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Your Ref: MP 241/04

Our Ref: 19SUT-14578

15 April 2020

Dear Ms Brewer,

RE: Updates to revised Offset Package - Taralga Wind Farm

On 13 May 2016, Eco Logical Australia (ELA) submitted a Biodiversity Offset Package (BOP) for the Taralga Wind Farm in accordance with Conditions of Approval 86, 86A, 87 and 90 on behalf of CWP Renewables Pty (Attachment A).

The offset package was prepared in consultation with the Office of Environment and Heritage (OEH) and was approved by the Department of Planning and Environment (DPE) on 23 June 2016 (**Attachment B**).

The offset package included the registration of a BioBanking Agreement over approximately 62 ha of land on a property called 'Rossville', situated on the southern boundary of the wind farm (**Figure 1**). Unfortunately, due to extended issues associated with a deceased estate, this assessment could not be progressed through to registration.

ELA and Pacific Hydro Pty Ltd, the current owners/operators of the Taralga Wind Farm, investigated alternative options in consultation with the OEH, to meet the offset requirements of the project. An approximately 80 ha area was identified on part of a property owned by Pacific Hydro as an alternative site for a Biobank that would partially meet the offset requirements of the project. This site, known as 'Rossvale' is located immediately south of, and adjoins, the previously proposed 'Rossville' property (**Figure 1**).

To support the use of the Rossvale site as an alternative Biobank site, Pacific Hydro commissioned targeted reptile surveys of the property by Ross Wellington and confirmed the presence of Pink-tailed Worm Lizard (PTWL) within the proposed offset area (**Figure 2**) and potential habitat for Rosenberg's Goanna (termite mounds for breeding (**Figure 3**) and mapped six BVT vegetation types (**Figure 4**). Accordingly it was determined that the property was capable of meeting the majority of the offset requirements for the project, as detailed below, other than a land based offset for the Tablelands Basalt Forest community (HN571).

The proposed alternative offset package was discussed with OEH between October 2017 and January 2018 and its elements agreed to in principle including vegetation types present, substitute vegetation types for impacted grasslands and boundaries of the GRMA..

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A full Biobank Assessment was completed by an accredited assessor and submitted to OEH for review, audit and registration on 23 February 2018 under the Biodiversity Conservation Act 2016 savings provisions (Attachment C).

The Rossvale Biobank site (BA452), covering 80.52 ha and generating 941 ecosystem credits for six vegetation types and 101 species credits for PTWL was registered on 19 December 2018 (**Attachment D**).

Taralga Wind Farm offset requirements

As part of the original environmental impact assessment for the project, GHD used the BioBanking Methodology (BBAM 2014) to quantify the number of credits required for impacts to vegetation types and <u>potential</u> habitat for various threatened grassland reptile species, as requested by OEH (GHD April 2015). The results of this assessment are summarised in **Table 1** and show that 276 ecosystem credits are required for impacts to 8.37 ha of vegetation and 321 species credits for impacts to three species that had 'potential' habitat impacted, although GHD did not confirm any of these species to be present (The GHD impact credit report is provided as **Attachment E**).

Table 1: GHD impact calculations and credit requirements

Vegetation Type	Impact Area (ha)	No of Credits required (GHD)	Estimate of Offset Area Required (ha) No. credits required/10 for woodland and 8/ha for grassland)			
HN571 Ribbon Gum - Narrow- leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	2.15	70	7.00			
HN584 Silvertop Ash - Narrow- leaved Peppermint open forest on ridges of the eastern tableland, South Eastern Highlands Bioregion	4.15	178	17.80			
HN591 Speargrass grassland of the South Eastern Highlands Bioregion	1.51	19	2.38			
HN588 Snow Grass - Kangaroo Grass - Sheep's Burr grassland on undulating basalt plateaux, South Eastern Highlands Bioregion	0.12	2	0.25			
HN576 River Tussock - Tall Sedge - Kangaroo Grass moist grasslands of the South Eastern Highlands Bioregion	0.44	7	0.88			
Total	8.37	276	28.30			
Species Credits	Impact Area (ha)	No of Credits required (GHD)	Approx. Offset Area Required (ha) No. credits required/7.1)			
Pink-tailed Worm-lizard	2.07	59	8.31			
Striped Legless Lizard#	2.07	52	7.32			
Rosenberg's Goanna	6.3	210	29.58			

The Striped Legless Lizard was not recorded by ELA 2015 and thus is not required in the offset package as agreed with OEH, however, potential habitat will be provided by a 'Grassland Reptile Management Area/ within the proposed offset area.

Consistent with the previously approved offset package, for the Rossvale Biobank, ELA has used an average of 10 credits generated per hectare of offset area (10 ecosystem credits/ha was the average for BBAM 2014 Biobank Agreement site assessments) for woodland vegetation types and 8 credits per hectare for grassland vegetation types, to estimate the area of offset needed to meet the offset requirements calculated by GHD in **Table 1.**

These estimates result in a required offset area of around 28-30 hectares comprising the appropriate matching vegetation types. In summary this comprises 7.0 ha of HN571 *Ribbon Gum – Narrow-leaved Peppermint grassy open forest on basalt plateaux* which is equivalent to the Tablelands Basalt Forest Endangered Ecological Community (EEC), 17.8 ha of HN584 or HN583 (*Silvertop Ash – Narrow-leaved Peppermint open forest* or *Silver-topped Ash – Blue-leaved Stringybark shrubby open forest* respectively) and 3.5 ha for the grassland vegetation types HN591, HN588 and HN576 (Speargrass grassland, Snow grass – Kangaroo Grass – Sheep's Burr grassland and River Tussock – Tall Sedge – Kangaroo Grass moist grassland respectively).

In consultation with OEH it was agreed, that if these grassland types cannot be confirmed within the proposed offset area, they may be met by the derived grassland components of HN572 (Ribbon Gum-Snow Gum grassy forest on damp flats), subject to the dominant grass species present and the area being managed as a separate management zone called a "Grassland Reptile Management Area" (refer to **Figure 5** and Biobank Agreement regarding the GRMA).

Whilst GHD 'assumed' the presence of Pink-tailed Worm-lizard (PTWL) and Striped Legless Lizard (SLL) in the 2.07 ha of impacted potential native grassland habitat, requiring 59 and 52 species credits respectively, and 6.3 ha of potential Rosenberg's Goanna habitat requiring 210 species credits, further assessment of the impact areas for these species by Eco Logical Australia, as requested by OEH, only recorded PTWL at Turbine 15 (ELA Reptile Survey, October 2015 - Attachment F).

In previous consultation with OEH during 2016 it was agreed that the offset area needs to include 'confirmed' records and habitat for the PTWL capable of generating the 59 credits required and 'potential' habitat for Rosenberg's Goanna and other grassland reptiles.

ELA has estimated the offset area required to generate the 59 PTWL species credits and 'potential' habitat capable of generating 210 Rosenberg's Goanna species credits (based on generating 7.1 credits per hectare of confirmed habitat in accordance with BBAM 2014) as 8.31 and 29.58 ha respectively (**Table 1**). It is noted that Gang-gang Cockatoo and Little Eagle are not species credit species and offsets for impacts to potential habitat of these species is accounted for in the ecosystem credits.

Proposed revised Biodiversity Offset Package

The targeted PTWL survey undertaken on the 'Rossvale' property and vegetation mapping undertaken as part of the Biobank Assessment are shown in **Figure 2** and **Figure 4** with the final credit report provided as **Attachment G**.

Attachment G shows the final number and types of credits generated by Rossvale BioBank (BA452) rather than the estimate of the area required as provided in **Table 1**. **Table 2** shows that the Biobank site meets all of the offset requirements for the project, as agreed with OEH, other than for vegetation type HN571.

In summary, it is proposed to retire the following credits from BA452 to meet the offset requirements of the project:-

 The 178 HN584 credit requirement will be fully met by retiring 103 HN584 ecosystem credits and 75 HN583 ecosystem credits in accordance with the credit profile in (Attachment E) (leaving 211 surplus HN583 credits).

- An additional 118 of the surplus 211 HN583 ecosystem credits representing 'potential habitat' for Rosenberg's Goanna will be retired to meet the equivalent of 210 species credits for Rosenberg's Goanna
 - i.e. 210 Rosenberg's Goanna species credits at 7.1/ha is equivalent to 29.58 ha of potential habitat for Rosenberg's Goanna (or 296 ecosystem credits at 10 ecosystem credits/ha) which will be met by the 178 HN584 & HN583 ecosystem credits retired in point 1 above, and an additional 118 HN583 ecosystem credits (i.e. 178 + 118 = 296 ecosystem credits which is equivalent to 29.6 ha of potential habitat for Rosenberg's Goanna).
- 3. 59 PTWL species credits will be retired to meet the 2.07 ha of impact to PTWL (leaving 42 surplus PTWL species credits).
- 4. 74 HN514 and 13 HN572 DNG ecosystem credits will be retired to meet the 'potential' habitat requirements for SLL and form a 7.67 ha 'Grassland Reptile Management Area' (no surplus credits).
- These same 74 HN514 and 13 HN572 DNG ecosystem credits with dominant Speargrass, Snow Grass and Kangaroo Grass will be retired to meet the 28 ecosystem credit requirements for the grassland vegetation types HN591, HN588 and HN576 and managed as a Grassland Reptile Management Area' (no surplus credits).

i.e. this revised BOP, proposes to retire 453 ecosystem credits, 177 more than the 276 calculated by GHD, as well as 210 Rosenberg's Goanna and 59 PTWL species credits.

Pacific Hydro has continued to investigate options to secure the 70 ecosystem credits for HN571 with a 'land based' offset as requested by OEH (i.e. via the purchase of 70 HN571 credits from a registered Biobank site or a land purchase that would be registered as a Biobank site) for the past 12 months.

This has included:-

- reviewing the Biobanking credit and EOI registers for HN571 credits,
- contacting land owners with HN571 vegetation to discuss their interest in registering a biobank site (owners of Mount Rae and Colo Vale), but the landowners were not willing to enter into BioBanking Agreements
- investigating properties for sale in the Taralga area (properties along Bannaby Road).

A land based offset for HN571 has not been able to be secured.

Pacific Hydro submitted an application for 'reasonable equivalence' to OEH/DPIE to determine the equivalent number of BAM credits (under the new Biodiversity Conservation Act 2016 (BC Act)) for the 70 required HN571 BBAM credits. On 9 April 2020, DPIE issued a 'Statement of reasonable equivalence' (**Attachment H**) stating that 87 PCT1097 BAM credits were equivalent to 70 HN571 BBAM credits.

This statement of equivalence can be used to purchase 87 PCT1097 BAM credits from the Biodiversity Conservation Fund as an alternative to purchasing 70 HN571 credits direct form a registered Biobank site in accordance with the savings and transition provisions of the BC Act (i.e. a requirement to retire biobanking credits is taken as a requirement to retire biodiversity credits once a statement of reasonable equivalence has been obtained).

The 80 ha offset area is significantly larger than the 28-30 ha offset area required by the project approval and will make a more viable, cost effective offset area for Pacific Hydro. Accordingly any surplus ecosystem and species credits, over and above the commitments in points 1-5 above will be retained by Pacific Hydro, as per the previous BOP, who may sell these credits in accordance with the NSW offsets scheme.

This letter is now formally seeking the approval of the DPI&E of this updated revised offset package. Once this revised offset package is approved, Pacific Hydro will 'retire' the credits listed above and summarised in **Table 2** and purchase 87 PCT1097 credits from the Biodiversity Conservation Fund.

The TFD for BA452 has already been <u>fully met</u> (payment made to Biodiversity Trust Account on 1 July 2019 with confirmation letter provided at **Attachment I**) with the commencement/anniversary date for annual reporting being 3 September each year. Accordingly, Pacific Hydro has engaged suitable qualified and experienced contractors to undertake the active conservation management of the Biobank site.

Robert Humphries

Robert Humphries **Eco Logical Australia** On behalf of Pacific Hydro Pty Ltd.

Cc. Allison Treweek, Senior Team Leader Planning Section South East - Office of Environment and Heritage

Attachment A: Proposed BOP – Rossville Biobank Site – May 2016
Attachment B: DPE approval of proposed Rossville BOP – June 2016
Attachment C: ELA credit assessment report for Rossvale Biobank site – February 2018
Attachment D: Executed Biobank Agreement for Rossvale – BA452, 19 December 2018
Attachment E: GHD Impact Credit Assessment Report - June 2015
Attachment F: ELA Grassland reptile survey report of impact areas- October 2015
Attachment G: Rossvale Biobank Credit report
Attachment H: Statement of reasonable equivalence issued by OEH, April 2020
Attachment I: Letter from BCT dated 5 November 2019 confirming full payment of TFD.



Figure 1: Location of former Rossville and current Rossvale offset areas any preliminary Plant Community Types mapped by ELA November 2015



Figure 2: Location of Pink-tailed Worm Lizard records and habitat as per BA452





Figure 4: Final Plant community types and condition zones as per Rossvale Biobank Agreement BA452



Figure 5: Management Zones in BA452 including Grassland Reptile Management Zone

Table 2: Summary of the number and types of credits to be retired from Rossvale Biobank Site and how they meets the Taralga Wind Farm offset requirements

РСТ	Vegetation Type	Vegetation Class / Formation	Impact Area (ha)	No of Credits required (GHD)	Approx. Offset Area Required (ha) at 10 credits / ha generated	Matching veg types in Rossvale offset area	Area of vegetation / habitat within registered offset area	Number of credits generated by registered offset area	Number of credits to be retired	Offset requirement met
PCT 1097	HN571 Ribbon Gum - Narrow-leaved Peppermint grassy open forest on basalt plateaux, Sydney Basin Bioregion and South Eastern Highlands Bioregion	Southern Tablelands Wet Sclerophyll Forest	2.15	70	7	None	0	0	87 PCT 1097 BAM credits, credits to be purchased from Biodiversity Conservation Fund (Equivalent to 70 HN571 BBAM credits)	Yes but not by direct 'land based' offset
PCT 1155	HN584 Silvertop Ash - Narrow-leaved Peppermint open forest on ridges of the eastern tableland, South Eastern Highlands Bioregion	South East Dry Sclerophyll Forests	4.15	178	17.8	HN584 and/or HN583	8.57	103	103	Yes No surplus credits
						HN583 Silvertop Ash - Blue leaved Stringybark shrubby open forest	25.37	286	75 for HN584 118 for Rosenberg's Goanna habitat	Yes 93 surplus HN583 credits
PCT 1202	HN591 Speargrass grassland of the South-Eastern Highlands Bioregion	Temperate Montane Grasslands	1.51	19	2.38	GRMA HN514 DNG	6.58	74	74	
PCT 1185	HN588 Snow Grass - Kangaroo Grass - Sheep's Burr grassland on undulating basalt plateaux, South Eastern Highlands Bioregion	Temperate Montane Grasslands	0.12	2	0.25	GRMA HN572 DNG	1 09	13	13	Yes by managing 7.67 ha as GRMA
PCT 1110	HN576 River Tussock - Tall Sedge - Kangaroo Grass moist grasslands of the South Eastern Highlands Bioregion	Temperate Montane Grasslands	0.44	7	0.88	GRMA HN572 DNG	1.09 13	10	10	
PCT 1100	HN572 Ribbon Gum – Snow Gum grassy forest on damp flats, South Eastern Highlands bioregion	Tableland Clay Grassy Woodlands	0	0	0	HN572	1.24	18		18 Surplus credits
						Broad- leaved Peppermint - Red Stringybark grassy open forest	8.95	134	0	134 Surplus credits
						HN570 Red Stringybark - Brittle Gum - Inland Scribbly Gum dry open forest	25.95	282		282 Surplus credits
						HN574 River Oak open forest of major streams	2.77	31		31 Surplus credits
	Total		8.37	276	28.3		80.52	941	453	
	Species Credits		Impact Area (ha)	No of Credits required (GHD)	Approx. Offset Area Required (ha) (No. credits required / 7.1)					
	Pink-tailed Worm-lizard	Assumed present and recorded by ELA 2015	2.07	59	8.31	Confirmed habitat species credits	14.29	101	59	Yes 42 surplus PTWL species credits
	Striped Legless Lizard	Assumed present and not recorded by ELA 2015	2.07	52	7.32	Potential habitat HN514 & HN572 DNG	7.67 ha in GRMA	87	7.67 ha of potential habitat	Yes No surplus species credits
	Rosenberg's Goanna	Assumed present and not recorded by ELA 2015	6.3	210	29.58	Potential habitat HN514, HN583, HN584 & HN570	75.47	879	103 HN584 193 HN583 Equivalent to 29.58 ha of potential habitat	Yes No surplus species credits