

This report identifies the number and type of credits required at a DEVELOPMENT SITE.

Date of report: 5/11/2018

Time: 1:04:03PM

Calculator version: v4.0

Development details

Proposal ID: 127/2017/4444D

Proposal name: Narrabri South Solar Farm

Proposal address: Old Gunnedah Road Narrabri NSW 2390

Proponent name: Canadian Solar (Australia) Pty Ltd

Proponent address: 165 Cremorne Street Richmond VIC 3121

Proponent phone: +61 (03) 8609 1844

Assessor name: Heidi Kolkert

Assessor address: PO Box 2028 ARMIDALE NSW 2350

Assessor phone: 0418 324 136

Assessor accreditation: 127

Improving or maintaining biodiversity

An application for a red flag determination is required for the following red flag areas

Red flag	Reason
Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	Vegetation type being > 70% cleared; or it contains an endangered ecological community;
Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	Vegetation type being > 70% cleared; or it contains an endangered ecological community;

The application for a red flag determination should address the criteria set out in the BioBanking Assessment Methodology. Please note that a biobanking statement cannot be issued unless the determination is approved.

Additional information required for approval:

- ☐ Change to percent cleared for a vegetation type/s
- ☐ Use of local benchmark
- ☐ Change negligible loss
- ☐ Expert report...
- ☒ Request for additional gain in site value
- ☐ Predicted threatened species not on site
- ☐ Change threatened species response to gain (Tg value)

Ecosystem credits summary

Plant Community type	Area (ha)	Credits required	Red flag
Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	0.20	0.60	Yes
Total	0.20	1	

Credit profiles

1. Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185)

Number of ecosystem credits created	0
IBRA sub-region	Liverpool Plains (Part B)

Offset options - vegetation types	Offset options - CMA sub-regions
<p>Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185)</p> <p>Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion, (NA117)</p>	<p>Liverpool Plains (Part B)</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>

2. Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185)

Number of ecosystem credits created	0
IBRA sub-region	Liverpool Plains (Part B)

Offset options - vegetation types	Offset options - CMA sub-regions
<p>Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185)</p> <p>Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion, (NA117)</p>	<p>Liverpool Plains (Part B)</p> <p>and any IBRA subregion that adjoins the IBRA subregion in which the development occurs</p>

Species credits summary

BioBanking Credit Calculator

Threatened species predicted on site

Proposal ID : 127/2017/4444D
Proposal name : Narrabri South Solar Farm
Assessor name : Heidi Kolkert
Assessor accreditation number : 127
Tool version : v4.0
Report created : 05/11/2018 13:02

Threatened species reliably predicted to utilise the site. No surveys are required for these species. Ecosystem credits apply to these species.

Common name	Scientific name	Vegetation type(s)
Barking Owl	Ninox connivens	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Black-chinned Honeyeater (eastern subspecies)	Melithreptus gularis subsp. gularis	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Brown Treecreeper (eastern subspecies)	Climacteris picumnus subsp. victoriae	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Bush Stone-curlew	Burhinus grallarius	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Corben's Long-eared Bat	Nyctophilus corbeni	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion

Common name	Scientific name	Vegetation type(s)
Corben's Long-eared Bat	Nyctophilus corbeni	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Diamond Firetail	Stagonopleura guttata	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Grey-crowned Babbler (eastern subspecies)	Pomatostomus temporalis subsp. temporalis	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Hooded Robin (south-eastern form)	Melanodryas cucullata subsp. cucullata	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Little Eagle	Hieraaetus morphnoides	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Little Lorikeet	Glossopsitta pusilla	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Little Pied Bat	Chalinolobus picatus	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Masked Owl	Tyto novaehollandiae	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Painted Honeyeater	Grantiella picta	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion

Common name	Scientific name	Vegetation type(s)
Painted Honeyeater	<i>Grantiella picta</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Speckled Warbler	<i>Chthonicola sagittata</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Spotted Harrier	<i>Circus assimilis</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Square-tailed Kite	<i>Lophoictinia isura</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Turquoise Parrot	<i>Neophema pulchella</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Varied Sittella	<i>Daphoenositta chrysoptera</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion
Yellow-bellied Sheath-tail-bat	<i>Saccolaimus flaviventris</i>	NA185 - Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion

BioBanking Credit Calculator

Threatened species predicted on site

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Ecosystem credits

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Assessment circle name	Landsc ape score	Vegetation zone name	Vegetation type name	Condition	Red flag status	Management zone name	Management zone area	Current site value	Future site value	Loss in site value	Credit required for bio diversity	Credit required for TS	TS with highest credit requirement	Average species loss	Species TG Value	Final credit requirement for management zone
BBAM1	12.00	NA185_Moderate/Good_High	Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	Moderate/Good_High	Yes	1	0.10	80.33	80.33	0.00	0	0	Masked Owl	0.00	3.00	0
BBAM1	12.00	NA185_Moderate/Good	Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	Moderate/Good	Yes	2	0.10	56.83	56.83	0.00	0	0	Masked Owl	0.00	3.00	0

BioBanking Credit Calculator

Species credits

Proposal ID :

Proposal name :

Assessor name :

Assessor accreditation number :

Tool version :v4.0

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Scientific name	Common name	Species TG value	Identified population?	Can Id. popn. be offset?	Area / number of loss	Negligible loss	Red flag status	Number of credits
No								