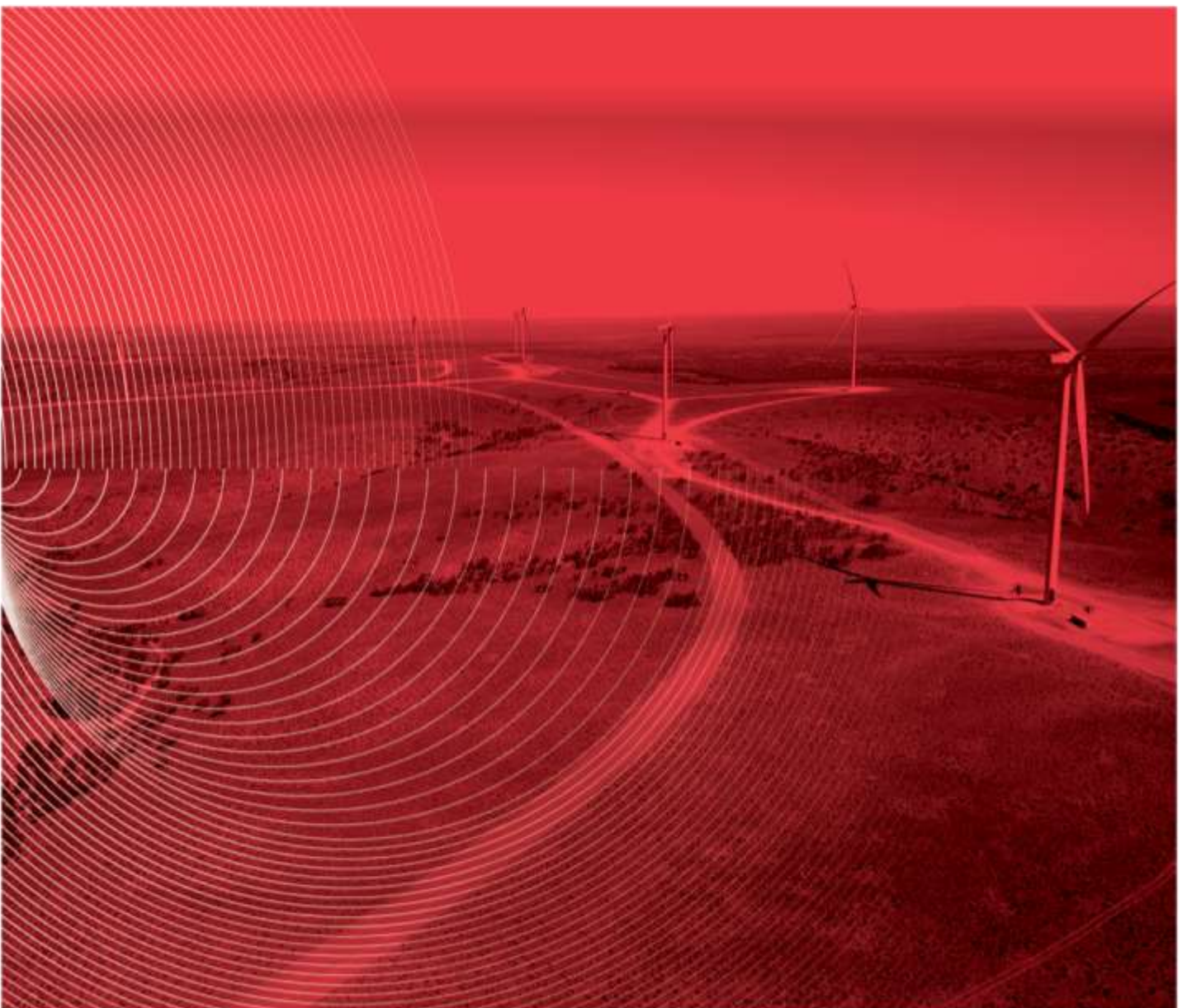


Prepared for Flyers Creek Wind Farm Pty Ltd by Nacap Pty Ltd

# Flyers Creek Wind Farm Project

## CONSTRUCTION FLORA AND FAUNA MANAGEMENT PLAN

Document No.: 2046-LECH-006-3 | Revision: F



**DOCUMENT CONTROL RECORD**

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**REVISION HISTORY**

*This table describes the primary reason for the production of each new revision after Rev 0*

Date	Rev.	Reason for change

**SIGNATURE BLOCK**

Rev.	Description	Prepared	Reviewed	QA	Approved	Approval Date
F	Issued for Approval	Brett Rodgers	Brian Treacy	Peter Logan	pp 	16/12/2021

*The first Issued for Use version of this plan will start Revision 0. Revision numbers shall use a sequential numbering system commencing at Rev. 01, 02, etc.*

This document is considered uncontrolled when printed.

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ACTIVITY	DESCRIPTION	REFERENCES								
<b>1. GENERAL INFORMATION</b>										
1.1 Purpose	<p>This Construction Flora and Fauna Management Plan (CFFMP) has been prepared to satisfy the requirements of Condition F21 (f) of the Project Approval and incorporates related Conditions of Approval (CoA) and relevant commitments from the Flyers Creek Wind Farm Environmental Assessment (EA) 2011 and modifications that have been subsequently approved.</p> <p>This CFFMP has been prepared to ensure construction activities are carried out in accordance with the Conditions of Approval (CoA), project regulatory requirements, relevant standards, procedures, resources and practices.</p> <p>The Plan has been prepared to also ensure all reasonable and practical measures are implemented across all activities and works to ensure no harm to flora and fauna identified in the EA and subsequent Modifications and as encountered throughout the construction phase of the project.</p> <p>The CFFMP adopts an integrated approach, considering and identifying management measures overarching the sequencing of construction related activities.</p> <p>All works are to be implemented in accordance with the management measures and strategies contained in this Plan.</p>	-								
1.2 Conditions of Approval (CoA)	<p>This Plan and its associated management measures have been prepared to comply with the following CoA:</p> <ul style="list-style-type: none"> <li>• D1, D2 and D3 Restrictions on Clearing and Habitat Impacts</li> <li>• F21(f) Construction Flora and Fauna Management Plan, and</li> <li>• H2 Progressive Rehabilitation.</li> </ul>	Project Approval (MP 08_0252)								
1.3 CEMP Structure and relationship with sub-plans	<p>This CFFMP forms one of the FCWF Construction Environment Management Plan (CEMP) sub plans. The FCWF CEMP (CoA F20) comprises three Sections:</p> <ul style="list-style-type: none"> <li>• <b>PART A:</b> Provides background information and the overarching systems approach to environmental management and mitigation controls for the project</li> <li>• <b>PART B:</b> Comprising Appendices in support of PART A, and</li> <li>• <b>PART C:</b> Comprising the required series of environmental management sub-plans outlined in CoA F21 including; <ul style="list-style-type: none"> <li>(a) Construction Compound and Ancillary Facilities Management Plan</li> <li>(b) Construction Noise and Vibration Management Plan</li> <li>(c) Construction Traffic and Access Management Plan</li> <li>(d) Construction Soil and Water Quality Management Plan</li> <li>(e) Construction Heritage Management Plan</li> <li>(f) <b>Construction Flora and Fauna Management Plan (This Plan)</b></li> <li>(g) Construction Air Quality Management Plan, and</li> <li>(h) Bushfire Management Plan.</li> </ul> </li> </ul>	Construction Environmental Management Plan								
1.4 Scope	<p>This CFFMP applies to all aspects of construction flora and fauna but does not consider or include measures for monitoring and management of Birds and Bats as required by CoA D4 and managed under the approved FCWF Bird and Bat Adaptive Management Plan.</p> <p>The CFFMP will inform Project Managers, Supervisors, Construction Personnel, Subcontractors and relevant stakeholders on the management of flora and fauna during construction activities.</p> <p>The CFFMP forms part of the CEMP and describes the mitigation and management measures and protocols derived from the Project EA and subsequent modifications.</p> <p>This management plan applies only to the Construction phase of the proposed works.</p>	-								
1.5 Objectives and Targets	<p>The objectives and targets of the Flyers Creek Wind Farm Project to be undertaken by the Contractor in relation to Flora and Fauna are listed in Table 1 Objectives and Targets.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">Table 1 Objectives and Targets</th> </tr> <tr> <th style="text-align: left;">Objective</th> <th style="text-align: left;">Target</th> </tr> </thead> <tbody> <tr> <td>Project construction activities do not cause unauthorised harm to Flora and Fauna Species and limit the clearing of CEEC to 28.1 ha and 189 Hollow bearing trees (HBT)</td> <td>No unauthorised harm to Flora and Fauna.</td> </tr> <tr> <td>Ensure all personnel, subcontractors and visitors are inducted, consulted and receive regular updates and information on project environmental aspects and impacts for the duration of works.</td> <td>100% completion of Inductions, Daily Pre-Start Inputs by Environment Team, and Monthly toolbox inputs by Environment Team.</td> </tr> </tbody> </table>	Table 1 Objectives and Targets		Objective	Target	Project construction activities do not cause unauthorised harm to Flora and Fauna Species and limit the clearing of CEEC to 28.1 ha and 189 Hollow bearing trees (HBT)	No unauthorised harm to Flora and Fauna.	Ensure all personnel, subcontractors and visitors are inducted, consulted and receive regular updates and information on project environmental aspects and impacts for the duration of works.	100% completion of Inductions, Daily Pre-Start Inputs by Environment Team, and Monthly toolbox inputs by Environment Team.	
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Ensure all personnel, subcontractors and visitors are inducted, consulted and receive regular updates and information on project environmental aspects and impacts for the duration of works.	100% completion of Inductions, Daily Pre-Start Inputs by Environment Team, and Monthly toolbox inputs by Environment Team.									

ACTIVITY	DESCRIPTION	REFERENCES
	<p>Ensure that personnel and subcontractors are aware of environmental hazards and risks associated with construction activities and relevant scope of work under the contract.</p> <p>To conduct construction activities in compliance with all relevant approvals and environmental legislation.</p> <p>Promote a positive reporting culture to minimise the occurrence and severity of environmental incidents during construction activities.</p> <p>Ensure all corrective actions are closed out by the nominated due dates.</p>	<p>100% attendance recorded at SWMS workshops.</p> <p>100% compliance No regulatory infringements, including Provisional improvement notices and prosecutions.</p> <p>All incidents to be reported within 2 hours and investigated appropriately.</p> <p>No corrective actions outstanding past due date &gt;7 days.</p>
1.6 Consultation	<p>Consultation on this Plan will be undertaken with the Biodiversity, Conservation and Science Directorate (BCS) of Environment, Energy and Science Group (EESG).</p> <p>Comments and feedback received during consultation will be incorporated into this Plan where appropriate.</p> <p>Details of the consultation associated with this Plan are available in <b>Appendix A Consultation Record</b>.</p>	Appendix A Consultation Record
1.7 Certification and Approval	The CFFMP required by CoA F21(f) are required to be submitted for approval by the Secretary of the Department of Planning and Environment at least one month prior to the commencement of construction or as otherwise agreed by the Secretary.	-
1.8 Distribution	A controlled hard copy of this CFFMP will be maintained and reside at the Project construction site office. Approved copies of this CFFMP and supporting documentation will be distributed to the Project team, the DPIE, all relevant personnel and interested third parties as required. It will also be available to view on the Project website: <a href="http://www.flyerscreekwindfarm.com">www.flyerscreekwindfarm.com</a>	-
1.9 Reference Documents	<p>The CFFMP applies to all aspects of Flora and Fauna for the Project and has been informed by the following:</p> <ul style="list-style-type: none"> <li>Principal Project Approval Minister for Planning and Infrastructure No MP 08_0252 dated 14 March 2014 and consolidated Conditions of Approval dated June 2019</li> <li>Project Environmental Impact Statement prepared by Aurecon, 2011, specifically: <ul style="list-style-type: none"> <li>Chapter 10 – Flora and Fauna</li> <li>Chapter 19 – Statement of Commitments</li> <li>Appendix D – Flora and Fauna, and</li> </ul> </li> <li>Modification 3 Planning Application prepared by Flyers Creek Wind Farm Pty Ltd, 3 May 2017: <ul style="list-style-type: none"> <li>Section 4 – Environmental Assessment, and</li> <li>Appendix E – Keith Mills &amp; Associates Pty Limited Flora and Fauna Assessment.</li> </ul> </li> <li>Modification 4 Planning Application prepared by FCWFPL 27 July 2019: <ul style="list-style-type: none"> <li>Section 6 - Environmental Assessment, and</li> <li>Appendix J - Biodiversity Impact Assessment (NGH Environmental).</li> </ul> </li> </ul> <p>Minor Modification 5 Planning Application prepared by FCWFPL 09 July 2021:</p> <ul style="list-style-type: none"> <li>Appendix C – BDAR</li> </ul> <ul style="list-style-type: none"> <li>Flyers Creek Wind Farm Biodiversity Offset Package, prepared by NGH Environmental October 2021, under Condition D5 of the Project Approval (DPIE approved 12/11/21).</li> </ul>	-
<b>2. DEFINITIONS AND ABBREVIATIONS</b>		
2.1 Definitions	<p>Aspect</p> <p>Audit</p> <p>Client and or Proponent</p> <p>Contractor</p>	<p>An element of an organisation’s activities or products or service that can interact with the environment.</p> <p>A systematic review of management systems being applied on the Project.</p> <p>Flyers Creek Wind Farm Pty Ltd (FCWFPL)</p> <p>The firm or party awarded the contract to construct the Flyers Creek Wind Farm Project.</p>



ACTIVITY	DESCRIPTION	REFERENCES	
	EEC	An ecological community is a naturally occurring group of native plants, animals and other organisms living in a unique location. An ecological community may be listed as critically endangered if the TSSC determines it is facing an extremely high risk of extinction in Australia in the immediate future.	
	Form 2	Contractor utilise a system, which acts as a project control gateway (known as a Form 2) for each construction activity to commence. The Form 2 is a document reviewed and signed off by the various Project discipline leads and Project Manager. This form is a pre-commencement gateway for each construction activity within a discrete section of works. The Form 2 is a key means of communicating to the activity supervisor management controls for any given portion of the works.	
	Impact	Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.	
	Incident	A set of circumstances that: <ul style="list-style-type: none"> <li>causes or threatens to cause material harm to the environment; and/or</li> <li>breaches or exceeds the limits or performance measures/criteria in this approval</li> </ul>	
	Inspection	Review or check on the environment requirements being implemented.	
	Management measures	In addition to the conditions outlined within the CoA. These are intended to assist in the mitigation and prevention of non-conformances against the CoA during the FCWF project lifecycle.	
	Obligation	A legal relationship between two entities in which one entities' right is the other entities' duty.	
	Project	Flyers Creek Wind Farm Project	
	Regulatory Requirements	Government acts and regulations that are environment specific which prescribe legal obligations encompassing the client and contractor and amongst other things, registration of projects and plant, certificates to operate machinery and undertake certain trades and notification of injuries.	
	Statement of Commitments	Commitments outlined in Chapter 19 of the Project Environmental Assessment	
	Threatened Species	Plants and animals are assessed if they are at risk of extinction. If the risk is high, they are listed in legislation and conservation actions are developed for their protection. A species is considered threatened if: there is a reduction in its population size, it has a restricted geographical distribution, or there are few mature individuals.	
2.2 Abbreviations	BAM	Biodiversity Assessment Method	
	BC	Biodiversity Conservation	
	BCS	Biodiversity, Conservation and Science Directorate (former OEH)	
	BDAR	Biodiversity Development Assessment Report	
	CEMP	Construction Environmental Management Plan	
	CFFMP	Construction Flora and Fauna Management Plan (This Plan)	
	CSWQMP	Construction Soil and Water Quality Management Plan	
	cBOP	Civil Balance of Plant	
	CoA	Conditions of Approval	
	DBH	Diameter at Breast Height	
	DECCW	Department of Environment, Climate Change and Water (now Environment, Energy and Science Group of DPIE)	
	DPIE	Department of Planning, Industry and Environment	
	EA	Environmental Assessment	
	eBOP	Electrical Balance of Plant	
	EEC	Endangered Ecological Community (See definition above)	
	EESG	Environment, Energy and Science Group of DPIE	
	EMP	Environmental Management Plan	
	EP&A	Environmental Planning and Assessment	

ACTIVITY	DESCRIPTION	REFERENCES
	EPBC	Environment Protection and Biodiversity Conservation
	ESC	Erosion and Sediment Control
	FCWF	Flyers Creek Wind Farm
	GR&A	Greg Richards and Associates
	HBT	Hollow Bearing Tree
	IECA	International Erosion Control Association
	KMA	Kevin Mills and Associates
	LGA	Local Government Area
	NPW	National Parks and Wildlife
	NSW	New South Wales
	OEH	NSW Office of Environment and Heritage (now BCS)
	PCT	Plant Community Types
	SWMS	Safe Work Method Statement
	TPZ	Tree Protection Zone
	TSC	Threatened Species Conservation
	TSSC	Threatened Species Scientific Committee
	WTG	Wind Turbine Generator
<b>3. PROJECT INFORMATION</b>		
3.1 Project Background and Description	<p>Flyers Creek Wind Farm Pty Ltd (the Proponent) forms part of the Iberdrola Australia corporate group (Iberdrola). Iberdrola is a developer, owner and operator of generation assets delivering energy solutions to Australian businesses and large retailers. The FCWF is an approved 38 wind turbine wind farm located approximately 20km south of Orange NSW. The Project is located predominantly in the Blayney Shire local government area with part of the proposed 132 kilovolt transmission line and switching station being located in Cabonne Shire Council local government area.</p> <p>Project Approval MP 08_0252 was granted under Part 3A of the Environmental Planning and Assessment Act 1979 (NSW) (EP&amp;A Act) to the Proponent for the Project by the NSW Planning and Assessment Commission on 14<sup>th</sup> March 2014. The Project Approval has been modified 4 times since originally being granted and was transitioned to State significant development on 6<sup>th</sup> July 2018.</p> <p>The Project approval authorises the construction and operation of a wind farm and associated infrastructure including access tracks, local road infrastructure upgrades and electrical connections between the turbines (underground cable reticulation, also underground and aboveground powerlines), an on-site substation (inclusive of switch room, control room and auxiliary services building) and a 132-kilovolt transmission line and switching station to connect the Project to the grid.</p>	-

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3.2 Turbine Numbering	<p>The FCWF wind turbines have been renumbered. Table 2 below details the Approved turbine number (EA) and the revised turbine number.</p> <p style="text-align: center;"><b>Table 2 Turbine Numbering</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th data-bbox="550 338 798 394">Approved Turbine Number</th> <th data-bbox="798 338 1045 394">Revised Turbine Number</th> </tr> </thead> <tbody> <tr><td>3</td><td>1</td></tr> <tr><td>5</td><td>2</td></tr> <tr><td>6</td><td>3</td></tr> <tr><td>7</td><td>4</td></tr> <tr><td>8</td><td>5</td></tr> <tr><td>9</td><td>6</td></tr> <tr><td>11</td><td>7</td></tr> <tr><td>10</td><td>8</td></tr> <tr><td>15</td><td>9</td></tr> <tr><td>18</td><td>10</td></tr> <tr><td>19</td><td>11</td></tr> <tr><td>20</td><td>12</td></tr> <tr><td>29</td><td>13</td></tr> <tr><td>30</td><td>14</td></tr> <tr><td>31</td><td>15</td></tr> <tr><td>28</td><td>16</td></tr> <tr><td>27</td><td>17</td></tr> <tr><td>26</td><td>18</td></tr> <tr><td>25</td><td>19</td></tr> <tr><td>24</td><td>20</td></tr> <tr><td>21</td><td>21</td></tr> <tr><td>22</td><td>22</td></tr> <tr><td>23</td><td>23</td></tr> <tr><td>46</td><td>24</td></tr> <tr><td>45</td><td>25</td></tr> <tr><td>44</td><td>26</td></tr> <tr><td>43</td><td>27</td></tr> <tr><td>42</td><td>28</td></tr> <tr><td>41</td><td>29</td></tr> <tr><td>40</td><td>30</td></tr> <tr><td>39</td><td>31</td></tr> <tr><td>38</td><td>32</td></tr> <tr><td>37</td><td>33</td></tr> <tr><td>36</td><td>34</td></tr> <tr><td>35</td><td>35</td></tr> <tr><td>34</td><td>36</td></tr> <tr><td>33</td><td>37</td></tr> <tr><td>32</td><td>38</td></tr> </tbody> </table>	Approved Turbine Number	Revised Turbine Number	3	1	5	2	6	3	7	4	8	5	9	6	11	7	10	8	15	9	18	10	19	11	20	12	29	13	30	14	31	15	28	16	27	17	26	18	25	19	24	20	21	21	22	22	23	23	46	24	45	25	44	26	43	27	42	28	41	29	40	30	39	31	38	32	37	33	36	34	35	35	34	36	33	37	32	38	
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<b>4. EXISTING PROJECT ENVIRONMENT</b>																																																																																
4.1 Legislation and Guidelines	The following legislation provides the primary context for management of flora and fauna management in NSW:																																																																															



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	<ul style="list-style-type: none"> <li>Environmental Protection and Biodiversity Conservation Act CTH 1999</li> <li>Biodiversity Conservation Act NSW 2017</li> <li>Biodiversity Conservation Regulation 2017</li> <li>Biosecurity Act NSW 2015, and</li> <li>Fisheries Management Act NSW 1994.</li> </ul> <p>Relevant Guidelines and Fact Sheets:</p> <ul style="list-style-type: none"> <li>EPBC Policy Fact Sheet - White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived native grassland, Department of Environment and Heritage</li> <li>White Box-Yellow Box Blakely's Red Gum (Box-Gum) Woodland Factsheet, NSW National Parks and Wildlife Service</li> <li>Threatened Ecological Communities Strategy, OEH 2017</li> <li>Policy and Guidelines for Fish Friendly Waterway Crossings 2004</li> <li>Why Do Fish Need to Cross The Road - Fish Passage Requirements For Waterway Crossings, NSW DPI (Fisheries) 2003, and</li> <li>Guidelines for Controlled Activity on Waterfront Land, NSW Office of Water, 2012.</li> </ul>																						
<p>4.2 Condition of Approval</p>	<p>This Plan has been prepared to comply with the consolidated CoA, dated June 2019 and specifically the requirements of CoA D1, D2, D3, F21 (f) and H2 as listed below in Table 3 Conditions of Approval.</p> <p>As part of the Constructional Environmental Management Plan for the Project required under condition F20 the Proponent shall prepare and implement this Construction Flora and Fauna Management Plan.</p> <p style="text-align: center;"><b>Table 3 Conditions of Approval</b></p> <table border="1" data-bbox="338 1010 1437 2098"> <thead> <tr> <th data-bbox="338 1010 488 1077">CoA</th> <th data-bbox="488 1010 1171 1077">Condition</th> <th data-bbox="1171 1010 1437 1077">Refer to Section within This Plan</th> </tr> </thead> <tbody> <tr> <td data-bbox="338 1077 488 1339">D1</td> <td data-bbox="488 1077 1171 1339"> <p><i>The Proponent must:</i></p> <p>(a) <i>Ensure that no more than 3.7 ha of EEC is cleared for the project, unless the Secretary agrees otherwise; and</i></p> <p>(b) <i>Minimise the clearing of native woodland vegetation, scattered paddock trees and fauna habitat (including rocky outcrops) within the approved disturbance footprint.</i></p> <p>The Secretary has approved increased clearing of CEEC such that no more than 28.1 ha of CEEC is cleared for the project.</p> </td> <td data-bbox="1171 1077 1437 1339"> <p>Section 6 MM01 MM05-08 MM10 MM12</p> </td> </tr> <tr> <td data-bbox="338 1339 488 1503">D2</td> <td data-bbox="488 1339 1171 1503"> <p><i>Tree trunks and major branches from cleared trees should be used, to the fullest extent practicable, to enhance habitat (coarse woody debris) in rehabilitated areas or in derived native grassland (either in offset areas or areas adjoining impacted areas) and details included in the Construction Flora and Fauna Management Plan required by Condition F21(f)</i></p> </td> <td data-bbox="1171 1339 1437 1503"> <p>Section 6 MM24 MM31 MM54 MM56</p> </td> </tr> <tr> <td data-bbox="338 1503 488 1688">D3</td> <td data-bbox="488 1503 1171 1688"> <p><i>No more than 26 hollow bearing trees shall be removed for the project, unless the Secretary agrees otherwise.</i></p> <p>The Secretary has approved increased removal of hollow bearing trees such that no more than 189 hollow bearing trees can be removed for the project.</p> </td> <td data-bbox="1171 1503 1437 1688"> <p>Section 6 MM01 MM05 MM08 MM10 MM24</p> </td> </tr> <tr> <td data-bbox="338 1688 488 1798">F21 (f)</td> <td data-bbox="488 1688 1171 1798"> <p><i>Construction Flora and Fauna Management Plan to detail how construction impacts on ecology will be minimised and managed. 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	<p>iii) <i>identification of areas to be cleared and details of management measures (such as fencing, clearing procedures, removal and relocation of fauna during clearing, habitat tree management and construction worker education) to avoid any residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat</i></p> <p>iv) <i>rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas</i></p> <p>v) <i>weed management measures focusing on early identification of invasive weeds and effective management controls</i></p> <p>vi) <i>a description of how the effectiveness of these actions and measures would be monitored, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported and, if any exceedance of the criteria is detected, how any non-compliance can be rectified</i></p> <p>vii) <i>a procedure for dealing with unexpected EEC / threatened species identified during construction, including cessation of work and notification of the OEHL and the Department, determination of appropriate mitigation measures in consultation with the OEHL (including relevant re-location measures) and updating of ecological monitoring and / or biodiversity offset requirements</i></p> <p>viii) <i>mechanism for the monitoring, review and amendment of this Plan.</i></p> <p>H2  <i>The Proponent must:</i>                      (a) <i>rehabilitate all areas of the site not proposed for future disturbance progressively, that is, as soon as reasonably practicable following construction or decommissioning;</i>                      (b) <i>minimise the total area exposed at any time; and</i>                      (c) <i>employ interim rehabilitation strategies to minimise dust generation, soil erosion and weed incursion on parts of the site that cannot yet be permanently rehabilitated.</i></p>	<p>MM10</p> <p>Section 6 MM05</p> <p>Section 6 MM49-56</p> <p>Section 6 MM14-19</p> <p>Section 8</p> <p>Section 6 MM01 Appendix D</p> <p>Section 8.3</p> <p>Section 6 MM49- MM56</p>
<p>4.3 Flora and Fauna Overview 132kV Transmission Line</p>	<p>The majority of the development site has been cleared of native vegetation and cultivated for agriculture, which is the dominant land use in the area, as well as large areas set aside for the timber industry.</p> <p>Specific to the subject land, this has included:</p> <ol style="list-style-type: none"> <li>1. Extensive clearing of native vegetation.</li> <li>2. Paddocks sown with forage crops and improved pasture.</li> <li>3. Extensive pine plantations for use in the timber industry.</li> <li>4. Previous alteration of drainage lines through clearing cropping and damming.</li> </ol> <p>A large proportion of the development site is owned by State Forest and is comprised of Radiata Pine plantations. Remnant native woodlands occur along the road reserve of Cadia Road and Panuara Road and small sections within the pine plantation.</p> <p>The Southern section of the development site (from the Errowanbang Road to the substation) runs through private property and has been extensively cleared for improved pasture and forage cropping for grazing of sheep and cattle. Some scattered trees of Yellow Box (<i>Eucalyptus melliodora</i>) and Blakely's Red Gum (<i>Eucalyptus blakeyi</i>) remain within the paddocks as isolated paddock trees or small patches within the paddock. Planted corridors of native vegetation, comprising trees and shrubs of local provenance such as Yellow Box, Longleaf Box (<i>Eucalyptus gonicalyx</i>) and Acacia species occur alongside Cadia Road in the Southern sections of the transmission line route.</p> <p>A land category assessment was undertaken, and all areas of non-native vegetation were determined to be Category 1-Exempt Land.</p> <p>Category 1-Exempt land is defined by the Local Land Service Act 2013 (LLS Act) as land that is:</p> <ul style="list-style-type: none"> <li>• Land cleared of native vegetation as of 1 January 1990 or lawfully cleared after 1 January 1990,</li> <li>• Low Conservation Grasslands (following commencement of the new framework on 25th August 2017,</li> <li>• Land (not being grasslands) containing only low conservation groundcover (following commencement of the new framework on 25th August 2017),</li> <li>• Native vegetation identified as regrowth in a Property Vegetation Plan under the repealed Native Vegetation Act 2003 or</li> </ul>	

ACTIVITY	DESCRIPTION	REFERENCES																				
	<ul style="list-style-type: none"> <li>Land biodiversity certified under the BC Act.</li> </ul> <p>About 14 ha of native vegetation occurs within the development site. This is comprised of:</p> <ul style="list-style-type: none"> <li>About 0.9 ha of small remnant clumps of Box Gum Grassy Woodland dominated by Yellow Box occur along the road reserve of Cadia Road and surrounded by forestry pine plantation. These small native woodland areas comprised of a mix of Eucalypts such as Apple Box, Candlebark (<i>Eucalyptus rubida</i>), Broad-leaved Peppermint (<i>Eucalyptus dives</i>), Long-leaf Box and Red Stringybark (<i>Eucalyptus macrorhyncha</i>).</li> <li>About 1.8 ha of scattered trees comprising Yellow Box and Blakely's Red Gum remain as isolated paddock trees or small patches within cleared paddocks and along Panuara Rd (Note: a number of large trees and understory vegetation has been removed along Panuara Rd following the original field surveys as part of the Blayney Shire Council upgrade works of Panuara and Cadia Roads).</li> <li>About 0.26 ha of planted corridors of native vegetation, predominantly on the Eastern side of Cadia Road and paddock wind breaks, comprising trees and shrubs of local provenance such as Yellow Box, Long-leaf Box and Acacia species and occur in the Southern sections of the transmission line route.</li> </ul> <p>About 92.6 ha occurs as non-native vegetation within the development site. This vegetation is comprised of Radiata Pine (<i>*Pinus radiata</i>) within the forestry pine plantation as well as of sown exotic pastures including; Phalaris (<i>*Phalaris aquatica.</i>), Barley Grass (<i>*Hordeum leporinum</i>), Medics (<i>*Medicago sp.</i>) and Clover (<i>*Trifolium sp.</i>).</p> <p>One (1) paddock tree occurs within the development site with paddock trees being defined as:</p> <ul style="list-style-type: none"> <li>a tree or a group of up to three trees less than 50 m apart from each other, and</li> <li>over an exotic groundcover, and</li> <li>more than 50 m away from any other living tree greater than 20 cm diameter at breast height, and</li> <li>on category 2 land surrounded by category 1 land (as defined by the BAM, 2017)</li> </ul> <p>Cleared areas in the development site are primarily sown exotic pastures as described above and cropping for agriculture. This vegetation provides limited fauna habitat for native species, however common species including parrots, raptors, and introduced species such as foxes and rabbits may utilise the area for foraging.</p> <p>The majority of the development site is well connected in terms of vegetation that would allow movement of species throughout the area, however the majority of this is through forestry pine plantations and provides little in terms of optimal habitat but would allow species to move throughout the areas into the small patches of better condition native vegetation. One species credit species, the Squirrel Glider (<i>Petaurus norfolcensis</i>), was observed within the development site during the site surveys. Areas of potential breeding and foraging habitat was avoided where possible however some native habitat was unable to be avoided by the easement. 2.6 ha of habitat in the form of PCT 1330 and PCT 287 would be removed.</p> <p>Along with roadside vegetation along Cadia Road, this planted vegetation may provide connectivity for disturbance tolerant and mobile species to traverse the landscape. As described above, in the southern area of the development site, remnant vegetation mostly occurs as isolated patches and paddock trees.</p> <p>Three PCTs were identified within the development site including:</p> <ul style="list-style-type: none"> <li>PCT 1330: Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion</li> <li>PCT 277: Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion</li> <li>PCT 287: Long-leaved Box – Red Box – Red stringybark mixed open forest on the hills and hillslopes in the NSW South Western Slopes Bioregion.</li> </ul> <p>A summary of impacts to native vegetation within the 132kV Transmission Line Development Corridor is presented in Table 4.</p> <p style="text-align: center;"><b>Table 4 Assessment and impacts to PCT 132kV Transmission Line Development Corridor</b></p> <table border="1" data-bbox="338 1742 1257 2042"> <thead> <tr> <th>Zone ID</th> <th>PCT No.</th> <th>Plant Community Type</th> <th>Condition</th> <th>Area Impacted (ha)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>277</td> <td>Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT 277)</td> <td>Moderate</td> <td>1.01</td> </tr> <tr> <td>2</td> <td>1330</td> <td>Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)</td> <td>Poor</td> <td>2.04</td> </tr> <tr> <td>3</td> <td>1330</td> <td>Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)</td> <td>Moderate</td> <td>1.98</td> </tr> </tbody> </table>	Zone ID	PCT No.	Plant Community Type	Condition	Area Impacted (ha)	1	277	Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT 277)	Moderate	1.01	2	1330	Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)	Poor	2.04	3	1330	Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)	Moderate	1.98	<p>Mod 5 BDAR v2 2021</p> <p>Appendix B Overall Layout PCT Control Map</p>
Zone ID	PCT No.	Plant Community Type	Condition	Area Impacted (ha)																		
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ACTIVITY		DESCRIPTION				REFERENCES																																				
	4	1330	Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)	Moderate-Good	1.26																																					
	5	277	Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT 277)	Planted	0.24																																					
	6	NA	Exotic Vegetation – Pasture		16.00																																					
	7	NA	Exotic Vegetation – Pine Plantation		48.08																																					
	8	NA	Paddock Trees – E. Blakelyi x one																																							
	9	287	Long-leaved Box - Red Box - Red Stringybark mixed open forest on hills and hillslopes in the NSW South Western Slopes Bioregion (PCT 287)	Good	0.92																																					
	10	NA	Exotic Other		0.45																																					
<p><b>Table 5 Assessment and Impacts to Hollow Bearing Trees HBTs 132kV Transmission Line Development Corridor</b></p> <table border="1"> <thead> <tr> <th>Zone ID</th> <th>PCT No.</th> <th>HBTs within Zone</th> <th>HBTs Impacted</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>277</td> <td>19</td> <td>3</td> </tr> <tr> <td>2</td> <td>1330</td> <td>0</td> <td>0</td> </tr> <tr> <td>3</td> <td>1330</td> <td>5</td> <td>0</td> </tr> <tr> <td>4</td> <td>1330</td> <td>0</td> <td>0</td> </tr> <tr> <td>5</td> <td>277</td> <td>0</td> <td>0</td> </tr> <tr> <td>6</td> <td>NA</td> <td>2</td> <td>2 Stags</td> </tr> <tr> <td>7</td> <td>NA</td> <td>0</td> <td>1</td> </tr> <tr> <td>8</td> <td>NA</td> <td>3</td> <td>1</td> </tr> </tbody> </table> <p>The layout and expected impacts to Plant Community Types (PCT) associated with the development are presented in <b>Appendix B Overall Layout PCT Control Map</b>.</p>							Zone ID	PCT No.	HBTs within Zone	HBTs Impacted	1	277	19	3	2	1330	0	0	3	1330	5	0	4	1330	0	0	5	277	0	0	6	NA	2	2 Stags	7	NA	0	1	8	NA	3	1
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8	NA	3	1																																							

ACTIVITY	DESCRIPTION	REFERENCES
<p>4.4 Flora and Fauna Overview Wider Project Site</p>	<p>A wider site assessment to survey, classify and map vegetation and habitat was reported by NGH Environmental in September 2021. This assessment was undertaken in part to provide an updated vegetation baseline for this management plan and to satisfy the requirements of CoA D5: Biodiversity Offset Plan to update baseline mapping of vegetation and key habitat and to estimate the extent of vegetation removal that would trigger subsequent offset credit liabilities.</p> <p>The wider site assessment identified that the majority of native vegetation to be impacted is degraded and fragmented through agricultural practices including vegetation clearing, pasture improvement and grazing.</p> <p>Cleared areas in the development site are primarily sown exotic pastures including; Phalaris (*Phalaris aquatica.), Barley Grass (*Hordeum leporinum), Medics (*Medicago sp.) and Clover (*Trifolium sp.) This vegetation supports agricultural enterprise which is primarily grazing of livestock and provides limited fauna habitat for native species, however common species including parrots, raptors, and introduced species such as foxes and rabbits may utilise the area for foraging.</p> <p>Impacts to native vegetation and threatened species have been avoided through an iterative process of site design and subsequent micro-siting.</p> <p>For impacts that were unable to be avoided through this iterative process, the development site involves disturbance of the following plant community types (PCTs):</p> <ul style="list-style-type: none"> <li>• PCT 1330 Yellow Box - Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion.</li> <li>• PCT 278 Riparian Blakely's Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion.</li> <li>• PCT 277 Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion.</li> <li>• PCT 268 White Box - Blakely's Red Gum - Long-leaved Box - Nortons Box – Red Stringybark grass-shrub woodland on shallow soils on hills in the NSW South Western Slopes Bioregion.</li> <li>• PCT 266 White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion, and</li> <li>• PCT 766 Carex sedgeland of the slopes and tablelands of the semi-arid (warm) climate zone</li> </ul> <p>Additionally, areas of Squirrel Glider Habitat and Superb Parrot Habitat in the form of moderate condition woodlands will be impacted as well.</p> <p>Readers are referred to <b>Appendix G – Squirrel Glider Management Plan</b>.</p> <p>With regards the Superb Parrot, whilst previous assessments have recorded no known nests occurring within 100m of the development footprint there is an abundance of hollow-bearing trees where nesting could go undetected or likely to provide future nesting opportunities. No other threatened bird species were detected from the latest survey.</p> <p>Based on this assessment, micro-siting of the WTGs and ancillary infrastructure has been completed to optimise the development in avoiding environmental sensitivities as far as practicable.</p> <p>The total area of impact to native vegetation is 31 ha including up to 28.1 ha of CEEC (Box Gum Woodland). 112.05 ha of Box Gum Woodland within the development site would be avoided and remain unchanged from the current existing condition. The vast majority of Box-gum woodland within the development site has been modified or degraded due to historical land use and edge effects. No impacts to the remaining Box-gum woodland are anticipated.</p> <p>The development will impact about 144 ha of cleared improved pasture that is within the development footprint. Birds of prey may utilise open pastures searching for prey however, removal of this non-native vegetation will not impact these species' ability to forage or hunt. Due to pasture improvement and grazing management, cleared areas containing exotic improved pasture species are considered to be non-optimal for many native threatened fauna and flora species.</p> <p>Although the development requires the removal of woodland vegetation, scattered paddock trees, and some areas of low condition grasslands, the area to be removed is a narrow linear footprint which would not isolate adjoining vegetation patches which are already heavily fragmented.</p> <p>The total clearance allowance for HBT's is 189. It remains during the execution of works that this impact may be reduced through additional micro-siting to avoid environmental sensitivities where safe and practicable to do so. However, all HBTs withing 50m of a turbine will be cleared to ensure any potential adverse impacts on birds and bats is mitigated.</p> <p>The layout and expected impacts to Plant Community Types (PCT) associated with the development are presented in <b>Appendix B Overall Layout PCT Control Map</b>.</p> <p>A summary of impacts to native vegetation across the wider project area is presented in Table 6.</p>	<p>Appendix B Overall Layout PCT Control Map</p> <p>Appendix G Squirrel Glider Management Plan</p>



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	<p><b>Table 6 Assessment and impacts to PCT across the wider project area including WTGs and ancillary Infrastructure</b></p> <table border="1"> <thead> <tr> <th data-bbox="336 297 422 376">PCT No.</th> <th data-bbox="422 297 906 376">Plant Community Type</th> <th data-bbox="906 297 1115 376">Condition</th> <th data-bbox="1115 297 1257 376">Area Impacted (ha)</th> </tr> </thead> <tbody> <tr> <td>266</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Low</td> <td>0.52</td> </tr> <tr> <td>268</td> <td>Nil – Derived Grassland</td> <td></td> <td>2.53</td> </tr> <tr> <td>268</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Moderate</td> <td>1.90</td> </tr> <tr> <td>277</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Good</td> <td>0.10</td> </tr> <tr> <td>277</td> <td>Nil - Derived Grassland</td> <td>Low</td> <td>3.97</td> </tr> <tr> <td>277</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Moderate</td> <td>18.82</td> </tr> <tr> <td>277</td> <td>Nil</td> <td>Planted</td> <td>0.04</td> </tr> <tr> <td>277</td> <td>Nil – Planted Roadside</td> <td>Planted</td> <td>0.04</td> </tr> <tr> <td>278</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Moderate</td> <td>0.51</td> </tr> <tr> <td>1330</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Poor</td> <td>0.69</td> </tr> <tr> <td>1330</td> <td>White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)</td> <td>Moderate</td> <td>1.26</td> </tr> <tr> <td>1330</td> <td>Nil – Derived Grassland</td> <td></td> <td>0.45</td> </tr> <tr> <td>766</td> <td>Nil</td> <td>Moderate</td> <td>0.17</td> </tr> <tr> <td></td> <td>Non-Native Vegetation</td> <td></td> <td>144</td> </tr> </tbody> </table> <p>Note: this table is replicated form the Biodiversity Offset Plan. Where possible, impacts and clearing will be reduced during execution.</p>	PCT No.	Plant Community Type	Condition	Area Impacted (ha)	266	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Low	0.52	268	Nil – Derived Grassland		2.53	268	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Moderate	1.90	277	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Good	0.10	277	Nil - Derived Grassland	Low	3.97	277	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Moderate	18.82	277	Nil	Planted	0.04	277	Nil – Planted Roadside	Planted	0.04	278	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Moderate	0.51	1330	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Poor	0.69	1330	White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box-gum Woodland)	Moderate	1.26	1330	Nil – Derived Grassland		0.45	766	Nil	Moderate	0.17		Non-Native Vegetation		144	
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<p>4.5 Weed Assessment</p>	<p>Previous flora assessments have observed the following invasive weeds within the development area.</p> <p><b>Table 7 Weeds Observed in the Study Area</b></p> <table border="1"> <thead> <tr> <th data-bbox="360 1563 815 1603">Name</th> <th data-bbox="815 1563 1233 1603">Habitat</th> </tr> </thead> <tbody> <tr> <td data-bbox="360 1603 815 1675"><i>Rubus fruticosus</i> sp. Agg Blackberry</td> <td data-bbox="815 1603 1233 1675">Rambling, prickly shrub</td> </tr> <tr> <td data-bbox="360 1675 815 1724"><i>Onopordium acanthium</i> Scotch Thistle</td> <td data-bbox="815 1675 1233 1724">Prickly herb</td> </tr> <tr> <td data-bbox="360 1724 815 1780"><i>Nassella trichotoma</i> <i>Serrated Tussock</i></td> <td data-bbox="815 1724 1233 1780">Tussock grass</td> </tr> <tr> <td data-bbox="360 1780 815 1832"><i>Hypericum perforatum</i> <i>St John’s Wort</i></td> <td data-bbox="815 1780 1233 1832">Herb</td> </tr> <tr> <td data-bbox="360 1832 815 1888"><i>Rosa rubiginosa</i> <i>Sweet Briar</i></td> <td data-bbox="815 1832 1233 1888">Thorny shrub</td> </tr> </tbody> </table> <p>In NSW all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</p> <p>Refer to <b>Appendix C Invasive Weed Identification and Treatments</b>.</p>	Name	Habitat	<i>Rubus fruticosus</i> sp. Agg Blackberry	Rambling, prickly shrub	<i>Onopordium acanthium</i> Scotch Thistle	Prickly herb	<i>Nassella trichotoma</i> <i>Serrated Tussock</i>	Tussock grass	<i>Hypericum perforatum</i> <i>St John’s Wort</i>	Herb	<i>Rosa rubiginosa</i> <i>Sweet Briar</i>	Thorny shrub	<p>EA 2011 Chapter 10 Appendix E</p> <p>Appendix C</p>																																																
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	<p>The following management recommendations and mitigation measures are derived from:</p> <ul style="list-style-type: none"> <li>EA Statement of Commitments 2011 developed following results of the EA Flora and Fauna Assessment undertaken by Kevin Mills and Associates (KMA) 2011</li> <li>Results of the Modification 3 assessment undertaken by KMA 2017</li> <li>Results of the Modification 4 assessment undertaken by NGH Environmental 2018</li> <li>Results of the Modification 5 BDAR, NGH Environmental 2021</li> <li>Biodiversity Offset Package Report, NGH Environmental, 2021, and</li> <li>Biodiversity Offset Report NGH Environmental, 2021.</li> </ul> <p>In addition to the management recommendations and mitigation measures described below the proposed clearing of vegetation associated with the development has been assigned a biodiversity offset as identified in the project Minor Modification 5 Biodiversity Development Assessment report (BDAR) and the Biodiversity Offset Package Report prepared by NGH Environmental September 2021. Biodiversity offsets identified in the reports have been assessed through comprehensive mapping and assessment for Plant Community types, Planted Vegetation and Scattered paddock trees and threatened fauna habitat in the development site. Vegetation Integrity plots and targeted surveys have been undertaken to determine vegetation condition and threatened species habitat in accordance with the BAM.</p> <p>As set out in CoA D6, the retirement of these credits will be carried out within two years of the commencement of construction in accordance with the NSW Biodiversity Offsets scheme.</p> <p>The following recommendations and mitigations, Table 8 Statement of Commitments EA 2011 and Table 9 Recommendations and Mitigation Measures derived from the EA Modification 3 and Modification 4, Modification 5 and the Biodiversity Offset assessment for Flora and Fauna Management have informed the development of Section 6 Construction Flora and Fauna Risks, Impacts, Objectives and Management Controls.</p>													
<p>4.6 Recommendations and Agreed Management Measures</p>	<p>The 2011 EA Statement of Commitments which are relevant to this CFFMP are outlined in Table 8.</p> <p style="text-align: center;"><b>Table 8 Statement of Commitments</b></p> <table border="1" data-bbox="379 1059 1476 1895"> <thead> <tr> <th data-bbox="379 1059 550 1126">SoC</th> <th data-bbox="550 1059 1273 1126">Commitment</th> <th data-bbox="1273 1059 1476 1126">Refer to Section in this plan</th> </tr> </thead> <tbody> <tr> <td data-bbox="379 1126 550 1234">Minimising harm to the Environment</td> <td data-bbox="550 1126 1273 1234"> <ul style="list-style-type: none"> <li>The Proponent will implement all practicable measures to prevent and minimise any harm to the environment that may result from the construction, commissioning, operation, maintenance and decommissioning of the development.</li> </ul> </td> <td data-bbox="1273 1126 1476 1234">Section 6</td> </tr> <tr> <td data-bbox="379 1234 550 1312">Flora and Fauna Management Sub Plan</td> <td data-bbox="550 1234 1273 1312"> <ul style="list-style-type: none"> <li>A Flora and Fauna Management Sub Plan will be prepared by FCWFPL as a sub plan of the CEMP</li> </ul> </td> <td data-bbox="1273 1234 1476 1312">This Plan</td> </tr> <tr> <td data-bbox="379 1312 550 1895">Flora and Fauna Site Specific Requirements (Chapter 10)</td> <td data-bbox="550 1312 1273 1895"> <p>Specific areas where clearing is to be carefully planned and managed including pre-clearing reviews, monitoring and review include the following locations:</p> <ul style="list-style-type: none"> <li>Turbine site (DA Reference 3) (now WTG 1)– avoid scattered trees</li> <li>Access track and cable routes between Turbines 4 (Removed at Mod 3) and 6 (now WTG 3) avoid scattered trees</li> <li>Vicinity of Turbine 9 (now WTG 6) – avoid scattered trees</li> <li>Access route to Turbine 16 (Removed at Mod 3) – follow edge of trees</li> <li>Siting of Turbines 18 and 19 (now WTG 10 and WTG 11) and associated tracks – avoid scattered trees</li> <li>Cable route for Turbine 20 (now WTG 12) to avoid clumps of remnant woodland</li> <li>Turbine site 33 (now WTG 37) – minimise clearing of trees</li> <li>Access track to Turbine 39 (now WTG 31)– minimise clearing of scattered trees</li> <li>Turbine site 39 (now WTG 31) – avoid nearby cluster of trees</li> <li>Cable route Turbine 39 to Turbine 43 (now WTG 31 and WTG 27) to follow route that minimises clearing</li> <li>33kV overhead line to avoid tree clearance wherever practicable, proposed route to be pegged and reviewed by ecologist (east of substation, in vicinity of Turbines 18 and 19 (now WTG 10 and WTG 11) southern end to reach point of connection with underground cable circuits</li> </ul> </td> <td data-bbox="1273 1312 1476 1895"> <p>Section 6</p> <p>MM01 MM02 MM05 MM07 MM08 MM10 MM22-24</p> </td> </tr> </tbody> </table>	SoC	Commitment	Refer to Section in this plan	Minimising harm to the Environment	<ul style="list-style-type: none"> <li>The Proponent will implement all practicable measures to prevent and minimise any harm to the environment that may result from the construction, commissioning, operation, maintenance and decommissioning of the development.</li> </ul>	Section 6	Flora and Fauna Management Sub Plan	<ul style="list-style-type: none"> <li>A Flora and Fauna Management Sub Plan will be prepared by FCWFPL as a sub plan of the CEMP</li> </ul>	This Plan	Flora and Fauna Site Specific Requirements (Chapter 10)	<p>Specific areas where clearing is to be carefully planned and managed including pre-clearing reviews, monitoring and review include the following locations:</p> <ul style="list-style-type: none"> <li>Turbine site (DA Reference 3) (now WTG 1)– avoid scattered trees</li> <li>Access track and cable routes between Turbines 4 (Removed at Mod 3) and 6 (now WTG 3) avoid scattered trees</li> <li>Vicinity of Turbine 9 (now WTG 6) – avoid scattered trees</li> <li>Access route to Turbine 16 (Removed at Mod 3) – follow edge of trees</li> <li>Siting of Turbines 18 and 19 (now WTG 10 and WTG 11) and associated tracks – avoid scattered trees</li> <li>Cable route for Turbine 20 (now WTG 12) to avoid clumps of remnant woodland</li> <li>Turbine site 33 (now WTG 37) – minimise clearing of trees</li> <li>Access track to Turbine 39 (now WTG 31)– minimise clearing of scattered trees</li> <li>Turbine site 39 (now WTG 31) – avoid nearby cluster of trees</li> <li>Cable route Turbine 39 to Turbine 43 (now WTG 31 and WTG 27) to follow route that minimises clearing</li> <li>33kV overhead line to avoid tree clearance wherever practicable, proposed route to be pegged and reviewed by ecologist (east of substation, in vicinity of Turbines 18 and 19 (now WTG 10 and WTG 11) southern end to reach point of connection with underground cable circuits</li> </ul>	<p>Section 6</p> <p>MM01 MM02 MM05 MM07 MM08 MM10 MM22-24</p>	
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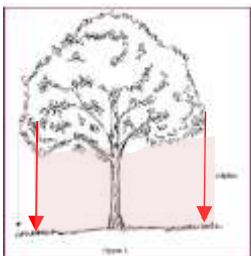
ACTIVITY	DESCRIPTION		REFERENCES
	Flora and Fauna Site Specific Requirements (Chapter 10) Flora and Fauna Mitigation Measures (Chapter 10)	<ul style="list-style-type: none"> <li>Where the crossing of small creeks is necessary for track and cable routes, the crossings will be designed to avoid erosion and the movement of soil into watercourses. The main risk area for erosion is for the cable route between turbine 39 and Turbine 43 (now WTG 31 and WTG 27) and consideration may be given to having this section of underground cable replaced by a section of overhead transmission line.</li> </ul>	Section 6 MM01 MM05 MM35-40
<p>In addition to the site-specific measures identified above, the proponent will adopt the following measures that are of a more general nature to ensure that impacts on the site's ecological values are minimised:</p> <ul style="list-style-type: none"> <li>Clearing of scattered trees or woodland will be avoided wherever possible. Where avoidance is not possible, clearing and lopping will be kept to the bare minimum to maximise conservation of the woodland.</li> <li>A soil and water management plan will be prepared for the project, in consultation with the Department of Planning and Department of Environment and Climate Change.</li> </ul>		Section 6 MM01 MM05 MM07 MM08 MM10 MM23-25 MM35-38 MM40 CSWMP Completed and Approved by DPIE	
<ul style="list-style-type: none"> <li>A targeted survey of the Superb Parrot will be undertaken in the breeding season (September to December) by a qualified biologist prior to construction commencing. The method provided in Appendix D (EA 2011) will be employed in this survey. In addition, should nesting sites be identified, the targeted surveys will be expanded to include forage areas and flight paths.</li> </ul>		Completed and the results presented in the Bird Bat Adaptive Management Plan (BBAMP).	
<ul style="list-style-type: none"> <li>Rock outcrops will be avoided where practicable. Where there is a need to disturb rock outcrop the disturbed rock will be relocated, and similar rocky habitat reconstructed nearby. Where batters are constructed using rock then these will be left in this form to provide reptile habitat and locations where rocky scrub can develop</li> <li>Measures must be incorporated in the Project Environmental Management Plan to restrict the introduction of weeds to the wind farm site and for post construction weed control measures to be applied for all areas disturbed by the project.</li> <li>Once the project layout has been confirmed, an ecologist, if necessary, will revisit the site to ensure that impacts on areas of high conservation value are minimised. Barriers will be installed where necessary to avoid movements beyond defined work areas.</li> </ul>		Section 6 MM01 MM06 MM10 MM13-19 MM26	

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Exclusion areas would extend to the dripline of the trees to be retained (the area directly under the tree branches) or as far from the trunk as possible.</li> <li>Clearly mark the limit of works prior to commencing works.</li> <li>Where suspected Silver-leaf Candlebark (<i>E. canobolensis</i>) trees occur within the development easement, or potential impact zone clearly mark and protect these trees to ensure impact to them is avoided.</li> <li>Carry out Spring Flora surveys to confirm vegetation mapping and determine the presence of Small Purple-pea (<i>Swainsona recta</i>) and Silky Swainson Pea (<i>Swainsona sericea</i>)</li> <li>Works would be confined to within the defined clearing limit</li> <li>Clearing of hollow-bearing trees would not be undertaken during the breeding season of threatened hollow-dependent species</li> <li>A hollow-bearing tree clearing protocol would be developed</li> <li>Large native trees with hollows and surface rock would be relocated to the edge of the easement. Replaced items would not be placed on top of existing habitat features</li> <li>Declared priority weeds such as Blackberry would be managed according to the requirements stipulated by the local control authority, and</li> <li>Post-construction management of priority weeds such as Blackberry would be incorporated into a weed management plan</li> </ul> <p>Time works to avoid critical life cycle events</p> <ul style="list-style-type: none"> <li>Implement clearing protocols during tree clearing works, including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecological or wildlife handler</li> <li>Relocate habitat features (fallen timber, hollow logs) from within the development site to an adjacent area</li> <li>Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed</li> <li>Adaptive dust monitoring programs to control air quality</li> <li>Temporary fencing to protect significant environmental features</li> <li>Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas</li> <li>Staff training and site briefing to communicate environmental features to be protected and measures to be implemented</li> <li>Sediment barriers and spill management protocols to control the quality of water runoff from the site into the receiving environment</li> <li>Enforce speed limits during construction to reduce impacts of vehicle strikes on threatened fauna</li> <li>Clearly survey and mark environmental no-go areas during construction to prevent clearing within unauthorised areas and where threatened species occur (i.e. <i>E. canobolensis</i>)</li> <li>Visual markers spaced evenly along sections of transmission line to lower the risk of collision and electrocution of avifauna and microbats</li> </ul> </td> <td data-bbox="1267 748 1465 2094">                     Section 6                       MM01-05                      MM07-08                      MM10-11                      MM14-19                      MM20-25                      MM28-31                      MM33-39                      MM44                       Survey Completed and determined no presence of Small Purple Pea or Silky Swainson Pea                 </td> </tr> </tbody> </table>	Source	Recommendation	Refer to Section in this plan	EA 2011 GR&A 2011 bat fauna assessment	<ul style="list-style-type: none"> <li>Clearing of mature trees is to be avoided by the project design</li> <li>Where clearing of mature trees cannot be avoided then a suitably qualified specialist should be consulted to assist with selection of the least impact arrangements</li> <li>Any clearing of mature trees should be undertaken so as to lower the tree with hollow sections facing up so that any bats roosting within the tree have the chance to escape</li> </ul>	Section 6  MM01-02 MM05 MM07-08 MM10 MM22-25 MM27-31	Modification 3 assessment by KMA 2017	<ul style="list-style-type: none"> <li>That the section of the Conservation and Environmental Management Plan which considers micro-siting to protect Biodiversity will set out the measures to avoid, retain and protect trees, and</li> <li>Where infrastructure traverses treed areas, it is recommended that an ecologist be involved in the establishment of the detailed route of the track, cable or power line.</li> </ul>	Section 6  MM01 MM02 MM08 MM10	Modification 4 assessment undertaken by NGH Environmental 2018	<p>Prior to construction incorporate the following safeguards into the Construction Flora and Fauna Management Plan:</p> <ul style="list-style-type: none"> <li>Clearly mark and protect hollow-bearing trees and other habitat features that are to be avoided. 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	<p>Modification 5 assessment Appendix C BDAR prepared by NGH Environmental 2021</p> <ul style="list-style-type: none"> <li>Time works to avoid critical life cycle events</li> <li>Implement clearing protocols during tree clearing works, including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecological or wildlife handler</li> <li>Relocate habitat features (fallen timber, hollow logs) from within the development site to an adjacent area.</li> <li>Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed</li> <li>Adaptive dust monitoring programs to control air quality</li> <li>Temporary fencing to protect significant environmental features</li> <li>Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas</li> <li>Staff training and site briefing to communicate environmental features to be protected and measures to be implemented</li> <li>Sediment barriers and spill management protocols to control the quality of water runoff from the site into the receiving environment</li> <li>Enforce speed limits during construction to reduce impacts of vehicle strikes on threatened fauna.</li> <li>Clearly survey and mark environmental no-go areas during construction to prevent clearing within unauthorised areas and where threatened species occur (i.e. E. canobolensis).</li> <li>A Squirrel Glider Management Plan to determine if poles and ropeways are required</li> <li>Visual markers spaced evenly along sections of transmission line to lower the risk of collision and electrocution of avifauna and microbats</li> </ul> <p>Biodiversity Offset Package Report prepared by NGH Environmental 2021</p> <ul style="list-style-type: none"> <li>Retention of hollow-bearing trees where possible</li> <li>Avoid clearing during the breeding season (April to November) to minimise impact on the life cycle of this species.</li> <li>If clearing occurs during April to November, ensure a qualified ecologist completes the following: <ul style="list-style-type: none"> <li>A pre-clearance survey of the trees proposed to be removed. This may include installation of cameras in the weeks leading up to the planned tree removal.</li> <li>Is on site to supervise tree removal to manage any threatened species discovered during operations.</li> <li>Placement of suitable man-made hollow bearing structures within the surrounding area.</li> </ul> </li> <li>Due to the linear nature of the development footprint, vegetation containing suitable roosting and breeding habitat would be retained where possible and specific measures put in place to avoid further connectivity issues including a glider pole on Gap Road</li> <li>Mitigation measures include the development of a Squirrel Glider Management Plan (SGMP) incorporated as part of the SGMP committed to in the 132kv transmission line BDAR (NGH, 132kv Transmission line BDAR). The SGMP would include the optimal crossing points and location of squirrel glider crossing poles over the access track to reduce connectivity impacts for the species along Gap Road.</li> </ul>	<p>MM01 MM02 MM05-08 MM10-19 MM21-25 MM28-30 MM33 MM36 MM37 MM38 MM43</p> <p>Section 6 MM01 MM02 MM05 MM06 MM07 MM08 MM10 MM24 MM41</p>
<b>5. FLORA AND FAUNA MANAGEMENT ROLES AND RESPONSIBILITIES</b>		
<p>An Organisation Chart has been developed and is appended to the Project Management Plan. Position descriptions describe the responsibilities specific to positions on the Project.</p>	<p>Project Management Plan</p>	
<b>6. CONSTRUCTION FLORA AND FAUNA RISKS, IMPACTS, OBJECTIVES AND MANAGEMENT CONTROLS – CONSTRUCTION ACTIVITY BASED</b>		
<p>Environmental Impacts</p>	<ul style="list-style-type: none"> <li>Disturbance to native fauna and flora</li> <li>Temporary habitat clearance</li> <li>Removal of native vegetation</li> <li>Dust, noise and vibration impacts to native fauna</li> <li>Driving impacts to native fauna</li> <li>Removal of seed-bank</li> <li>Soil erosion</li> <li>Sedimentation and reduction in surface water quality</li> <li>Spread of weed species and pathogens</li> <li>Exhaust emissions, and</li> <li>Generation of nuisance noise and dust.</li> </ul>	



ACTIVITY	DESCRIPTION	REFERENCES
Environmental Performance Objectives and Standards	<ul style="list-style-type: none"> <li>To minimise impacts to native flora and fauna</li> <li>To prevent unplanned or unapproved damage to native flora and fauna</li> <li>To rehabilitate the land to a condition capable of supporting its previous use, and</li> <li>To prevent the introduction and spread of new weed and pest infestation.</li> </ul>	
Measurement Criteria	<ul style="list-style-type: none"> <li>Compliance with approvals and regulatory requirements</li> <li>Clearing only occurs in approved areas and in accordance to approved survey and set out information</li> <li>Compliance with flora and fauna management measures</li> <li>No impacts to fauna arising from construction activities</li> <li>No unplanned or unauthorised clearance of flora or habitats, and</li> <li>No incursions or impacts on designated “no go” areas.</li> </ul>	
<b>Management Measures</b>		<b>Responsibility</b>
<b>Pre-Construction</b>		<b>Reference</b>
MM01	<p>The Contractor is responsible for Flora and Fauna management during construction and ensuring compliance all applicable legislation for the protection of listed flora and fauna.</p> <p>The preferred management approach for impacts to listed flora and fauna is avoidance.</p> <p>The process for avoidance will be achieved as follows:</p> <ul style="list-style-type: none"> <li>Design the windfarm layout and microsite the location of all infrastructure to limit disturbance to that approved under the CoA.</li> <li>Development of a Project culture in which the importance of listed flora and fauna species is recognised and respected, and</li> <li>Identification and protection of listed species and vulnerable habitat areas to be avoided through the establishment of adequate delineation and buffer measures during works set out and establishment.</li> </ul> <p>Listed and Threatened Species that are discovered as unexpected finds during construction will be managed in accordance with the unexpected finds protocol as described in Appendix D.</p>	Principal Contractor/ Subcontractors  CoA D1, D3 F21(f) (i) (iii) (vii)
MM02	Environmental Coordinator(s) to be employed by the contractor on the project will be qualified ecologists/fauna handlers.	Principal Contractor/ Subcontractors  CoA D1, D3 F21(f) (vii)
MM03	<p>All construction personnel and subcontractors are required to undertake a Project Environmental induction which will incorporate information on flora and fauna management specific to the project and field of operations and shall include the following:</p> <ul style="list-style-type: none"> <li>Legislation and penalties for the protection of flora and fauna</li> <li>Roles and Responsibilities for flora and fauna management</li> <li>Information on the location of existing flora and fauna sensitivities (Environmental Control Plans)</li> <li>Information threatened and listed species that may be encountered within the project area and field of operations</li> <li>Mitigation management measures</li> <li>Protocols for responding to unexpected finds of threatened species, and</li> <li>Incident reporting and record keeping.</li> </ul> <p>A register attendance at all inductions will be maintained</p>	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iii) (vii)
MM04	All construction personnel and subcontractors will participate in Safe Work Method Statement (SWMS) development that will include information on flora and fauna sensitivities and specific management measures for specific construction activities.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iii) (vii)
MM05	<p>Develop Environmental Control Plans (including the Flora and Fauna Site Specific Requirements (Chapter 10) from the Statement of Commitments) that identify environmental sensitivities and location management measures for:</p> <ul style="list-style-type: none"> <li>Protecting CEEC not approved for removal</li> <li>HBTs not approved for removal</li> <li>Establishment of No Go Zones</li> <li>Rocky outcrops and potential fauna habitat</li> <li>Watercourses and drainage lines, watercourse crossing structures and barriers to fish passage, and</li> <li>Sensitive receptors.</li> </ul>	Principal Contractor/ Subcontractors  CoA F21(f) (i) (ii) (iii) (vii)
MM06	Environmental Control Plans with locations of all environmental sensitivities within the Project activity area is to be located at site notice board(s) and attached to the authority to commence construction (Form 2). Environmental Control Plans will	Principal Contractor/ Subcontractors  CoA F21(f) (i) (ii) (iii) (vii)

ACTIVITY	DESCRIPTION	REFERENCES
	also be communicated at daily pre-starts and weekly toolboxes as required or when works are planned in proximity to known sensitivities.	
MM07	Priority will be given to the identification, protection and avoidance of HBTs not approved for removal identified on Environmental Control Plans.	Principal Contractor/ Subcontractors
MM08	Further to MM07 and prior to any disturbance works, the Project Environmental Coordinator/ecologist shall: <ul style="list-style-type: none"> <li>Verify disturbance boundaries of all sites of known or potential flora and fauna significance</li> <li>Ensure completion of delineation and establishment of the approved work areas and No Go Zones etc. by using flagging/markers/fencing and signage</li> <li>Undertake any additional micro-siting to further avoid environmental sensitivities to ensure compliance with the CoA, CEEC clearing limits and removal of HBTs</li> <li>Install cameras in the weeks leading up to planned HBT removal in relation to Squirrel Glider habitat</li> <li>Review camera footage in advance of pre-clearance survey to identify activity and occupation/roosting of specific HBTs in relation to the works</li> <li>Ensure notification of specific access or approval conditions, environmental sensitivities and all identified No Go Zones and other significant information is contained in the authority to commence works (Form 2)</li> <li>Provide notification and awareness of environmental sensitivities at daily pre-starts and weekly toolboxes, and</li> <li>Ensure establishment of photo points and capture pre-disturbance photo records of disturbance boundaries for all environmental sensitivity zones.</li> </ul>	Principal Contractor/ Subcontractors
MM09	The Proponent shall undertake any additional flora and fauna assessment in accordance with Regulatory requirements in any areas proposed to be disturbed which have not been surveyed during the assessment completed to date prior to work commencing. Determine all areas that have been proposed to be disturbed which have not been surveyed. Any new findings are to be incorporated into the Project Survey and the Environmental Control Mapping.	Principal Contractor/ Subcontractors
<b>Survey, Access and Site Establishment</b>		
MM10	<p>The approved disturbance area and /or site boundaries, approved accesses and flora and fauna “No Go” zones as detailed in Environmental Control Maps, will be surveyed and clearly marked on-ground or through the use of tape or barrier fencing and signposting to define the works area and prevent the inadvertent disturbance or access to unauthorised areas beyond the approved boundaries. Surveys and peg-out will be based on digital data as per the Project survey and EA/BDAR mapping.</p> <p>HBT and other habitat features to be avoided will be clearly marked. ‘No Go’ exclusion zones shall extend to the dripline of trees or established tree protection zone (TPZ) (where required) in accordance with AS4970 and/or as far from the trunk as safe and practicable to do so.</p>  <p>“Vegetation drip-line” – avoid locating equipment, materials, chemicals or fuels within this area where practicable</p> <p>TPZ = Diameter of tree at Breast Height (DBH, approx. 1.4m) x 12 Adjust the TPZ in accordance with the shape of the tree.</p>	Principal Contractor/ Subcontractors
MM11	The environmental coordinator/ecologist is to locate and establish protection of the Silver Leaf Candlebark ( <i>Eucalyptus canobolensis</i> and Blakely Red Gum ( <i>E. blakelyi</i> ) individuals identified during the BDAR assessment of the 132kV transmission line route.	Principal Contractor/ Subcontractors
MM12	Make use of existing disturbance for project layout as far as practicable, including access routes and other ancillary workspaces; negotiate with third parties for use of existing disturbed areas where necessary.	Principal Contractor/ Subcontractors
MM13	All construction activities will be confined to the established and delineated approved works area and construction access tracks / roads. In doing so avoid unnecessary disturbance to:	Principal Contractor/ Subcontractors

ACTIVITY	DESCRIPTION	REFERENCES
	<ul style="list-style-type: none"> <li>Water courses</li> <li>Stony outcrops and clay pans, and</li> <li>Mature vegetation</li> </ul>	
<b>Biosecurity – Weed, Pest and Disease</b>		
MM14	<p>All personnel will be made aware that Biosecurity is a shared responsibility, and everybody has a role to play in protecting NSW from these biosecurity risks. Under the <i>Biosecurity Act 2015</i>, everyone has a general biosecurity duty – this means anyone who deals with biosecurity matter is required to prevent, eliminate or minimise any biosecurity risks they encounter.</p> <p>Workforce compliance with biosecurity requirements will be promoted through the project induction, supervisor training, and ongoing awareness training through regularly addressing at weekly toolbox talks and daily pre-starts.</p>	Principal Contractor/ Subcontractors
MM15	<p>The Environmental Control Plans and Contractor pre-commencement Form 2 will document site specific weed, pest and pathogen threats identified in</p> <ul style="list-style-type: none"> <li>Project/site specific approvals/documentation/landowner access agreements</li> <li>Publicly available information on weed and pest threats relevant to the project area/site</li> <li>Species information obtained during pre-construction assessment and inspections, and</li> <li>Declared weeds will be managed in accordance with Blayney Shire and Upper Macquarie County Council Weed Management Plans and Strategy.</li> </ul>	Principal Contractor/ Subcontractors
MM16	<ul style="list-style-type: none"> <li>All project vehicles, plant and equipment will be clear of significant soil/vegetation matter etc and will be certified weed free at project commencement (i.e. at first entry).</li> <li>All project vehicles will be badged with certification of weed hygiene status, with this to be readily identifiable. All vehicle and plant weed free certifications will be recorded in the Weed Hygiene Register.</li> <li>All vehicles, plant and equipment will remain on approved work areas and approved access tracks / roads at all times, and</li> <li>Ensure all vehicles, plant and equipment entering confirmed weed infested areas are clear of significant soil/vegetative matter when moving from one property to the next, re-certify vehicles, plant and equipment following clean downs when required.</li> <li>Undertake additional biosecurity measures as identified during landholder consultation or as directed by FCWFPL.</li> </ul>	Principal Contractor/ Subcontractors
MM17	Where clearing of weeds is undertaken within approved works areas, ensure weeds with viable seeds are managed to prevent dispersal. Report all new weed infestations identified within approved works areas and adjacent properties and prepare site specific weed management plans as required.	Principal Contractor/ Subcontractors
MM18	Any imported materials will be sourced from certified weed free sites. Any borrow material sites will be inspected and approved for use by the Environmental Coordinator.	Principal Contractor/ Subcontractors
MM19	<p>Monitor work areas following disturbance to ensure construction activities do not exacerbate the extent of existing weed infestations and to prevent the spreading to new locations within property boundaries.</p> <p>Post construction assessment of weed infestations should inform the development of Operational Environmental Management Plans and subsequent operational weed management strategies and procedures.</p> <p>The following invasive weeds have been observed within the Project area and should be suppressed and prevented from spread or establishment beyond existing infestations:</p> <ul style="list-style-type: none"> <li><i>Rubus fruticosus</i> sp. Agg Blackberry</li> <li><i>Onopordium acanthium</i> Scotch Thistle</li> <li><i>Nassella trichotoma</i> Serrated Tussock</li> <li><i>Hypericum perforatum</i> St John’s Wort</li> <li><i>Rosa rubiginosa</i> Sweet Briar</li> </ul> <p>Refer to Appendix C for <b>Invasive Weed identification and Treatments.</b></p>	Principal Contractor/ Subcontractors
<p><b>Ground disturbance works associated with or including but not limited to the following:</b></p> <ul style="list-style-type: none"> <li>Clearing and Topsoil Stripping, Earthworks – General and Civil, Establishment of Concrete Batch Plant, access roads and other temporary works areas, Facility construction and WTG Erection, Transmission Line Establishment and Erection and Cable Installation</li> </ul>		

ACTIVITY	DESCRIPTION	REFERENCES	
MM20	All vehicles, plant and personnel shall travel and remain on approved access tracks and approved work areas at all times. All materials shall be stored within approved works areas and be prevented from overhanging or entering the boundaries of works areas and environmental "No Go" zones.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM21	Appropriate care should be taken when moving along all access tracks and roads, particularly at dawn or dusk to avoid potential impacts to fauna. Construction access speed limits will be enforced to reduce risk of fauna strike.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM22	During construction works, implement any additional protective measures as required to ensure the specific works activities, plant equipment, personnel, materials or construction waste including excavation materials and spoil do not encroach, enter or overhang environmental sensitivities or new sites that have been identified during the performance of works by the environmental coordinator/ecologist.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) D3
MM23	All disturbance will be confined to the approved disturbance corridor including approved access tracks and civil works areas and right of ways (ROW) for linear cable and transmission line construction.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) D3
MM24	<p>Avoid unnecessary removal of Vegetation and HBTs approved for removal within works areas where practicable and safe.</p> <p>Standing trees including HBTs that are approved for removal will be felled/removed as follows:</p> <ul style="list-style-type: none"> <li>Trees approved for removal will be examined by the environmental coordinator/ecologist/fauna handler immediately prior to any physical contact by machinery to determine the presence or suspected presence of fauna, hollows or potential nesting sites for native fauna.</li> <li>The environmental coordinator/ecologist/fauna handler will maintain radio contact with machinery operators at all times</li> <li>Fauna in readily accessible sites will be relocated by the environmental coordinator/ecologist/fauna handler prior to commencement of tree felling.</li> <li>During the progressive removal of habitat structures or felling works under the supervision of the environmental coordinator/ecologist/fauna handler, works will cease at the direction of the environmental coordinator/ecologist/fauna handler in the event that fauna presence is detected</li> <li>Works will not recommence until the environmental coordinator/ecologist/fauna handler has removed and relocated any fauna</li> <li>The environmental coordinator/ecologist/fauna handler will also recheck hollows/nest sites during the process of progressively felling the tree and remove any fauna present.</li> </ul> <p>Locate any salvaged habitat structures to edge of the works area.</p> <p>Any fauna identified during the above procedure will be relocated to the nearest suitable habitat or, if injured or a dependent juvenile, to a recognised wildlife carer group or veterinarian (refer to Appendix E for Carer and Veterinarian Contact Details).</p> <p>For areas of known Squirrel Glider Habitat refer also to Appendix G Squirrel Glider Management Plan.</p> <p>Assess the clearing impacts in the vicinity of Gap Road and where the extent of clearing due to works reduces connectivity (clearing distance &gt;70m) assess the need for connectivity pole installations for Squirrel Glider habitat.</p>	Principal Contractor/ Subcontractors	CoA F21(f) (ii) D3
MM25	The felling / removal of trees will be undertaken in a manner that avoids or minimises damage to any adjacent vegetation to be retained.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) D3
MM26	Where rocky outcrops cannot be avoided, a preclearance survey by the environmental coordinator/ecologist/fauna handler will be completed to search and relocate fauna. Excavated rock will be placed in adjacent areas in consultation with the environmental coordinator/ecologist/fauna handler. Do not place any material on existing habitat features.	Principal Contractor/ Subcontractors	CoA F21(f) (iii)
MM27	All fauna interactions will be recorded in the Project Fauna Register and records will be maintained in accordance with Catch and Release Licence Conditions and any other requirements of DPIE in relation to handling and relocation of native fauna.	Principal Contractor/ Subcontractors	CoA F21(f) (iii)
MM28	Clearing of vegetation will be minimised, while maintaining appropriate standards of safety and allowing for efficient construction activities. Where practicable, clearance of or disturbance of vegetation (outside of No Go Zones) on the site or	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii) D3

ACTIVITY	DESCRIPTION	REFERENCES	
	adjacent public roads for access during construction shall be minimised.		
MM29	Where practicable, do not use other areas of retained vegetation (outside of No Go Zones), for equipment laydown etc.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM30	During works, operators will make best endeavours to ensure machinery contact (such as by machinery booms, extended arms or when swinging buckets) with retained vegetation adjacent to but overhanging the works areas is avoided. Do not place any cleared vegetation over existing habitat structures.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) D3
MM31	Cleared vegetation will be stockpiled separately at the edge of the approved works area and will be re-used for rehabilitation or for erosion and sediment control. There will be no burning of cleared vegetation.	Principal Contractor/ Subcontractors	CoA D2
MM32	Record all vegetation clearing on Disturbance Record Sheet including details of EEC, HBT, other tree locations, type, size and numbers and or extent of disturbance. Refer to Appendix F.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM33	Topsoil and subsoils will: <ul style="list-style-type: none"> <li>be stripped to the minimum depth required for the performance of the works</li> <li>be stockpiled separately</li> <li>not be stockpiled against fence lines or trees or in proximity to mapped environmental sensitivities or existing habitat structures</li> <li>stockpiles will not be driven over or used for the construction of erosion and sediment measures, and</li> <li>be located away from areas of weed infestation.</li> </ul>	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM34	Prior to any subgrade improvement works being undertaken, the impact on drainage shall be considered. Subgrade improvement works shall not be constructed in a manner that restricts the flow of surface water.  All watercourse and drainage line crossings shall consider fish passage and crossings to be constructed in accordance with: <ul style="list-style-type: none"> <li>Policy and Guidelines for Fish Friendly Waterway Crossings 2004, and</li> <li>Why Do Fish Need to Cross The Road - Fish Passage Requirements For Waterway Crossings, NSW DPI (Fisheries) 2003.</li> </ul> All drainage works to be constructed in accordance with approved drawings. Drainage lines are not to be blocked / impeded by stockpiles or excavation works.  Refer also to the Construction Soil and Water Quality Management Plan (CSWQMP)	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM35	When dewatering is required following major rain events, dewatering discharge points will preferentially be to vegetated areas adjacent to excavations and will not be directly to watercourses. Discharge scour protection or flow dissipation measures will be installed at the release site.  Refer also to CSWQMP for dewatering protocol and release parameters.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM36	Erosion Sediment Control (ESC) planning and implementation will follow a staged process, undertaken prior to and during clearing and stripping and ongoing during construction of access tracks, cable routes and hardstand areas. Planning and installation will include: <ul style="list-style-type: none"> <li>pre-construction risk assessment and planning</li> <li>ground-truthing and on-site assessment for location of ESC treatments and stabilisation measures</li> <li>ESC installation, and</li> <li>post ESC installation review; and ESC and works modifications (as required) to prevent erosion and sedimentation.</li> </ul>	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM37	One or more of the following erosion and sediment temporary control measures will be employed across work areas: <ul style="list-style-type: none"> <li>berms</li> <li>inverts / drains</li> <li>silt / sediment fencing</li> <li>sumps and sediment basins</li> <li>outlet / discharge scour protection or flow dissipation measures</li> <li>soil surface and channel stabilisation measures</li> <li>construction access provisions, and</li> <li>additional breaks in windrows.</li> </ul> All ESC measures will be in accordance with the CSWQMP.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)



ACTIVITY	DESCRIPTION		REFERENCES
MM38	Regularly inspect all erosion sediment control and stockpile containment to ensure they are maintained in an effective condition.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM39	Erosion controls will divert water to stable areas, such as vegetated areas or have measures installed to slow or spread discharges.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM40	Liaise with landowners proactively to minimise conflicts between livestock and construction activities. Where livestock stray into the works areas, notify the environmental coordinator immediately, who will coordinate with landowners for prompt relocation.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM41	In the event of any native fauna being encountered within the works areas they will be provided with the opportunity to move into surrounding unimpacted areas, or otherwise disperse away from the works area, without interference / harassment. Any native fauna found that seek refuge or remain in the works area, rather than moving away, will be reported to Supervisor and/or Environmental Coordinator who will arrange assessment and relocation/ removal.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM42	Limit the time that excavations are open to minimise impacts to fauna where possible: backfill/cover as soon as practicable to prevent fauna ingress or install measures to enable fauna escape such as earthen ramps. Install fencing treatments in accordance with landholder consultation or as directed by FCWFPL.  Where backfill of excavations is impracticable, undertake pre-start inspections to identify and re-locate impacted fauna as required.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM43	Use visual markers and other measures during erection and stringing of transmission lines to minimise the risk of collision with avifauna and bats.	Principal Contractor/ Subcontractors	CoA F21(f) (ii)
MM44	Any injury or death of fauna caused by construction activities will be reported to the environmental coordinator/ecologist/fauna handler. Maintain contact lists for local/regional fauna rescue organisations at all times and transport injured animals as required (refer to Appendix E).  Pest species, and severely injured fauna may be euthanised by qualified and licensed wildlife handlers. Personnel required to euthanise animals shall consider methods that are humane, painless and rapid, alternatively these animals will be taken to a veterinarian for euthanasia.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM45	Good housekeeping will be undertaken of all work areas and all waste will be placed in designated waste bins which shall be covered. Remove waste regularly to avoid attracting native and pest fauna to the site. Do not feed fauna and stock animals.  No pets are to be brought to site.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iii)
MM46	During construction works, the following, will constitute a flora and fauna disturbance incident: <ul style="list-style-type: none"> <li>Non-compliance with the flora and fauna management requirements of this CFFMP</li> <li>Any damage to known environmentally sensitive sites</li> <li>Any injury or death of fauna as a result of construction activities, and</li> <li>Any incursion into 'No Go' and exclusion zones including protected HBTs, including access within any new sites that are identified and delineated during works.</li> </ul>	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (vi)
MM47	Incidents as described above are to be immediately reported to the Project Manager for immediate notification to Flyers Creek Pty Ltd and Regulator as required.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (vi)
<b>Rehabilitation</b>			
MM48	Minimise the period in which the area is left disturbed through works scheduling; rehabilitate disturbed areas as soon as practicable.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iv) H2
MM49	Construction equipment and infrastructure will be removed progressively from the Project area after construction works are completed.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iv) H2
MM50	Temporary erosion control measures (established during construction) will be removed and replaced with transitional and permanent controls.	Principal Contractor/ Subcontractors	CoA F21(f) (ii) (iv) H2

ACTIVITY	DESCRIPTION	REFERENCES
MM51	All waste / refuse from construction will be removed from the Project areas Flagging/signage and protection used to identify environmental sensitivities will be removed and disposed of at the completion of reinstatement/rehabilitation.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iv) H2
MM52	Ensure all work areas (lay downs, stockpile areas and access roads etc.) are restored to a state as close as practicable to their original condition, noting any specific conditions that may be associated with significant vegetation/habitat disturbance and landowner/stakeholder/Third Party requirements and commitments.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iv) H2
MM53	The principal method of regeneration and restoration of disturbed areas will be the re-spreading of the preserved topsoil containing existing seed bank stock and propagules associated with the pre-disturbance vegetation communities/pastures. Use cover crops as required to accelerate re-vegetation and stabilisation of disturbed areas.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iv)
MM54	Rehabilitation will commence as soon as practicable and progressively across the Project area after construction works are completed.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iv) H2
MM55	Following the re-spreading of topsoil, any cleared vegetation stockpiled for re-use will be re-spread (excluding weed material) to further encourage the propagation of native seed stock and propagules.	Principal Contractor/ Subcontractors  CoA F21(f) (ii) (iv) H2
<b>7. COMMUNICATION, CONSULTATION AND INCIDENTS</b>		
7.1 Internal Communications	The immediate day-to-day responsibility for communication of flora and fauna protection lies with the Contractor Site Project Management Team.	-
	The following internal communication forums will occur during the execution of works: <ul style="list-style-type: none"> <li>• Inductions</li> <li>• SWMS Workshops</li> <li>• Daily Pre-start meetings</li> <li>• Field based awareness talks regarding specific aspects and known environmental sensitivities</li> <li>• Regular toolbox meetings (project workforce), and</li> <li>• Weekly construction management team meetings.</li> </ul>	
7.2 External and Third Party Communications	Regular consultation with stakeholders/landholders is expected to be undertaken during construction activities. All significant stakeholder/landholder issues not readily resolved by construction personnel shall be directed to the Supervisor who will notify the Project Manager who will escalate to the FCWFPL Representative as required.	-
7.3 Media Protocol	If any Project personnel have any contact with a media representative, they will: <ul style="list-style-type: none"> <li>• Respond in a polite and courteous manner, and</li> <li>• Inform the media representative that they are not the authorised spokesperson and provide contact details of the Flyers Creek Wind Farm Project spokesperson or media contact</li> </ul>	-
7.4 Incident Management	Incident management and reporting shall be in accordance with Section 8 and 9 of the CEMP. In the event of an incident involving flora and fauna as described above, a first reporting step will be the provision of a Heads-Up Notification (an Initial Report and Notification via email) detailing brief facts about the incident to be circulated to an agreed list of contractor and FCWFPL project personnel. This will be done as soon as practicable but no later than two (2) hours after the incident. The subsequent Incident Report will include: <ul style="list-style-type: none"> <li>• Date, time and location details</li> <li>• A description of the incident and root cause</li> <li>• Whether the incident resulted in harm or regulatory Non-Compliance and requires reporting to Regulator or Third Party</li> <li>• Actions for resolution / close out, and</li> <li>• Corrective actions to assist in preventing recurrence.</li> </ul> All communication with any Regulator associated with the Project will be directed through the Project Manager who will liaise with FCWFPL Representative to identify the required support and response requirements. Upon completion of an investigation, the findings and recommendations shall be distributed to the relevant work crews for discussion at prestart meetings. If the root cause analysis provides justification for amended work practices or processes a review and reissue of relevant documents (such as this CFFMP, CEMP, SWMS and Form 2) will be undertaken.	-
<b>8. INSPECTIONS, MONITORING, AUDITS AND CFFMP REVIEW</b>		
8.1 Inspections and Monitoring	The Contractor LECH Manager or delegate shall coordinate inspections and monitoring of works during construction activities to check and record compliances with works procedures and this CFFMP. Inspections and Monitoring will include: <ul style="list-style-type: none"> <li>• Pre-Clearance survey, completed within two (2) days in advance of disturbance to ensure all environmental sensitivities including HBTs, 'No Go' areas and disturbance limits are delineated</li> </ul>	-

ACTIVITY	DESCRIPTION	REFERENCES
	<ul style="list-style-type: none"> <li>Weekly review of active works to ensure works are conducted in compliance with this CFFMP</li> <li>Compliance with the above management measures</li> <li>The adequate installation, maintenance and effectiveness of native flora and fauna protection / management measures</li> <li>The integrity of “no go” areas</li> <li>Presence of native fauna in works areas, and</li> <li>The effectiveness of site stabilisation, reinstatement and rehabilitation measures.</li> </ul>	
8.2 Audits	Audits will be undertaken including Noise and Vibration Management in accordance with details and frequency outlined in Section 10.2 of the CEMP	-
8.3 CFFMP Review	<p>A review of this CFFMP will be undertaken annually and whenever there are significant changes in the scope of work, subsequent changes to construction methodologies, following an occurrence of environmental harm, non-conformance and following changes to the layout of the works or where there are additional changes to the layout identified after the approval of this plan.</p> <p>Changes to this CFFMP will be communicated internally in accordance with Section 7.1 and externally in accordance with Section 7.2.</p> <p>A copy of the updated plan and changes will be distributed to all relevant stakeholders and regulatory authorities.</p>	-
8.4 Continuous Improvement	This Sub Plan will be subject to ongoing evaluation and continuous improvement as outlined in Section 10.7 of the CEMP.	
<b>9. REPORTING AND RECORD KEEPING</b>		
9.1 Record Keeping	<p>Contractor shall maintain a documentation and record system in support of this CFFMP and monthly Project reporting requirements to enable review and auditing of management systems and procedures.</p> <p>The following records to be maintained:</p> <ul style="list-style-type: none"> <li>Site Inspection Records</li> <li>Disturbance Records</li> <li>Vegetation (HBT, native vegetation etc) removal records</li> <li>Fauna Interaction Records</li> <li>Incident Reports</li> <li>Incident Register, and</li> <li>Consultation Log.</li> </ul>	-
9.2 Reporting	<p>Project Monthly Reporting includes information on relevant flora and fauna data, summary and includes the reporting of any incidents and non-conformance</p> <p>Reporting data will include but not be limited to:</p> <ul style="list-style-type: none"> <li>Disturbance reporting by PCT (Ha)</li> <li>Number and location of HBTs removed</li> <li>Fauna interactions including spatial data recording interaction and relocation</li> <li>Incident Reporting</li> </ul>	-

**APPENDIX A – CONSULTATION RECORD**

CoA F21 (f) states that the CFFMP shall be developed in consultation with the BCD.

Biodiversity, Conservation and Science Directorate (16/11/2021)	Flyers Creek Wind Farm Pty Ltd Response (23/11/2021)
<p>Native correspondence dated 16/11/2021 has been appended overleaf.</p> <p>1. BCS has reviewed the CFFMP and, other than noting that BCS is incorrectly attributed as Biodiversity Conservation Service rather than Biodiversity, Conservation and Science Directorate in section 2.2, has no specific comments to make at this stage.</p>	<p>We confirm the correct reference to the Biodiversity, Conservation and Science Directorate (BCS) has been updated throughout the Plan.</p>

Department of Planning Industry & Environment (6/12/2021)	Flyers Creek Wind Farm Pty Ltd Response (8/12/2021)
<p>Native correspondence dated 6/12/2021 has been appended overleaf.</p> <p>1. Provide status of Squirrel Glider Management Plan</p> <p>2. Address 'replacement of any fauna habitat'</p>	<p>1. Refer to Appendix G Squirrel Glider Management Plan. Refer also to Section 6 MM07, MM08 and MM24</p> <p>2. The Biodiversity Offset credits defined for the Project manage the offset of both flora and fauna species</p>
<p>3. Identify specific timeframe for pre-clearing surveys prior to clearing.</p> <p>4. Identify purpose/feedback loop/actions/responses for camera footage.</p> <p>5. Consider further detailing step-by-step process for hollow bearing tree clearing, e.g., staged checking/re-checking process, how trees will be examined, consultation between ecologist/fauna handler/operator.</p> <p>6. Consider amending MM05 to ensure Environmental Control Plans include the Flora and Fauna Site Specific Requirements (Chapter 10) from the Statement of Commitments.</p> <p>7. Confirm if man-made hollow-bearing structures/nest boxes to be provided and, if so, outline decision matrix/procedures for confirming and installing.</p> <p>8. Confirm if 'Environmental Control Mapping' and 'environmental control plans' are same or separate.</p>	<p>3. Refer to Section 8.1</p> <p>4. Refer to Section 6 MM08.</p> <p>5. Refer to Section 6 MM24</p> <p>6. MM05 amended and reference to include the Flora and Fauna Site Specific Requirements (Chapter 10) from the Statement of Commitments.</p> <p>7. Man-made hollow-bearing structures/nest boxes will be provided following on site ecologist advice during pre-clearance surveys</p> <p>8. Confirmed to be the same.</p>
<p>9. Outline what data likely to be included in monthly reporting.</p>	<p>9. Refer to Section 9.2</p>
<p>10. Identify when BCS referral required.</p> <p>11. Consider feedback loop from 'find management and mitigation strategy' to project staff briefings/pre-starts/toolboxes etc.</p>	<p>10. Appendix D – Figure 1 updated.</p> <p>11. Appendix D – Figure 1 updated to include a site wide feedback loop.</p>
<p>12. Consider feedback loop from 'find management and mitigation strategy' to CFAFMP.</p>	<p>12. Refer to Section 8.3</p>



Our ref: DOC21/1013396

Your ref:

Megan Richardson  
Development Manager  
Iberdrola Australia  
[megan.richardson@iberdrola.com.au](mailto:megan.richardson@iberdrola.com.au)

Dear Megan

### **Flyers Creek Wind Farm - Construction Flora & Fauna Management Plan**

Thank you for your e-mail dated 5 November 2021 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning, Industry and Environment inviting comments on the Construction Flora & Fauna Management Plan (CFFMP) for Flyers Creek Wind Farm.

BCS has reviewed the CFFMP and, other than noting that BCS is incorrectly attributed as Biodiversity Conservation Service rather than Biodiversity, Conservation and Science Directorate in section 2.2, has no specific comments to make at this stage.

If you require any further information regarding this matter, please contact David Geering, Senior Conservation Planning Officer, via [david.geering@environment.nsw.gov.au](mailto:david.geering@environment.nsw.gov.au) or (02) 6883 5335.

Yours sincerely

A handwritten signature in black ink that reads 'Samantha Wynn'.

**Samantha Wynn**  
**Senior Team Leader Planning North West**  
**Biodiversity, Conservation and Science Directorate**

16 November 2021





Ms Megan Richardson  
Development Manager  
Iberdrola Australia

06/12/2021

Dear Ms Richardson

**Flyers Creek Wind (MP08\_0252)  
Construction Flora and Fauna Management Plan**

We require additional information relating to the Construction Flora and Fauna Management Plan submitted under the conditions of approval for Flyers Creek Wind (MP08\_0252).

Please submit a revised document that addresses the comments/queries identified in **Attachment A**.

Please provide the information, or notify us that you will not provide the information by Fri 17 December 2021. If this timeframe is not achievable, please provide and commit to an alternative timeframe for providing this information .

If you have any questions, please contact Dominic Crinnion on 02 9274 6495/ at [dominic.crinnion@planning.nsw.gov.au](mailto:dominic.crinnion@planning.nsw.gov.au).

Yours sincerely

A handwritten signature in black ink that reads 'D Crinnion'.

Dominic Crinnion  
Team Leader  
Energy Assessments

Encl: Attachment A



**Attachment A:** Document review (Construction Flora and Fauna Management Plan (Document No.: 2046-LECH-006-3 Revision: E)

Condition	S u f f i c i e n t (Yes/No/Partial)	Document reference and comment	Comments/Queries
<b>Condition F21 [CEMP Sub-Plans)</b>			
(f) a <b>Construction Flora and Fauna Management Plan</b> to detail how construction impacts on ecology will be minimised and managed. The Plan shall be developed in consultation with the <b>BCS</b> and shall include, but not necessarily be limited to:	See below	N/A	See below
i. plans and tables for impacted and adjoining areas showing vegetation communities (identified to Plant Community Type); watercourses; remnant vegetation (including scattered trees); important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded; including pre-clearing surveys to confirm the location, description of condition, status, numbers, area (hectares) of threatened flora and fauna species and associated habitat features;	Yes	Plans provided in Appendix B, include watercourse and PCT mapping.  Tables 4 and 6 identify impact area by PCTs.  Description of habitat features is provided in sections 4.3 (transmission line route) and 4.4 (balance of site/wind farm site)  Site assessment was conducted in September 2021, subsequent to previous surveys.	



**Attachment A:** Document review (Construction Flora and Fauna Management Plan (Document No.: 2046-LECH-006-3 Revision: E))

<p>ii. procedures for minimising the extent of vegetation clearing and replacement of any fauna habitat;</p>	<p>Partial</p>	<p>General commitment to reducing clearing. Targeted survey (completed) for Superb Parrot. Micrositing proposed. Offsetting as per approval.</p>	<ol style="list-style-type: none"><li>1. Provide status of Squirrel Glider Management Plan</li><li>2. Address 'replacement of any fauna habitat'</li></ol>
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**Attachment A:** Document review (Construction Flora and Fauna Management Plan (Document No.: 2046-LECH-006-3 Revision: E)

<p>iii. the identification of areas to be cleared and details of management measures (such as fencing, clearing procedures, removal and relocation of fauna during clearing, habitat tree management and construction worker education) to avoid any residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat;</p>	<p>Partial</p>	<p>The proposed management measures include:</p> <ul style="list-style-type: none"> <li>• establishment of 'environmental control plans', verified by project ecologist, with no go zones and approved work areas delineated</li> <li>• camera installation in Squirrel Glider habitat prior to hollow bearing tree removal 'in weeks leading up to' clearing</li> <li>• establishment of TPZs where required, including on Silver Leaf Candlebark and Blakelys Red Gum individuals near transmission line route</li> </ul>	<ol style="list-style-type: none"> <li>3. Identify specific timeframe for pre-clearing surveys prior to clearing.</li> <li>4. Identify purpose/feedback loop/actions/responses for camera footage.</li> <li>5. Consider further detailing step-by-step process for hollow bearing tree clearing, eg. staged checking/re-checking process, how trees will be examined, consultation between ecologist/fauna handler/operator.</li> <li>6. Consider amending MM05 to ensure Environmental Control Plans include the Flora and Fauna Site Specific Requirements (Chapter 10) from the Statement of Commitments.</li> <li>7. Confirm if man-made hollow-bearing structures/nest boxes to be provided and, if so, outline decision matrix/procedures for confirming and installing.</li> <li>8. Confirm if 'Environmental Control Mapping' and 'environmental control plans' are same or separate.</li> </ol>
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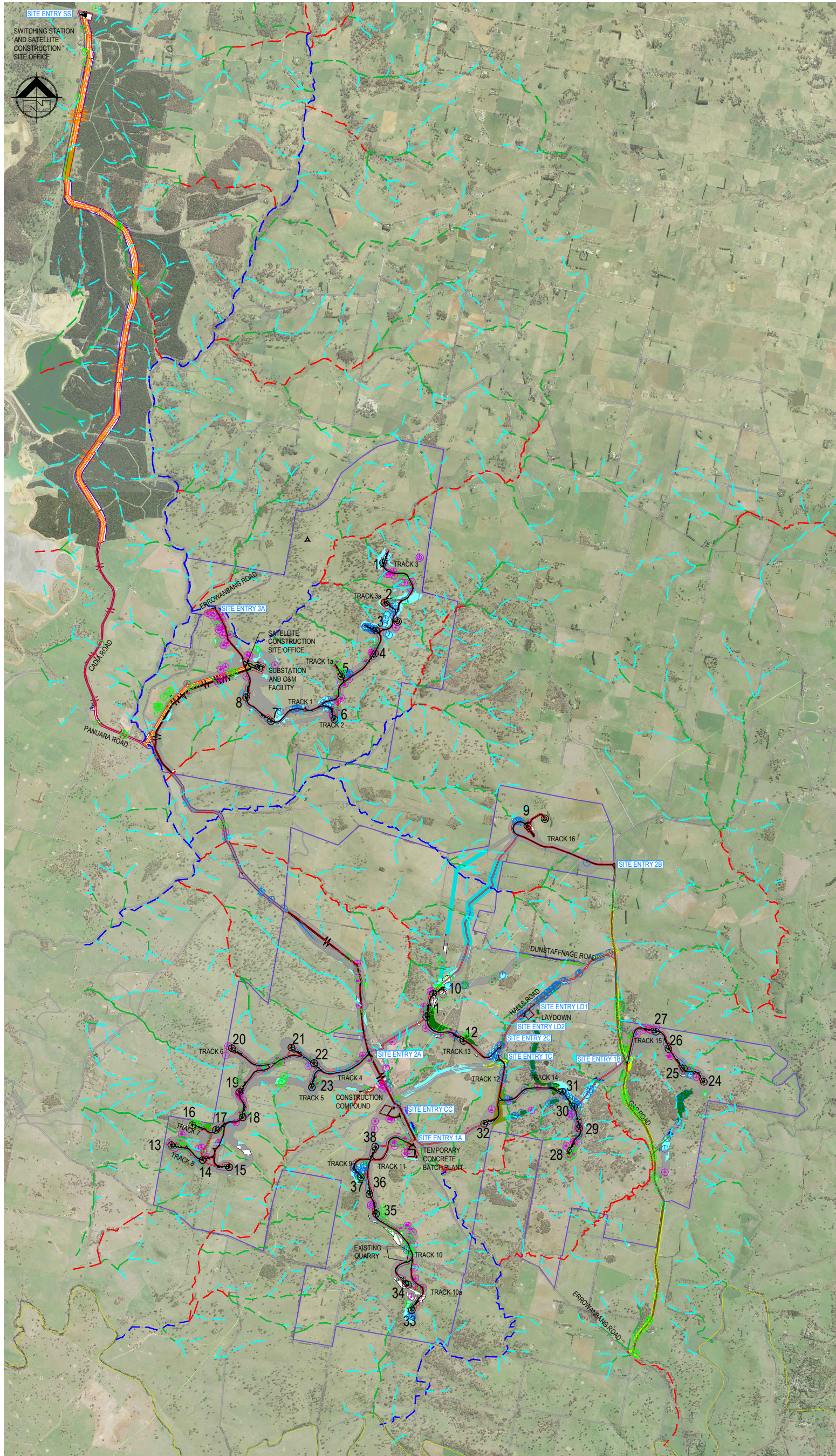
**Attachment A:** Document review (Construction Flora and Fauna Management Plan (Document No.: 2046-LECH-006-3 Revision: E)

iv. rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas;	Yes	Commitment to rehabilitation, respreading topsoil containing existing seed bank stock and propagules associated with the pre-disturbance vegetation.	N/A
v. weed management measures focusing on early identification of invasive weeds and effective management controls;	Yes	Weed management detailed in management measures and Appendix C.	N/A
vi. a description of how the effectiveness of these actions and measures would be monitored, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported and, if any exceedance of the criteria is detected, how any non-compliance can be rectified;	Partial	Monitoring to include pre-clearance survey, general commitment to inspections, weekly review by environment staff, and general monthly reporting to include details on flora and fauna.  Criteria generally as per Table 1 Objectives and targets.	9. Outline what data likely to be included in monthly reporting.
vii. a procedure for dealing with unexpected EEC / threatened species identified during construction, including cessation of work and notification of the <b>BCS</b> and the Department, determination of appropriate mitigation measures in consultation with the <b>BCS</b> (including relevant re-location measures) and updating of ecological monitoring and / or biodiversity offset requirements; and	Partial	Procedure in Appendix D/Figure 1.	10. Identify when BCS referral required.  11. Consider feedback loop from 'find management and mitigation strategy' to project staff briefings/pre-starts/toolboxes etc.
i. mechanism for the monitoring, review and amendment of this Plan.	Partial	Annual review/works changes	12. Consider feedback loop from 'find management and mitigation strategy' to CFAFMP.









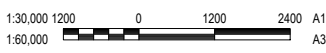
### LEGEND

- PROJECT BOUNDARY
- PROPERTY BOUNDARY
- WTG 1
- ACCESS TRACK
- HARDSTAND / LAYDOWN AND CRANE PAD OPTIONS
- EXISTING MET MAST
- TEMPORARY MET MAST
- FUTURE PERMANENT MET MAST
- 132 kV TRANSMISSION LINE UG
- 132 kV TRANSMISSION LINE OH
- 33 kV CABLING LINE UG
- 33 kV CABLING LINE OH
- PROPOSED EXTERNAL ROAD UPGRADE
- APA GAS LINE
- PROPOSED OPTUS TOWER
- STREAM ORDER - 1
- STREAM ORDER - 2
- STREAM ORDER - 3
- STREAM ORDER - 4 OR HIGHER
- CONSTRUCTION BUFFER\_130721

### PCT\_ZONE

- 1330\_DERIVED
- 1330\_MODERATE
- 1330\_MODERATE\_GOOD
- 1330\_POOR
- 268\_DERIVED
- 268\_MODERATE
- 266\_POOR
- 277\_DERIVED\_GOOD
- 277\_DERIVED\_LOW
- 277\_MODERATE
- 277\_PLANTED
- 277\_PLANTED\_MODERATE
- 278\_LOW
- 278\_MODERATE
- 287\_GOOD
- 766\_MODERATE
- EXOTIC
- NON EXOTIC
- PADDOCK TREE
- HBT - CONFIRMED
- HBT - ASSUMED

**SITE LAYOUT**



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REV	DETAIL	DRN	CHK	APP	DATE
A	FOR APPROVAL	J.C.	F.M.	N.C.	20.10.2021

REVISIONS AND APPROVALS

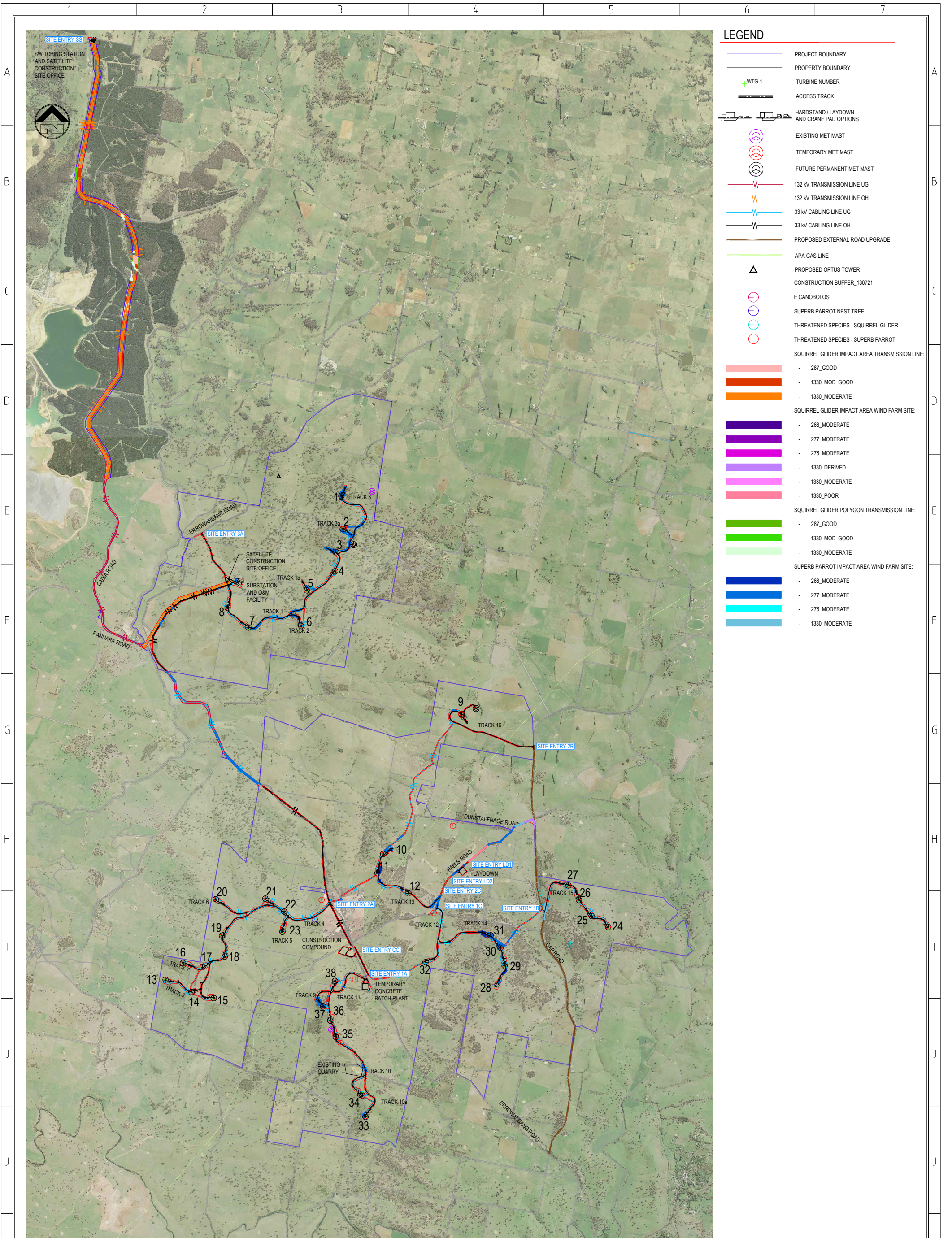
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**nacap**  
 A QUANTA SERVICES COMPANY

PROJECT: FLYERS CREEK WIND FARM  
 TITLE: PROJECT OVERALL  
 PCT CONTROL MAP  
 SHEET 3

DRAWING STATUS: PRELIMINARY  
 PROJECT No: 18-070  
 SCALE: AS SHOWN  
 SIZE: A3  
 DRAWING No: FCWF-DWG-0245-3  
 REV: A





- ### LEGEND
- PROJECT BOUNDARY
  - PROPERTY BOUNDARY
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  - HARDSTAND / LAYDOWN AND CRANE PAD OPTIONS
  - EXISTING MET MAST
  - TEMPORARY MET MAST
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  - 132 KV TRANSMISSION LINE UG
  - 132 KV TRANSMISSION LINE OH
  - 33 KV CABLING LINE UG
  - 33 KV CABLING LINE OH
  - PROPOSED EXTERNAL ROAD UPGRADE
  - APA GAS LINE
  - PROPOSED OPTUS TOWER
  - CONSTRUCTION BUFFER\_130721
  - E CANOBOLOS
  - SUPERB PARROT NEST TREE
  - THREATENED SPECIES - SQUIRREL GLIDER
  - THREATENED SPECIES - SUPERB PARROT
  - SQUIRREL GLIDER IMPACT AREA TRANSMISSION LINE:**
  - 287\_GOOD
  - 1330\_MOD\_GOOD
  - 1330\_MODERATE
  - SQUIRREL GLIDER IMPACT AREA WIND FARM SITE:**
  - 268\_MODERATE
  - 277\_MODERATE
  - 278\_MODERATE
  - 1330\_DERIVED
  - 1330\_MODERATE
  - 1330\_POOR
  - SQUIRREL GLIDER POLYGON TRANSMISSION LINE:**
  - 287\_GOOD
  - 1330\_MOD\_GOOD
  - 1330\_MODERATE
  - SUPERB PARROT IMPACT AREA WIND FARM SITE:**
  - 268\_MODERATE
  - 277\_MODERATE
  - 278\_MODERATE
  - 1330\_MODERATE

**SITE LAYOUT**

1:30,000 1200 0 1200 2400 A1  
 1:60,000



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REV	DETAIL	DRN	CHK	APP	DATE
A	FOR APPROVAL	J.C.	F.M.	N.C.	28.10.2021

REVISIONS AND APPROVALS

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PROJECT FLYERS CREEK WIND FARM  
 TITLE PROJECT OVERALL  
 THREATENED FLORA AND FAUNA SPECIES  
 SHEET 3

DRAWING STATUS			
<b>PRELIMINARY</b>			
PROJECT No.	SCALE	SIZE	REV
18-070	AS SHOWN	A3	A
DRAWING No.		REV	
FCWF-DWG-0245-6		A	



**APPENDIX C INVASIVE WEED IDENTIFICATION AND TREATMENTS**

Common name / Botanical name:	Photo:	Preferable control method:
Blackberry <i>(Rubus fruticosae)</i>		<a href="https://weeds.dpi.nsw.gov.au/Weeds/Details/18">https://weeds.dpi.nsw.gov.au/Weeds/Details/18</a> Removal by hand is preferred but the DPI indicate the method alone does not address the roots. The DPI nominates the use of herbicides as the most reliable method of Blackberry control. Goats are identified as preferring blackberry. Perhaps short term grazing by prior to planting can address areas of blackberry infestation if an issue to avoid the use of herbicides.
Scotch Thistle <i>(Onopordium acanthium)</i>		<a href="https://weeds.dpi.nsw.gov.au/Weeds/Details/252">https://weeds.dpi.nsw.gov.au/Weeds/Details/252</a> Chip out by hand with a mattock. During the maintenance period remove thistle plants to ensure they do not flower / set seed so as to avoid the spread of seed.
Serrated Tussock <i>(Nassella trichotoma)</i>		<a href="https://weeds.dpi.nsw.gov.au/Weeds/Details/123">https://weeds.dpi.nsw.gov.au/Weeds/Details/123</a> Chip out by hand with a mattock. During the maintenance period remove tussock plants to ensure they do not flower / set seed so as to avoid the spread of seed.
St Johns Wort <i>(Hypericum perforatum)</i>		<a href="https://weeds.dpi.nsw.gov.au/Weeds/StJohnsWort">https://weeds.dpi.nsw.gov.au/Weeds/StJohnsWort</a> No one method is preferred by the DPI over another. Refer to the website for comprehensive control methods if plant is present in the proposed planting areas.
Sweet Briar <i>(Rosa rubiginosa)</i>		<a href="https://weeds.dpi.nsw.gov.au/Weeds/SweetBriar">https://weeds.dpi.nsw.gov.au/Weeds/SweetBriar</a> Removal by hand grubbing.

**APPENDIX D – UNEXPECTED FINDS PROTOCOL – THREATENED SPECIES**

<b>UNEXPECTED FINDS PROTOCOL</b>	
Purpose	<p>The purpose of the unexpected finds protocol is to provide guidance to construction personnel in the event that a threatened species is un-expectedly found within the Project area.</p> <p>An ‘unexpected Threatened Species find’ can be defined as any unanticipated discovery of a resident individual or population of a Threatened Species, flora or fauna, that has not been previously assessed, mapped or is not covered by an existing management measure, and may be at risk of harm due to construction activities or cumulative impacts over the life of the development.</p> <p>As a result, appropriate management measures need to be implemented to minimise impacts to threatened species, ensure compliance with relevant notification and other obligations, and to minimise the risk of penalties to individuals, and the Contractor and Flyers Creek Windfarm Pty Ltd.</p>
Scope	<p>In some instances, following prior biodiversity assessment undertaken during the environmental planning approval process, some threatened species may not be identified as being within the Project area or may have emerged or become uncovered/exposed due to environmental conditions or approved disturbance.</p> <p>This protocol provides guidance for procedures, mitigation and notification that should be followed in circumstances of unexpected finds. This protocol does not replace any requirements identified as part of the environmental impact assessment process.</p> <p>Upon formal identification of the threatened species by the Environmental Coordinator/ Ecologist a species-specific management plan will be developed in consultation with Biodiversity, Conservation and Science Directorate This will be used to manage the ongoing protection of the species within the Project Site.</p> <p>Pre-start toolbox talks for relevant personnel should be conducted to ensure all onsite personnel involved in pre-clearing and clearing surveys are aware of the potential for threatened flora and fauna, that may occur in the site, and what to do if they are located. In addition, all onsite personnel involved in pre-clearing or clearing should be made aware of the ‘Unexpected Threatened Species Finds Procedure’.</p> <p>A list of species under the BC Act (formerly TSC Act) that are known or likely to occur in the study are listed below.</p>
Legislative Requirements	Refer to Section 4.1 of this Plan.
Relevant Authority Refer to Contact Details Appendix E	Biodiversity, Conservation and Science Directorate
What threatened species are likely to occur within the Project area?	Refer to Table 10 below.
Managing unexpected threatened species finds	In the event an unexpected threatened species as described in Table 10, resident individual or population is encountered during the performance of the works, the flowchart in Figure 1 should be followed.

**Table 10 Threatened Species that may occur within the Project Area**

<b>Species</b>	<b>Habitat</b>	<b>Potential Presence in Project Area</b>
<b>Populations</b> - No endangered populations occur in the locality.		
<b>Critical Habitat</b> - No critical habitat occurs in the locality.		
<b>Ecological Communities</b>		
White Box Yellow Box Blakely’s Red Gum Woodland	Remnants of this community occur extensively across the Central Tablelands and further afield.	<b>Recorded.</b> The trees and woodland stands in the area are mostly part of this community complex.
<b>Threatened Plants</b>		
Silver-leaf Candlebark <i>Eucalyptus canobolensis</i>		
<b>Small Purple-pea (Swainsona recta) –</b>	<b>Small Purple-pea (Swainsona recta) –</b>	<b>Small Purple-pea (Swainsona recta) –</b>
Silky Swainson-pea (Swainsona sericea)		



# Flyers Creek Wind Farm Project

## CONSTRUCTION FLORA AND FAUNA MANAGEMENT PLAN



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Species	Habitat	Potential Presence in Project Area
<b>Threatened Mammals</b>		
Koala <i>Phascolarctos cinereus</i>	Koalas occur in eucalypt forest and woodland containing their preferred feed tree species, i.e. <i>Eucalyptus tereticornis</i> , <i>E. microcorys</i> , <i>E. punctata</i> , <i>E. viminalis</i> , <i>E. camaldulensis</i> , <i>E. albens</i> , <i>E. haemastoma</i> , <i>E. signata</i> , <i>E. populnea</i> and <i>E. robusta</i> . Where Koalas occur, one or more of these species is often dominant or prominent. Because so much native vegetation in NSW has been cleared, Koalas now occur in marginal habitat.	Low. Wildlife Atlas record from northwest of Blayney, about eight kilometres east of study area. Potential food trees present.
Spotted-tailed Quoll <i>Dasyurus maculatus</i>	Quolls live in a wide variety of habitats, e.g. rainforest, eucalypt forest, woodland and coastal of heath. Their diet consists of medium sized mammals, birds, small mammals and carrion. They have a large home range, 1287-1452 ha for males and 614-1067 ha for females (Edgar & Belcher 1995). Dens are in hollow logs, tree hollows, caves and crevices. Usually terrestrial.	Low. NSW Wildlife Atlas record east Carcoar, about 12 km from study area. Suitable habitat probably not present
Squirrel Glider <i>Petaurus norfolcensis</i>	Squirrel Gliders have highly specialised habitat re forest and woodland, and are generally absent from closed and/or moist forest. In coastal areas, they occur in Blackbutt - Bloodwood forest with a heathy understorey, e.g. of wattles and banksias, Smooth-barked Angophora – Blackbutt woodland and forest, and some wetter forest types along creeks. In southern coastal NSW, they occur in Bangalay, Blackbutt and Spotted Gum. They need tree hollows for use as refuges and nest sites. Banksias and wattles provide important food resources. The species has a home range of 20-30 ha.	Low. Wildlife Atlas record well to the southwest of Orange, also recorded from Cadia area (Western Research Institute 2009). Suitable habitat probably not present.
Greater Glider <i>Petauroides volans</i>	Eucalypt forests and woodlands. Taller, montane, moist eucalypt forests with relatively old trees and abundant hollows. Diversity of eucalypt species.	Possible May occur in locality.
Eastern Pygmy-possum <i>Cercartetus nanus</i>	Broad range of habitat from rainforest through sclerophyll (including box-ironbark) forest and woodland to heath, but in most areas woodlands and heath appear to be preferred. Shelters in tree hollows, rotten stumps, holes in the ground, abandoned nests, Ringtail Possum dreys or thickets of vegetation.	Possible Predicted to occur in subregion.
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	Roost and forage in a range of vegetation communities including rainforest, open forest, and closed and open woodland. Roost sites are usually near water, including lakes, rivers, and coastlines	<b>Recorded</b> during field survey.
<b>Threatened Birds</b>		
Brown Treecreeper <i>Climacteris picumnus</i>	The Brown Treecreeper is an inland species that occurs in eucalypt woodland, preferably open woodland, without dense shrubs. They forage on tree trunks and on the ground among fallen and leaf litter. They nest in tree hollows.	Moderate. Recorded nearby to the west Cadia area (Western Research Institute 2009)
Diamond Firetail <i>Stagonopleura guttata</i>	The Diamond Firetail occurs throughout south-eastern Australia mostly in inland areas. The species generally inhabits eucalypt woodlands forest and mallee where there is a grassy understorey and also occurs in grassland.	<b>Recorded.</b> Observed in the study area.
Flame Robin <i>Petroica phoenicea</i>	The robin is moderately common throughout the tablelands. Birds tend to move to lower altitudes in winter when they can be seen in very open country.	Moderate. Recorded in the Cadia area (Western Research Institute 2009).
Gang-gang Cockatoo <i>Callocephalon fimbriatum</i>	Gang-gang Cockatoos mainly occur in eucalypt forest, where they feed on eucalypt fruit and wattle seed. They nest in large old trees with hollows. The species is nomadic, with some seasonal movements, as well, as the cockatoos wander over wide areas in response to the seasonal availability of food.	Moderate. Relatively common throughout the Central Tablelands region.
Hooded Robin <i>Melanodryas cucullata</i>	The Hooded Robin occurs throughout Australia mainly in inland areas. This bird inhabits a wide range of woodlands, shrublands and forest, in particular open woodland with some shrubs and dead timber.	Moderate. A woodland bird that probably occurs in the locality.
Grey-crowned Babbler <i>Pomatostomus temporalis temporalis</i>	Open box-gum woodlands on the slopes, and box-cypress and open box woodlands on alluvial plains. Generally unable to cross large open areas.	Possible Known to occur in subregion.
Bush Stone-curlew <i>Burhinus grallarius</i>	Open forests and woodlands with sparse grassy ground layer and fallen timber.	Possible Known to occur in subregion.
Little Eagle <i>Hieraetus morphnoides</i>	The Little Eagle is widespread in Australia, inhabiting a very wide range of habitats. Pairs range over a wide area and nest in a tall tree within a stand of trees.	<b>Recorded.</b> Observed during this study, and reported from Cadia area (Western Research Institute 2009).
Square-tailed Kite <i>Lophoictinia isura</i>	Timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses. In arid north western NSW, has been observed in stony country with a ground cover of chenopods and grasses, open acacia scrub and patches of low open eucalypt woodland.	Possible Known to occur in subregion.
Dusky Woodswallow <i>Artamus cyanopterus</i>	Woodlands and dry open sclerophyll forests, usually dominated by eucalypts including Mallee. Understorey typically open with sparse eucalypt saplings,	Likely Recorded in locality (BioNet).

# Flyers Creek Wind Farm Project

## CONSTRUCTION FLORA AND FAUNA MANAGEMENT PLAN



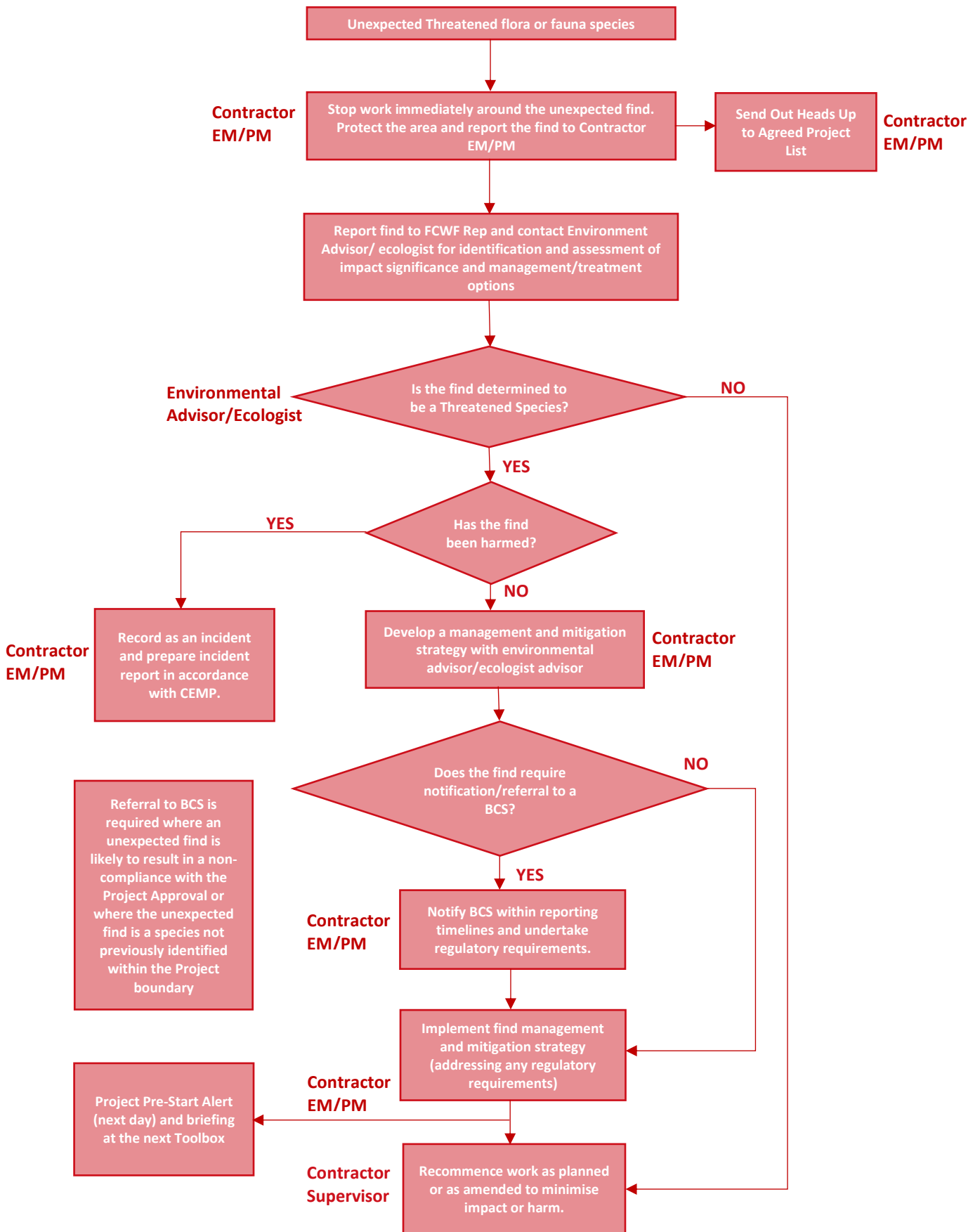
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Species	Habitat	Potential Presence in Project Area
	acacias, and other shrubs. Ground cover may consist of grasses, sedges, or open ground, often with coarse woody debris. Also observed in farmland, usually at the edges of forest or woodland or in roadside remnants or wind breaks with dead timber.	
Barking Owl <i>Ninox connivens</i>	Woodland and open forest, including fragmented remnants and partly cleared farmland.	Possible Known to occur in subregion
Powerful Owl <i>Ninox strenua</i>	Range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. Requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well.	Possible Known to occur in subregion.
Spotted Harrier <i>Circus assimilis</i>	Grassy open woodland including acacia and Mallee remnants, inland riparian woodland, grassland and shrub steppe. Most commonly found in native grassland, but also in agricultural land, foraging over open habitats including edges of inland wetlands.	Possible Known to occur in subregion.
Little Lorikeet <i>Glossopsitta pusilla</i>	The Little Lorikeet is widespread in eastern and southern Australia, inhabiting most treed areas. Nests in tree hollows	Low. Recorded in the Cadia area (Western Research Institute 2009).
Regent Honeyeater <i>Xanthomyza phrygia</i>	Regent Honeyeaters occur in temperate eucalypt woodland and open forest, in wooded farmland and in urban areas with mature trees. They prefer areas with large trees, many flowering trees and a tall shrub layer. They are wide ranging and highly nomadic.	Low. Previous observation reported by Cenwest (2005). A rare visitor to the region.
Painted Honeyeater <i>Grantiella picta</i>	Boree/Weeping Myall, Brigalow, and Box-Gum Woodlands and Box-Ironbark Forests.	Possible Known to occur in subregion and considered likely to occur in locality.
Fork-tailed Swift <i>Apus pacificus</i>	Open habitat including semi-arid areas, coasts, islands, and occasionally forests and cities.	Possible Considered likely to occur in locality.
Pied Honeyeater <i>Certhionyx variegatus</i>	Wattle shrub, primarily mulga, mallee, spinifex and eucalypt woodlands, usually when shrubs are flowering. Feeds on nectar, predominantly from various species of emu-bushes, also from mistletoes and other shrubs.	Possible Known to occur in subregion.
Scarlet Robin <i>Petroica boodang</i>	The robin is moderately common throughout the tablelands. Birds tend to move to lower altitudes in winter when they can be seen in very open country.	Moderate. Recorded on Cadia site (Western Research Institute 2009).
White-throated Needletail <i>Hirundapus caudacutus</i>	Wooded areas including open forest and rainforest, and less commonly above woodland.	Possible Considered likely to occur in locality.
Yellow Wagtail <i>Motacilla flava</i>	Flat, open, grassy area near water, which may include grasslands, air strips, pastures, sports fields, and edges of wetlands, rivers, and dams.	Possible May occur in locality.
Speckled Warbler <i>Chthonicola sagittata</i>	The Speckled Warbler is found in south-eastern Australia and is mainly an inland bird. This species inhabits woodlands with a grassy understorey, often where there is a sparse shrub cover. Nests are made on the ground	Moderate. A woodland bird that probably occurs in the locality. Recorded on Cadia site. (Western Research Institute 2009).
Black-chinned Honeyeater <i>Meliphreptus gularis gularis</i>	Upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts, especially Mugga Ironbark Eucalyptus sideroxylon, White Box E. albens, Inland Grey Box E. microcarpa, Yellow Box E. melliodora, Blakely's Red Gum E. blakelyi, and Forest Red Gum E. tereticornis, and open forests of smooth-barked gums, Stringybarks, ironbarks, tea trees, and river sheoaks (nesting habitat).	Possible Known to occur in subregion.
<b>Superb Parrot</b> <i>Polytelis swainsonii</i>	This parrot occurs throughout the western slopes of NSW, onto the edges of the tablelands of NSW, and into central Victoria. The breeding areas are in the central to southern part of its range. The orange area is on the eastern edge of a core breeding area. Birds disperse widely from the breeding areas outside the breeding season (September to January). Hollows in trees are essential for breeding.	<b>Recorded.</b> Observed during the study.
Turquoise Parrot <i>Neophema pulchella</i>	Turquoise Parrots inhabit "woodlands, open forest and timbered grasslands on mountain slopes, ridges and along watercourses", favouring "the edges of woodland adjoining open grassland, or timbered ridges and tree-lined creeks that traverse farmland" (Forshaw 1981). They forage on the ground for seed, usually in pairs or small groups. After breeding, they disperse from the woodlands into more open country.	Moderate. Previously recorded in the locality Cenwest (2005).

Species	Habitat	Potential Presence in Project Area
Swift Parrot <i>Lathamus discolor</i>	The Swift Parrot is a non-breeding, winter visitor to NSW; the species only breeds in Tasmania. Birds are highly mobile and appear in a region irregularly, depending upon the availability of flowering trees	Low. Recorded in the Cadia area (Western Research Institute 2009).
<b>Varied Sittella</b> <i>Daphoenositta chrysoptera</i>	The sittella is widespread in Australia, found in most forest and woodland types. Birds forage in the tree tops, often on dead wood. Tiny nests are made in trees.	<b>Recorded.</b> Observed during this study.
White-fronted Chat <i>Epthianura albifrons</i>	The chat is a ground bird, usually found in and around wetlands, including coastal saltmarsh and inland areas.	Moderate. Recorded in the Cadia area (Western Research Institute 2009).
Satin Flycatcher <i>Myiagra cyanoleuca</i>	Eucalypt forest and woodland, especially tall, wet sclerophyll forests along gullies and water courses, and open, grassy areas of woodland.	Possible Known to occur in locality.
<b>Bats</b>		
<b>Yellow-bellied Sheathtail Bat</b> <i>Saccolaimus flaviventris</i>	Forages in most habitats across its very wide range, with and without trees; appears to defend an aerial territory.	<b>Recorded.</b> In the centre of the Project area
Eastern Bentwing Bat <i>Miniopterus schreibersii oceanensis</i>	Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures.	Moderate. Is known from the region, but was not recorded at the time of survey (March 2009)
Large-eared Pied Bat <i>Chalinolobus dwyeri</i>	Roosts in caves, crevices in cliffs, old mine workings and disused bottle-shaped mud nests of the Fairy Martin, frequenting low to mid elevation dry open forest and woodland close to those features.	Possible Predicted to occur in subregion and considered likely to occur in locality.
Corben's Long-eared Bat <i>Nyctophilus corbeni</i>	Variety of vegetation types, most commonly Mallee, Bulloke, and Box dominated communities, but are most common in vegetation which has a distinct canopy and dense understorey. They roost in tree hollows, crevices, and under loose bark.	Possible Considered likely to occur in locality.
Southern Myotis <i>Myotis macropus</i>	Often roost close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges, and in dense foliage. Forage over streams and pools.	Possible Known to occur in subregion.
<b>Amphibians</b>		
Booroolong Frog <i>Litoria booroolongensis</i>	Along permanent streams with some fringing vegetation cover such as ferns, sedges or grasses.	Possible Predicted to occur in subregion and may occur in locality
<b>Reptiles</b>		
Pink-tailed Legless Lizard <i>Aprasia parapulchella</i>	Sloping open woodland areas with groundcover dominated by native grasses, typically those which are well-drained with rocky outcrops or scattered, partly-buried rocks.	Possible Predicted to occur in subregion and may occur in locality.
Striped Legless Lizard <i>Delma impar</i>	Mainly Natural Temperate Grasslands, but also grasslands with high exotic component, in secondary grassland near Temperate Natural Grassland, and open Box-Gum Woodland. Grassland dominated by perennial, tussock-forming grasses such as Kangaroo Grass <i>Themeda australis</i> , spear-grasses <i>Austrostipa</i> spp., poa tussocks <i>Poa</i> spp., and occasionally wallaby grasses <i>Austrodanthonia</i> spp. Sometimes found in grasslands with significant amounts of surface rocks, used for shelter.	Possible May occur in locality.

Figure 1 Unexpected Threatened Species Management Flowchart



**APPENDIX E – CONTACT DETAILS – FLORA AND FAUNA**

<p><b>Biodiversity, Conservation and Science Directorate</b> Level 1/48–52 Wingewarra Street, Dubbo 2830 PO Box 2111, Dubbo 2830 Tel: 02 6883 5330</p> <p><a href="mailto:info@environment.nsw.gov.au">info@environment.nsw.gov.au</a></p> <p>Environment Line 131 555</p>
<p><b>Local Wires/Wildlife Carers/Vets</b></p>



**APPENDIX F – DISTURBANCE RECORD**

<b>Work Description</b>			
<b>Location Descriptor</b>		<b>Date/Time:</b>	

**Disturbance Area Recorded By:**

<b>Name</b>		<b>Position:</b>	
-------------	--	------------------	--

PCT Number	PCT Name/Description	Approved Disturbance (ha) or No	Actual Disturbance Recorded (ha)	Comments
266	White box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion.			
277	Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT 277)			
797	Derived grassland of the South-Eastern Highlands Bioregion and South East Corner Bioregion			
1110	River Tussock – Tall Sedge – Kangaroo Grass moist grasslands			
1330	Yellow Box – Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330)			
	Paddock Trees Blakely's Red Gum			
	Paddock Trees Yellow Box			
	Paddock Trees White Box			
	Hollow Bearing Trees (HBT)			
	<b>Non-Native</b>			
	Exotic vegetation – pasture within cleared areas, vegetation dominated by Phalaris, Rye Grass, Barley Grass and Common Storksbill.			
	Exotic vegetation – Pine plantation within areas of pine plantation, areas are dominated by Radiata Pine with a high abundance of Blackberry.			
	Exotic riparian vegetation			
	Non-Native			

## APPENDIX G – SQUIRREL GLIDER MANAGEMENT PLAN

### Background

The Squirrel Glider was detected during two survey periods within woodland areas in the east western areas of the development site (along vegetation which adjoins Gap Road) in October 2018, January 2019, September 2019 and July 2020. Targeted surveys were also complete in the northern areas of the development site in largely connected vegetation. However, no mammals were recorded in the north during all four survey attempts.

Areas in the south-west of the development site have a relatively intact woodland connectivity. The patch size for woodland vegetation in this area was above 100 ha. These areas provide adequate cover and protection for fauna movement through the landscape. Squirrel gliders (*Petaurus norfolcensis*) were recorded along Gap Road in areas with *Acacia dealbata* present. Additional recordings were in patches of vegetation which adjoin to Gap Road further south.

The Development will, however, involve the removal of 11.15 ha of Squirrel glider habitat and for the majority of the site would not include fragmentation of habitat as the majority of surrounding vegetation would remain. The majority of impact areas are narrow and linear (cabling and access roads are 20m -25m wide) and would only remove the edges of larger patches of vegetation. The northern portion of the development site is also surrounded by forestry pine plantations which offer limited foraging and breeding opportunities for threatened fauna species but do provide adequate cover and protection for movement through the landscape.

There are four separate patches of native vegetation that will be impacted by the transmission line covering approximately 2.65 hectares. Additionally, the construction of the access road and cabling across Gap Road has the potential to reduce connectivity of habitat for the Squirrel glider locally. Squirrel Gliders can glide up to 70 metres (van der Ree et al. 2003). The construction of an access road along Gap Road could create a gap in canopy cover extending beyond the 70m range from the removal of two trees. Trees may be required for removal to allow for the turning circle of trucks carrying wind turbines. If these trees are removed this will trigger a need to implement Squirrel Glider management and mitigation measures as outlined in BDAR and BOP.

### Management and Mitigation Measures

The following management and mitigation measures will be adopted to minimise the impact to Squirrel Glider habitat:

1. Retention of hollow-bearing trees where possible.
2. Avoid clearing during the breeding season (April to November) where possible to minimise impact on the life cycle of this species.
3. If clearing occurs during April to November, ensure a qualified ecologist completes the following:
  - a. A pre-clearance survey of the trees proposed to be removed. This will include installation of cameras in the weeks leading up to the planned tree removal.
  - b. Is on site to supervise tree removal to manage any threatened species discovered during operations.
4. Due to the linear nature of the development footprint, vegetation containing suitable roosting and breeding habitat would be retained where possible and specific measures put in place to avoid further connectivity issues including the installation of a glider pole on Gap Road.

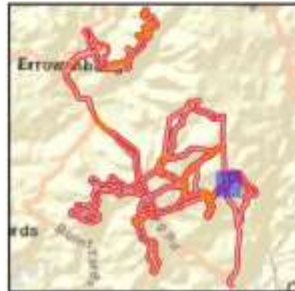
Data Attribution  
 © NGH 2021  
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 © Esri & GIS 2021



**18-558 Flyers Creek Wind Farm Offset Report - Squirrel Glider prescribed impacts** 0 0.1 0.2 km

**Legend**

- Development Site
- Development Footprint
- Impacts to Squirrel Glider Connectivity
- Squirrel Glider Sighting



Ref: 18-558 Flyers Creek Wind Farm Offset Report Maps \ Squirrel Glider  
 Author: D. Bambrick  
 Date created: 19.10.2021  
 Datum: GDA94 / MGA zone 55



Figure 1 Prescribed impacts on Squirrel Glider Connectivity (Reference Figure 5-1, NGH Biodiversity Offset Report, Dated October 2021)



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