APPENDIX E

Detailed Mitigation Measures

Author: Eco Logical Australia Pty Ltd

Client: Burrendong Wind Farm Pty Ltd

Impact	Objective	Mitigation Measure	Responsibility	Stage				Code
				PC	C	OM	RD	
		GENERAL MEASURES						
		The project must be designed and constructed with the key objective to reduce environmental impacts. This should include avoiding and minimising impacts where practicable.	Proponent and Construction Contractor	✓				EM001

General	Minimise Impacts	Develop an Environmental Management System (EMS) which outlines practices and procedures to be followed during construction and operation of the development. The EMS must:
		• provide the strategic framework for environmental management of the development;
		• identify the statutory approvals that apply to the development;
		• describe the role, responsibility, authority, and accountability of all key personnel involved in the environmental management of the development; and
		• set out the procedures that would be implemented to:
		  ○ keep the local community and relevant agencies informed about the operation and environmental performance of the development;
		  ○ receive, handle, respond to, and record complaints;
		  ○ resolve any disputes that may arise;
		  ○ respond to any non-compliance;
		  ○ respond to emergencies; and
		• include:
		  ○ reference to any strategies, plans and programs approved under the conditions of this consent; and
		  ○ a clear plan depicting all the monitoring to be carried out in relation to the development, including a table summarising all the monitoring and reporting obligations under the conditions of this consent.
		The Proponent must implement the approved EMS during construction and operation of the Project.
			Proponent	✓	✓	✓		EM002

		Develop an Environmental Management Plan (EMP) to outline environmental management measures and procedures to be implemented during construction. This should include sub-plans to address: • Water quality; • Air quality; • Heritage; • Biodiversity; • Noise and vibration; • Environmental Incident response and notification; • Traffic; • Waste; • Contamination (including unexpected finds); • Storage of chemicals, oils and fuels; • High risk activities; and Training and induction.	Proponent and Construction Contractor	✓				EM003
		All employees and contractors must attend a project induction including details of environmental approvals, site management requirements and an overview of sub-plans contained in the EMP.	Proponent and Construction Contractor		✓	✓		EM004
		LANDSCAPE AND VISUAL						
Visual Amenity	Implementing design principles to reduce potential impacts within the study area	The following principles should continue to guide the design process of the Project during the detailed design phase and micro-siting process: • Controlling the location of different WTG types, densities, and layout geometry to minimise the visual impacts; • The lines of WTGs should reflect the contours of the natural landscape as best as possible; • Ensure the WTGs are evenly spaced to give a regular pattern creating a better balance within the landscape.	Proponent and Construction Contractor	✓				**LV001**
		To achieve a visual consistency through the landscape, the following must be considered for WTG design: • Uniformity in the colour, design, rotational speed, height, and rotor diameter; • The use of simple muted colours and non-reflective materials to reduce distant visibility and avoid drawing the eye; • Blades, nacelle, and tower to appear as the same colour;	Proponent	✓				**LV002**

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		• Avoidance of unnecessary lighting, signage, logos etc.						
Blade Glint	Limit the potential for blade glint to occur	To minimise potential visual impacts because of the WTG throughout the landscape, all WTG blades used in the Project should be finished with a low reflectivity surface treatment to reduce the effect of blade glint, as required by the Visual Bulletin (DPE, 2016b)	Proponent and Construction Contractor		✓			**LV003**
Non-Involved Dwellings	Provide mitigating solutions to non-involved dwellings to reduce potential to view the Project	The existing character of the landscape allows for a variety of methods of landscaping and visual screening in keeping with the landscape character. General guidelines to adhere to when planning for landscape and visual screening include: • Planting post construction in consultation with the landowner; • Keeping with existing landscape character; • Species selection is to be typical of the area; • Avoid screening views of the broader landscape; • Avoid the clearing of existing vegetation. Where appropriate reinstate any lost vegetation; • Allow natural vegetation to regrow over any areas of disturbance. Locally native plant species are preferred, as they will help assist and maintain the connectivity of the area, help preserve the landscape character and scenic quality of the area as well as building habitat for local fauna. Native species are also well-suited to local conditions (i.e., soil, climate, etc.) and will build on the existing vegetation in the area. Specific recommended mitigation measures for each non-associated dwellings have been provided in Appendix G of the LVIA (Moir, 2023)	Proponent and Construction Contractor			✓		**LV004**
Visual Impacts from Ancillary Infrastructure	Mitigate potential impacts related to the construction of ancillary infrastructure	To reduce the residual impacts resulting from the construction of access roads and hard stands, the following are to be considered: • Where possible utilise or upgrade existing roads, trails or tracks to provide access to the proposed turbines to reduce the need for new roads • Allow for the provision for downsizing roads or restoring roads to existing condition following construction where possible • Any new roads must minimise cut and fill and avoid the loss of vegetation • Utilise local materials where possible and practical.	Proponent and Construction Contractor		✓			**LV005**
		To reduce potential visual impacts resulting from the construction of transmission lines, the following are to be considered at the detailed design phase: • Where possible underground cabling is to be used to connect wind turbines to the electricity grid • Utilise existing transmission lines where possible • The route for any proposed overhead transmission lines should be chosen to reduce visibility from surrounding areas • Plan route to minimise vegetation loss • Use of subtle colours and a low reflectivity surface treatment on power poles to ensure that glint is minimised	Proponent and Construction Contractor		✓			**LV006**
		To reduce potential visual impacts resulting from the construction of the O&M compound, the following must be considered: • Siting to ensure minimal vegetation loss; • The type and colour of building materials used. Where possible a recessive colour palette is to be used which blends into the existing landscape; • Avoidance of unnecessary lighting, signage on fences, logos etc; • Any proposed buildings to be sympathetic to existing architectural elements in the landscape; • Minimise cut and fill and loss of existing vegetation throughout the construction process; and • Boundary screen planting.	Proponent and Construction Contractor		✓			**LV007**
Night Lighting	Reduce impacts of night lighting within the environment	To reduce the potential visual impacts of AHL, the following must be considered: • If used, space aviation lights over the array, particularly at the extremities. They are not required on every WTG. Where possible, careful consideration of WTGs upon which aviation lighting is installed to avoid unnecessary impact upon residences; • Treatment of the rear of blades with a non-reflective coating to reduce reflection off the rotating blade at night; • Use of the lowest candela intensity allowed by CASA; • Permanent light shielding is also an option to reduce impact on residences within six (6) km of the installation.	Proponent and Construction Contractor	✓	✓			**LV008**
		The following principles should be incorporated into lighting design during the detailed design phase of the switching station, substation, O&M compound, and any other structures requiring lighting: • Only use lighting for areas that require lighting i.e., paths, building entry points; • Switch off lighting when not required; • Consider the use of sensors to activate lighting and timers to switch off lighting; • Use the lowest intensity required for the job;	Proponent and Construction Contractor	✓				**LV009**

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		• Use energy efficient bulbs and warm colours; • Direct light downwards; • Ensure lights are not directed at reflective surfaces; • Use non-reflective dark coloured surfaces to reduce reflection of lighting; • Keep lights close to the ground and / or directed downwards; and • Use light shield fittings to avoid light spill.						
		NOISE AND VIBRATION						
Construction Noise	Reducing construction related noise generated	Develop a detailed CNVMP that includes site and process specific noise management work practices designed to mitigate the impact of construction noise activities, including traffic noise and blasting. Noise mitigation practices can be undertaken by considering the following as part of the CNVMP, including: • Universal work practices • Consultation and notification • Plant and equipment • On-site controls • Work scheduling • Transmission path and at-receiver considerations	Proponent and Construction Contractor		✓			NV001

		Conduct the majority of noisy works within normal working hours set out in the 2004 Interim Construction Noise Guidelines. This will assist in limiting noisy activities to times of the day when intrusive impacts or adverse reactions may be less likely. These times include:
		• Normal construction
		  ○ Monday to Friday (7am – 6pm)
		  ○ Saturday (8am – 1pm)
		  ○ No work on Sundays or Public Holidays
		• Blasting
		  ○ Monday to Friday (9am – 5pm)
		  ○ Saturday (9am – 1pm)
		  ○ No blasting on Sundays or Public Holidays
			Proponent and Construction Contractor		✓			NV002

		Where out of hours works are proposed the proponent should: • Provide a strong justification as typically required for works outside the recommended standard hours • Apply all feasible and reasonable work practices to meet the noise affected level Where all feasible and reasonable practices have been applied and noise is more than 5 dB(A) above the noise affected level, negotiate with the community.	Proponent and Construction Contractor		✓			NV003
Operational Noise	Reducing noise generated during operation	The predicted operational WTG noise levels should be updated with the final layout and sound power levels of the final WTG selected for the site to verify compliance with the criteria in accordance with the Noise Bulletin (DPE, 2016c).	Proponent			✓		NV004
		The predicted operational related infrastructure noise levels should be updated with the final design and sound power levels of the final equipment selection to verify compliance with the criteria in accordance with the NPfI.	Proponent			✓		NV005
		Following construction, compliance monitoring should be conducted to satisfy the Noise Bulletin (DPE, 2016c) including evaluation of special noise characteristics.	Proponent			✓		NV006
		Prepare an Operational Noise Management Plan, which identifies how compliance with the Project's operational noise limits will be demonstrated, including details of testing procedures and reporting time frames following commencement of operation of the Project	Proponent			✓		NV007
Noise Reduction Contingency Plans	Ensuring compliant equipment is procured	*Procurement contract*: the procurement contract for the supply of turbines to the site will typically include specifications concerning the allowable total noise emissions from the turbine, and the permissible characteristic of the turbine. If WTG emissions are found to exceed the contracted values, the supplier will be required to implement measures to reduce the noise to a contracted value. This can include measures to rectify manufacturing defects or appropriate control settings.	Proponent			✓		NV008
		Noise reduction management strategy: modern wind farms include control systems which enable the operation of the turbines to be varied according to environmental constraints. Specifically, variable pitch turbines as proposed for this site include control functions which enable the noise emissions of the turbines to be selectively controlled; by adjusting the pitch of the blade, the noise emissions of the turbine can be reduced. In addition, where required, curtailment can be applied to the turbines under relevant wind speeds and directions. These types of control measures can be used separately, or in combination, to achieve noise reductions for predetermined wind speed ranges and directions.	Proponent			✓		NV009
		BIODIVERSITY						

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General		Prepare a BMP in consultation with the Biodiversity Conservation Division (BCD) within DPE and include a description of the measures that would be implemented for: • minimising the amount of native vegetation clearing within the approved development footprint; • minimising the loss of key fauna habitat, including tree hollows; • minimising the impacts on fauna on site, including undertaking pre-clearance surveys; • minimising the potential indirect impacts on threatened flora and fauna species, migratory species and 'at risk' species; • rehabilitating and revegetating temporary disturbance areas; • protecting native vegetation and key fauna habitat outside the approved disturbance area; • maximising the salvage of resources within the approved disturbance area – including vegetative and soil resources – for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and revegetation of the site; • collecting and propagating seed (where relevant); • controlling weeds and feral pests; • controlling erosion; and • bushfire management; • a detailed program to monitor and report on the effectiveness of these measures. The Proponent must implement the approved BMP during construction and operational phases of the Project.	Proponent	✓				BV001
Native Vegetation	Reducing impacts to native vegetation that may be present within or in proximity to the study area	Develop clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance. For example, removal of native vegetation by chain-saw, rather than heavy machinery, is preferable in situations where partial clearing is proposed. Implement clearing protocols including pre-clearing surveys, daily surveys and staged clearing, the presence of a trained ecological or licensed wildlife handler during clearing events.	Proponent and Construction Contractor	✓				BV002
		All staff working on the Project must undertake a biodiversity induction as part of their site familiarisation. This induction will include items such as: • Site biodiversity procedures (vegetation management, exclusion zones and fencing, weed management, unexpected finds protocols for threatened species) • What to do in case of environmental emergency (injured fauna) • Key contacts in case of emergency.	Proponent	✓	✓	✓	✓	BV003
Native Fauna	Reducing impacts to native fauna that may be present within or in proximity to the study area	Prior to the commissioning of any WTGs, the Proponent must prepare a BBAMP in consultation with the BCD within DPE, and to the satisfaction of the Secretary. This plan must include: • a detailed description of the measures that would be implemented on-site for minimising bird and bat strike during operation of the development • trigger levels for further investigation of the potential impacts of the Project on bird or bat species or populations • an adaptive management program that would be implemented if the development is having an adverse impact on a particular threatened or 'at risk' bird and/or bat species or populations • a detailed program to report and monitor the effectiveness of these measures and any bird/bat strikes on site Provisions for a copy of all raw data collected as part of the monitoring program to be submitted to the BCD within DPE and the Secretary.	Proponent		✓			BV004
		Utilise soft-felling techniques for all habitat trees with the construction area. A qualified ecologist/licenced wildlife handler should supervise habitat tree removal in accordance with best practise methods. All removal of hollow bearing trees must be supervised by an experienced ecologist to reduce the risk of significant injury or fatality to fauna.	Proponent and Construction Contractor	✓				BV005
		Undertake pre-clearance surveys prior to tree clearing associated with the construction area. A qualified ecologist/licenced wildlife handler will supervise tree removal in accordance with best practise methods.	Proponent and Construction Contractor	✓				BV006
		Develop a procedure for the relocation of habitat features (e.g., fallen timber, hollow logs) to retained habitat adjacent the Development Footprint. Relocation of timber to retained habitat should be undertaken in consultation with the site ecologist to ensure threatened species and sensitive environments are not harmed during this process. BV007	Proponent and Construction Contractor	✓	✓			BV007
		The Project will only undertake construction or decommissioning activities between: • 7 am to 6 pm Monday to Friday; and • 8 am to 1 pm Saturdays. Notwithstanding, works undertaken outside these hours may occur where the activity is inaudible, for emergency works, delivery of certain materials, in accordance or where agreement from the Secretary has been provided. Certain activities will require work to be conducted outside normal work hours to prevent damage to concrete tower bases and trenches, to reduce the safety risk of open trenches and to reduce the risk of tower self-oscillation. Some examples of these activities include:	Proponent and Construction Contractor		✓			BV008

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		• Concrete Pours: • In-ground Electrical Works: • WTG Installation.:						
		Any active breeding or nesting sites identified during clearance surveys associated with the construction must be avoided in August, September and October which is the breeding/nesting period for most fauna species.	Proponent and Construction Contractor	✓	✓			BV009
Biodiversity Offsets		Once a suitable offset strategy has been identified, the Proponent must provide the following to DPE: • If land-based offset chosen: o Description of the proposed offset property; o The mechanism proposed to secure the offset for biodiversity outcomes; o Ecosystem credit summary; o Species credits; o Management actions to improve biodiversity values; and Confirmation of secured required credits through the open credit market, and/or payments to the Biodiversity Conservation Fund	Proponent	✓				BV010
		TRAFFIC AND TRANSPORT						
Public Road Traffic Management	Managing potential impacts to public road network	A TMP should be prepared to address the impact of the development on traffic throughout the life of the Project, including the construction, maintenance, operation, and decommissioning stages. The TMP should be prepared in accordance with the consent conditions and include the following measures: • Measures to minimise the traffic safety impacts of the development and disruptions to local road users during construction and decommissioning of the development, including: o temporary traffic controls, including detours and signage o notifying the local community about development-related traffic impacts o minimising potential conflict between development-related traffic and stock movements, domestic animals, school buses (in consultation with local schools) and mining related traffic o implementing measures to minimise development-related traffic on the public road network outside of standard construction hours o ensuring development-related traffic does not track dirt onto public road network o ensuring loaded vehicles entering or leaving the site have their loads covered or contained o providing sufficient parking within the Project Site for all development-related traffic o responding to any emergency repair requirements or maintenance during construction and/or decommissioning o a traffic management system for managing over-dimensional vehicles o fatigue management. • Suitable rest stop areas (for OSOM drivers) that are spaced no more than 2 hours apart • A Driver Code of Conduct which addresses a detailed program to monitor and report on the effectiveness of these measures and the code of conduct • A detailed program to monitor and report on the effectiveness of these measures and the code of conduct • Consultation with TfNSW and relevant stakeholders to consider future projects in the region with a similar timeframe to the Project, and the combined impact they may have on traffic management	Proponent	✓				TM001
		A Stakeholder Management Plan, inclusive of a Communications Plan, is to be developed to provide relevant information to the public, general stakeholders (including Cudgegong River Holiday Park), other major nearby developments and affected landowners. Key stakeholders must be informed of heavy vehicle haulage routes and project progress. Information should be provided in local newspapers, online news, social media, and local radio stations.	Proponent and Construction Contractor	✓				TM002
Internal and External Traffic Management	Managing impacts of increased vehicle movements on internal and external roadways near the Project Site	An internal management strategy will be established within the Project Boundary. This strategy will form part of the site's induction that will be undertaken by all personnel on-site. The following key items are to be implemented: • 40 km/h speed limit on internal access roads • Radio communication between construction vehicles available at all times • All loads to be correctly restrained • Warning signage to be provided at critical areas and intersection points. The on-site parking within the construction compound is required to provide a dedicated safe area where personnel can access their vehicles. Once a transport contractor has been nominated, they will be required to produce a Job Safety Assessment (or similar) specific to the Project.	Proponent and Construction Contractor		✓			TM003

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		Prior to commencing construction activities, regular and returning drivers of semi-trailers, rigid vehicles and/or B-Double and OSOM vehicles that will access/egress the site for pick-up and delivery of material will be required to undertake a driver induction. The induction will need to be developed early to ensure it is ready prior to construction activity (incl. any site preparation works) commencing. Irregular and one-off drivers of pick-ups and deliveries would be considered exempt to this induction requirement. The course must cover: • Suitable routes to and from the site • Suitable times of travel (i.e. outside of school bus times) • Applicable traffic management procedures that will need to be in place prior to approaching or departing the site (if required) • Communications and notification procedures • Speed restrictions (on the road network and the site) • Environmental procedures • Safety procedures (during transportation and in the evident of an incident / emergency).	Proponent and Construction Contractor	✓				TM004
Traffic Management	Mitigating potential impacts involving OSOM transport, carparking and materials delivery	A nominated contractor will be responsible for liaising with appropriate contractor(s) responsible for delivery of materials to/from the site to ensure that they comply with the TMP, including adherence to specified construction traffic route. It will be the contractor's responsibility to ensure routes are satisfactory and that appropriate measures (traffic management or other mitigation measures as well as liaison with relevant local authorities) are in place to ensure safe movement of vehicles to/from the site.	Construction Contractor	✓	✓			TM005
		All vehicle access during the construction phase will be via the identified site access locations at Burrendong Dam Road and will use nominated haulage routes.	Proponent and Construction Contractor		✓			TM006
		OSOM vehicles will access the site via the identified site access locations and OSOM routes identified by Rex J Andrews Engineering during the Route Study (via Yarrabin Road and Burrendong Dam Road. The OSOM routes are subject to the separate permit and approval processes which will be undertaken by accredited transport providers. Local residents would be informed of such activities via letter drop or by electronic communications at least one week in advance.	Proponent and Construction Contractor	✓	✓			TM007
		Carparking must be provided within the confines of the Project Site and must not encroach on the local road network. There will be sufficient area within the site during differing phases of construction to accommodate vehicle parking, including construction traffic deliveries and on-site manoeuvring. A nominated contractor will continually monitor parking provisions within the Project Boundary, as well as the staging of construction vehicles into and out of the Project site, to ensure no impact on the local road network occurs.	Proponent and Construction Contractor		✓			TM008
		Construction vehicle signage is to be considered and implemented prior to any works being undertaken. There may potentially be the need to further reduce speed limits on some roads to facilitate safe vehicle access around sites. Appropriate signage will be required in these instances to inform road users. This is to be developed following nominated contractor commission and agreed with key stakeholders.	Proponent and Construction Contractor	✓				TM009
		Consultation must take place with Uungula Wind Farm post-EIS approval to ensure that the peak construction months of both wind farms are appropriately managed and impacts on the local road network can be minimised.	Proponent	✓				TM010
Road Upgrades	Identified roads requiring upgrades to support OSOM deliveries	The intersection at Goolma Road and Twelve Mile Road must be upgraded to accommodate the OSOM vehicle path. The intersection must be upgraded to include a Basic Right Turn (BAR) this is to accommodate potential for cumulative traffic impacts associated to the construction of Uungula Wind Farm. This in accordance with Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossing Management.	Proponent and Construction Contractor	✓	✓			TM011
		The intersection at Hill End Road and Yarrabin Road must be upgraded to accommodate the OSOM vehicle path. This intersection is considered to only require minor upgrades.	Proponent and Construction Contractor	✓	✓			TM012
		HAZARDS AND RISKS						
Hazards and Risks	**Aviation**	The Royal Australian Air Force (RAAF) is to be advised on the location of the final WTG layout and WTG heights.	Proponent	✓				AV001
		Notify both CASA and DoD of the Project in accordance with: • CASA Advisory Circular AC 139-08(0) 'Reporting of Tall Structures' to enable the inclusion of the Project location and height of WTGs in relevant aeronautical information publications; and • CASA Form 406 – 'Operational Assessment of Existing and proposed Structures'.	Proponent	✓				AV002
		Consider the following regarding obstacle marking and lighting:	Proponent	✓	✓			AV003

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		• Paint rotor blades, nacelle and upper 2/3 of the supporting masts of WTGs that are 150 m and over (above ground level) white to contrast against the natural background. • Paint the top 1/3 of the WTG towers / monitoring masts in alternating contrasting bands of colour (white / orange). • Equip WTGs with 2000 candela medium intensity obstacle lights unless CASA agree to the use of 200 candela lighting. • Shield lighting to reduce the impact on residents • Mark and light wind monitoring masts. • Place marker balls, high visibility flags or high visibility sleeves on any outside guy wires • Ensure that the guy wire ground attachment points have contrasting colours to the surrounding ground and vegetation. • Install a flashing strobe light during daylight hours • Install a steady red light during hours of darkness if the WTG tower / monitoring mast is in the vicinity of possible night operations.						
	Public Health	Implement appropriate protective measures when exposure in the workplace results in the basic restrictions being exceeded.	Proponent and Construction Contractor		✓	✓	✓	PH001
		Undertake engineering controls wherever possible to reduce device emissions of EMFs to acceptable levels. Such controls include good safety design and, where necessary, the use of interlocks or similar health protection mechanisms.	Proponent		✓	✓	✓	PH002
		In accordance with the ICNIRP (2010) Guidelines, limit personnel access and use audible and visible warnings help to limit exposure to EMFs.	Proponent		✓	✓	✓	PH003
		Limit access to electrical equipment to qualified personnel only.	Proponent and Construction Contractor		✓	✓	✓	PH004
		To mitigate magnetic fields, consider the following in site: • Increasing the distance from the source • Modifying the physical arrangement of the source • Reducing the conductor spacing • Rearranging equipment layout and equipment orientation.	Proponent and Construction Contractor	✓	✓			PH005
		To reduce magnetic field reduction from substations, consider the following: • Substation siting • Location and orientation of equipment • Busbars and cabling • Location of accessways/buildings. • Locate major magnetic field sources within the substation to increase separation distances. • Minimise fields from incoming and outgoing powerlines • Orient equipment so that magnetic fields are minimized	Proponent and Construction Contractor	✓	✓			PH006
		Do not permit unsupervised public access to the Project Site. Landholders or its employees may have access to the Project Site for grazing activities, however there will be no need to spend extended periods near electrical infrastructure.	Proponent		✓	✓	✓	PH007
		Ensure electrical equipment commissioned as part of the Project is designed to reduce possible interference in line with Australian Standards.	Proponent and Construction Contractor	✓				PH008
		Ensure electrical equipment operates at different frequencies to household electrical devices and telecommunication signals.	Proponent and Construction Contractor		✓	✓	✓	PH009
	Bushfire and Electrical Fire	Develop a Bush Fire Emergency Management and Operations Plan (BFEMOP) in accordance with *Planning for Bushfire 2019* in consultation with the NSW RFS prior to construction commencing at the Project Site and provide the following: • Detailed measures to prevent or mitigate fires igniting • Work that should not be carried out during days of elevated fire danger (e.g. total fire bans) • Availability of fire-suppression equipment, access, and water • Storage and maintenance of fuels and other flammable materials	Proponent and Construction Contractor	✓				BF001

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		• Notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a day of elevated bushfire danger to ensure weather conditions are appropriate • Appropriate bush fire emergency management planning.						
		Construct and maintain an APZ (a minimum of 10 m wide) as the first stage of development for each WTG tower, wind monitoring mast, construction compound, switch yard, substation, and O&M Facility. APZs are to be established and maintained as Inner Protection Areas in accordance with *Planning for Bushfire Protection 2019*.	Proponent and Construction Contractor		✓	✓		BF002
		Should construction of the Project take place during a period of elevated bushfire risk (beginning of October – end of March), the following mitigation measures should be implemented to control the risk of grass fire ignitions: • Keep all plant, vehicles and earth moving machinery clean of any accumulated flammable material (e.g., soil and vegetation) • On days when High (Fire Behaviour Index 24) or worse is forecast for Wellington, check the NSWRFS 'fires near me' app is hourly for the occurrence of any fires with potential to threaten the Project Site and if any are identified activities may need to be modified until the risk subsides. • Cease all operations involving earth moving equipment, vehicles, slashers, hot works (e.g. grinders, welders) and any other works with potential to generate ignitions while the Fire Danger Rating (FDR) is or forecast to be Extreme (Fire Behaviour Index 50) or greater. • Put controls in place to avoid or minimise the risk of other anthropogenic ignition sources such as from cigarettes, cooking fires, vehicles. • Ensure all vehicles contain a fire extinguisher and all activities with ignition risk potential have a fire extinguisher readily available nearby and someone trained in how to use it. • Where possible, choose non-combustible hydraulic and lubricant oils. • Handle and store flammable goods on the Project Site in accordance with AS1940-2017. • Promote awareness amongst employees, contactors etc. to prevent all potential fire ignitions within the project Site and especially on days of elevated fire danger and / or Total fire ban.	Proponent and Construction Contractor		✓			BF003
		Identification and marking of meteorological masts and guy wires to minimise the risk to aerial firefighting operations.	Construction Contractor	✓	✓			BF004
		Consider opportunities for the provision of additional water supply and fire suppression equipment on-site	Proponent	✓	✓	✓	✓	BF005
		To reduce the likelihood of WTG fires, consider installing the following: • Lightning protection; • Heat barriers to protect combustible elements onsite; • Heat and/or smoke detection systems, for early notification of fires; and • Suppression systems, either water or foam that can contain a fire.	Proponent and Construction Contractor		✓	✓	✓	BF006
		Except for emergencies, suspend Project Site maintenance operations that pose an increased ignition potential on days of elevated fire danger ratings where the FDR has a Fire Behaviour index of 24 or worse (higher).	Proponent	✓	✓	✓		BF007
	Blade Throw	Ensure WTG components are manufactured and certified to current best practice Australian and international (IEC 61400-23) safety standards and are equipped with sensors that can react to any imbalance in the rotor blades and shut down the WTG if necessary.	Proponent	✓				BT001
		Ensure WTGs are subject to stringent safety and security measures including regular maintenance and servicing (within an ISO90001 Quality Assurance system).	Proponent	✓		✓		BT002
		Employ contractors certified in the manufacture, delivery, build, inspection, maintenance, and repair of WTG components.	Proponent	✓	✓	✓		BT003
	Telecommunications	Avoid locating construction equipment closer than 500 m from dwellings. If unavoidable, locate equipment away from the receiver.	Construction Contractor		✓			TC001
		Prior to construction, locate all survey marks within the Development Corridor. Establish no-go areas to ensure survey marks are not disturbed. Where survey marks are required to be moved, engaged a registered surveyor for advice.	Proponent	✓				TC002
		Consult with NSW Government Telecommunications Authority regarding possibility of knife-edge diffraction on communication link.	Proponent	✓				TC003
		Prepare a contingency plan for emergency communications in the vicinity of the WTGs that includes a plan for mobile signal interference such as the relocation of mobile phone receivers in the order of tens of metres.	Proponent	✓	✓	✓	✓	TC004

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		Where television signals are impacted on nearby dwellings, adjust the antenna.	Proponent and Construction Contractor		✓	✓	✓	TC005
		ABORIGINAL CULTURAL HERITAGE						
General		Prepare a Cultural Heritage Management Plan (CHMP) to the satisfaction of the Secretary. The CHMP should document the procedures to be followed and must: • be developed in consultation with an archaeologist, the RAPs and Heritage NSW; • provide guidance as to allowable impacts and to ensure the effectiveness and reliability of mitigation and management strategies which may include salvage excavation, if required; • provide information on management of Aboriginal sites outside the Development Corridor • include a description of the measures that would be implemented for: o protecting relevant Aboriginal heritage items identified in the ACHA and any items located outside the Project clearance area o a contingency plan and reporting procedure if: - Aboriginal heritage items outside the approved clearance area are damaged; - previously identified Aboriginal heritage items are found; or - Aboriginal skeletal material is discovered o ensuring workers on-site receive suitable heritage inductions in line with the NPW Act prior to carrying out any development on-site, and that records are kept of these inductions • Include an unexpected finds protocol in which: o All contractors are briefed with regards to the protection of Aboriginal heritage objects under the NPW Act and the penalties for damage when undertaking works on site o should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area fenced o the Proponent should be notified o RAPs and an archaeologist should be engaged to determine the significance of the find, and if required, determine the notification, further consultation and approvals required o works at the site of an unexpected find should not recommence until DPE/Heritage NSW has provided written approval o human remains are discovered, work ceases immediately, and the NSW Police are contacted. If the remains are suspected to be Aboriginal, consider contacting DPE to assist in determining appropriate management The Proponent must implement the approved CHMP during construction and operational phases of the Project.	Proponent	✓	✓	✓	✓	AH001
Aboriginal Heritage Items	Reduce the potential impacts to Aboriginal Heritage items that may be uncovered during the construction or operation of the Project	Prepare a Cultural Heritage Management Plan (CHMP) to the satisfaction of the Secretary. The CHMP should document the procedures to be followed and must: • Be developed in consultation with an archaeologist, the RAPs and Heritage NSW. • Provide guidance as to allowable impacts and to ensure the effectiveness and reliability of mitigation and management strategies which may include salvage excavation, if required. • Provide information on management of Aboriginal sites outside the Development Corridor. • Include a description of the measures that would be implemented for: o Protecting relevant Aboriginal heritage items identified in the ACHA and any items located outside the Project clearance area. o A contingency plan and reporting procedure if: - Aboriginal heritage items outside the approved clearance area are damaged. - Previously identified Aboriginal heritage items are found; or - Aboriginal skeletal material is discovered. o Ensuring workers on-site receive suitable heritage inductions in line with the NPW Act prior to carrying out any development on-site, and that records are kept of these inductions. • Include an unexpected finds protocol in which: o All contractors are briefed with regards to the protection of Aboriginal heritage objects under the NPW Act and the penalties for damage when undertaking works on site. o Should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area fenced. o The Proponent should be notified.	Proponent and Contractor	✓	✓	✓	✓	AH001

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		○ RAPs and an archaeologist should be engaged to determine the significance of the find, and if required, determine the notification, further consultation and approvals required. ○ Works at the site of an unexpected find should not recommence until DPE/Heritage NSW has provided written approval. ○ Human remains are discovered, work ceases immediately, and the NSW Police are contacted. If the remains are suspected to be Aboriginal, consider contacting DPE to assist in determining appropriate management. The Proponent must implement the approved CHMP during construction and operational phases of the Project.						
		All Aboriginal sites within the Development Corridor and identified through field survey are to be registered with AHIMS.	Proponent and Construction Contractor	✓	✓			AH002
		Avoidance and conservation should always be the preferred option for cultural management. If avoidance cannot be achieved, then mitigation measures outlined in Table 6-67 of the EIS should be implemented.	Proponent and Construction Contractor	✓	✓	✓	✓	AH003
		Where possible, maintain ground disturbances to a minimum and done discreetly.	Proponent and Construction Contractor	✓	✓	✓	✓	AH004
		When conservation is adopted as a management option it may be necessary to implement various strategies to ensure Aboriginal object locales are not inadvertently destroyed or disturbed during construction works or within the context of the life of the development project. Such procedures are essential when development works are to proceed within close proximity to identified sites. All Aboriginal sites located outside the development footprint will be avoided and a construction management plan should be implemented, and a Heritage induction be provided to construction staff and contractors. Impacts to specifically identified Aboriginal sites, including: • *BWF IF2 - Resource* is located within the development footprint of high cultural significance and should be avoided. Access tracks and infrastructure should be redesigned to conserve the cultural resource. Fencing or barriers should be erected to protect site; • *BWF IF5* – a potential campsite and due to the landform, there is potential for intact deposits and the site should be avoided. This site is not located within the current development footprint. If it was to be impacted, then further subsurface investigations will be required; • *BWF AS38* – a moderate density artefacts scatter and due to the raised landform adjacent to permanent water there is potential for intact deposits. This site is not within the current development footprint and should be avoided. If it was to be impacted, then further subsurface investigations will be required. Surface collection would also be required to mitigate impacts; • *BWF AS10, BWF AS11, BWF AS14, BWF AS86 and BWF AS88* – sites should be avoided due to the moderate significance of the sites. *BWF AS10 and BWF AS11* will no longer be impacted under the current development footprint. If it was to be impacted, then surface collection would be required to mitigate impacts; and • *BWF AS14, BWF AS86 and BWF AS88* – these sites will be impacted, and surface collection will be required to mitigate impacts.	Proponent and Construction Contractor	✓	✓			AH005
		Undertake additional archaeological assessment in any areas which are proposed for impacts that have not been surveyed during the ACHA process following final Project design.	Proponent	✓				AH006
		HISTORIC HERITAGE						
Unexpected Finds	Protocol for addressing potential unexpected finds during construction or operation	Adopt a standard unexpected finds process during works associated with the proposal as a mitigation measure as follows: • An 'unexpected heritage find' can be defined as any unanticipated archaeological discovery, that has not been previously assessed or is not covered by an existing approval under the Heritage Act or NPW Act. These discoveries are categorised as either: ○ Aboriginal objects (archaeological remains i.e.: stone tools) ○ Historic (non-Aboriginal) heritage items (archaeological remains (i.e.: artefacts) or movable objects) ○ Human skeletal remains. • Should any unexpected historical archaeology be uncovered during any future excavation works, the following procedure must be adhered to: ○ Stop all work in the immediate area of the item and notify the Project Manager ○ Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. Inform all site personnel about the no-go zone ○ No work is to be undertaken within this zone until further investigations are completed ○ Engage a suitably qualified and experienced Archaeologist to assess the finds ○ The Heritage Council must be notified if the finds are of local or state significance. Additional approvals will be required before works can recommence on site	Proponent and Construction Contractor		✓	✓	✓	HH001

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		○ If the item is assessed as not a 'relic', a 'heritage item' or an 'Aboriginal object' by the Archaeologist, work can proceed with advice provided in writing.						
		SOILS, LAND USE & AGRICULTURAL LAND						
Erosion and Sedimentation	Reduce or mitigate the potential for erosion and/or sedimentation to occur	Prepare an Erosion and Sedimentation Management Plan (ESMP) in accordance with the *Blue Book – Managing Urban Stormwater: Soils and Construction* (Landcom, 2004). The ESMP must include: • Site constraints and receiving water; • Stockpile management; • Temporary site stabilisation and progressive revegetation; • Management measures for disturbance of sodic soils; • Separation of clean and dirty water; • Progressive erosion and sediment controls drawings prepared by a Certified Professional in Erosion and Sediment Control; • An inspection, monitoring and maintenance schedule.	Proponent		✓			ES001
		Establish no-go areas to minimise ground cover disturbance and protect environmentally sensitive areas.	Proponent and Construction Contractor		✓			ES002
		Do not build crossings and trenches on watercourse bends or meanders to reduce the chance of exacerbating erosion in these areas.	Proponent and Construction Contractor		✓			ES003
		Design lay down areas for each WTG location to minimise disturbance.	Proponent		✓			ES004
		During decommissioning, ensure earthworks undertaken to reshape the landscape compliment the original landscape including the replacement of stored subsoil and topsoil. Where surface levels are altered by the removal of subsurface infrastructure, stored topsoil shall be used for leveling.	Construction Contractor				✓	ES005
		Restore areas subject to temporary construction impacts (construction compounds and laydown areas) to original condition through vegetation of groundcover to minimise erosion.	Construction Contractor		✓			ES006
Soil Contamination and Disturbance of Naturally Occurring Asbestos	Soil Contamination and Disturbance	For any excess spoil material which requires offsite disposal, formally classify waste before being taken to an appropriately licensed landfill in accordance with the EPA (2014) *Waste Classification Guidelines*.	Proponent and Construction Contractor		✓			CT001
		Establish a site compound to store all chemicals (e.g., fuel, oil) in appropriate bunding/storage systems within the approved storage facility. Locate equipment washdown areas nearby and contain and dispose of wastewater appropriately.	Construction Contractor		✓			CT002
		Store dangerous and hazardous materials on site in accordance with *AS1940-2004: The storage and handling of flammable and combustible liquids.*	Construction Contractor		✓			CT003
		Ensure the concrete batching plant is suitably bunded.	Construction Contractor		✓			CT004
		Ensure appropriate spill kits are carried will all equipment.	Proponent and Construction Contractor		✓	✓	✓	CT005
		Develop an unexpected finds protocol for the Project and include during site inductions to ensure that any unexpected contamination is identified, assessed and managed appropriately.	Proponent		✓	✓	✓	CT006
	Dumping and Waste	Secure Project Site to minimise access and illegal dumping of waste and contaminated materials.	Proponent and Construction Contractor		✓	✓	✓	CT007
	Naturally Occurring Asbestos	Implement active and preventative dust suppression controls in the case that serpentine minerals are observed to ensure airborne particulate matter generated during construction activities are either minimised or contained. Note, the below measures are for dust and particulate matter in the event that NOA is suspected by encountering serpentine minerals and includes: • Immediately cease all dust generating activities during high wind conditions or where airborne dust is visible; • Use of water sprays during dust generating activities (excavations, drilling, earthworks, etc.)	Proponent and Construction Contractor		✓			CT008

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		• Use of water sprays on disturbed surfaces and uncovered stockpiled materials • Spraying unsealed haulage roadways with the use of a water cart • Reducing on-site vehicle speeds on unsealed roadways • Covering and/or containing (2-3 walls) excavated materials • Covering outgoing loads of excavated materials						
		Should serpentine minerals or potential NOA be encountered, appropriate decontamination of equipment and personnel will be conducted at the end of each working day.	Proponent and Construction Contractor		✓			CT009
		Thoroughly decontaminate potential NOA contaminated equipment and any collected materials should be transferred to a dedicated receptacle labelled "POTENTIALLY CONTAINS ASBESTOS".	Proponent and Construction Contractor		✓			CT010
	Fuels	Establish dedicated refuelling areas outside environmentally sensitive areas and away from creek lines. These areas are to be bunded to ensure any spills do not enter these sensitive areas.	Proponent and Construction Contractor		✓			CT0011
	Dust Generating activities	The generation of dust is of concern during construction. The following measures and requirements should be followed for the life of the Project to minimise dust generated by the Project: • Watering of unsealed roads • Trucks entering and exiting site to be well maintained in accordance with manufacturer specifications to comply with relevant regulations. Fines may be imposed on vehicles that do not comply with smoke emissions standards. Truck movement should be controlled on site and restricted to designated roadways. • Truck wheel washes or other dust removal procedures to be installed to minimise transport of dust off site • If necessary, suspend construction activities during periods of high winds and covering/watering/revegetating stockpiles and exposed areas	Proponent and Construction Contractor		✓	✓	✓	AQ001
Air Quality and Emissions		Dust and similar emissions from construction operations and on-site equipment should be mitigated through the following procedures: • All equipment used and facilities erected are designed and operated to control the emission of smoke, dust, fume and other objectionable matter into the atmosphere • Spray earthworks, roads and other surfaces as necessary with water or other suitable liquids as a form of dust suppression for onsite materials, sealing of temporary haul roads and the modification of operations during high or unfavourable wind conditions • Working areas and access roads to be stabilised as soon as practicable to prevent or minimise wind-blown dust • Stabilise all disturbed areas as soon as practicable to prevent or minimise wind-blown dust • All unsealed roads to be kept sufficiently damp during working hours to minimise wind-blown or traffic generated dust emissions • Water sprays, sprinklers and water carts may be employed if needed to dampen stockpiles, work areas and exposed soils to prevent dust emissions • Maintain stockpiles and handling areas in a condition which minimises wind-blow or traffic generated dust • Maintain dust control equipment in good operating condition. Construction equipment will be properly maintained to ensure exhaust emissions comply with the POEO Act • If visible smoke can be seen from any equipment (while working on a construction site) for longer than 10 seconds, the equipment will be taken out of service and repaired or tuned so that smoke is no longer visible for periods longer than 10 second • Cleared vegetation, demolition materials and other combustible waste material will not be burnt on site • Silt will be removed from behind filter fences and other erosion control structures on a regular basis • No dust, soil or mud is to be deposited from any vehicle on public roads. Vehicles are to utilise wheel wash facilities prior to leaving the works area where provided • Any dust, soil or mud deposited on public roads by subcontractors construction activities and vehicle movements shall be removed immediately and disposed of appropriately • Hire agreements will contain provisions to stand down equipment which has excessively smoky exhaust	Proponent and Construction Contractor		✓			AQ002
	Air pollution	To control air pollution specifically during construction activities, the below measures should be followed: • Watering and sealing of roads where possible • Wind breaks composed of earth banks to protect areas by reducing capacity of wind to raise dust • Maintain construction vehicles in accordance with manufacturer specifications and relevant regulations • Progressive rehabilitation of exposed sites on completion of different work stages to be undertaken where practical	Proponent and Construction Contractor		✓			AQ003

Impact	Objective	Mitigation Measure	Responsibility	Stage				Code
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	General	When winds reach (or exceed) a velocity of 2.5 m per second, the frequency of water used on exposed surfaces should increase. When winds exceed 10 m/s for 10 minutes, work should cease.	Construction Contractor		✓			AQ04
		To reduce impacts of spoil stockpiles, the following measures should be undertaken: • Minimise spoil stockpiling on site • Minimise the number of work faces on stockpiles • Stockpiles to be temporarily covered (if short term) or sprayed with water/crusting agent (Polo Dust Bind) (long term) to keep dust to minimum • Cease all dust generating activities when conditions are excessively dusty such that the Project air quality goals are anticipated to be exceeded.	Construction Contractor		✓			AQ005
		General mitigation measures to reduce emissions and improve air quality include: • Sites and surrounding public roads to be cleaned as required, with street sweepers • No material to be burnt on site • Silt and other materials to be removed from around erosion control structures following a significant rain event (>10 mm) to ensure deposits do not become dust source • Water spraying to occur during loading of trucks, as required • Visual monitoring to be undertaken by the Site Manager to assess the impacts of dust generation on air quality. If water spraying is not sufficient in controlling dust generated by construction works, a review of works considering dust monitoring results would be undertaken in accordance with the *Approved Methods* criteria • During work on siliceous materials, if visual dust is observed, additional water sprays will be used at the workface to suppress dust. This will include the use of hand held hoses	Proponent and Construction Contractor		✓			AQ006
		Where air quality monitoring identifies non-compliance with the relevant criteria, the Site Manager will plan and carry out corrective action. If monitoring indicates that the air quality objectives are being significantly exceeded on multiple occasions, the Site Manager will: • Identify the activities that were occurring at the time of the exceedance • Determine the activities that were most likely contributing to the exceedance (employing continuous monitoring techniques outlined in the AQIA) • Review construction process and environmental controls in place for this activity • Implement an agreed alternative to more adequately control dust generation	Proponent and Construction Contractor		✓	✓		AQ007
Agricultural Land		Develop a project-wide and property-specific Biosecurity Management Plan to guide protocols during construction and prevent the introduction and spread of potentially irreversible spread of weeds, pests, pathogens, and diseases. This should include: • Protocols that are practical for that property to be agreed with landowner and contractors (e.g., vehicle and footwear hygiene practices). • Reference to the Central Tablelands Regional Strategic Weed Management plan 2023-2027 and the Central West Regional Strategic Weed Management Plan 2023-2027.	Proponent		✓	✓		AG001
		Develop a weed management strategy that spells out the extent of St. John's Wort and strategies to minimise movement of seed on vehicles and avoid spreading from properties with it, to those without it. This weed is considered a high priority for asset protection under regional management plans	Proponent		✓	✓		AG002
		Introduce protocols during construction to ensure internal gates are always closed to avoid the escape, trapping of livestock.	Proponent and Construction Contractor			✓		AG003
		Develop a Decommissioning Management Plan that will have an objective of returning the land capability to its pre-existing agricultural capacity. Rehabilitate soil and vegetation to ensure soil profiles are reinstated and pasture/vegetation to ensure agricultural production can continue pre-construction levels.	Proponent and Construction Contractor				✓	AG004
		SURFACE WATER, GROUNDWATER & AQUATIC ECOSYSTEMS						
Surface Water, Groundwater and Aquatic Ecosystems	Groundwater	As part of the EMP, prepare a Water Quality Management Plan (WQMP). The WQMP must include: • Water quality monitoring program, which includes suitable measures to monitor and record on water quality of watercourses directly impacted from construction	Proponent		✓	✓		GW001
		Where feasible establish the required VRZs on either side of watercourses with reference to the Guidelines for Controlled Activities on Waterfront land – Riparian Corridors (NRAR, 2018)	Proponent and Construction Contractor			✓		GW002

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		Where feasible, design and construct watercourse crossings with reference to the following: • *Controlled activities on waterfront land – Guidelines for Watercourse Crossings on Waterfront Land* (DPI Water 2012) • *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (Fairfull and Witheridge 2003) • *Controlled Activities: Guidelines for Laying Pipes and Cables in Watercourses on Waterfront Land* (DPI Water 2012)	Proponent and Construction Contractor	✓	✓			GW003
		Evidence of karst features should be investigated during detailed geotechnical investigations at each WTG site. Identified karst features to be isolated and protected	Proponent and Construction Contractor	✓	✓			GW004
		The management of temporary sewerage systems established onsite for the duration of the Project also pose a risk to surface water quality should a spill occur. It is important that Industry Standard spill minimisation and response procedures are followed, which will reduce and minimise any potential groundwater contamination during construction.	Proponent and Construction Contractor	✓	✓			GW005
	Groundwater Dependent Ecosystems	Impacts to potential groundwater dependent ecosystems at creek crossings are to be managed through the site-specific CEMP. Consideration could be taken with regard to the *Policy and guidelines for fish habitat conservation and management* (Fairfull, 2013). If the proposed watercourse crossings require revetment walls, pylons, or culverts to be installed within the creek line or bank, there may be the need to ensure that the immediate works area is dry to allow machinery to move freely within the area as well as to prevent waste material and dust entering the water. This would require dewatering of the works area (if water is present), which would temporarily block fish passage through the reach. Spawning and migration for the threatened aquatic species with potential to be found within the Project Site occurs in spring and summer, so construction of watercourse crossings and activities on waterfront land should be avoided during these periods.	Proponent and Construction Contractor	✓	✓			GDE01
		To manage potential impacts to groundwater dependent ecosystems, take groundwater levels and quality measurements during geotechnical investigations.	Proponent and Construction Contractor	✓				GDE02
		Industry Standard spill minimisation and response procedures are followed, which will reduce and minimise any potential groundwater contamination during construction.	Proponent and Contractor		✓			WQ001
		Prior to construction, place erosion and sediment controls within the immediate works area and downstream to prevent sediment and waste material entering the water column with an aim of achieving no visible turbid plumes within the water column.	Construction Contractor	✓	✓			WQ002
		To manage downstream flows and erosion, consider appropriate stormwater devices such as culverts, rock armouring, scour protection and/or detention basins	Construction Contractor		✓			WQ003
	Water Quality & Quantity	The results from the water balance modelling (ELA, 2022q) estimate the magnitude of water required to produce the footings, prepare the earthworks, and undertake dust suppression activities. Organising activities to minimise the length of roads in operation (i.e., that require dust suppression) and coordinating when earthworks are being prepared should be considered to reduce the amount of water needing to be sourced for the Project.	Proponent	✓	✓			WQ004
		Should causeways be upgraded to support the passing of equipment to the Project, appropriate design considerations should be undertaken to ensure potential flood impacts are managed (i.e., not altering flow paths).	Proponent and Construction Contractor		✓			WQ005
		The inclusion of sediment basins and swales within the detailed design should be considered to reduce TSS loads entering downstream environments.	Construction Contractor	✓				WQ006
		Implement facing material, such as sediment bunds, along specific drainage lines / waterways within the Development Footprint to reduce localised scour and erosion and provide ongoing maintenance.	Construction Contractor		✓			WQ007
		RESOURCE MANAGEMENT & WASTE						
Resource Management & Waste	Resource Use and Construction Materials	Excavated materials will be reused where possible throughout the Project, including: • Topsoil cleared during the construction phase will be used for rehabilitation • Rock excavated from WTG foundation preparations will be used for road base, backfill for foundations and/or erosion control purposes where practicable • Sediment recovered from erosion and sediment control devise will be reused onsite as general fill material or it will be incorporated within landscaping materials where possible.	Proponent and Contractor		✓			RW001
		Aggregate and sand will be sourced as close to the Project site as possible to minimise the use of resources associated to transporting materials.	Proponent and Contractor		✓			RW002

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		Opportunities to use low emission construction materials, such as the use of bio-fuels or bio-fuel blends in construction plant and equipment, recycled aggregates in road pavement and surfacing, steel with recycled content, and cement replacement materials, will be investigated and incorporated where feasible and cost effective.	Proponent and Contractor	✓				RW003
		Construction plant and equipment will be operated and maintained to maximise efficiency and reduce emissions, with construction planning used to minimise vehicle wait times and idling onsite and machinery turned off when not in use.	Proponent and Contractor		✓			RW004
	Waste Management and Disposal	The NSW Governments Waste Management Hierarchy of "avoid-reduce-reuse- recycle- dispose" will be followed as the framework of waste management throughout the project.	Proponent and Contractor	✓				RW005
		The reuse and/or recycling of waste materials generated on site shall be maximised as far as practicable, to minimise the need for treatment or disposal of those materials offsite.	Proponent and Contractor		✓	✓	✓	RW006
		All waste material generated on-site will be dealt with in accordance with the POEO Act and Waste Classification Guidelines Part 1: Classifying Waste (EPA 2014), or any superseding.	Proponent and Contractor		✓	✓	✓	RW007
		Wastes that are unable to be reused or recycled will be disposed of offsite at a licensed waste management facility, or premises lawfully permitted to accept the materials following classification.	Proponent and Contractor		✓	✓	✓	RW008
		A Quantity Surveyor accredited Australian Institute of Quantity Surveyors (AIQS) must be engaged to estimate materials required for construction. Materials procurement will be planned and managed to avoid the over-ordering of products and minimise excess packaging is to be carried out.	Proponent and Contractor	✓				RW009
		Regular visual inspections will be conducted to ensure that work sites are kept tidy and to identify opportunities for reuse and recycling.	Proponent and Contractor		✓	✓	✓	RW010
		At site compounds, offices and ablutions waste bins will be provided for the recycling of paper, plastic, glass, and other re-useable materials.	Proponent and Contractor			✓		RW011
		Hazardous waste and sewerage will be managed by appropriately qualified and licensed contractors.	Proponent and Contractor		✓	✓	✓	RW012
		Classify wastes in accordance with the NSW EPA Waste Classification Guidelines – Part 1: classifying waste (EPA 2014) and addendum (EPA 2016).	Proponent and Contractor		✓	✓	✓	RW013
		All waste must be handled and stored on site in accordance with its classification and disposed of at appropriately licensed waste facilities.	Proponent and Contractor		✓	✓	✓	RW014
		SOCIAL IMPACTS						
Social Impacts	General Social Impacts	Implement Social Impact Monitoring Plan (SIMP) per Section 8 of the SIA (Ethos Urban, 2023a).	Proponent and Contractor	✓	✓	✓	✓	SI001
		Develop and implement an engagement and communications strategy to guide how engagement and communication with affected and interested stakeholders and residents throughout the construction and operational phases. The strategy should seek to: • ensure all interested or affected parties are identified, and lay out how these people will be engaged with in an ongoing manner over the coming years; • place key Project stakeholder relations team members in the local area, so community members have a consistent point of contact with someone locally located; • establish trust and dialogue with the community to understand community concerns, provide key information, and develop strong understanding of wind energy; • ensure timely, useful and relevant information is provided to all parties; and • work collaboratively with impacted groups to minimise negative impacts of the Project.	Proponent and Contractor	✓				SI002
	Positive impacts through community benefit sharing	The Proponent will engage in a community benefit sharing scheme which will involve the following: • Commencement of community benefit program, developed through an extensive engagement program based on the principles of co-design; • Community should play a large role in shaping the focus of the program to align with local needs; • Distribute the financial benefits of the wind farm across the wider affected community, beyond only participating landholders. This works towards improving community cohesion by building consensus around tangible benefits delivered to the wider community in a targeted manor based on engagement and consultation outcomes; and • The program should also be administered in a way that the community feel they have ongoing ownership of the program, such as guided by the Community Reference Group (CRG) set up for this purpose	Proponent and Contractor	✓				SI003

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	Strain on local workforce, infrastructure, services and accessibility	Prior to commencing construction, prepare a Construction Workforce Housing and Accommodation Strategy for the Project in consultation with the two Councils, to include: • measures to ensure there is sufficient accommodation provided for the workforce associated with the development and ensures that the proponent does not rely on tourist accommodation nor the local rental market; • consider the cumulative impacts associated with other State significant development projects in the area and how accommodation will be managed to make a positive contribution to the REZ; • propose a clear method for transporting workers to and from site and accommodation that minimises any impact of local residents; and • include a program to monitor and review the effectiveness of the strategy over the life of the development, including regular monitoring and review during construction.	Proponent and Contractor	✓				SI004
		Develop a Workforce Management Plan, that works to minimise impacts on community, through consideration of: • Standards of behaviour for workers • How worker needs will be met without impacts on local essential services and infrastructure, such as health needs	Proponent	✓				SI005
		Develop and implement Social Procurement Strategy to ensure local and disadvantaged groups and workers can benefit from the employment and business opportunities associated with construction.	Proponent	✓	✓			SI006
	Social Impacts Relating to other Impacts	Implement the recommendations of technical assessments and management plans (e.g., noise, traffic, cultural heritage).	Proponent	✓				SI007
		ECONOMIC IMPACTS						
Construction Workforce and Accommodation	Mitigation construction and accommodation impacts	Implement measures to ensure that there is sufficient accommodation for the workforce associated with the construction phase of the Project (which may include a Workers Accommodation Facility or recommendation to invest in upgrades to Cudgegong River Holiday Park)	Proponent and Construction Contractor	✓	✓			EC001
		Implement measures to address any specific cumulative impacts arising associated with other State Significant Development projects in the area	Proponent and Construction Contractor	✓	✓	✓		EC002
		Implement measures to prioritise the employment of local workers and the procurement of local businesses for the construction and operation of the Project	Proponent and Construction Contractor	✓	✓			EC003
		Develop a program to monitor and review the effectiveness of the Strategy over the life of the Project, including regular monitoring and review during the construction phase	Proponent	✓	✓	✓	✓	EC004
Community Benefit Sharing	Provide positive economic benefits to community	Implement a community fund to be available to the wider community. This may include annual grants to local community organisations and specific programs. While guidelines and management structures for the operation of a community fund would need to be put in place; there is potential for this to be governed through a Voluntary Planning Agreement (VPA) with Council.	Proponent		✓	✓	✓	EC005
		CUMULATIVE IMPACTS						
Visual		Consider the viewing shed principle of other projects in relation to involved and non-involved landowners when developing mitigation measures such as screening at dwellings.	Proponent	✓	✓			CM001
Traffic and Transport		Consultation with TfNSW to consider potential cumulative traffic impacts because of multiple developments requiring the transportation of resources along major roadways.	Proponent	✓	✓	✓	✓	CM002
		Consultation with waste facilities to schedule appropriate OSOM and heavy vehicle movements and reduce road pressures and delays on local roadways to and from the facilities.	Proponent and Contractor		✓			CM003
Telecommunications (weather radar)		Where possible, locate WTGs outside of the weather Radar Line of Site (RLoS) to minimise wind farm interference.	Proponent	✓	✓			CM004
Socio-Economic		Consultation with Council and local service providers to facilitate early responses to accommodation and township infrastructure to attempt to pre-empt workforce influx from multiple projects occurring.	Proponent	✓	✓			CM005