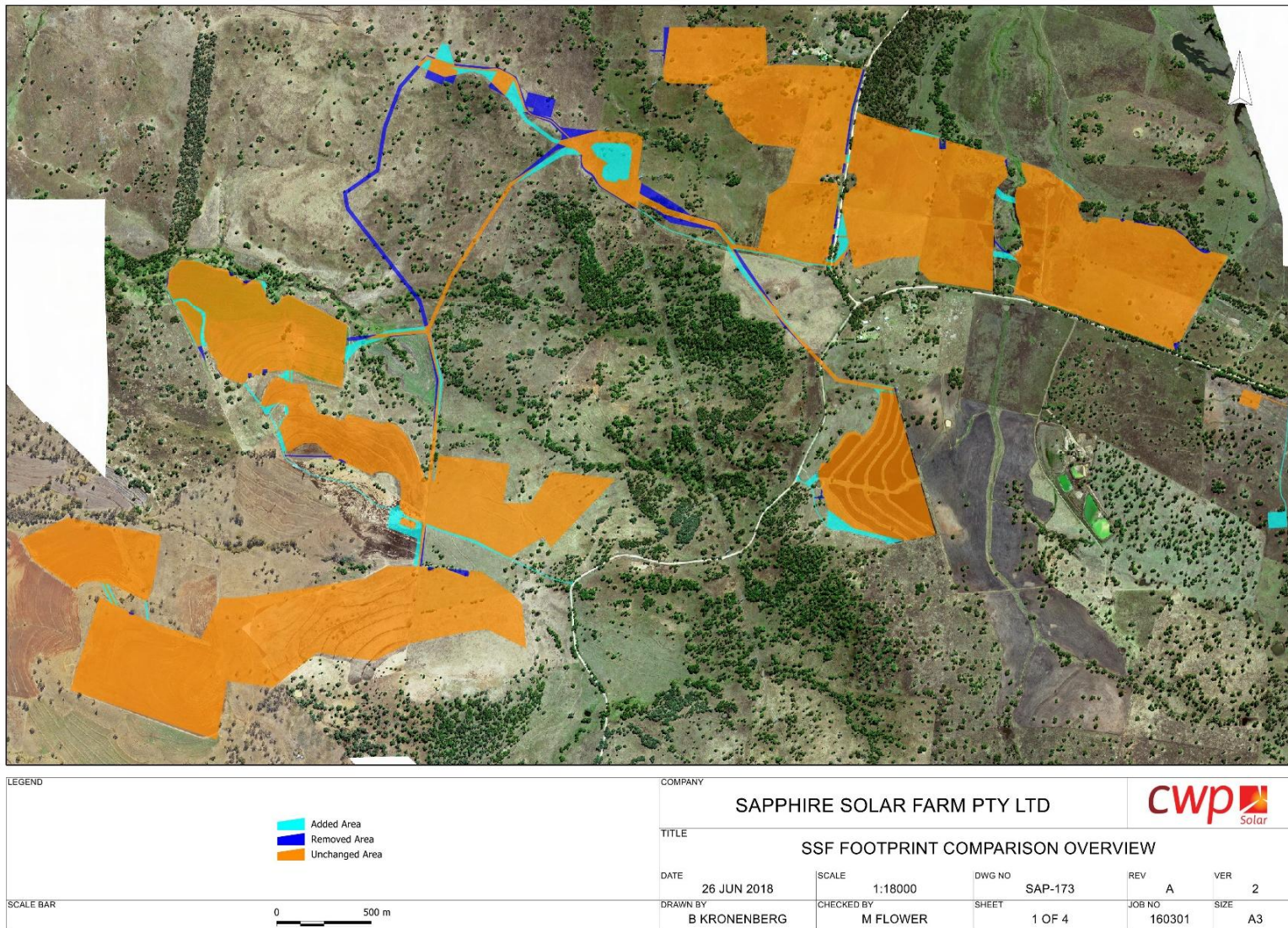


Figure 1.2: SSF Footprint Comparison Overview



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Attachment 2

ESgeneral review and analysis (including relevant figures)

Elle Donnelley
NSW Department of Planning & Environment
320 Pitt Street
Sydney NSW 2001

17ARM8233

19 July 2018

Dear Elle,

Sapphire Solar Farm SSD8643 – Review of Environmental Impacts associated with revised footprint

1. Purpose of this letter

Eco Logical Australia Pty Ltd (ELA) was engaged to prepare an Environmental Impact Statement for the proposed development near Kingsland, NSW known as the Sapphire Solar Farm (SSF; the project). The proposed development of the solar farm has been declared a State Significant Development (SSD - 8643), and as such the environmental impacts of the proposal are assessed under Division 4.1 of the NSW *Environmental Planning and Assessment Act 1979*.

As SSD, the environmental impacts associated with the proposed development must be assessed through the preparation of an Environmental Impact Statement (EIS). The EIS was placed on public exhibition from 29 January 2018 to 28 February 2018.

Since submission of the EIS and in consideration of post-submission consultation, the proponent has been able to make several design changes to the original proposal to incorporate necessary infrastructure, bushfire, and construction constraints to provide a revised development footprint that addresses these issues (Figure 1). In revising the development footprint, effort has been made to avoid drainage lines, high quality vegetation, and known threatened species records.

This revised development footprint (Figure 2) includes minor changes to the development footprint exhibited in the EIS, and provides a development footprint that allows for an area in which to construct the development which is the maximum development footprint and maximises the use of existing infrastructure and disturbances. The revised development footprint covers 458.5 ha, of which, 7.5 ha is existing infrastructure (including access tracks and hardstands).

The purpose of this advice is to summarise potential environmental impacts of the proposal that are likely to result from the revised development footprint within the context of the assessments prepared as part of the EIS.

2. Environmental Assessment

This updated Environmental Assessment has been undertaken to review potential additional and cumulative environmental impacts associated with the revised development footprint relative to the environmental assessment presented within the EIS.

Biodiversity

Consistent with the SEARs, the biodiversity impacts of the proposed development must be assessed under the Framework for Biodiversity Assessment (FBA; OEH 2014) and a Biodiversity Assessment Report (BAR) must be prepared. The purpose of the BAR is to assess the impacts to biodiversity, propose mitigating and ameliorating options, as well as calculate offsets for unavoidable residual impacts. The BAR was submitted as a technical report appended to the Environmental Impact Statement (EIS) which was placed on public exhibition from 29 January 2018 to 28 February 2018.

The footprint presented within the EIS considered the biodiversity values known to occur within the development site, and where possible avoided areas of native vegetation, threatened species, and their habitats. In particular, the project avoided (where possible) areas of Threatened Ecological Communities (TECs) and known threatened species habitats.

The revised development footprint allows calculation of the 'maximum', or 'worst case' biodiversity impacts from the proposed development. In revising the development footprint, effort has been made to avoid drainage lines, high quality vegetation, and known threatened species records.

The revised development footprint covers 458.5 ha, of which, 7.5 ha is existing infrastructure (including access tracks and hardstands). Of the remaining 451 ha, 107.3 ha is native vegetation (Figure 3). A breakdown of those native vegetation types is provided in Table 1. All of the mapped PCTs within the development footprint are consistent with the final determination for White Box Yellow Box Blakely's Red Gum Woodland under the BC Act; whereas only 68.3 ha of the native vegetation is consistent with the listing advice for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland under the EPBC Act, as shown in Figure 4.

No additional threatened species were identified during the current surveys. The only threatened species with potential for occurrence in the newly mapped native vegetation within the revised development footprint are some areas which may contain the threatened flora *Dichanthium setosum* and *Thesium australe* (both identified during the EIS). The presence of those threatened flora species will be avoided (consistent with the EIS), and can be managed via a Biodiversity Management Plan.

The final credit requirement resulting from the modified development footprint reflects a reduced impact on woodland vegetation Table 1. It is understood that the credit requirement shall be sought locally from the Windemere Biobank site from PCTs that are 'like for like' with impacted PCTs, being the same EEC under the BC Act and the same CEEC under the EPBC Act.

Heritage

The heritage assessment provided within the EIS was conducted in accordance with the NSW Office of Environment and Heritage (NSW OEH) *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) and *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (NSW DECCW 2010a). The process of Aboriginal community consultation was undertaken in accordance the NSW OEH's Aboriginal cultural heritage consultation requirements for proponents 2010 (NSW DECCW 2010b). Heritage items relative to the revised development footprint are presented in Figure 5.

The heritage specialist responsible for the EIS assessment was engaged to review the revised development footprint. Their revision is included as Attachment 4 of this package. The review concluded the revised development footprint presented no additional heritage issues of concern, and that the assessment, conclusions and mitigations presented in the EIS are consistent with, and applicable to, the impacts proposed as part of the revised development footprint.

Land

The project is located within an undulating landscape, where elevation ranges between 810 - 1000 m Australian Height Datum (AHD). The Site has been historically cleared and grazed for sheep and cattle production and is typical of farmland in the region. A number of stock dams have been developed across the Site. A considerable portion of the revised development footprint has been cultivated for improved pasture and other fodder crops. Surrounding land uses include agriculture, sapphire exploration and mining, and wind farm operations. The Site contains land suitable for grazing and cultivation, and 527 ha is mapped as Biophysical Strategic Agricultural Land (BSAL).

The revised footprint occupies a marginally increased infrastructure footprint of 458.5 ha, which is 12.4 ha (2.7%) larger than that originally assessed within the EIS although most additions are to incorporate existing hardstands i.e. road and laydown area infrastructure. Additional land areas incorporated into the revised development footprint are contiguous with previously assessed land areas and, accordingly, are considered consistent in nature, capability, and hazards to previous assessed land areas.

Despite minor changes to land area, the proposed modification does not alter potential impacts to land resources beyond those assessed within the EIS. As such, existing mitigation measures are considered appropriate to manage potential impacts associated with the final footprint.

Visual

Landforms within the Site consists of undulating hills with relatively low to medium gradients. The landscape grades gently from hillsides with granite outcroppings, to alluvial basins with moderately fertile soils. The valleys are broad and there are no cliffs, escarpments, or gorges within the Site, though some hillsides are relatively steep. Land within the Site and wider landholding has been historically cleared for grazing purposes and much has been sown with improved pastures. There are patches of retained native woodland scattered throughout.

The revised development footprint has a relatively confined area of visibility due to topography and areas of remaining woody vegetation. The Site is generally most visible from elevated areas to the north east and to the west of the Proposed Development area. Views from these locations are generally buffered by distance and vegetation. The Proposed Development site has approximately 3 km of direct road frontage to Waterloo Road and the Western Feeder Road. Topography and vegetation in adjoining public areas naturally obscures potential views of the development site. Distant views and glimpses of the site are possible from Waterloo Road, Western Feeder Road, Eastern Feeder Road, Woodstock Road and Kings Plains Road.

The changes associated with the revised development footprint are considered minor and do not introduce additional visual elements into the landscape beyond what was assessed and presented in the EIS. Much of the changes to the footprint are changes to cabling routes. Where solar array areas have been modified, changes are incremental and do not alter visibility or visual amenity values as previously assessed.

The revised footprint presents similar visibility to that of the development footprint presented in the EIS and is considered unlikely to significantly impact visual amenity at any additional residences (receptors). As such, existing mitigation measures, including ongoing stakeholder consultation and potential landscaping strategies, where necessary, are considered satisfactory to provide low or insignificant visual impacts at all identified receptors.

Noise

The Proposed Development is located within a rural landscape and despite current construction activities associated with SWF, background noise sources and levels are considered to be typical of the rural setting. Two non-associated residences are located within 2 km of the Proposed Development site.

Acoustic modelling indicates that construction noise is attenuated within 2 km of construction activities, and that the highly noise impacted threshold of 75 db(A) is not exceeded at any residences. Changes associated with the revised development footprint do not impact any additional residences within the 2 km boundary distance.

Predicted operational noise levels and mitigation strategies remain unchanged from those assessed as part of the EIS. As such, existing noise level modelling prepared for the EIS remains relevant to the revised development footprint. Given these findings, existing mitigation strategies are considered appropriate for the revised development footprint.

Traffic

The Proposed Development is located north of the Gwydir Highway (B76) approximately halfway between Glen Innes and Inverell. General site access is from the Gwydir Highway via Woodstock Road and/or Waterloo Road, or via Kings Plains Road via Western Feeder Road. Immediate access to site is via Waterloo Road and/or the Western Feeder Road. All intersections within the vicinity of the Site are priority controlled. The intersection between the Gwydir Highway and Waterloo Road has been upgraded to accommodate over-dimensional equipment associated with the construction of the Sapphire Wind Farm, and it is not expected that further upgrades would be required for SSF.

Daily traffic flows recorded on the Gwydir Highway are relatively low and well within the capacity of the road, leaving ample spare capacity to accommodate additional traffic. Existing traffic flows on the local roads within the vicinity of the site are negligible in comparison to the Gwydir Highway.

Construction and operational access for staff and material deliveries to the Site shall be from the Gwydir Highway via Waterloo Road or Woodstock Road. Direct Site access is proposed via Waterloo Road, Woodstock Road and the Western Feeder Road (Figure 6). Over-dimensional loads shall access the Site from the Gwydir Highway via Waterloo Road only.

Material deliveries will depend on day to day constructional requirements. Revised vehicle numbers during construction activities (12-18 months) are estimated to be up to 100 light vehicles and 40 heavy vehicles daily. It is expected that two construction personnel would share a single light vehicle, however car-pooling and use of buses will further reduce these daily requirements. Operational vehicle requirements are estimated to be up to 10 light and 10 heavy vehicles per day.

This represents an increase over the number of heavy vehicles estimated in the impact assessment presented in the EIS (which was up to 30 heavy vehicles per day during construction). Vehicle movements during construction would be managed to minimise impacts on local road users during periods of peak public use (7:30 am-8:30 am and 4:00 pm-6:00 pm). Traffic management plans shall be prepared to limit construction vehicle movements to not more than 75 movements during each period.

The traffic consultants responsible for the assessment in the EIS (TTM Consulting) have revised the Traffic Assessment prepared for the EIS and conclude that these proposed changes remain consistent with the assessment provided within the EIS and that potential impacts can be managed through the application of the existing mitigation controls and strategies identified within the EIS (refer to Attachment 5 of this package).

Water Resources

The Proposed Development is located within the upper tributaries of the Macintyre River, part of the Border Rivers Catchment. The Proposed Development occurs in the area covered by the *Water Sharing Plan for the NSW Border Rivers Unregulated and Alluvial Water Sources*. The majority of the site is located within the Kings Plains Surface Water Source, with a small southern portion falling within the Inverell Surface Water Source.

The revised development footprint generally does not alter previously assessed potential impacts to water resources, as the changes to the footprint are both incremental and minor in nature, and are located away from defined streams. The main change is the identification of a second crossing of Kings Plains Creek. As with previous mitigation strategies, all stream crossing will be undertaken in accordance with recognised best practice guidelines in order to minimise impacts on hydrology, ecology and water quality associated with the site. Elsewhere, minor amendments to the development footprint have increased riparian setbacks to Horse Gully and Mary Anne Creek.

Given the minor nature of the changes associated with the revised development footprint, it is concluded that the existing mitigation strategies identified within the EIS remain appropriate to remain appropriate to manage potential impacts to water resources.

Hazards and Risks

Hazards and risk assessments in the EIS considered battery storage systems, bushfire and electrical fire and electromagnetic interference.

The proposed changes to the development footprint do not include altering the technologies on which the hazard and risk assessment was based, rather a redesign of the battery facility layouts and cable routes throughout the site. These changes are minor in nature, and do not alter the findings and recommendations of the EIS (refer to Attachment 6 of this package).

Waste

Key resources required for the Proposed Development include gravel, sand, metal, glass, silicon and water. The supply of these materials is not currently limited or restricted, and the likely quantities required by the Proposed Development are unlikely to place significant pressure on necessary resources.

The changes proposed in the revised development footprint are minor and do not alter the findings or waste management practices recommendations provided within the EIS.

Socio-Economic

SSF would have an overall positive impact on the local and wider economy during the construction period. Construction will take up to 18 months and up to 200 staff will be required. The construction and decommissioning stages of the Proposed Development will generate the largest economic gain for the greatest number of people and businesses in adjoining Local Government Areas. This is due to the hiring of a large temporary work force over these periods. Employment opportunities would involve concreting, earthworks, steel works and electrical cabling during construction, with demolition and removal during decommissioning.

The changes proposed in the revised development footprint are minor and do not alter the findings and recommendations made within the EIS.

Cumulative Impacts

The Proposed Development is co-located with the Sapphire Wind Farm and is situated within the New England Renewable Energy Precinct. Other renewable energy projects within the precinct include:

- Glen Innes Wind Farm – approved;
- White Rock Wind Farm – operational;
- White Rock Solar Farm – under construction; and
- Sundown Solar Farm – SEARs issued.

The potential for cumulative impacts are considered and assessed within the EIS. It is concluded that the changes proposed in the revised development footprint are minor and do not alter the findings and recommendations of the EIS.

3. Conclusion

This assessment concludes that the revised development footprint is substantially the same development as for which the EIS was prepared, and that potential additional impacts and constraints associated with the revised development footprint are minimal (Figure 7). As such, the implementation of the existing proposed mitigation actions are considered appropriate to manage potential impacts associated with the revised development footprint.

Should you have any questions in relation to this matter, please contact me by email robertc@ecoaus.com.au or phone 02 8081 2689.

Yours sincerely,



Robert Cawley

Senior Consultant – Eco Logical Australia

Table 1 Updated direct loss of native vegetation and Biodiversity Credit requirements (BC Act and EPBC Act)

Zone	PCT name	BC Act	EPBC Act	EIS Development Footprint (January 2018)		Revised Development Footprint (July 2018)		
				Area (ha)	Credit required	Area (ha)	Credit required (BC Act)	Credit required (EPBC Act) ¹
1	BR240: White Box grassy woodland of the Nandewar Bioregion and Brigalow Belt South Bioregion	EEC	0.94 ha of the vegetation zone comply with the CEEC	3.89	73	2.9	54	18
2	BR240: White Box grassy woodland of the Nandewar Bioregion and Brigalow Belt South Bioregion - DNG	EEC	30.01 ha of the vegetation zone comply with the CEEC	41.2	0	41.8	0	470
3	BR272: Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion	EEC	7.38 ha of the vegetation zone comply with the CEEC	10.58	170	9.9	159	119
4	BR272: Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion - DNG	EEC	0.18 ha of the vegetation zone comply with the CEEC	19.75	0	19.9	0	2
5	BR153: Manna Gum - Rough-barked Apple - Yellow Box grassy woodland/open forest of the New England Tableland Bioregion and NSW North Coast Bioregion	EEC	15.59 ha of the vegetation zone comply with the CEEC	15.83	419	16.7	442	413
6	BR153: Manna Gum - Rough-barked Apple - Yellow Box grassy woodland/open forest of the New England Tableland Bioregion and NSW North Coast Bioregion - DNG	EEC	14.2 ha of the vegetation zone comply with the CEEC	12.85	0	16.0	0	150
Total				104.1	662	107.3	655	1,172

1 – Credit required is calculated as a ratio based on the % area which is EPBC Act listed Box Gum Woodland. Rounded to zero decimal places.

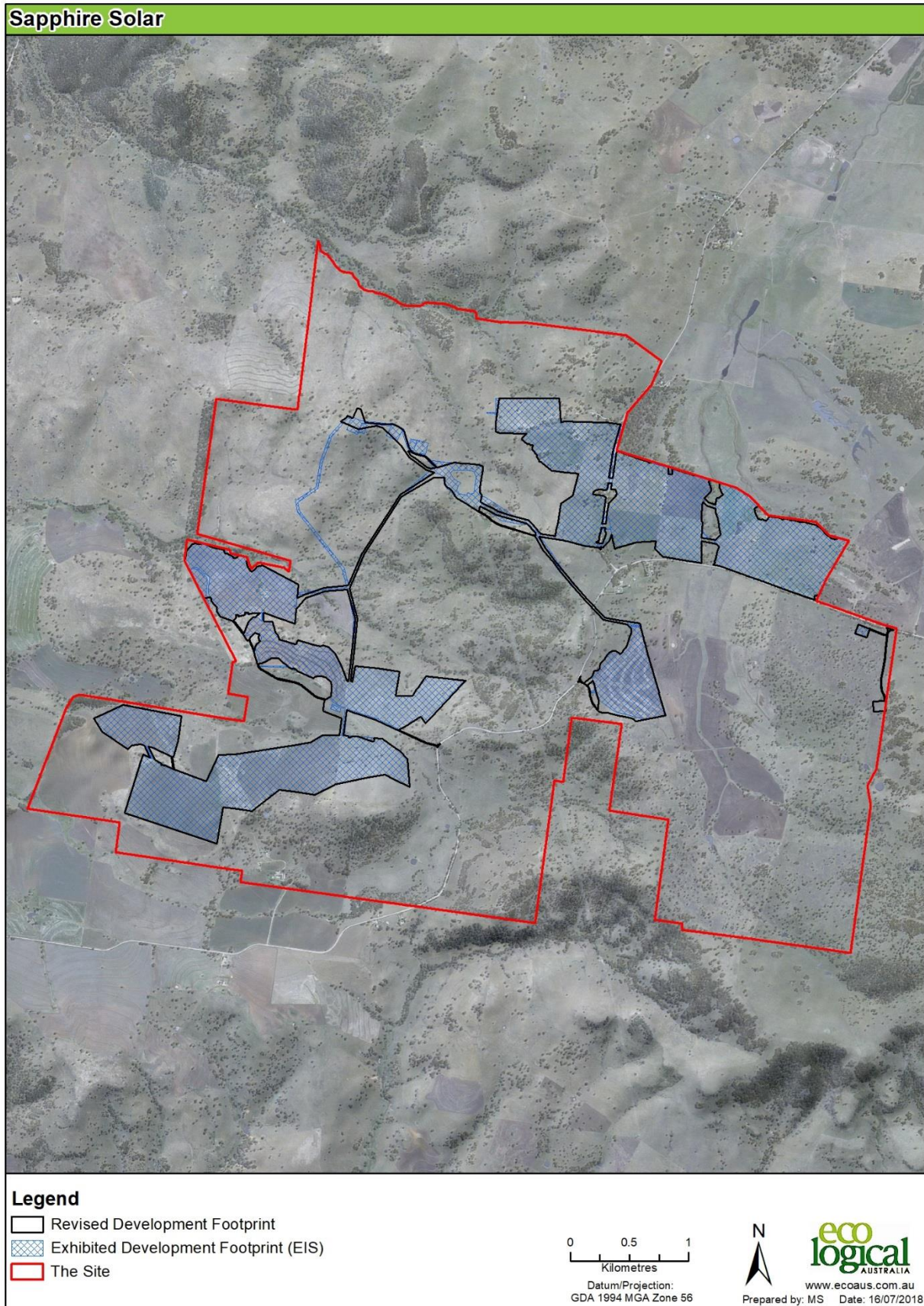


Figure 1. Changes to development footprint compared with EIS

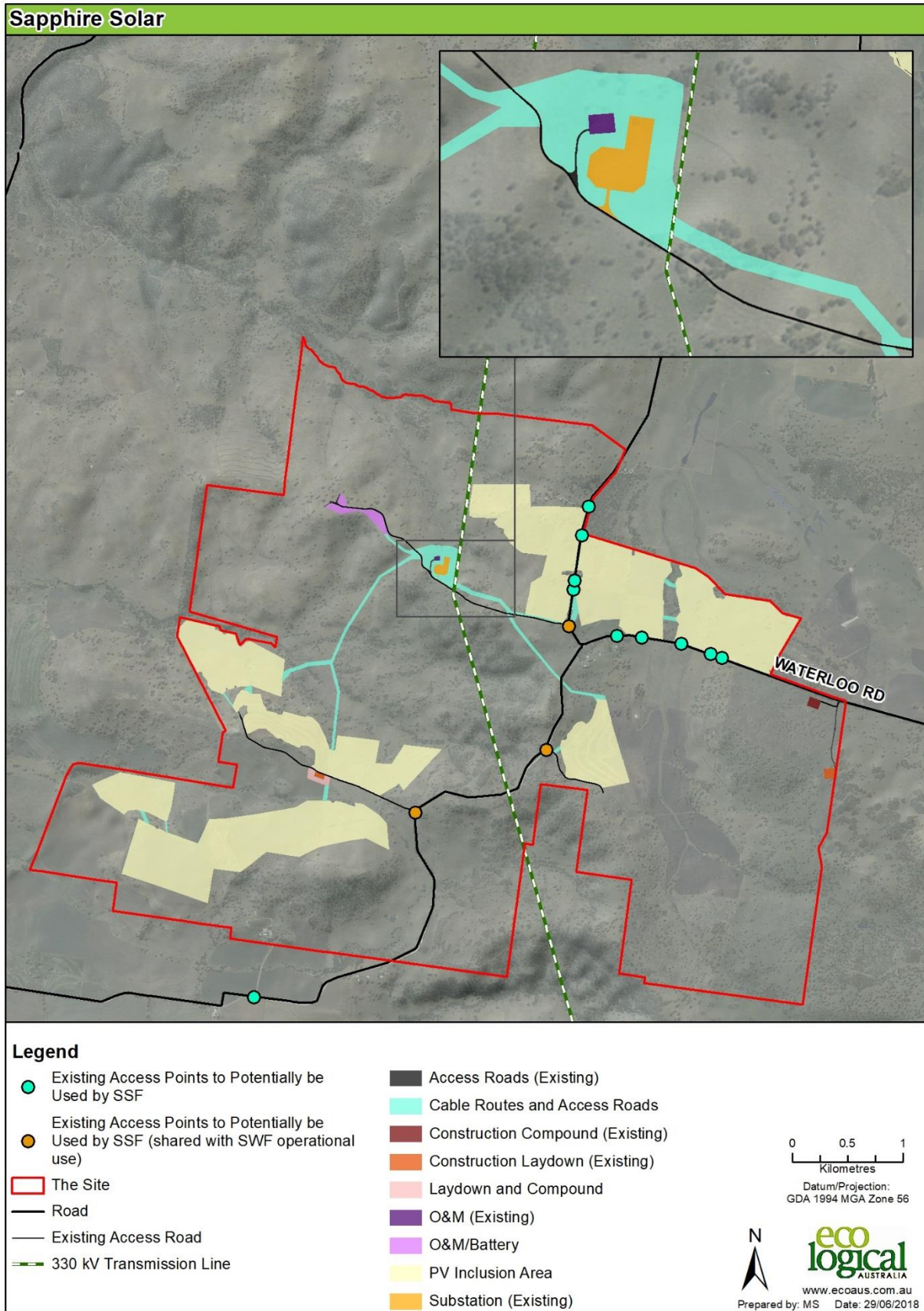


Figure 2. Revised development footprint

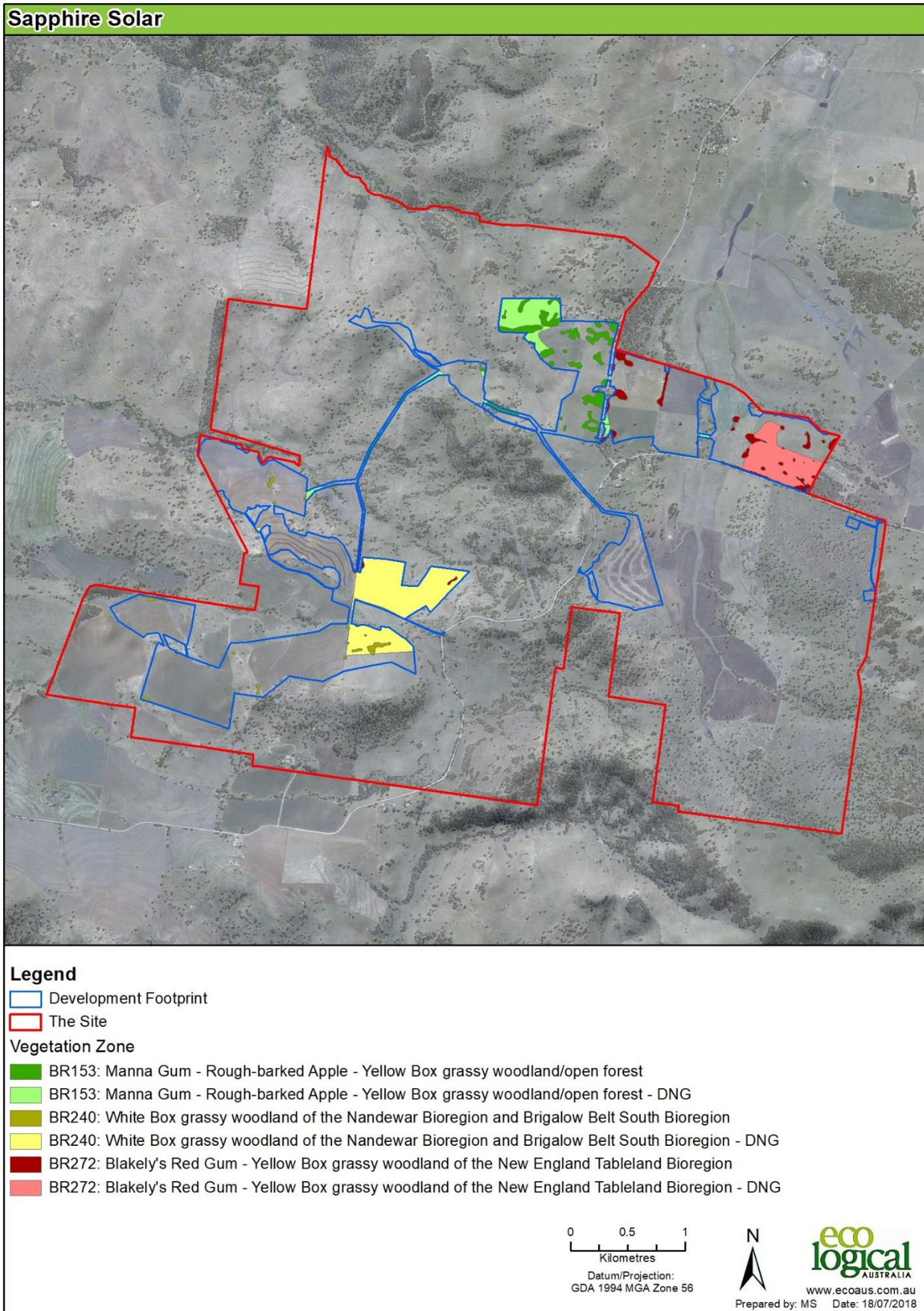


Figure 3. Native vegetation to be impacted

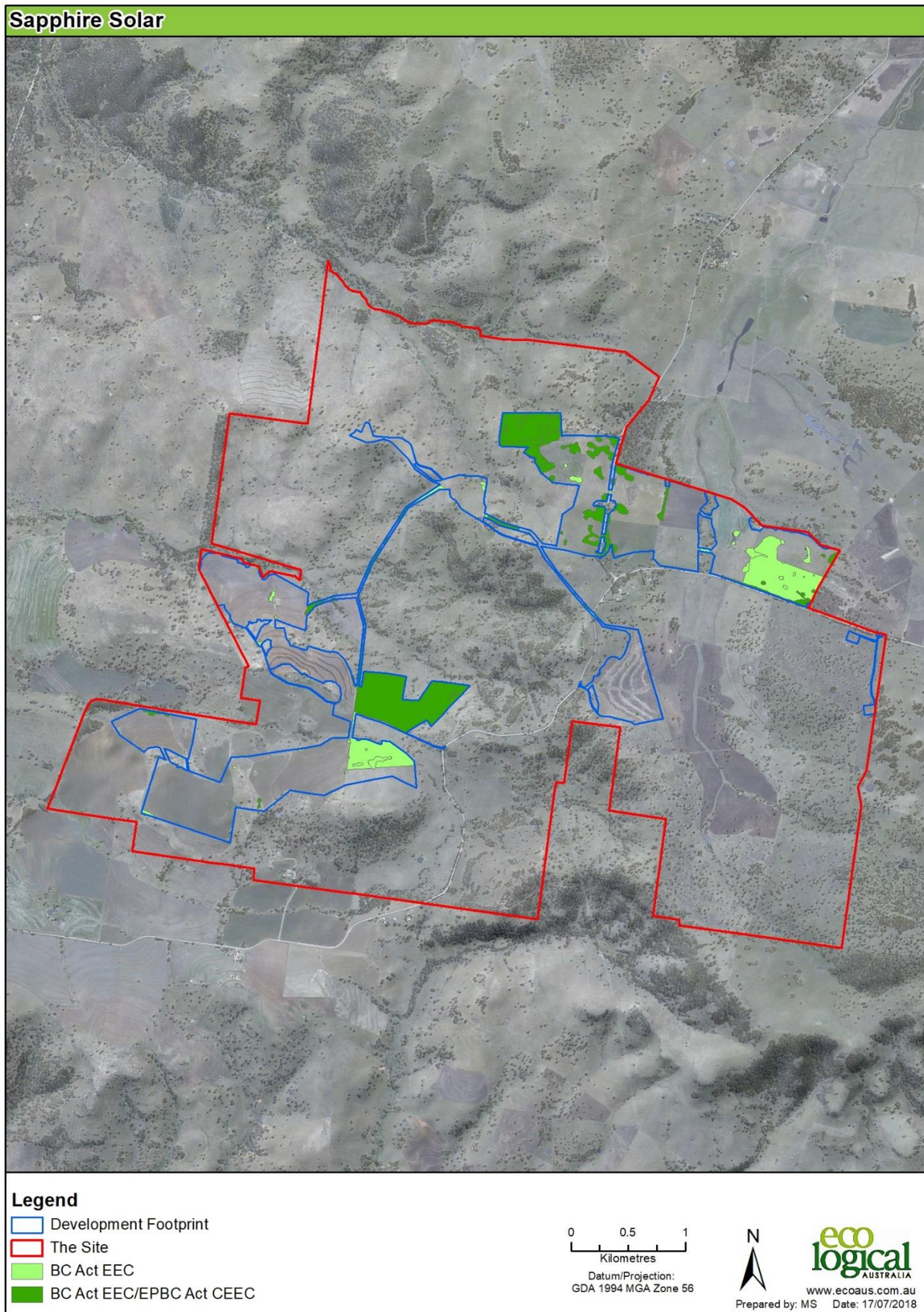


Figure 4. Threatened ecological communities

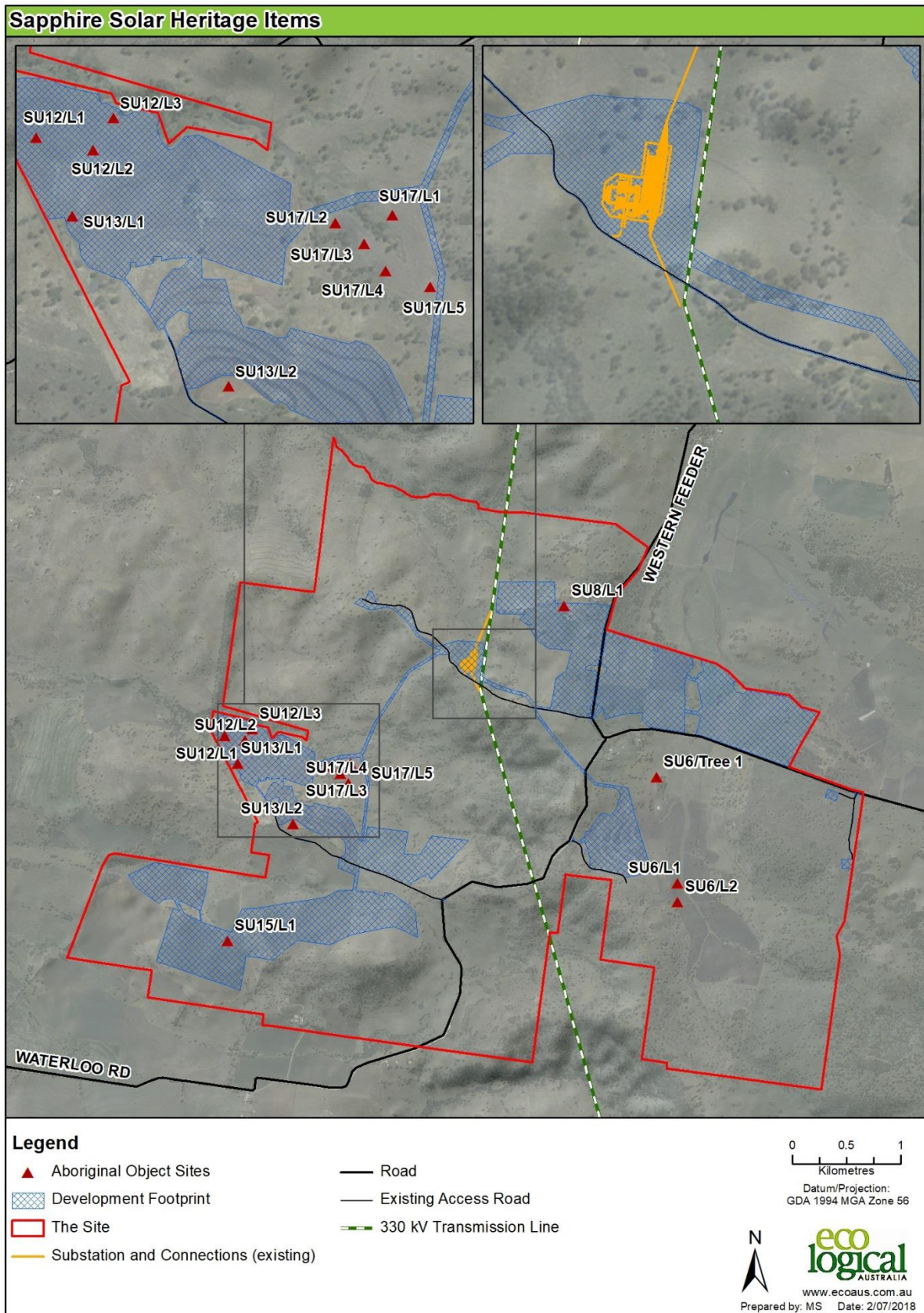


Figure 5. Heritage sites

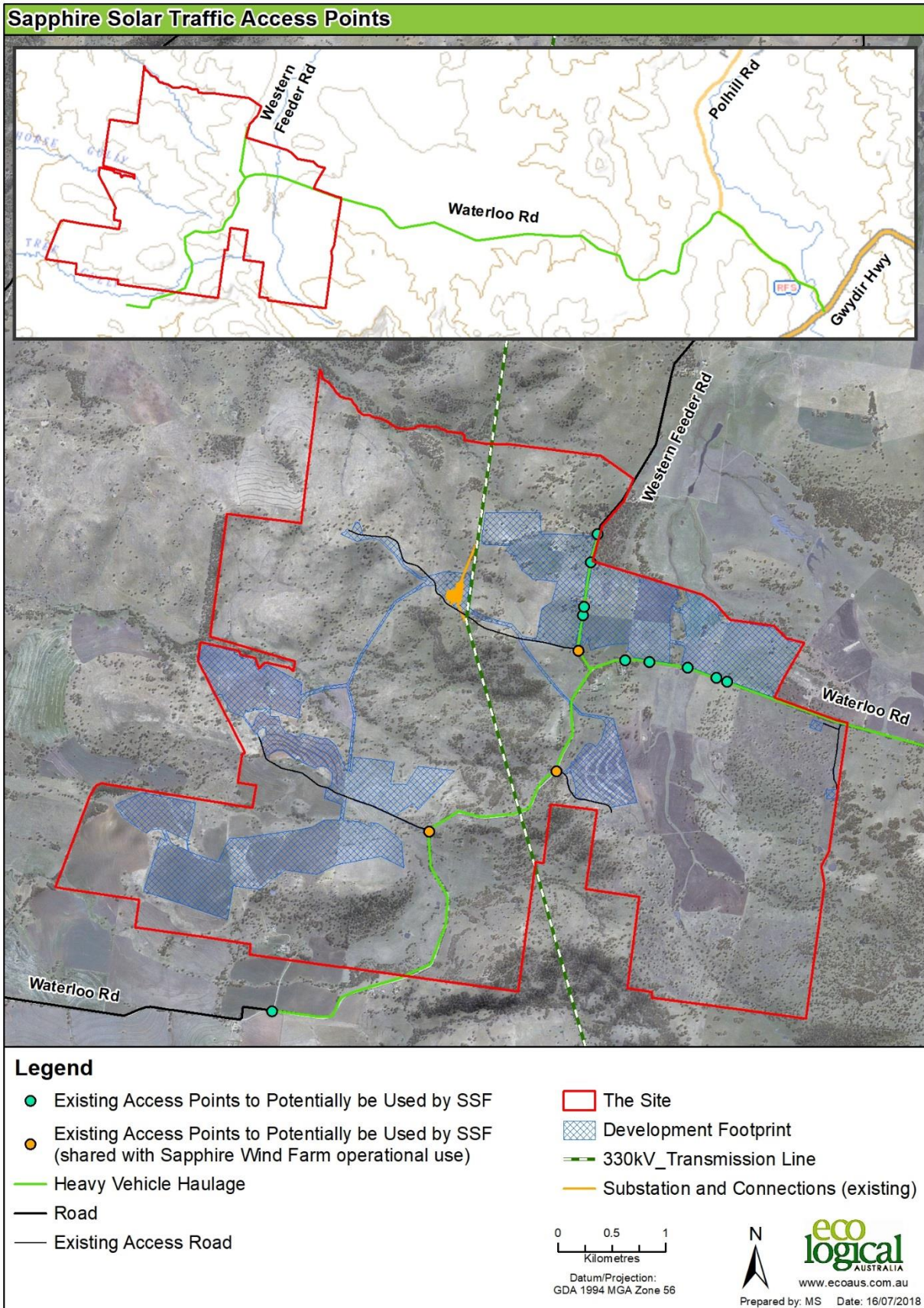


Figure 6. Traffic access

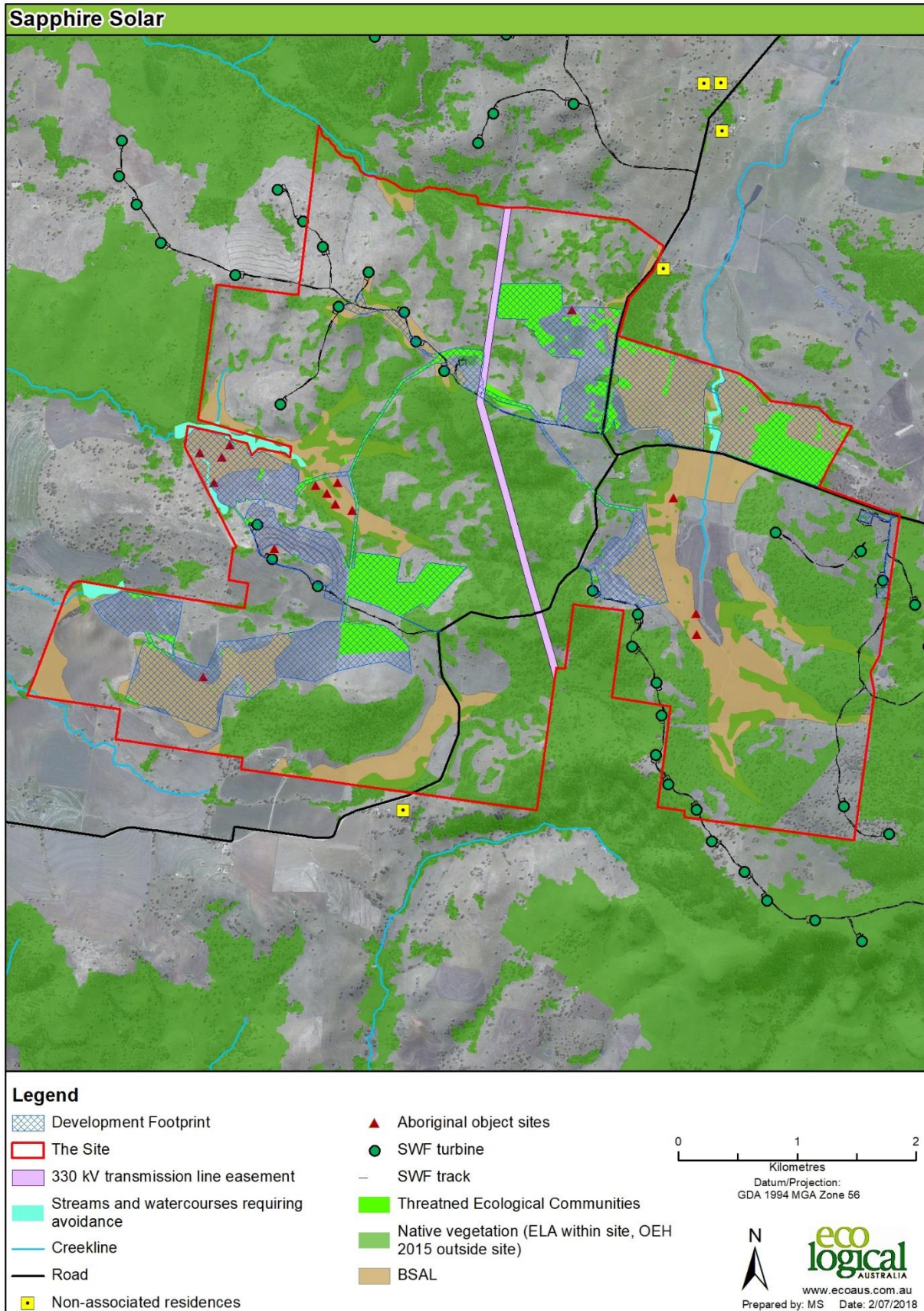


Figure 7. Development site constraints



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Attachment 3

Biodiversity review

Elle Donnelley
NSW Department of Planning & Environment
320 Pitt Street
Sydney NSW 2001

17ARM8233

19 July 2018

Dear Elle,

Sapphire Solar Farm SSD8643 – Revised biodiversity impact summary

Eco Logical Australia Pty Ltd (ELA) was engaged to undertake a biodiversity assessment of the proposed development near Kingsland NSW known as the Sapphire Solar Farm (SSF; the project). The proposed development of the solar farm has been declared a State Significant Development (SSD - 8643), and as such the environmental impacts of the proposal are to be assessed under Division 4.1 of the NSW *Environmental Planning and Assessment Act 1979*.

As a SSD (and consistent with the SEARs), the biodiversity impacts of the proposed development must be assessed under the Framework for Biodiversity Assessment (FBA; OEH 2014) and a Biodiversity Assessment Report (BAR) must be prepared. The purpose of the BAR is to assess the impacts to biodiversity, propose mitigating and ameliorating options, as well as calculate offsets for unavoidable residual impacts. The BAR was submitted as a technical report appended to the Environmental Impact Statement (EIS) which was placed on public exhibition from 29 January 2018 to 28 February 2018.

The footprint presented within the EIS considered the biodiversity values known to occur within the development site, and where possible avoided areas of native vegetation, threatened species, and their habitats. In particular, the project avoided (where possible) areas of Threatened Ecological Communities (TECs; being either Endangered Ecological Communities (EECs) or Critically Endangered Ecological Communities (CEECs)) and known threatened species habitats.

The revised development footprint is an iteration to the project design exhibited in the EIS, and provides a development footprint which allows calculation of the 'maximum', or 'worst case' biodiversity impacts from the proposed development. In revising the development footprint, effort has been made to avoid drainage lines, high quality vegetation, and known threatened species records.

The purpose of this letter is to summarise the biodiversity impacts of the revised development footprint.

To provide a comprehensive assessment of the revised footprint, ELA botanist David Allworth attended site on 22 – 23 June 2018 to review the vegetation types present in the additional areas of the revised development footprint which were not included in the in the EIS (and subsequently the BAR). The purpose of the site inspection was to:

- Determine the most suitable Plant Community Type (PCT) within those additional impact areas;
- Assess the condition of any additional areas, and the correspondence of any PCT to a Threatened Ecological Community under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act);
- Review the suitability of habitat for threatened species in any additional impact areas; and
- Identify any threatened species present (if any, understanding the current seasonal timing)

The additional areas have been incorporated into the revised development footprint to provide for a complete impact assessment that considers all impacts to native vegetation, TECs, and threatened species. The results of the revised development footprint and the extent of vegetation to be impacted is shown in **Table 1** and on **Figure 1**.

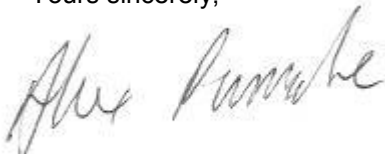
The revised development footprint covers 458.5 ha, of which, 7.5 ha is existing infrastructure (including access tracks and hardstands). Of the remaining 451 ha, 107.3 ha is native vegetation (**Figure 2**). A breakdown of those native vegetation types is provided in **Table 1**. All of the mapped PCTs within the development footprint are consistent with the final determination for White Box Yellow Box Blakely's Red Gum Woodland under the BC Act; whereas only 68.3 ha of the native vegetation is consistent with the listing advice for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland under the EPBC Act, as shown in **Figure 3**.

No additional threatened species were identified during the current surveys. This is largely a result of the timing of surveys outside the flowering period for most threatened flora species that have potential to occur.

The only threatened species with potential for occurrence in the newly mapped native vegetation within the revised development footprint are some areas which may contain the threatened flora *Dichanthium setosum* and *Thesium australe* (both identified during the EIS (**Figure 4**)). No other threatened flora species have the potential to occur. The presence of those threatened flora species will be avoided (consistent with the EIS), and can be managed via a Biodiversity Management Plan.

Based on the revisions to the development site, as well as the recent field inspections ELA has recalculated the credit requirement for the project. This recalculation has been presented in **Table 1** below. The final credit requirement has resulted in a modified development footprint that has a reduced impact on woodland vegetation. A copy of the BioBanking Credit Report has also been appended to this letter. It is understood that the Windemere Biobank site (local to the impact area) will provide offsets for the project from PCTs that are 'like for like' with impacted PCTs, being the same EEC under the BC Act and the same CEEC under the EPBC Act.

Yours sincerely,



Alex Pursche

Senior Ecologist

Table 1 Updated direct loss of native vegetation and Biodiversity Credit requirements (BC Act and EPBC Act)

Zone	PCT name	BC Act	EPBC Act	EIS Development Footprint (January 2018)		Revised Development Footprint (July 2018)		
				Area (ha)	Credit required	Area (ha)	Credit required (BC Act)	Credit required (EPBC Act) ¹
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Total				104.1	662	107.3	655	1,172

1 – Credit required is calculated as a ratio based on the % area which is EPBC Act listed Box Gum Woodland. Rounded to zero decimal places.

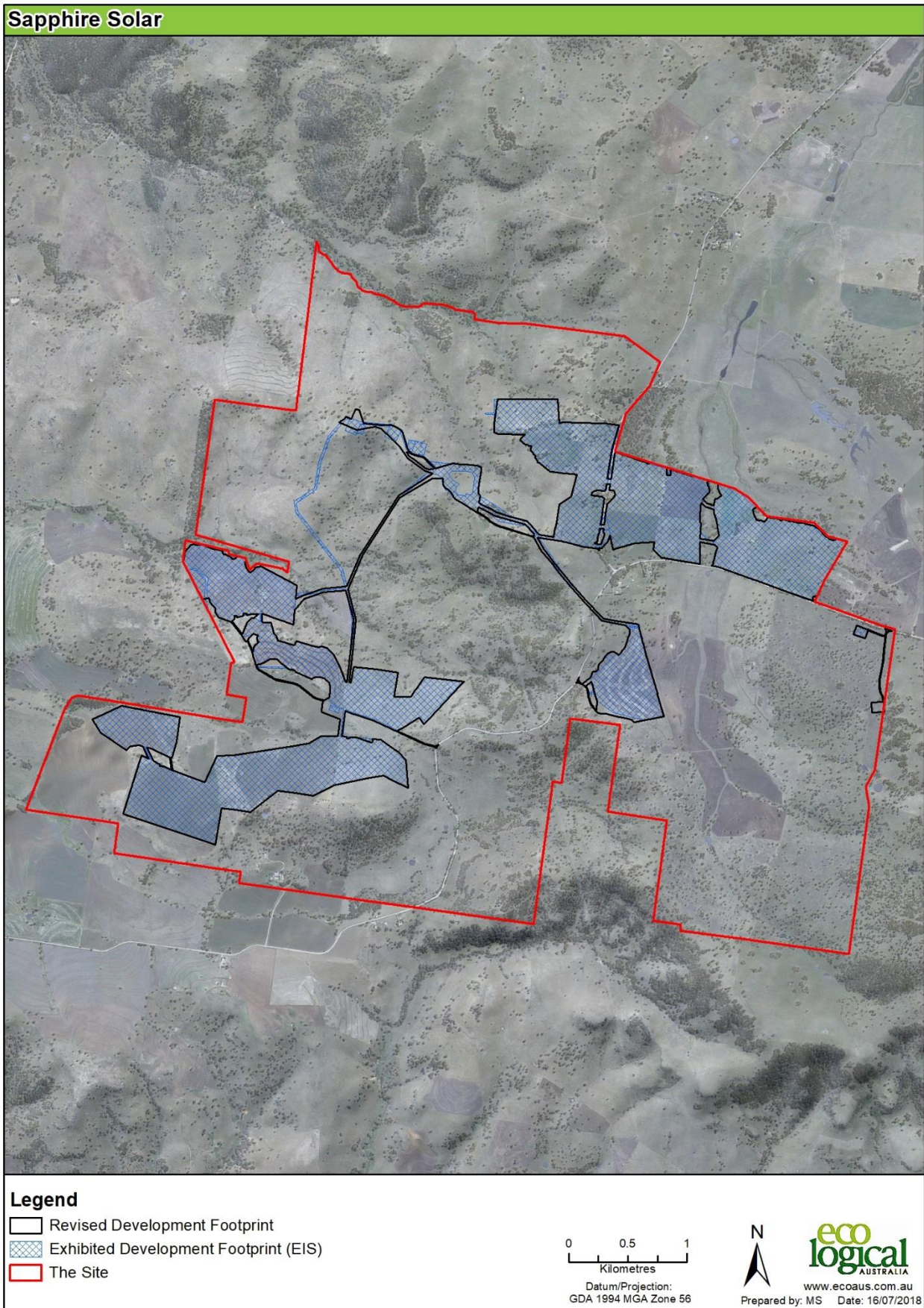


Figure 1. EIS and Final development site boundaries

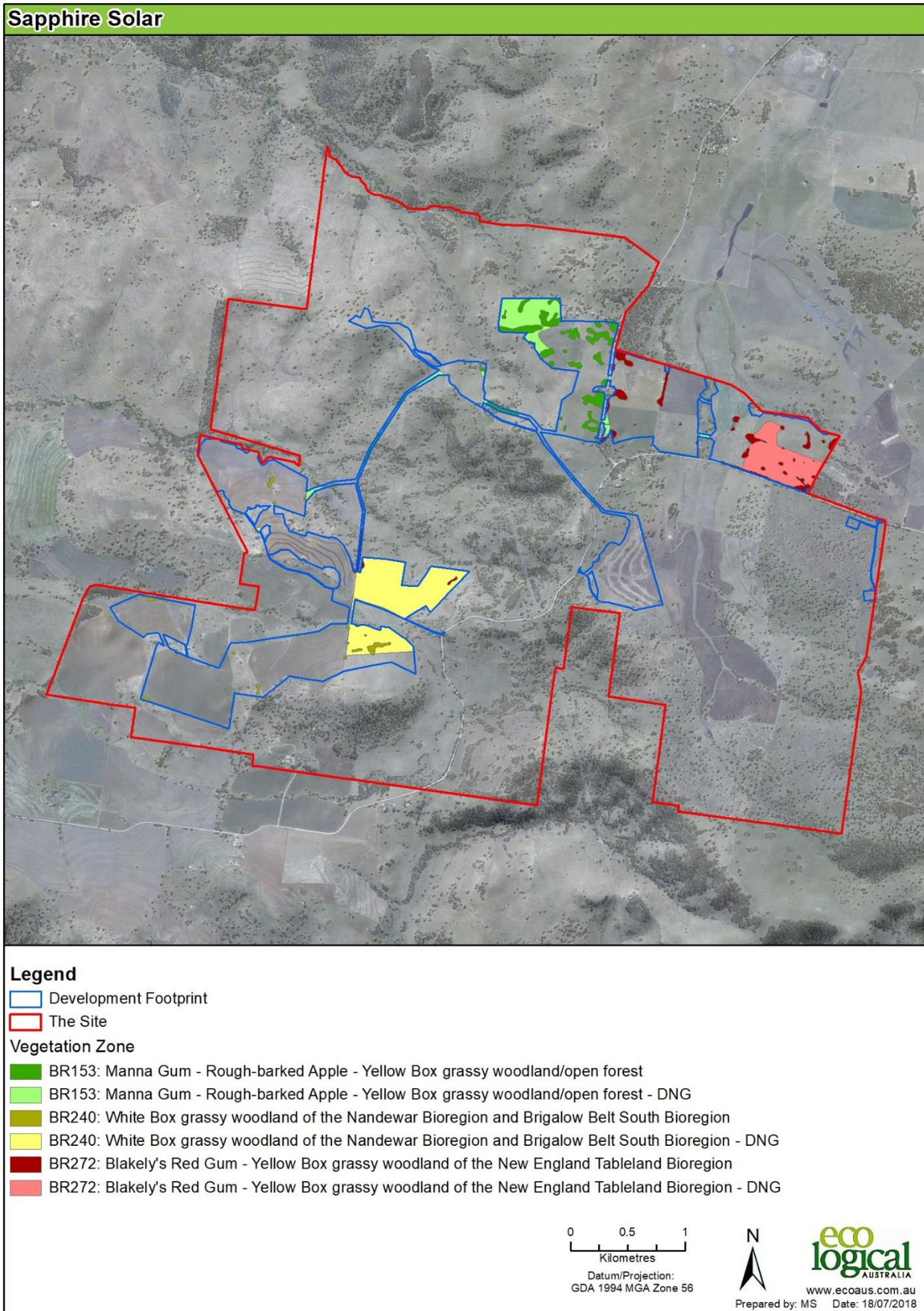


Figure 2. Native vegetation to be impacted under revised development footprint

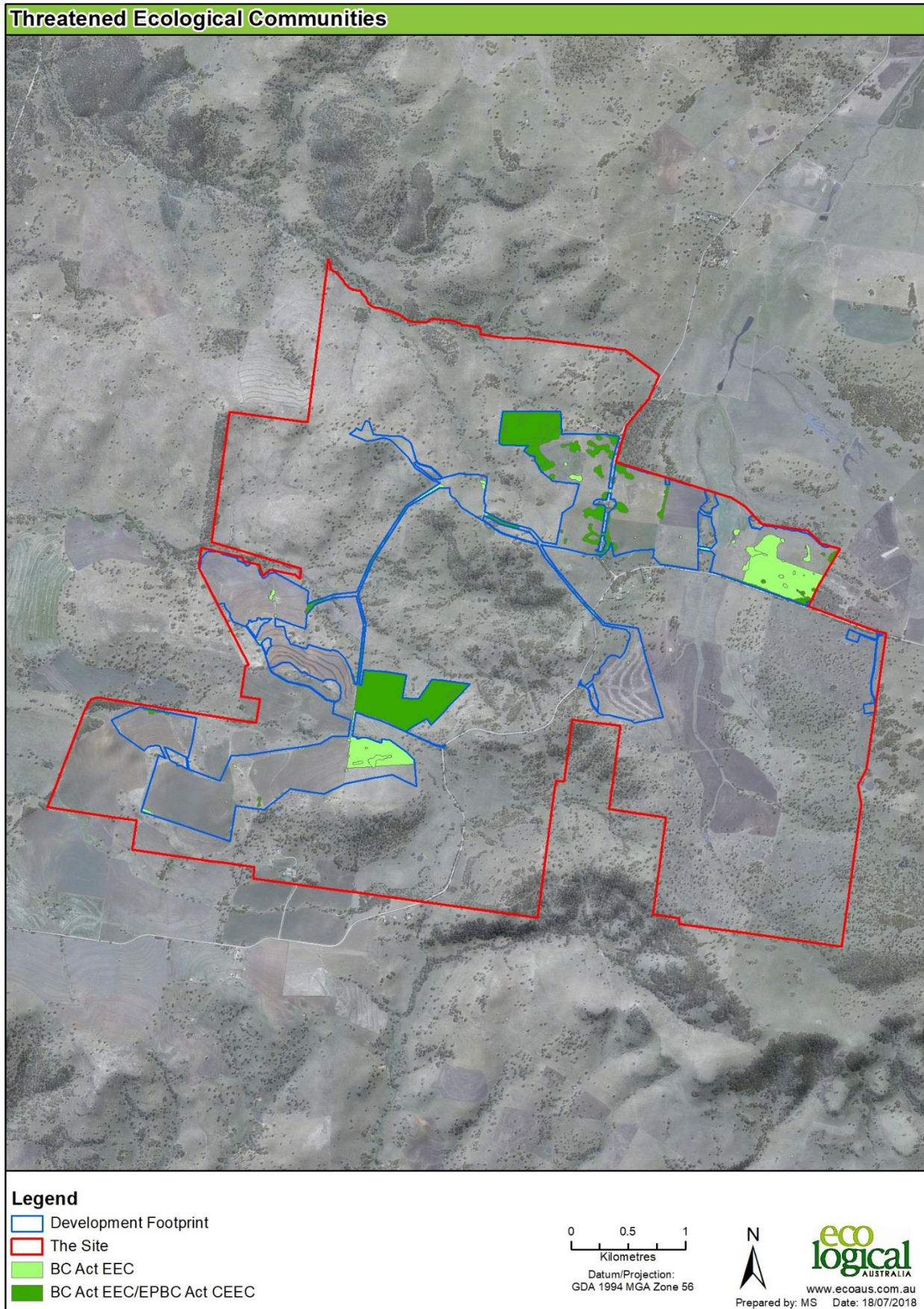


Figure 3 Threatened ecological communities

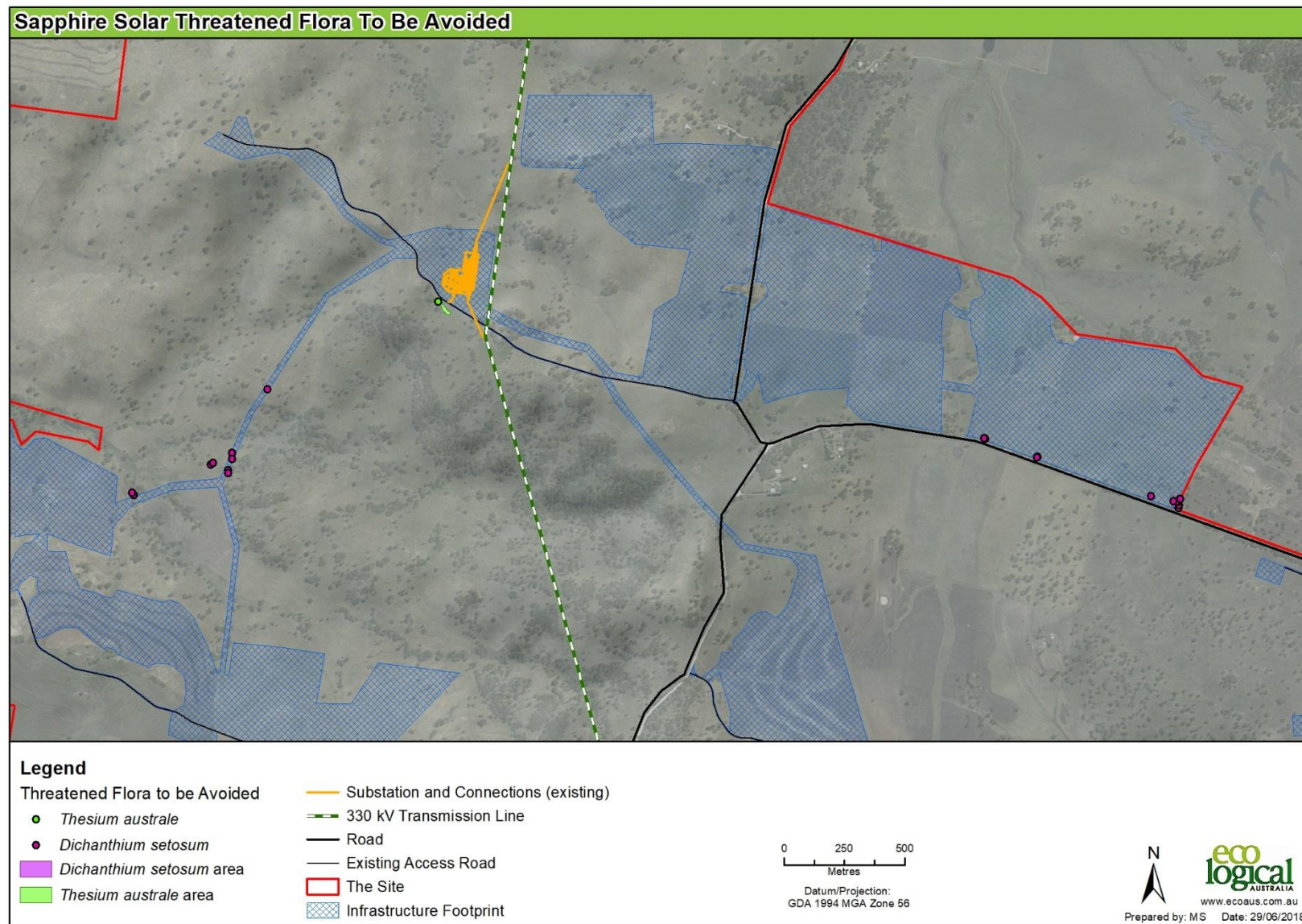


Figure 4 Threatened flora identified within the development site

Biodiversity credit report



This report identifies the number and type of biodiversity credits required for a major project.

Date of report: 18/07/2018

Time: 5:04:33PM

Calculator version: v4.0

Major Project details

Proposal ID: 227/2017/4602MP
Proposal name: Sapphire Solar Farm - SSD8643
Proposal address: Waterloo Road Kingsland NSW 2370

Proponent name: CWP Solar Pty Ltd
Proponent address: PO Box 1708 Newcastle NSW 2300
Proponent phone: 02 4013 4640

Assessor name: Alex Pursche
Assessor address: Suite 28 & 29, Level 7 19 Bolton Street Newcastle NSW 2300
Assessor phone: +61 2 4910 3406
Assessor accreditation: 227

Summary of ecosystem credits required

Plant Community type	Area (ha)	Credits created
Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion	29.80	159.00
Manna Gum - Rough-barked Apple - Yellow Box grassy woodland/open forest of the New England Tableland Bioregion and NSW North Coast Bioregion	32.70	442.00
White Box grassy woodland of the Nandewar Bioregion and Brigalow Belt South Bioregion	44.70	54.44
Total	107.20	655

Credit profiles

1. Manna Gum - Rough-barked Apple - Yellow Box grassy woodland/open forest of the New England Tableland Bioregion and NSW North Coast Bioregion, (BR153)

Number of ecosystem credits created

442

IBRA sub-region

Glen Innes-Guyra Basalts

Offset options - Plant Community types	Offset options - IBRA sub-regions
<p>Manna Gum - Rough-barked Apple - Yellow Box grassy woodland/open forest of the New England Tableland Bioregion and NSW North Coast Bioregion, (BR153)</p> <p>Black Sallee grassy woodland of the New England Tableland Bioregion, (BR112)</p> <p>Snow Gum - Black Sallee grassy woodland of the New England Tableland Bioregion, (BR218)</p> <p>Snow Gum - New England Peppermint grassy open forest of the New England Tableland Bioregion, (BR220)</p> <p>Black Sallee - Snow Gum grassy woodland of the New England Tableland Bioregion, (BR269)</p> <p>Candlebark - Ribbon Gum grassy woodland of the New England Tableland Bioregion, (BR279)</p> <p>New England Peppermint grassy woodland on sedimentary or basaltic substrates of the New England Tableland Bioregion, (BR319)</p> <p>Ribbon Gum - Mountain Gum - Snow Gum grassy open forest or woodland of the New England Tableland Bioregion, (BR329)</p> <p>Mountain Gum - Ribbon Gum open forest of drainage lines of the southern New England Tableland Bioregion, (BR307)</p>	<p>Glen Innes-Guyra Basalts</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>

2. White Box grassy woodland of the Nandewar Bioregion and Brigalow Belt South Bioregion, (BR240)

Number of ecosystem credits created

54

IBRA sub-region

Glen Innes-Guyra Basalts

Offset options - Plant Community types	Offset options - IBRA sub-regions
<p>White Box grassy woodland of the Nandewar Bioregion and Brigalow Belt South Bioregion, (BR240)</p> <p>Fuzzy Box woodland on colluvium and alluvial flats in the Brigalow Belt South Bioregion (including Pilliga) and Nandewar Bioregion, (BR141)</p> <p>Grey Box - Blakely's Red Gum - Yellow Box grassy open forest of the Nandewar Bioregion and New England Tableland Bioregion, (BR144)</p> <p>White Cypress Pine - Silver-leaved Ironbark grassy woodland of the Nandewar Bioregion, (BR244)</p> <p>Carbeen - White Box +/- Silver-leaved Ironbark grassy tall woodland on basalt hills, Brigalow Belt South Bioregion, (BR280)</p> <p>Silver-leaved Ironbark grassy tall woodland on clay-loam soils on plains in the Brigalow Belt South Bioregion, (BR350)</p> <p>Grey Box grassy woodland or open forest of the Nandewar Bioregion and New England Tableland Bioregion, (BR296)</p> <p>White Box - White Cypress Pine - Silver-leaved Ironbark grassy woodland on mainly clay loam soils on hills mainly in the Nandewar Bioregion, (BR388)</p> <p>White Box grassy woodland on the Inverell basalts mainly in the Nandewar Bioregion, (BR391)</p>	<p>Glen Innes-Guyra Basalts</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>

3. Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion, (BR272)

Number of ecosystem credits created

159

IBRA sub-region

Glen Innes-Guyra Basalts

Offset options - Plant Community types	Offset options - IBRA sub-regions
<p>Blakely's Red Gum - Yellow Box grassy woodland of the New England Tableland Bioregion, (BR272)</p> <p>Broad-leaved Stringybark - Blakely's Red Gum grassy woodlands of the New England Tableland Bioregion, (BR121)</p> <p>Rough-barked Apple - Cabbage Gum grassy woodland of the New England Tableland Bioregion, (BR334)</p> <p>Ribbon Gum - Rough-barked Apple - Yellow Box grassy woodland of the New England Tableland Bioregion and NSW North Coast Bioregion, (BR330)</p>	<p>Glen Innes-Guyra Basalts</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>



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Attachment 4

Heritage review

Addendum
Sapphire Solar Farm
Kings Plains via Inverell, NSW
Aboriginal Cultural Heritage Assessment Report

Date: 28 June 2018
Author: Dr Julie Dibden
Proponent: CWP Solar Pty Ltd
Local Government Area: Inverell



TABLE OF CONTENTS

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2. HERITAGE CONTEXT	3
3. ASSESSMENT METHODS AND RESULTS	4
4. CONCLUSIONS AND RECOMMENDATIONS	4
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1. INTRODUCTION

New South Wales Archaeology Pty Ltd conducted an Indigenous and Non-Indigenous cultural heritage assessment of the proposed Sapphire Solar Farm (Dibden 2018). The report formed a component of an Environmental Impact Assessment (EIS) to support a Development Application to build and operate a utility-scale photovoltaic solar farm with battery storage at Kings Plains, 30 km east of Inverell in northern NSW.

The development footprint has been altered slightly since the EIS was prepared. This addendum report is a desktop assessment of these minor changes.

It is noted however, that the majority of the changes occur within Survey Units which have been surveyed and assessed previously during the preparation for the EIS. Any residual unsurveyed areas are negligible in size.

2. HERITAGE CONTEXT

A brief summary of the original cultural heritage assessment of the Sapphire Solar Farm conducted by NSW Archaeology Pty Ltd is provided below (see Dibden 2018).

The heritage assessment was conducted in accordance with the NSW Office of Environment and Heritage (NSW OEH) Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011) and Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (NSW DECCW 2010a). The historic heritage assessment referred to the NSW Heritage Manual.

A process of Aboriginal community consultation was undertaken in accordance the NSW OEH's Aboriginal cultural heritage consultation requirements for proponents 2010 (NSW DECCW 2010b).

A search of the NSW OEH Aboriginal Heritage Management Information System (AHIMS) revealed some 27 Aboriginal object sites (some are duplicate listings) listed for the search area, none of which occur in the proposed solar farm footprint. No listed historic heritage is present in the subject area.

A field survey for Aboriginal areas, objects and places was conducted. The subject area was found to be highly disturbed by agricultural land use and, in some areas, by previous sapphire mining. A total of 15 low density stone artefact locales, most of which are isolated finds, were recorded. Generally, the subject area was found to be of relatively low archaeological sensitivity and significance.

One historic item has been recorded. It does not satisfy criteria for heritage listing and is situated outside areas of impact.

The assessment concluded that the land in which impacts would occur is highly disturbed by previous land use and/or natural geomorphological processes. The Aboriginal object locales and the low density artefact distribution in the subject area does not surpass archaeological significance thresholds which would act to preclude the proposal.

The original survey results and impact assessment, as described above, form the basis for the desktop assessment documented in this report.

3. ASSESSMENT METHODS AND RESULTS

Virtually all of the proposed minor changes are located within Survey Units which have been subject to the original survey and assessment. Any of the changes not located within previously surveyed areas are negligible in extent. It is noted also that there are many elements of ‘existing infrastructure’ that be used which are there because they are from the existing wind farm and are therefore not ‘new’ development insofar as they won’t be new disturbances.

Given the extensive previous survey coverage, as well as a consideration of the local environment and predicted Aboriginal land use (see Dibden 2018), the paucity of stone artefacts found was assessed to be a generally accurate reflection of the artefactual status of the proposal area. That is, the proposed impact areas were assessed to contain very low density artefact distribution.

The negligible unsurveyed areas in which layout changes occur traverse comparable landforms to those originally surveyed. The survey assessment and results can be extrapolated with a high level of confidence to be comparable to the unsurveyed areas.

Accordingly, based on the relevant predictive model of site distribution, the proposed minor changes are assessed to be of negligible potential to cause harm to cultural and archaeological values.

4. CONCLUSIONS AND RECOMMENDATIONS

It cannot be discounted that there is the potential for stone artefacts to be present in the areas of the proposed changes. However, in accordance with the predicted artefact densities of the landforms in question, artefact density is predicted to be very low.

It is concluded that the proposed changes have low potential to cause impacts to Aboriginal archaeological and cultural values.

Owing to the low archaeological significance of the impacts associated with the proposed changes, it is proposed that no changes to the current recommendations for heritage are required.

5. REFERENCES

Dibden, J. 2018 Sapphire Solar Farm Kings Plains via Inverell, NSW.
Aboriginal Cultural Heritage Assessment Report



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Attachment 5

Traffic review



19 July 2018
Our Ref: 17SYT0127
Your Ref:

Attention: Mr Robert Cawley

Eco Logical Australia Pty Ltd
PO Box 1927
Armidale NSW 2350

Dear Robert,

RE: Sapphire Solar Farm - Traffic Assessment

TTM Group were engaged to prepare a technical report on the potential traffic impacts (including a road safety audit) of the proposed Sapphire Solar Farm. This was included in the project's EIS exhibited in **early 2018**. TTM understands that in the period since the EIS, the Department of Planning and Environment have requested additional information and clarity on a number of matters relating to traffic. These include:

- Revisions to vehicle movement numbers
- Refinements to proposed site access points
- Information on vehicle use of public roads within the site

The purpose of this letter is to provide details of the above, with an assessment of the currency and relevance of the impact assessment undertaken in the EIS.

Proposed Vehicle Movements

Material deliveries will depend on day to day constructional requirements. The EIS reported estimated traffic volumes by the project of 100 light vehicles and 30 heavy vehicles daily. The proponent has revised the traffic estimates and expects those vehicle numbers to be 100 light vehicles and 40 heavy vehicles per day entering and leaving the site during construction activities (12-18 months). It is expected that two construction personnel would share a single light vehicle, however car-pooling and use of buses will further reduce these daily requirements. Operational vehicle requirements are estimated to be up to 10 light and 10 heavy vehicles per day.

This represents an increase over the number of heavy vehicles estimated in the impact assessment presented in the EIS from 30 heavy vehicles to 40 heavy vehicles per day. The increase remains well within the capacity of the existing road network, and is consistent with the impact assessment undertaken in the EIS (refer to sections 2, 3 and 4 of Annex H to the EIS). The proposed mitigation measures include those presented in the EIS (refer to sections 4 and 5 of Annex H to the EIS), and managing vehicle movements during construction to minimise impacts on local road users during periods of peak public use (7:30 am-8:30 am and 4:00 pm-6:00 pm). Traffic management plans shall be prepared to limit construction vehicle movements to not more than 75 movements during each public peak period.

Proposed Site Access Points

The development footprint will be accessed via entry points along the Waterloo Road, Western Feeder Road, and Woodstock Road. This is unchanged from those presented in the EIS (refer to Figure 2.1 of EIS Annex H). Those potential access points are existing farm gates and previously upgraded site access points for the Sapphire Wind Farm project, and are shown in Figure 6 of Attachment 2 in this package. These will be further refined in consultation with Inverell Shire Council during detailed design.

Vehicle Movements on Public Roads in the Site

Light and heavy vehicles will move across parts of the site between site laydown areas, compounds and the relevant sections of the development footprint during construction and operation. This is essential to manage the logistics of the project. These movements will be dynamic and will be dependent on the stage and location of the construction fronts. Vehicle movement counts within and between parts of the site using public roads are not included in the vehicle movement estimates provided above. Those vehicle movements will be managed by controls in the Traffic Management Plan.

In light of the above, and in conjunction with the findings presented within the EIS, TTM concludes that the traffic impacts associated with both the construction and operation of the Sapphire **Solar Farm** are manageable through the mitigation strategies identified and that on this basis, there are no traffic issues that would prevent the proposal from proceeding.

Yours sincerely,



Calum Hutcheson
Senior Associate Director

TTM Consulting Pty Ltd



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Attachment 6

Hazards review

File Note

ARUP

Level 7
182 Victoria Square
Adelaide SA 5000
Australia
www.arup.com

t +61 8 8413 5000
m +61 409883180

Project title Sapphire Solar Farm and Battery Installation

Job number

25932600-00

cc Matthew Flower

File reference

Prepared by J. Paul Rasmussen

Date

27 June 2018

Subject Change in project area

Introduction

Having performed the Preliminary Hazards Assessment for the Sapphire Solar Farm and Battery Installation, Arup has been informed by the project proponents, Sapphire Solar Pty Ltd, that the project area has been changed since the submittal of the EIS (see Figure 1). The project proponents have requested Arup to provide advice on the change in project area as it relates to risks and hazards outlined in the Preliminary Hazards Assessment.

Change in Project Area

There were three proposed sites for the location of the battery installation for the Sapphire Solar Farm (see Figure 1: Sites 1-3). All three of these sites were addressed in the Preliminary Hazards Assessment and the risks, hazards and risk mitigation/avoidance strategies identified for all sites. The change in project area has removed the site closest to the substation (Figure 1: Site 3), leaving two possible site locations (Figure 1: Sites 1 and 2).

Risk and Hazard Implications

Given that the change in project area maintains two of the three proposed sites for the battery installation in the same location (Figure 1: Sites 1 and 2), with minor modification of the geometrics of these two sites that does not significantly decrease the land available for the battery installation at these locations, Arup advise that the risk and hazard implications as a result of the change in project area are unaltered, as by extension are the risk mitigation/avoidance strategies. This is true insofar as the remaining two sites do not change further and significantly in size or spatial location.

File Note

25932600-00

27 June 2018

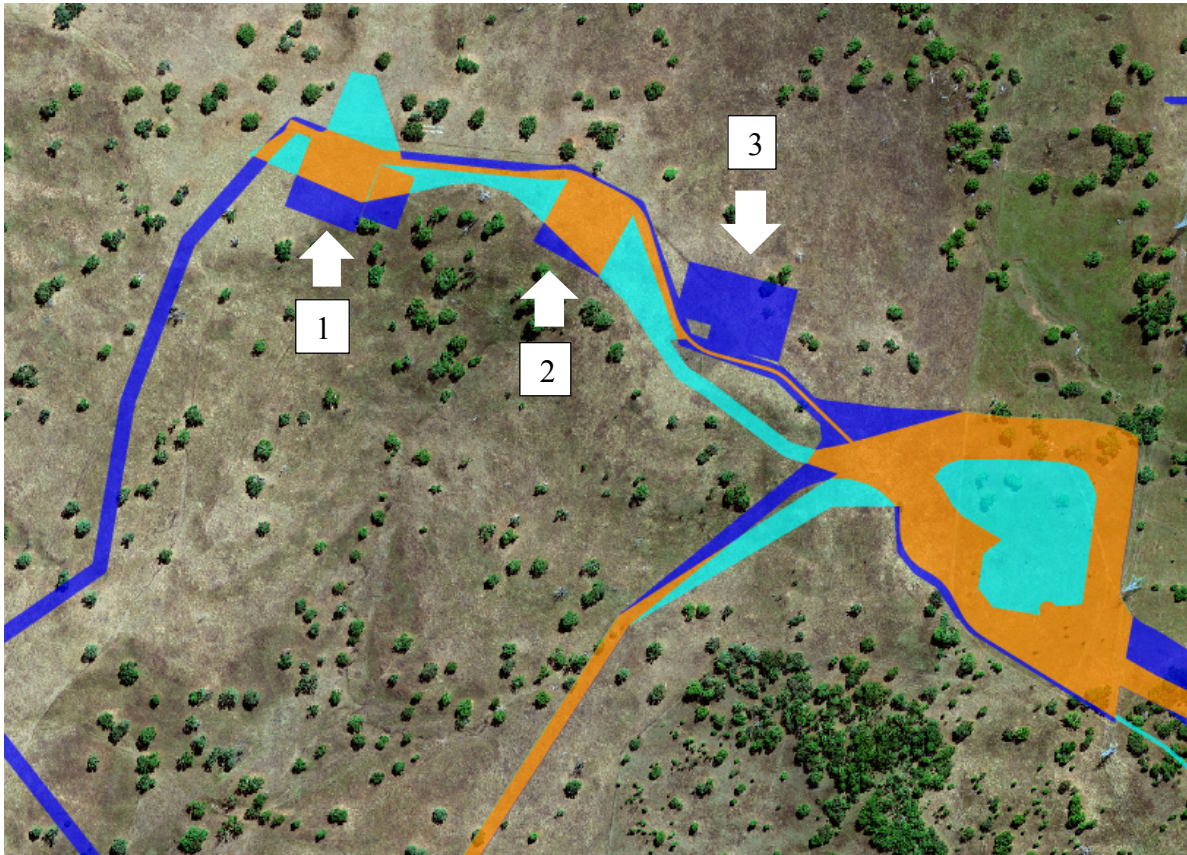



Figure 1 – Change in Project Area: Proposed battery installation sites (1, 2, and 3); area unchanged (orange); area added (turquoise); area removed (blue)

Summary

This advice note confirms no change to the risk, hazards and risk mitigation/avoidance strategies as a result of the change in project area for the Sapphire Solar Farm and Battery Installation on the basis of the information provided by the project proponent, Sapphire Solar Pty Ltd.

DOCUMENT CHECKING (not mandatory for File Note)

	Prepared by	Checked by	Approved by
Name	J. Paul Rasmussen		
Signature			

Attachment 7

Cadastral land parcels to be developed and land subdivision for lease purposes

Contents List

Table 7-1: Cadastral Land Parcels to be Developed

Table 7-2: Land Parcels and Resultant Lot Sizes by Subdivision for Leasing Purposes

Figure 7.1: SSF Subdivision Figure

Table 7-1: Cadastral Land Parcels to be Developed

Lot No. DP No.	Lot	DP	Lot	DP	Lot	DP
Land to be Developed:	1	128314	17	750121	81	753316
	1	435844	18	750121	99	753316
	103	651984	139	750121	133	753316
	265	750076	209	750121	1	1140309
	266	750076	48	753316	2	1200772
	9	750121	49	753316	202	1227324
	13	750121	57	753316	300	1236253
	16	750121	79	753316	301	1236253

Table 7-2: Land Parcels and Resultant Lot Sizes by Subdivision for Leasing Purposes (updating ETable 3-2 and RTable 4.1)

Lot/DF	Proposed Lot	Type	Area (ha) (to 4 dp)
1/128314	1	Residual Lot	49.9206
1/128314	2	Residual Lot	0.3664
1/128314	3	Residual Lot	0.9077
1/128314	4	Residual Lot	0.5424
1/128314	5	PV Inclusion Area (from SWF Deemed Subdivision)	19.3920
1/128314	6	PV Inclusion Area (from SWF Deemed Subdivision)	4.5545
1/128314	7	PV Inclusion Area (from Cadastral Lot)	1.7209
1/128314	8	PV Inclusion Area (from Cadastral Lot)	34.1713
1/435844	1	Residual Lot	0.1571
1/435844	2	Residual Lot	67.2076
1/435844	3	Residual Lot	15.8378
1/435844	4	Battery/O&M (from SWF Deemed Subdivision)	1.2393
103/651984	1	Residual Lot	15.5471
103/651984	2	PV Inclusion Area (from SWF Deemed Subdivision)	0.0166
103/651984	3	PV Inclusion Area (from SWF Deemed Subdivision)	0.0340
265/750076	1	Residual Lot	101.5996
265/750076	2	Residual Lot	293.9430
265/750076	3	Residual Lot	143.9332
265/750076	4	Residual Lot	29.1322
265/750076	5	PV Inclusion Area (from SWF Deemed Subdivision)	8.9155
265/750076	6	PV Inclusion Area (from SWF Deemed Subdivision)	19.7846
265/750076	7	PV Inclusion Area (from SWF Deemed Subdivision)	0.1373
265/750076	8	PV Inclusion Area (from SWF Deemed Subdivision)	18.1836
265/750076	9	PV Inclusion Area (from SWF Deemed Subdivision)	3.7778
265/750076	10	PV Inclusion Area (from SWF Deemed Subdivision)	0.0730
265/750076	11	PV Inclusion Area (from Cadastral Lot)	9.5589
265/750076	12	PV Inclusion Area (from Cadastral Lot)	6.0139
265/750076	13	PV Inclusion Area (from Cadastral Lot)	3.5607
265/750076	14	PV Inclusion Area (from Cadastral Lot)	7.5679
266/750076	1	Residual Lot	579.0378
266/750076	2	Construction Laydown (from SWF Deemed Subdivision)	0.8116
266/750076	3	Construction Compound (from SWF Deemed Subdivision)	0.8264
9/750121	1	Residual Lot	56.9334
9/750121	2	Residual Lot	5.5116
9/750121	3	Battery/O&M (from SWF Deemed Subdivision)	0.1811
13/750121	1	Residual Lot	2.8203
13/750121	2	Residual Lot	29.1846
13/750121	4	Battery/O&M (from SWF Deemed Subdivision)	0.3118
13/750121	3	Battery/O&M (from SWF Deemed Subdivision)	1.0907
139/750121	1	Residual Lot	30.8207
139/750121	2	Battery/O&M (from SWF Deemed Subdivision)	0.7276
139/750121	3	Battery/O&M (from SWF Deemed Subdivision)	0.1816
139/750121	4	Battery/O&M (from SWF Deemed Subdivision)	0.1369
48/753316	1	Residual Lot	19.5884
48/753316	2	PV Inclusion Area (from Cadastral Lot)	0.7808

Lot/DP	Proposed Lot	Type	Area (ha) (to 4 dp)
49/753316	1	Residual Lot	0.0002
49/753316	2	Residual Lot	15.4700
49/753316	3	PV Inclusion Area (from Cadastral Lot)	7.1859
57/753316	1	Residual Lot	0.0392
57/753316	2	Residual Lot	5.5507
57/753316	3	PV Inclusion Area (from Cadastral Lot)	6.0539
79/753316	1	Residual Lot	27.7001
79/753316	2	PV Inclusion Area (from Cadastral Lot)	13.6130
81/753316	1	Residual Lot	66.0011
81/753316	2	Residual Lot	1.6705
81/753316	3	Residual Lot	0.0015
81/753316	4	PV Inclusion Area (from Cadastral Lot)	39.3807
81/753316	5	PV Inclusion Area (from Cadastral Lot)	20.3683
99/753316	1	Residual Lot	0.7689
99/753316	2	Residual Lot	8.2021
99/753316	3	PV Inclusion Area (from SWF Deemed Subdivision)	1.6141
99/753316	5	PV Inclusion Area (from SWF Deemed Subdivision)	0.4888
99/753316	6	PV Inclusion Area (from Cadastral Lot)	11.8063
99/753316	4	Laydown & Compound Area (from SWF Deemed Subdivision)	1.5682
133/753316	1	Residual Lot	64.1064
133/753316	2	PV Inclusion Area (from Cadastral Lot)	1.1282
1/1140309	1	Residual Lot	5.3826
1/1140309	2	Residual Lot	1.2661
1/1140309	3	Residual Lot	0.8075
1/1140309	4	Residual Lot	4.0082
1/1140309	5	Residual Lot	0.2050
1/1140309	6	Residual Lot	0.2604
1/1140309	7	PV Inclusion Area (from SWF Deemed Subdivision)	1.3699
1/1140309	8	PV Inclusion Area (from SWF Deemed Subdivision)	0.1806
1/1140309	10	PV Inclusion Area (from SWF Deemed Subdivision)	0.3845
1/1140309	11	PV Inclusion Area (from SWF Deemed Subdivision)	0.1157
1/1140309	12	PV Inclusion Area (from Cadastral Lot)	0.4748
1/1140309	13	PV Inclusion Area (from Cadastral Lot)	0.0012
1/1140309	14	PV Inclusion Area (from Cadastral Lot)	0.6065
1/1140309	9	Laydown & Compound Area (from SWF Deemed Subdivision)	0.1441
2/1200772	1	Residual Lot	4.0984
2/1200772	2	Residual Lot	0.3091
2/1200772	3	Residual Lot	2.0368
2/1200772	4	Battery/O&M (from SWF Deemed Subdivision)	0.1888
2/1200772	5	Battery/O&M (from SWF Deemed Subdivision)	0.1257
202/1227324	1	Residual Lot	15.8676
202/1227324	2	Residual Lot	0.1072
202/1227324	3	PV Inclusion Area (from SWF Deemed Subdivision)	3.8298
202/1227324	4	PV Inclusion Area (from Cadastral Lot)	0.7566
301/1236253	1	Residual Lot	149.9341
301/1236253	2	Residual Lot	0.4896
301/1236253	3	Residual Lot	18.9443
301/1236253	4	Residual Lot	0.0825

Lot/DP	Proposed Lot	Type	Area (ha) (to 4 dp)
301/1236253	5	PV Inclusion Area (from Cadastral Lot)	56.1418
301/1236253	6	PV Inclusion Area (from Cadastral Lot)	57.0282
301/1236253	7	PV Inclusion Area (from Cadastral Lot)	60.0884

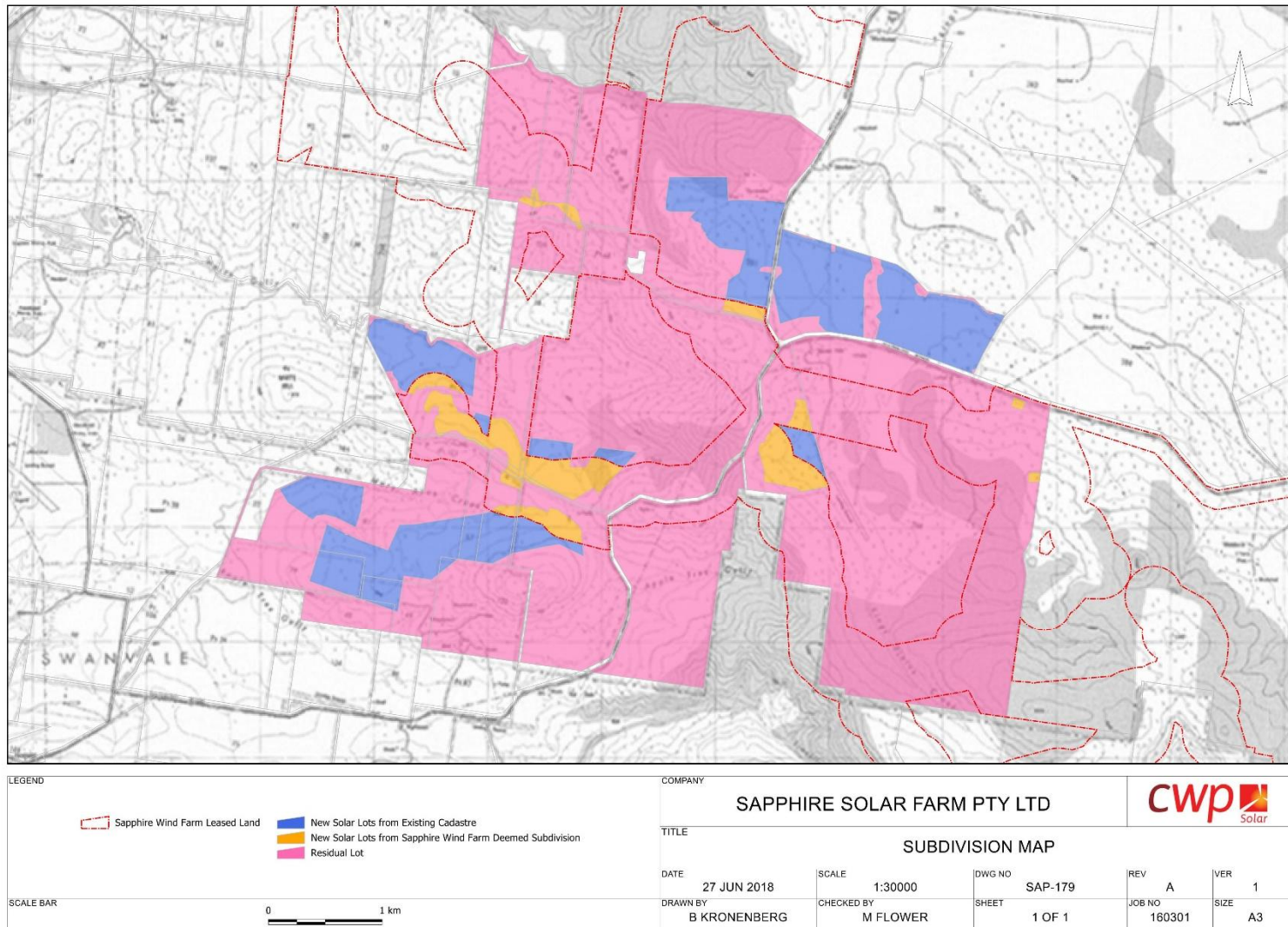


Figure 7.1: SSF Subdivision Figure

Attachment 8

Vegetation surrounding the solar panel areas

Figure List

Figure 8.1: SSF_Surrounding vegetation in 20m buffer_Overview

Figure 8.2: SSF_Surrounding vegetation in 20m buffer_Zoom 1

Figure 8.3: SSF_Surrounding vegetation in 20m buffer_Zoom 2

Figure 8.4: SSF_Surrounding vegetation in 20m buffer_Zoom 3

Figure 8.5: SSF_Surrounding vegetation in 20m buffer_Zoom 4

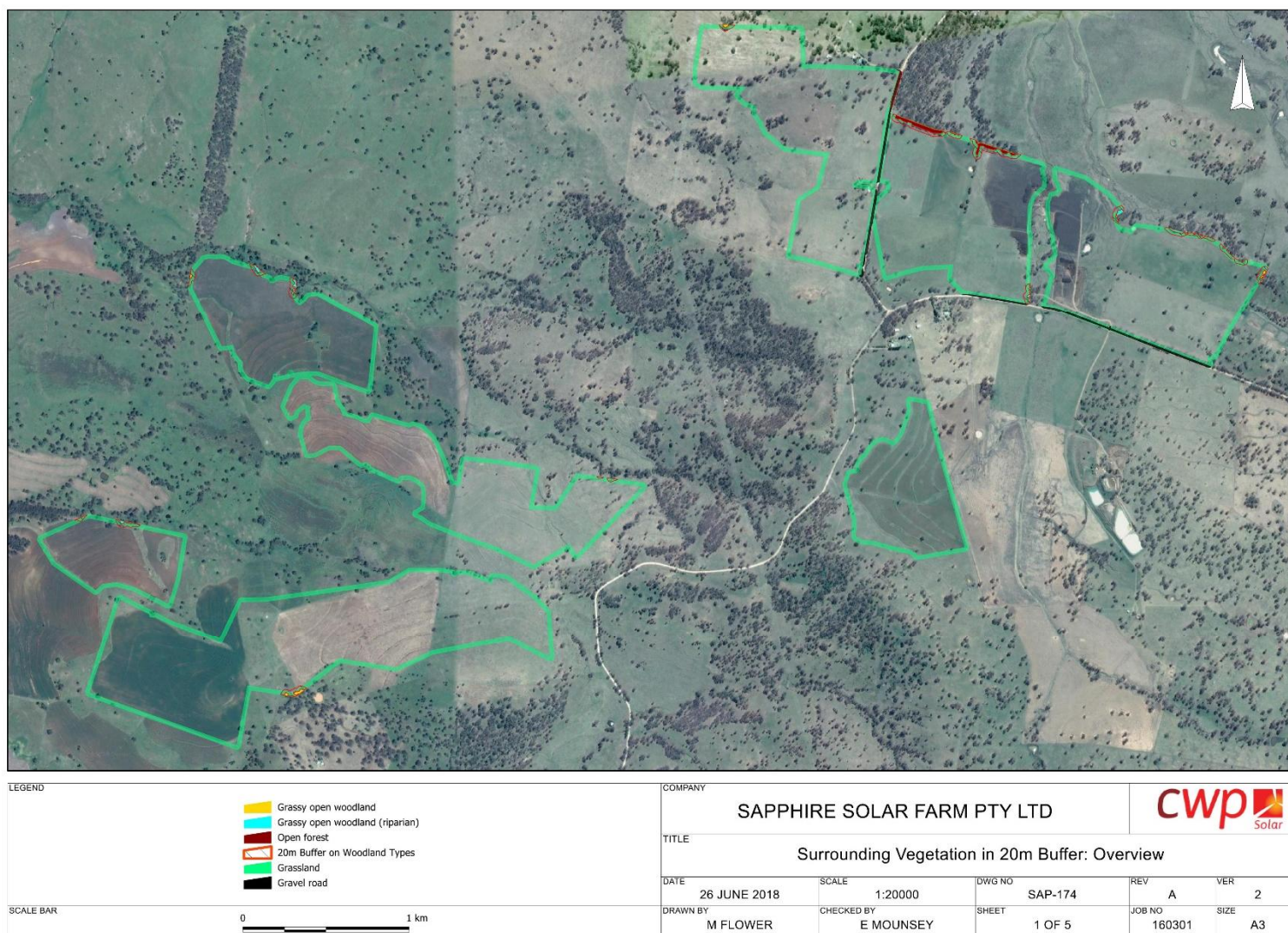


Figure 8.1: SSF_Surrounding vegetation in 20m buffer_Overview



Figure 8.2: SSF_Surrounding vegetation in 20m buffer_Zoom 1

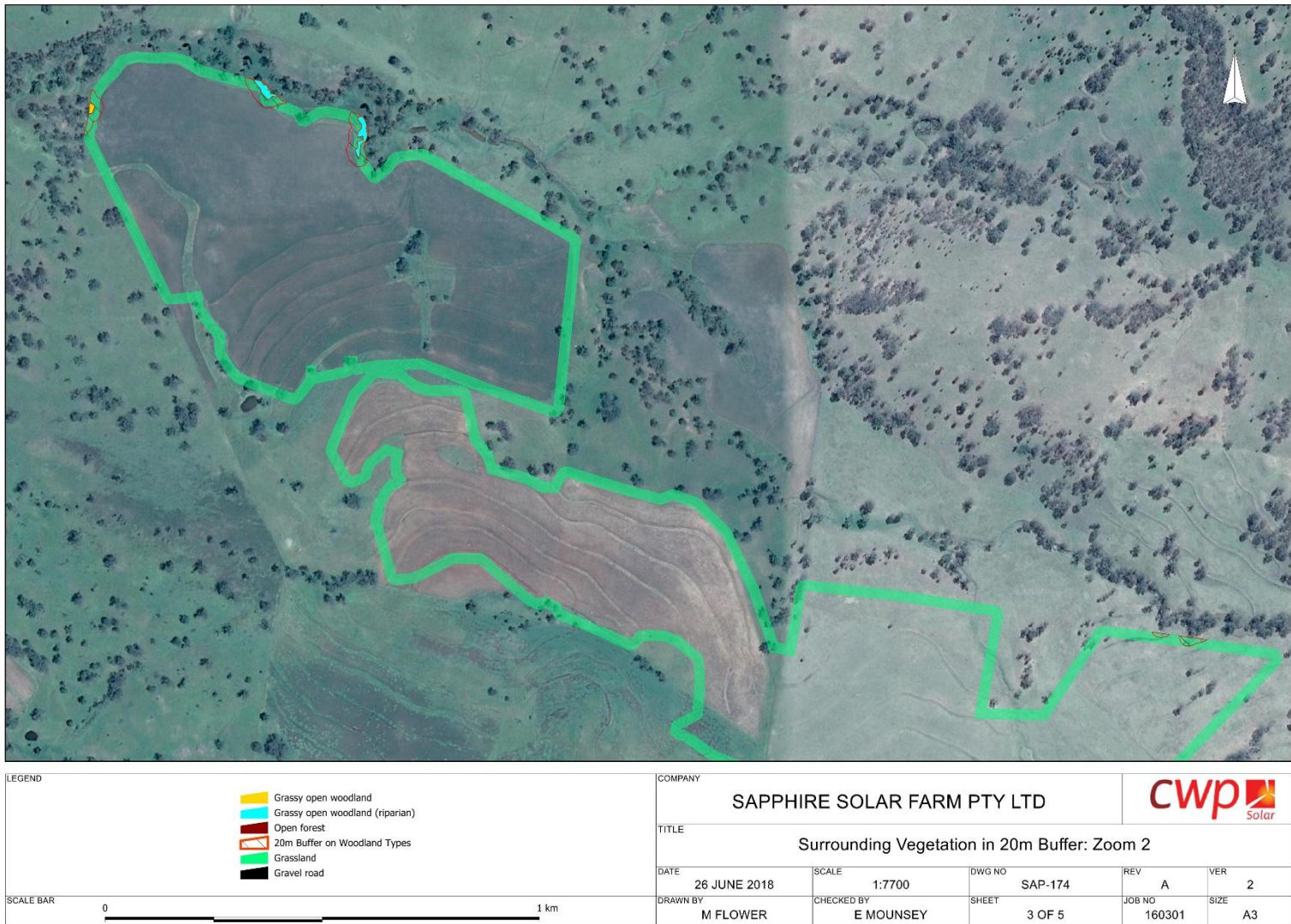


Figure 8.3: SSF_Surrounding vegetation in 20m buffer_Zoom 2

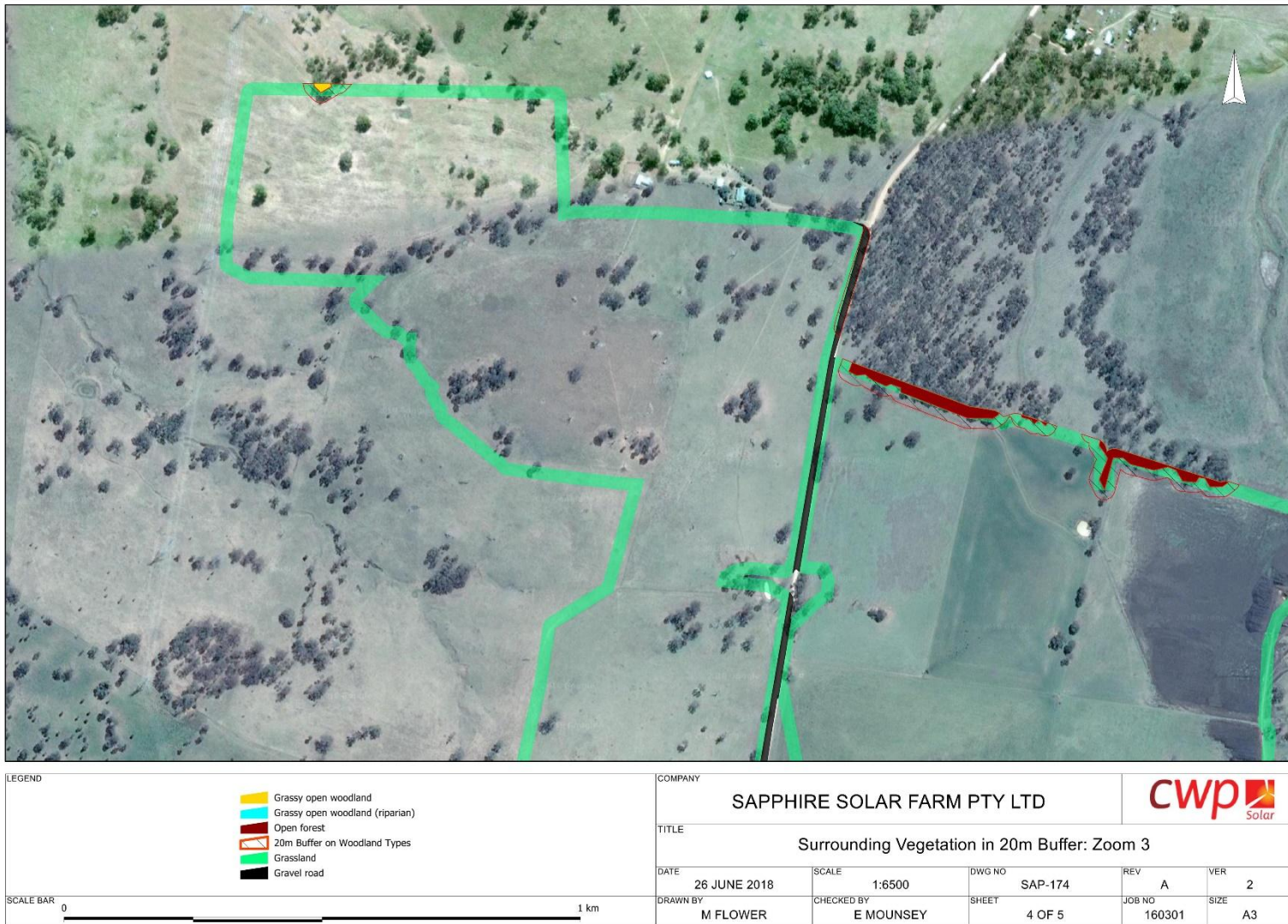


Figure 8.4: SSF_Surrounding vegetation in 20m buffer_Zoom 3



Figure 8.5: SSF_Surrounding vegetation in 20m buffer_Zoom 4