



APPROVAL

Woolooga Solar Farm, Lower Wonga, Queensland (EPBC 2019/8554)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the **EPBC Act** applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Lightsource Development Services Australia Pty Ltd
ACN or ABN of approval holder	26 623 301 799
Action	Construct and operate a photo-voltaic (PV) solar facility including solar arrays, switch yards, battery storage, control building, car park area and ancillary infrastructure with a capacity of up to 176 megawatt (MW) on various lots at Lower Wonga, approximately 25 km north-west of Gympie, Queensland. The various lots comprise: Woolooga 1 - Lot 158 on LX327, Lot 159 on SP237339, Lot 86 on LX472, and Lot 90 on SP237339 (total area of 415.156 ha); Woolooga 2 Site B - Lot 157 on LX2424 (total area of 105.083 ha); and Woolooga 2 Site A - Lot 232 on LX2383 and Lot 107 on LX562.

Approval decision

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

Controlling Provisions

Listed Threatened Species and Communities	
Section 18	Approve
Section 18A	Approve

Period for which the approval has effect

This approval has effect until 5 March 2051

Decision-maker

Name and position	Mike Smith Acting Assistant Secretary Environment Assessments Queensland and Sea Dumping Branch
Signature	
Date of decision	19/02/2021

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.



ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

Development area

1. The approval holder must not **clear** more than 176 ha of **Koala habitat** and 83.38 ha of **Grey-headed Flying-fox foraging habitat** within the **development area**; and must confine any **clearing** of **Koala habitat** to the areas shaded in hatched green identifying **Koala habitat**, as shown in Attachment A; and any **clearing** of **Grey-headed Flying-fox foraging habitat** to the areas shaded in hatched blue identifying **Grey-headed Flying-fox habitat**, as shown in Attachment B.
2. For the protection of the **Koala** and the **Grey-headed Flying-fox** at the **development area**, the approval holder must:
 - a. Ensure that a **fauna spotter/catcher** is present during all **clearing** and **construction** activities and given sufficient authority to ensure that such activities do not cause injury or death of **Koalas** or **Grey-headed Flying-foxes**;
 - b. **Clear** in accordance with the *Nature Conservation (Koala) Conservation Plan 2017* approved under the *Nature Conservation Act 1992* (Qld) so as to allow **Koalas** to safely move out of **clearing** area and into connected areas of **Koala habitat**, and implement all provisions for **sequential clearing**;
 - c. Install temporary **Koala exclusion fencing** around any area of **construction** work, immediately after **clearing** and prior to the commencement of **construction** in that area, so as to prevent **Koalas** entering any area where **construction** is taking place. The **Koala exclusion fencing** around any **construction** area must remain in place until **construction** activities within that fenced **construction** area are completed;
 - d. Implement measures to prevent domestic and feral dogs from entering the **development area** and adjacent **Koala habitat** during **clearing** and **construction** to minimise the risk to **Koalas** of predation by domestic and feral dogs at the **development area** and within the **riparian corridor**. Such measures must include (but are not limited to) prohibition of anyone bringing domestic dogs into the **development area** and adjacent **Koala habitat**;
 - e. Implement traffic calming measures and ensure that the speed of all vehicles on construction roads in the **development area** is no greater than 40 km/h at any time (except in an emergency) so as to minimise the risk to **Koala** of vehicle strike; and
 - f. Construct roads consistent with **Queensland’s fauna sensitive road design guidelines** to minimise the risks to **Koalas** of vehicle strike. In particular, on roads flanking the **riparian corridor** or adjacent **Koala habitat** or waterways, or which cross waterways, **safe fauna movement solutions**, **fauna exclusion/koala proof fencing** and **local traffic management measures** must be implemented in accordance with **Queensland’s Koala-sensitive Design Guideline**.
3. For the on-going protection and rehabilitation of **Koala habitat** and **Grey-headed Flying-fox foraging habitat** in the **riparian corridor**, the approval holder must:
 - a. Retain and manage at least 17.68 ha of native vegetation within the **riparian corridor**;



- b. Prohibit **construction** and operational activities from impacting the native vegetation and habitat values in the **riparian corridor**;
- c. Construct any watercourse crossings in accordance with **Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works**;
- d. Prior to and during **construction**, effectively delineate areas where **construction** is prohibited, using measures including erecting **fauna friendly fencing**, flagging, bunting, para-webbing or similar, and ensure all workers are aware this is a no-go zone;
- e. During construction and operation, ensure weed control is undertaken as specified in the **Biodiversity Management Plan**; and
- f. Prevent any sheep access to the **riparian corridor**, including erecting and maintaining **fauna friendly stock exclusion fencing**.

Environmental Offset Requirements

4. To compensate for the **clearing** of up to 176 ha of **Koala habitat** and 83.38 ha of **Grey-headed Flying-fox foraging habitat**, the approval holder must:
 - a. Commence **management activities** at the **Woolooga Offset Site** prior to undertaking any **clearing** at the **development area**;
 - b. **Legally secure** at least 196.42 ha of land at the **Woolooga Offset Site** by the end of **year 1**; and
 - c. Within 20 **business days** of **legally securing** at least 196.42 ha of land at the **Woolooga Offset Site**, provide the **Department** with written evidence demonstrating that the **Woolooga Offset Site** has been **legally secured** (e.g. **legal security documentation**), and **shapefiles** of the **offset attributes**.

*Note: Uses or activities at the **Woolooga offset site** are not permitted if they are not compatible with the primary purpose of conservation.*

Baseline survey information

5. By the end of **year 1**, the approval holder must complete baseline surveys of the entire **Woolooga Offset Site**. The baseline surveys must be conducted by a **suitably qualified field ecologist** in accordance with a scientifically valid, robust, and repeatable methodology, and include the following:
 - a. Detailed **baseline habitat quality assessment data** for each **Environmental Management Zone**;
 - b. The **vegetation condition attributes** for each **Regional Ecosystem** present;
 - c. The number and condition of **Grey-headed Flying-fox winter or spring flowering foraging species** present;
 - d. The **Species Stocking Rate**;
 - e. The **extent of weed cover**;
 - f. The number of **non-native predators** and **non-native herbivores** across, and where possible surrounding, the **Woolooga Offset Site**;
 - g. The number of **Koala** mortalities attributable to **non-native predators**; and
 - h. The baseline conditions in respect of each of the outcomes specified in conditions 7-12.



6. Within three (3) months after the end of **year 1**, the approval holder must **publish** on its **website** a report containing all survey data (including survey methodology and dates) from the baseline surveys required under condition 6 including a program to monitor and report on progress against the ecological outcomes specified in conditions 7-12. A copy of this information and evidence of the date of publication on the **website** must be provided to the **Department** within 3 months after the end of **year 1**.

Pest and weed management

7. The approval holder must achieve a 90% or greater reduction in the number of **non-native predators** and **non-native herbivores** by the end of **year 5**, relative to the numbers identified during the baseline surveys conducted in **year 1**, and ensure that the number of **non-native predators** and **non-native herbivores** are then maintained at, or reduced below, the **year 5** numbers for the remaining period of effect of this approval.
8. The approval holder must ensure the **extent of weed cover** across the whole **Woolooga Offset Site** is:
 - a. Less than 20% by the end of **year 5**; and
 - b. Less than 5% by the end of **year 10**, and then maintained at 5% or less for the remaining period of effect of this approval.

Stock Exclusion

9. For the protection of **Koala habitat** and **Grey-headed Flying-fox habitat**, the approval holder must demonstrate to the Department by the end of **year 1** that **fauna friendly stock exclusion fencing** has been installed around the entire perimeter of the **Woolooga Offset Site**. The approval holder must ensure that the **fauna friendly stock exclusion fencing** is maintained so as to be effective in excluding stock and effective for its designed purpose, and that no stock enter the offset site, for the period of effect of the approval.

Barbed wire visibility

10. For the protection of the **Koala** (and **Koala habitat**) and the **Grey-headed Flying-fox** (and **Grey-headed Flying-fox foraging habitat**), by the end of **year 1** the approval holder must increase the visibility to fauna of perimeter barbed-wire fencing (if used), including by affixing durable visibility tags at every 30 cm interval along the top strand of any perimeter barbed-wire fencing.

Habitat Quality Improvement

11. The approval holder must achieve the following outcomes in the **Woolooga Offset Site (intact)**:
 - a. An average **recruitment of woody perennial species** in the **ecologically dominant layer** greater than 75% of the **benchmark** for relevant **Regional Ecosystems** present by the end of **year 5**, and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval;
 - b. By the end of **year 5**, the number of **large trees** greater than 100% of the **benchmark** for relevant **Regional Ecosystems** present and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval;
 - c. **Tree canopy height** greater than 70% of the **benchmark** for relevant **Regional Ecosystems** present and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval;



- d. An average **tree canopy cover** maintained at between greater than 50% and less than 200% of the **benchmark** for relevant **Regional Ecosystems** and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval;
- e. An increase, relative to the **baseline habitat quality assessment data**, in **Koala usage** by the end of **year 5**, and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval; and
- f. An average of at least 5 different **Grey-Headed Flying-fox winter or spring flowering foraging species** present per hectare by the end of **year 5**, and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval.

Habitat Creation

12. The approval holder must achieve the following outcomes in the **Woolooga Offset Site (regen)**:
 - a. Recreate the relevant **pre-clearing Regional Ecosystem**, as identified in the baseline survey, required under condition 6;
 - b. Complete all planting of 86.7 ha of new **Koala Habitat** and **Grey-headed Flying-fox foraging habitat** by the end of **year 1**;
 - c. Average **recruitment of woody perennial species** in the **ecologically dominant layer** greater than 20% of the **benchmark** for relevant **Regional Ecosystems** present, by the end of **year 5**;
 - d. Average **recruitment of woody perennial species** in the **ecologically dominant layer** at greater than 75% of the **benchmark** for relevant **Regional Ecosystems** present, by the end of **year 10**, and subsequently maintain or exceed that rate of recruitment for the remainder of the period of effect of the approval;
 - e. The number of **large trees** at least 25% of the **benchmark** for relevant **Regional Ecosystems** present, by the end of **year 10**;
 - f. The number of **large trees** at least 50% of the **benchmark** for relevant **Regional Ecosystems** present, by the end of **year 20** and this proportion subsequently maintained or exceeded for the remainder of the period of effect of the approval;
 - g. Average **tree canopy cover** greater than 10% of the **benchmark** for relevant **Regional Ecosystems** present, by the end of **year 10**, and subsequently maintain or exceed 10% of the **benchmark** for relevant **Regional Ecosystems** for the remainder of the period of effect of the approval;
 - h. Average **tree canopy height** greater than 25% of the **benchmark** for relevant **Regional Ecosystems** present at the site, by the end of **year 10**, and subsequently maintain or exceed that **tree canopy height** for the remainder of the period of effect of the approval;
 - i. An increase, relative to the **baseline habitat quality assessment data**, in **Koala usage** by the end of **year 5**, and subsequently maintain or exceed this outcome for the remainder of the period of effect of the approval; and
 - j. An average of at least 5 different **Grey-headed Flying-fox winter or spring flowering foraging species** present in each **assessment plot** by the end of **year 10**, and subsequently maintain or exceed this diversity of foraging species for the remainder of the period of effect of the approval.



13. The approval holder must engage a **suitably qualified field ecologist** to undertake an assessment, at the end of each of **year 5, year 10, year 15, and year 20**, as to whether each outcome required under conditions 7-12 has been, or is likely to be, achieved in accordance with the condition requirements, and provide advice of any circumstance/s which they consider is/are affecting the achievement of each outcome. The findings of each assessment must be documented and **published** on the **website** within 3 months of the end of the particular period of which the assessment is undertaken and be provided to the **Department** within 5 **business days** of being **published**.
14. If, at any time during the period of effect of the approval, the **Minister** is not satisfied that any of the requirements and/or outcomes under the conditions of approval, including (but not limited to) conditions 7-12, have been or are likely to be achieved or maintained, the **Minister** may require the approval holder to submit a corrective action plan for the **Woollooga Offset Site** for the **Minister's** approval, or to monitor, manage, avoid, mitigate, offset, record and/or report on, impacts to the **Koala** and/or the **Grey-headed Flying-fox**.
 - a. The **Minister** may set a timeframe in which the corrective action plan must be submitted and suitable for approval, may require that the corrective action plan be prepared and/or reviewed by a **suitably qualified independent expert** and may specify consequences for the approval holder if the corrective action plan is not suitable for approval within the specified timeframe.
 - b. The approval holder must implement the corrective action plan approved by the **Minister** in writing.

Part B – Standard administrative conditions

Notification of date of commencement of the action

15. The approval holder must notify the **Department** in writing of:
 - a. the date of **commencement of the action** within 5 **business days** after the date of **commencement of the action**;
 - b. the date of commencement of **clearing** within 5 **business days** after the date of commencement of **clearing**; and
 - c. the date of commencement of **construction** within 5 **business days** after the date of commencement of **construction**.
16. If the **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.

Compliance records

17. The approval holder must maintain accurate and complete **compliance records**.
18. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.



Annual compliance reporting

19. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**. The approval holder must:
- Publish** each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;
 - Notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within 5 **business days** of the date of publication;
 - Keep all **compliance reports** publicly available on the **website** until this approval expires;
 - Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
 - Where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

20. The approval holder must notify the **Department** in writing of any: **incident**; or non-compliance with the conditions. The notification must be given as soon as practicable, and no later than 2 **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
- Any condition which is or may be in breach;
 - A short description of the **incident** and/or non-compliance; and
 - The location (including co-ordinates), date, and time of the **incident** and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
21. The approval holder must provide to the **Department** the details of any **incident** or non-compliance with the conditions as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
- Any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - The potential impacts of the **incident** or non-compliance; and
 - The method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

22. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
23. For each **independent audit**, the approval holder must:
- Provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;



- b. Only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
- c. Submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.

The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Submission and publication of plans

24. The approval holder must:

- a. submit **plans** electronically to the **Department**;
- b. unless otherwise agreed to in writing by the **Minister**, publish each **plan** on the **website** within 20 **business days** of the date:
 - i. of this approval, if the version of the **plan** to be implemented is specified in these conditions; or
 - ii. that the **plan** is submitted to the **Minister** or the **Department** if the **plan** does not require the approval of the **Minister** but was not finalised before the date of this approval; or
 - iii. that the **plan** was approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**;
- c. exclude or redact **sensitive ecological data** from **plans** that are to be published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** for the period for which this approval has effect.

Completion of the action

25. Within 20 **business days** after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Assessment plot means the area within a rectangular plot of dimensions 100 metres (approximately following the contour of the land) by 50 metres as described in the *Guide to determining terrestrial habitat quality A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy*, (Version 1.2) (Queensland Department of Environment and Heritage Protection, 2017).

Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works means *Accepted Development Requirements for Operational Work that is Constructing or Raising Waterway Barrier Works*, Fisheries Queensland, Department of Agriculture and Fisheries, 2018.

Baseline habitat quality assessment data means the habitat quality scoring which provides the baseline and future scoring for the **Woolooga Offset Site** as specified in Table 21 in the **preliminary documentation**; Koala Habitat Assessment Tables in Section 3.6 and Grey-headed Flying-fox Habitat Assessment Tables in Section 3.8 of Appendix A of the **preliminary documentation**.



Benchmark means the BioCondition attribute benchmark for the **Regional Ecosystem** as defined in the most recent officially released version of *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual* (version 2.2, 2015), Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts.

Biodiversity Management Plan means the *Biodiversity Management Plan* version 1.4 dated 29 January 2021 provided as Appendix J to the Environmental Management Plan (provided as Appendix C to the **preliminary documentation**), or a subsequent version approved by the Minister in writing.

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Clear/Clearing means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of vegetation (but not including weeds – see the *Australian weeds strategy 2017 to 2027* for further guidance). **Clearing** does not include any relevant prescribed burns or actions undertaken for bushfire management, where required.

Commencement of the action means the first instance of any specified activity associated with the action including **clearing, construction** and/or **management activities** at the **Woolooga Offset Site**.

Commence the action/Commencement of the action does not include minor physical disturbance necessary to:

- i. Undertake pre-clearance surveys or monitoring programs;
- ii. Install signage and /or temporary fencing to prevent unapproved use of the project area so long as these are located where it will have no impact on the **protected matters**;
- iii. Protect environmental and property assets from fire, weeds and feral animals, including use of existing surface access tracks;
- iv. Install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no impact on the **protected matters**; and
- v. Undertake soil sampling or geotechnical investigations provided these cause only minor physical disturbance and are required in advance of formal commencement of site works.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department's** preferred spatial data format is **shapefile**.

Completion of the action means the time at which all approval conditions (except condition 25) have been fully met.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance report/s means written reports:

- i. Providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions;
- ii. Consistent with the **Department's Annual Compliance Report Guidelines (2014)**; and
- iii. Include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period.



Construction means the erection of a building or structure that is or is to be fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; preliminary site preparation work which involves breaking of the ground (including pile driving); the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of temporary fences and signage.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

Development area means the area known as Woolooga 1 (sometimes referred to as Woolooga Site 1) and Woolooga 2 Site B outlined in red on the map at [Attachment D](#).

Diameter at breast height is the diameter of a tree's trunk measured at 1.3 metres from the ground.

Ecologically dominant layer means the tree layer making the greatest contribution to the overall biomass of the vegetation community.

Environmental Management Zone/s (EMZs) means the two areas within the **Woolooga Offset Site** referred to in the **offset management plan** EMZ 1 (intact) and EMZ 2 (regeneration zone). Referred to as offset site (intact) and offset site (regen) in the **preliminary documentation**.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Extent of weed cover means the proportion (expressed as a percentage) of the total land area in which any square metre contains a non-native plant species known to restrict the movement of **Koala** and/or degrade the quality of **Koala habitat** and/or **Grey-headed Flying-fox foraging habitat**, or its ability to regenerate. Such non-native plant species include *Lantana camera* and *Ligustrum lucidum*.

Fauna exclusion/koala proof fencing means fencing to guide **Koalas** away from roads and/or guide them towards safe fauna movement structures (such as underpasses) as described in *Fauna Sensitive Road Design: Volume 2 – Preferred Practices* (Queensland Department of Main Roads 2010).

Fauna friendly fencing means a fence that does not inhibit the movement of native fauna between properties.

Fauna friendly stock exclusion fencing means fencing designed to prevent access by cattle/sheep while providing for the free movement of **Koalas**.

Fauna spotter/catcher means a person licenced under the Queensland *Nature Conservation Act 1992* to detect, capture, care for, assess, and release wildlife disturbed by vegetation clearance activities.

Grey-Headed Flying-fox means the Grey-Headed Flying-fox (*Pteropus poliocephalus*) listed as a threatened species under the **EPBC Act**.

Grey-Headed Flying-fox foraging habitat means areas of vegetation that contain **Grey-headed Flying-fox** foraging trees, including **Grey-headed Flying-fox foraging winter and spring flowering species**.

Grey-headed Flying-fox winter or spring flowering foraging species means tree species which provide flowering resources in winter and spring for the **Grey-headed Flying-fox**.

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)** other than as authorised by this approval.

Independent means does not have any individual, or by employment or family affiliation, conflicting or competing interests with the approval holder; the approval holder's staff, representatives or associated persons; or the project, including any personal, financial, business or employment



relationship, other than receiving payment for undertaking the role for which the condition requires the independent person.

Independent audit means an audit conducted by an **independent** and suitably qualified person as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019).

Koala means the Koala *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory) listed as a threatened species under the **EPBC Act**.

Koala exclusion fencing means fencing which prevents the movement of Koalas from one area to another. Suitable examples are found in *Koala Sensitive Design Guideline: A guide to koala sensitive designed measures for planning and development activities*, (Queensland Department of Environment and Heritage Protection, 2012) and in the **Koala referral guidelines**.

Koala food trees means a tree of genera *Angophora*, *Corymbia*, *Eucalyptus*, *Lophostemon* or *Melaleuca*, with a height of more than 4 metres and/ or with a trunk circumference more than 31.5 centimetres at 1.3 metres above the ground, the leaves of which are known to be consumed by the **Koala**.

Koala habitat means any forest or woodland containing species that are known **Koala food trees**, or shrubland with emergent **Koala food trees** (as defined in the **Koala referral guidelines**).

Koala referral guidelines means the **Department's EPBC Act referral guidelines for the vulnerable Koala** (combined populations of Queensland, New South Wales and the Australian Capital Territory), Commonwealth of Australia, 2014.

Koala usage means the utilisation of **Koala** per unit area as determined in field surveys over the entire **Woolooga Offset Site** undertaken by a **suitable qualified field ecologist** using a scientifically robust and repeatable methodology over a timeframe that serves as a sound basis for comparison.

Large trees means living trees with a **diameter at breast height** greater than the **diameter at breast height** threshold specified in the **benchmark** for the relevant Regional Ecosystem and measured in accordance with the *Guide to determining terrestrial habitat quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy* (Version 1.2) (Queensland Department of Environment and Heritage Protection, 2017), or any subsequent version. This may include both eucalypt and non-eucalypt trees depending on the relevant **Regional Ecosystem**.

Legal security/Legally secure/secured/securing means to provide ongoing conservation protection on the title of the land, under an enduring protection mechanism, such as a voluntary declaration under the *Vegetation Management Act 1999* (Qld) or another enduring protection mechanism agreed to in writing by the **Department**.

Legal security documentation means documentation associated with **legally securing** offset site(s), including (but not limited to) management plans. **Legal security documentation** must include (at a minimum) the following:

- a) Details of the **management activities** to be undertaken to achieve the outcomes prescribed under conditions 8-15; and
- b) A commitment that **legal security** of the **Woolooga Offset Site** and **management activities** to achieve and maintain the outcomes prescribed under conditions 7-12 will be in place for the duration of the impact.



Local traffic management measures means devices that reduce the speed and/or volume of traffic, for example, road closures, chicanes, crosswalks, lighting, signage and rumble strips, as described in **Queensland's fauna sensitive road design guidelines**.

Management activities means activities to be undertaken at the **Woolooga Offset Site**, including (but not limited to):

- i. Baseline surveys to inform development and implementation of management measures to achieve outcomes;
- ii. Perimeter fencing repairs and maintenance;
- iii. Planting activities;
- iv. Weed management;
- v. Stock management/exclusion; or
- vi. **Non-native predator** and **non-native herbivore** management.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

Non-native predators means any non-native animals known to predate on the **Koala**.

Non-native herbivores means any non-native animals known to degrade the quality of **Koala habitat** and/or **Grey-headed Flying-fox foraging habitat** and/or prevent its ability to regenerate.

Offset attributes means an '.xls' file capturing relevant attributes of the **Woolooga Offset Site**, including:

- i. **EPBC Act** reference number
- ii. Physical address of the **Woolooga Offset Site**;
- iii. Coordinates of the boundary points in decimal degrees;
- iv. **Protected matters** that the offset compensates for;
- v. Any additional **EPBC Act** listed threatened species and communities that are benefiting from the offset; and
- vi. Size of the **Woolooga Offset Site** in hectares.

Offset Management Plan (OMP) means the version provided to the Department on 20 January 2021 or a subsequent version approved by the Minister in writing.

Plan(s) means any of the documents required to be prepared, approved by the **Minister**, implemented by the approval holder and/or published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

Pre-clearing Regional Ecosystem means the vegetation identified in the **preliminary documentation** as being present in a **Regional Ecosystem** prior to **clearing**.

Preliminary documentation means the Woolooga Solar Farms EPBC Act Preliminary Documentation Final Report, 7 January 2021, including all appendices.

Protected matter means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.



Publish means make publicly available on the **website** for the duration of this approval.

Queensland's fauna sensitive road design guidelines means Queensland Department of Main Roads 2010, *Fauna Sensitive Road Design. Volume 2 – Preferred Practices*, or subsequent published revised version.

Queensland's Koala-sensitive Design Guideline means Department of Environment and Science 2019, *Koala-sensitive Design Guideline A guide to koala-sensitive design measures for planning and development activities*, or subsequent official, published revised version.

Recruitment of woody perennial species means the proportion of the dominant canopy (**ecologically dominant layer**) species with evidence of recruitment and is measured in accordance with the *Guide to determining terrestrial habitat quality: A toolkit for assessing land based offsets under the Queensland Environmental Offsets Policy (Version 1.2)* (Queensland Department of Environment and Heritage Protection, 2017), or any subsequent official version.

Regional Ecosystem/s means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil as classified by the Queensland Government under the *Vegetation Management Act 1999* (Qld).

Riparian Corridor means the area shown marked with blue cross-hatching and labelled as 'Zone C – Riparian Zone' in the map at Attachment C.

Safe fauna movement solutions means measures to minimise the risk of injury or deaths of **Koalas** during **construction** and subsequently, such as **fauna exclusion/koala proof fencing**, fauna underpasses or overpasses, and/or bridges as described in **Queensland's fauna sensitive road design guidelines**.

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0*.

Sequential clearing means the provisions specified in *Sequential clearing in Koala district A or B* under the *Nature Conservation (Koala) Conservation Plan 2017* under the *Nature Conservation Act 1992* (Qld). These include provisions for the area which may be **cleared** in any one stage, periods of non-clearing between stages, maintaining habitat links and restrictions on **clearing** trees containing **Koalas**.

Shapefile means location and attribute information of the action provided in an ESRI shapefile format. Shapefiles must contain '.shp', '.shx', '.dbf' files and a '.prj' file that specifies the projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Species Stocking Rate means the species stocking rate provided in Appendix D, E, F and G of the **preliminary documentation**.

Suitably qualified field ecologist means an independent person who has professional qualifications and at least 3 years' work experience designing and implementing flora and fauna surveys and management plans for the **Koala** and/or the **Grey-headed Flying-fox** using relevant protocols, standards, methods and/or literature.

Suitably qualified independent expert means an **independent** person who has professional qualifications, training, skills and at least 5 years' experience in the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.



Tree canopy cover means as defined in the most recent officially released version of *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual* (version 2.2, 2015), Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts.

Tree canopy height means as defined in the most recent officially released version of *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual* (version 2.2, 2015), Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts.

Vegetation condition attributes means attributes that indicate vegetation functions for biodiversity, as defined in the most recent officially released version of *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual* (version 2.2, 2015), Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Woolooga Offset Site means the area to be managed as an offset for the impacts on the **Koala** and **Grey-headed Flying-fox**, including: **Woolooga Offset Site (intact)** and **Woolooga Offset Site (regen)**.

Woolooga Offset Site (intact), also referred to as Environmental Management Zone 1 (EMZ 1), shown as all the areas marked with green hatching and labelled as 'Zone D – Offset Site (Intact) in the map at [Attachment C](#).

Woolooga Offset Site (regen), also referred to as Environmental Management Zone 2 (EMZ 2), shown as all the areas marked with pink horizontal lines and labelled as 'Zone E – Offset Site (Regeneration Zones) in the map at [Attachment C](#).

Year 1 means the period within one year from the date of approval of the taking of the action.

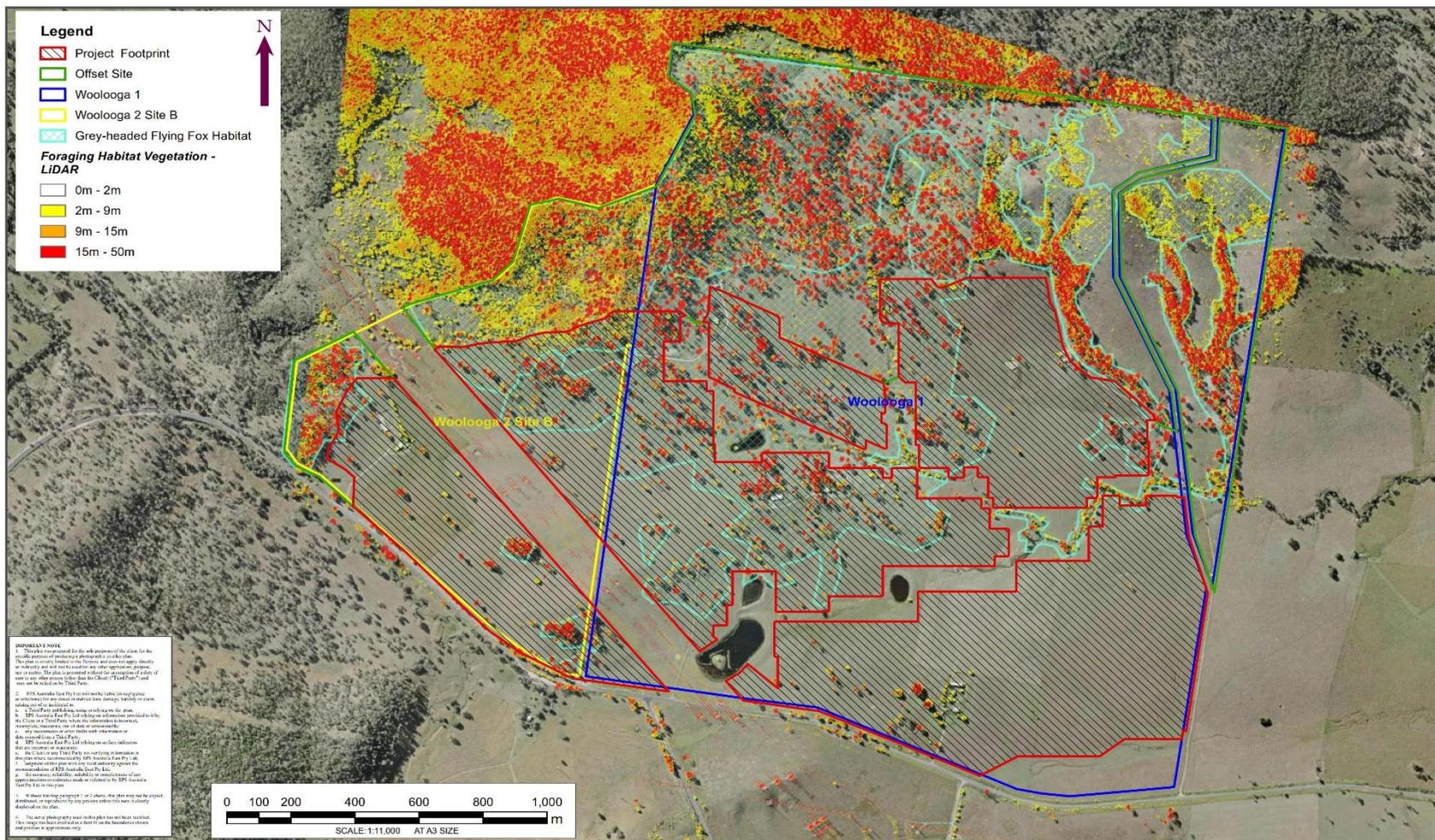
Year 5 means the period within five years from the date of approval of the taking of the action.

Year 10 means the period within ten years from the date of approval of the taking of the action.

Year 15 means the period within fifteen years from the date of approval of the taking of the action.

Year 20 means the period within twenty years from the date of approval of the taking of the action.

Attachment B – Development area (showing habitat critical to the survival of the Grey-headed Flying-fox)



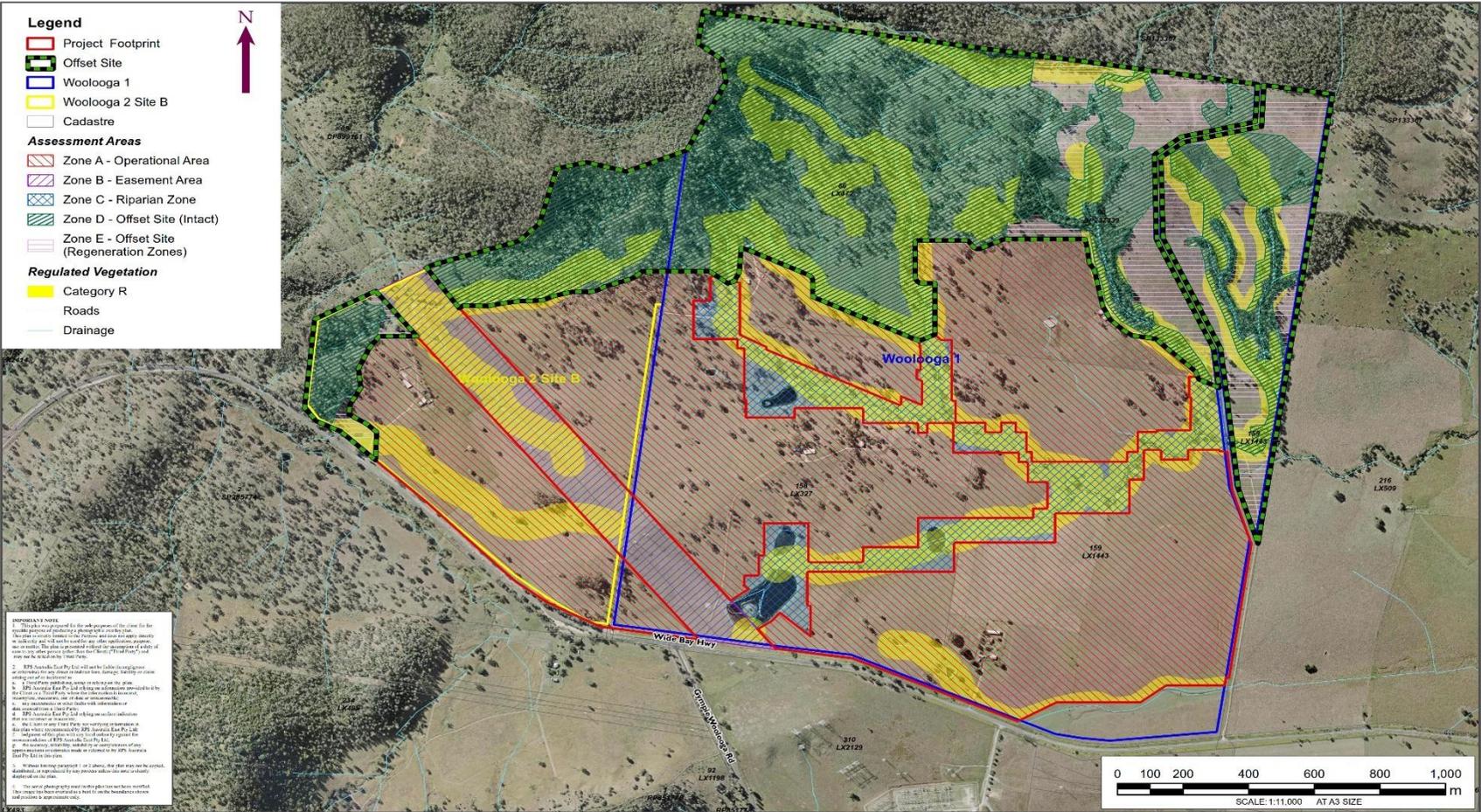
TITLE : FIGURE 14: GREY-HEADED FLYING FOX FORAGING HABITAT		LOCATION : 1706 WIDE BAY HWY WOOLOOGA		Co-ord System: GDA 1994 MGA Zone 56 Datum: GDA 1994 Data Sources: RPS, Land and Property 2017		DATE : 4/12/2020 PURPOSE: ECO		VERSION (PLAN BY): B A3 (Natalie.Wood) <small>J:\JOB\147\147105_Lower_Woolooga - Drafting\A3\Map_Document\Ecology\PEC_Retitled_2019_8054_Preliminary_Documentation\Report\147105_Figure 14 Grey-headed Flying Fox Foraging Habitat B A3 20201116.mxd</small>	
CLIENT: LIGHTSOURCE DEVELOPMENT SERVICES AUSTRALIA PTY LTD JOB REF: PR147105		[Color Swatches]		[Color Swatches]		[Color Swatches]		[Color Swatches]	

M:\PROJECTS_2019\147105_Lower_Woolooga - Drafting\A3\Map_Document\Ecology\PEC_Retitled_2019_8054_Preliminary_Documentation\Report\147105_Figure 14 Grey-headed Flying Fox Foraging Habitat B A3 20201116.mxd

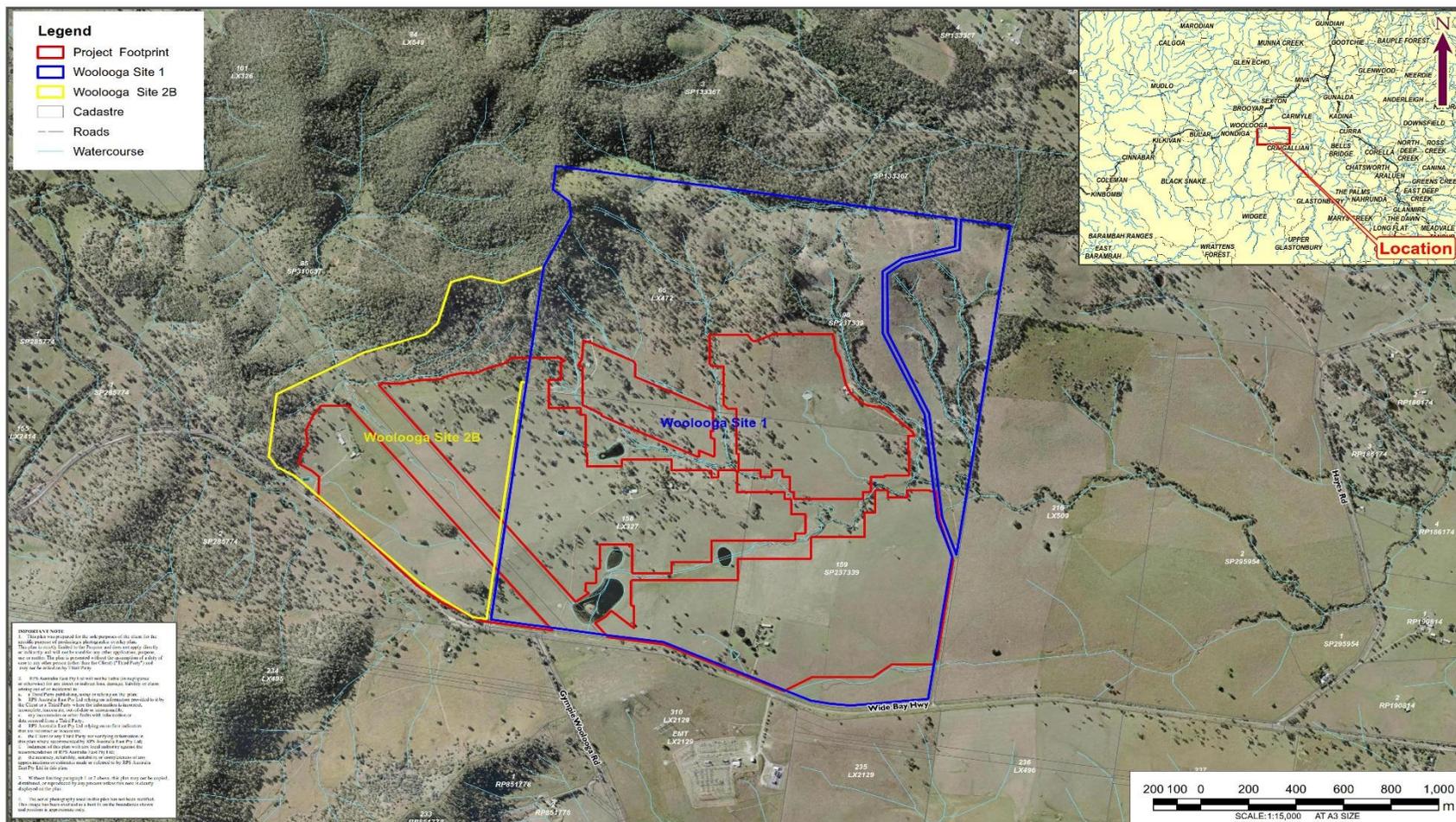
RPS AUSTRALIA EAST PTY LTD (ABN 44 146 252 762)
 Unit 2A, 45 Fitzroy Street, Carrington, NSW, Australia, 2294 PO Box 120, Carrington, NSW, 2294
 T: 02 4940 4200 F: 02 4940 4299 www.rpsgroup.com.au



Attachment C – Woolooga Biodiversity Management Zones and Offset Site



Attachment D – Woolooga Solar Farm - Woolooga 1 (referred to, and the same as, Woolooga Site 1) and Woolooga 2 Site B Development Area, Lower Wonga, Queensland



TITLE : FIGURE 1: LOCATION OF PROJECT AREA | **LOCATION :** 1706 WIDE BAY HWY WOOLOOGA | **Co-ord System:** GDA 1994 MGA Zone 56 | **DATE :** 29/01/2021 | **VERSION (PLAN BY):** C A3 (Natalie.Wood)

Datum: GDA 1994 | **PURPOSE:** ECO | **PATH:** J:\0801470147105 Lower Wonga\10 - Drafting\Single Map Documents\Eor\Final\Updated Figures | 20201116\17105 Figure 1 Location C A3 20201116.dwg

Data Sources: RPS, Land and Property 2017

CLIENT: LIGHTSOURCE DEVELOPMENT SERVICES AUSTRALIA PTY LTD	RPS AUSTRALIA EAST PTY LTD (ABN 14 440 292 762) Unit 2A, 45 Fitzroy Street, Carrington, NSW, Australia, 2294 PO Box 120, Carrington, NSW, 2294 T. 02 4940 4200 F. 02 4940 4299 www.rpsgroup.com.au	MAKING COMPLEX EASY
JOB REF: PR147105		

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