
Appendix N

Mitigation measures

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
Biodiversity	E1	Options to further minimise impacts during construction and operation of the project will be fully explored and implemented where possible. This includes: • minimising removal of hollow-bearing trees within the approved disturbance footprint • minimising removal of known occurrences of threatened plants, Bluegrass and Austral Toadflax within the approved disturbance footprint, especially where proximate to core occurrences along watercourses • minimising removal of tree resources along the Spring Mountain Road/Sturmans Road access route.	Detailed design
	E2	A Site Plan will be included in a Construction Environmental Management Plan (CEMP) and will include: • the extent of approved disturbance • any relevant sensitive areas • stockpile, material laydown areas, and site compounds. This Site Plan is to be placed in an accessible location to be viewed by all site personnel (site office for example).	Pre-construction
	E3	All occurrences of threatened flora will be identified on the Site Plan and delineated in the field as 'no-go' zones. Threatened flora that are to be retained will be flagged with high visibility tape, or the limits of the occurrence clearly demarcated with high visibility tape or fencing. All contractors will be provided with an environmental induction prior to starting work on site, which includes communications about sensitive areas and no-go zones.	Pre-construction
	E4	The construction laydown areas will be rehabilitated following completion of construction works if they are not required for operational purposes and will include removal of any materials brought into site such as gravel.	Operation
	E5	The Construction Environmental Management Plan (CEMP) and any operational management plan will include provisions for the appropriate management of the 10 m indirect impact area, including: • protocols for bushfire asset management • management of weeds and run-off into adjacent off-project areas.	Pre-construction Construction Operation
	E6	Sediment controls to be implemented during construction in accordance with a sediment and erosion control plan, including installation of fencing and sediments traps in any areas where works will occur in proximity to low lying vegetation or streams.	Pre-construction Construction
	E7	The Construction Traffic Management Plan (CTMP) is to include construction speed limits to minimise risk of vehicle strike during construction phase of projects when there is expected to be an increase in traffic movements.	Construction

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Discipline	Ref	Proposed management measures	Timing
	E8	Pre-clearance inspection to be conducted by a suitably qualified ecologist to: - inspect hollows prior to tree clearing - inspect buildings prior to demolition - remove any individuals if found - relocate animals to suitable habitat within the locality - any animals injured during clearing works should be taken to a veterinarian or wildlife clinic.	Pre-construction
	E9	Implement a Biodiversity Management Plan (BMP) for retained vegetation adjacent to the disturbance footprint that includes (but is not limited to): - protocols to control and manage weeds that may be exacerbated, spread or otherwise affected by the construction and operation of the project - protocols to monitor the vegetation condition and habitat values of any such retained vegetation - provisions for corrective actions should a decline in vegetation or habitat condition be detected.	Pre-construction Construction Operation Decommissioning
	E10	The Biodiversity Management Plan (BMP) shall include prescriptions for the protection and ongoing management of the habitat of retained occurrences of Bluegrass and Austral Toadflax that are surrounded by the approved disturbance footprint.	Pre-construction Construction Operation Decommissioning
Aboriginal heritage	AH1	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with Heritage NSW, RAPs and DPE. The ACHMP will detail the management of all identified Aboriginal sites. It will also detail the assessment requirements for any proposed changes to the project footprint (for example, the disturbance footprint of the access road and intersection).	Pre-construction
	AH2	All verified scarred trees within the development footprint or within 20 m of the development footprint will be avoided with protection during the construction phase to avoid inadvertent impacts, apart from the one dead, fallen tree (SSF-ST1) which may be moved to outside the development footprint (in consultation with RAPs).	Pre-construction Construction
	AH3	If any changes to the proposed project layout result in standing trees with cultural scars being situated within the project area, the tree/s must be assessed by a suitably qualified expert in scar tree assessment. Any tree assessed as being of Aboriginal origin, must be avoided as per mitigation measure AH2.	Pre-construction
	AH4	All surface artefacts (artefact scatters and isolated finds) impacted by the project will be collected, including sites within 20 m of the development footprint.	Pre-construction

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Discipline	Ref	Proposed management measures	Timing
	AH5	Following recording and analysis, the recovered Aboriginal objects will either be transferred to a keeping place or reburied in a location outside the development footprint where they will not be harmed. This will be determined in consultation with RAPs.	Pre-construction
	AH6	In the event unexpected Aboriginal objects or sites are discovered during any ground disturbance activity, a buffer will be placed around the site and the proponent should determine the subsequent course of action in consultation with a heritage professional and/or the relevant state government agency as appropriate.	Construction
	AH7	If suspected human skeletal material is discovered, all works should cease, and the NSW Police and the NSW Coroner's Office should be contacted. Should any material prove to be archaeological Aboriginal remains, Heritage NSW and the Local Aboriginal Land Council will be notified.	Construction
	AH8	In consultation with relevant project landholders, Sundown Solar will explore the potential for scheduled RAP access to the ochre resources beside Jesse Creek. The details would be developed in consultation with RAPs as part of the ACHMP.	Pre-construction Construction Operation
Historic heritage	H1	Prior to construction, prepare a Historical Heritage Management Plan (HHMP). Ensure the HHMP considers: - digital archival recording of: - HH4 (shearing shed)¹ - HH5 (sheep dip and yards) - archaeological investigation (including archaeological excavation) of: - HH3 (rubbish pit) to build an appreciation of life in the region during pastoral operations in early 20th century - HH6 (unidentified structure) to try to determine the function and nature of the structure - protocols for managing unexpected finds.	Pre-construction
Land and rehabilitation		Soil quality	
	L1	Prepare and implement a soil stripping and management plan (SSMP) that includes an inventory of soils to be stripped and stockpiled, including soil types, stripping areas, depths and volumes, and includes a topsoil and subsoil stripping and stockpiling procedure.	Pre-construction Construction Closure/decommissioning

¹ Prior to construction, HH4 will be relocated to outside of the development footprint. The digital archiving will be completed prior to relocation of HH4.

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	L2	Preserve as much topsoil and subsoil as practicable for in-situ replacement post-disturbance.	Construction Closure/decommissioning
	L3	Segregate topsoil and subsoil as much as practicable.	Construction
	L4	Segregate soil types as much as practicable.	Construction
	L5	Protect stockpiles from erosion using polymers or cover crops etc.	Construction
	L6	Where soil requires amelioration, apply the ameliorant prior to and during stripping. This will maximise mixing of the ameliorants.	Construction
	L7	Address any amelioration requirements in stockpiled subsoil and topsoil prior to reinstatement.	Construction
	L8	Implement weed and biosecurity management practices as outlined in the construction environmental management plan (CEMP).	Construction Closure/decommissioning
	L9	If opting for lower carbon farming, ensure any fertilizer applied during revegetation is non-water soluble, mineral based and biologically inoculated.	Construction Closure/decommissioning
	L10	Minimise the extent and duration of disturbed soil. Stabilise exposed soil with polymers, vegetation, gravel or similar as soon as practicable.	Construction Closure/decommissioning
	L11	Avoid unnecessary soil compaction as much as practicable.	Construction Closure/decommissioning
	L12	If potentially contaminated soil is identified, ensure the soil is segregated and is managed in accordance with applicable guidelines.	Construction
	Dust		
	L14	To minimise dust during construction, use water trucks as required and minimise vehicle speeds and movements where possible. Stabilise pavements with polymer or cement wherever practicable.	Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
Sediment and erosion			
	L15	Level and revegetate the existing contour banks to re-establish sheet-flow conditions.	Construction
	L16	Avoid disturbance of dispersive soils wherever practicable. Where this is not practicable, treat dispersive soil with ameliorants at a suitable rate.	Construction Closure/decommissioning
	L17	Ensure drainage is designed to: • maintain sheet flow conditions • maintain flow velocity at approximately 0.3 m/s • avoid ponding • avoid concentrated flows • minimise slope gradient and slope length.	Construction
	L18	Ensure access roads have a crowned profile, where appropriate, with minimum cross fall of 4% either side of the crown to minimise the formation of corrugations.	Construction
	L19	Use outfall drainage, where appropriate, to convey upslope drainage across roads and tracks instead of infall drainage and table drains. Infall drainage and table drains should be used where the slope and height of the outer fill present an erosion risk.	Construction
	L20	Install Type A or B sediment basins to capture and treat turbid runoff. Ensure sediment basins have a flow-activated flocculant system installed.	Construction
	L21	If there are catchments where the calculated soil loss exceeds 150 t/ha/yr but it is not possible to construct a sediment basin due to boundary or flood height limitations, install Type 2 and Type 3 sediment control measures and increase the intensity of erosion control to compensate for the inability to install sediment basins.	Construction
	L22	Divert clean runoff away from areas of ground disturbance wherever practicable.	Construction
	L23	In areas of high erosion risk, such as drains, trenches or areas of dispersive soil, install rock matrices and/or apply ameliorant as applicable.	Construction
	L24	Install energy dissipaters at drain outlets to ensure flow velocities are maintained within acceptable limits for the soil type. Stilling pond and roughness type dissipaters are recommended.	Construction
	L25	Revegetate exposed areas. For areas steeper than 1:4, use hydraulically applied (i.e. sprayed) seeded hydro-mulch.	Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing	
	L26	Maintain groundcover (vegetation, gravel, etc.) around solar panels during operation, particularly on panel drip lines.	Operation	
	L27	Schedule earthworks (including watercourse disturbance) to avoid high rainfall periods wherever practical. Where this is not practicable, apply polymers or physical covers to exposed soil to achieve C-Factors of 0.01.	Construction	
	L28	Avoid handling saturated soil wherever practicable (e.g. after rain).	Construction Closure/decommissioning	
	L29	Implement a water movement permit system during construction to minimise the potential for accidental turbid water discharge during pumping and dewatering activities, as applicable.	Construction	
	L30	Ensure that the effectiveness of sediment and erosion control infrastructure and procedures are regularly monitored by a suitably trained person.	Construction	
	Water crossings			
	L31	Install water crossings as early as possible in the construction program.	Construction	
	L32	Design water crossings as per the recommendations in the water report (Appendix J).	Construction	
	Visual	V1	Where possible, select suitable colours for project infrastructure to minimise visual impacts, including in particular the management hub buildings/facilities and the BESS housing. These buildings and materials will be designed to blend in with the local rural/farming landscape and will be similar to existing farm sheds and agricultural infrastructure in the area surrounding the site.	Pre-construction Construction
		V2	Manage lighting to minimise impacts on surrounding areas, for example ensure that all external lighting is installed as low intensity lighting (except where required for safety or emergency purposes) and complies with Australian Standard AS/NZS 4282:2019 – Control of the Obtrusive Effects of Outdoor Lighting. Similarly, ensure that external lighting does not shine above the horizontal.	Operation
Noise and vibration	Universal work practices			
	N1	Ensure the importance of minimising noise and vibration is reinforced at toolbox meetings.	Construction	
	N2	Minimise unnecessary metal-on-metal contact.	Construction	
	N3	Minimise the need for vehicle reversing for example, by arranging for one-way site traffic routes where possible.	At all times	

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	N4	Ensure access road is maintained.	At all times
	Plant and equipment		
	N5	Ensure potentially noisy plant and equipment is maintained in accordance with manufacturer specifications.	At all times
	N6	Where practical, use quieter plant and equipment.	At all times
	N7	Minimise unnecessary movement of equipment/material/plant.	At all times
	N8	Operate plant and equipment in the quietest and most efficient manner.	At all times
	N9	Undertake regular inspections/maintenance of plant and equipment to ensure that all noise reduction devices are operating effectively.	At all times
	Work scheduling		
	N10	Construction work to be limited to standard construction hours (i.e. 7:00 am–6:00 pm Monday to Friday and 8:00 am–1:00 pm on Saturdays), including delivery of plant and equipment. Exceptions to these hours may be required on limited occasions. Regulatory authorities (including the Inverell Shire Council) and surrounding landholders will be notified of any exceptions prior to any works being undertaken.	Construction
	Specific assessment locations (noise)		
	N11	Ensure the following mitigation measures are undertaken for R6b, R11, R12, R14 and R15: • verification • notification. See Section 7.2 of the NVIA (Appendix H) for further details.	Pre-construction Construction
	Vibration		
	N12	Wherever practicable, ensure that vibration intensive activities are undertaken outside of the safe working distances. Where this is not practicable: • use less vibration intensive methods of construction or equipment where practicable • limit vibration intensive works to the least sensitive times of the day, in consultation with the relevant sensitive receivers • undertake vibration monitoring to ensure compliance with DIN-4150 criteria.	Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing	
	N13	If ongoing works are required ¹ , and where monitoring has confirmed actual vibration levels are nearing the DIN-4150 criteria, consider installation of a monitoring system to warn operators when vibration levels are approaching the cosmetic damage criteria (e.g. flashing light, audible alarm etc).	Construction	
	N14	Ensure the following mitigation measures are undertaken for R14 and R15: • verification • notification • respite offer. See Section 7.3 of the NVIA (Appendix H) for further details.	Pre-construction Construction	
	Traffic and transport	T1	Ensure the upgrade to the Gwydir Highway/Spring Mountain Road intersection complies with Austroads rural roads design standards, including but not limited to: • installation of a right turn traffic lane (type (CHR(S)) at the eastbound approach • installation of a Basic Left Turn (BAL) treatment (if the BAL has not already been installed by White Rock Wind Farm (noting this is a requirement of their development consent)) • installation of warning sign at sign no. t2–25 on Gwydir Highway to warn that trucks will be entering/leaving the intersection.	Pre-construction Construction
		T2	Ensure upgrade of the access road (Spring Mountain Road/Sturmans Road) complies with Austroads rural roads design standards, including but not limited to: • increase carriage width to 8.7 m (unsealed).	Pre-construction Construction
		T3	Ensure upgrades of the access road (Spring Mountain Road/Sturmans Road) include: • replacement of cattle grids • installation of water crossings in accordance with applicable standards (as outlined in the water assessment report (Appendix J)).	Pre-construction Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	T4	Implement a construction traffic management plan (CTMP), approved by Inverell Shire Council and TfNSW, as applicable. CTMP to include (but not limited to): • driver code of conduct • requirement to reinstate property accesses along the access road route • requirement to implement traffic controls to ensure residents can continue to access their properties • requirement to implement standard dust control measures, including but limited to use of a water cart as required • generally limit construction traffic to standard construction hours. Exceptions to these hours may be required on limited occasions. Regulatory authorities (including the Inverell Shire Council) and surrounding landholders will be notified of any exceptions prior to any works being undertaken • safety initiatives in relation to pedestrians, livestock and school bus routes (include a requirement for heavy vehicles to avoid operating during school run periods i.e. typically 8:00 am to 9:30 am and 2:30 pm to 4:00 pm during school days) • induction process for vehicle operators • a complaint resolution procedure • any community consultation measures for peak construction periods.	Pre-construction Construction
	T5	Obtain a permit from National Heavy Vehicle Regulator (NHVR) to allow any OSOM vehicles required for construction to use the road network.	Pre-construction
	T6	Provide onsite parking for up to 100 light vehicles and 14 shuttle buses on a dedicated, gravelled hardstand area.	Pre-construction Construction
	T7	Provide a daily shuttle bus service for transport of workers to/from Inverell/Glen Innes.	Construction
	T8	Liaise with the operator of Frazier's Quarry to ensure the trucking schedules are managed with minimal impacts.	At all times

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
Water		Stormwater management	
	W1	Develop a Soil and Water Management Plan (SWMP) to address temporary and site-specific risks to surface water and groundwater during the construction phase. Key stormwater management principles will include: • appropriate siting of proposed infrastructure within the development footprint, which will minimise (and avoid where possible) disturbance to existing drainage lines and overland flow paths • grading to minimise earthworks and consistent with the existing prevailing grade and landforms and to fall to existing drainage lines, to minimise changes to existing flow paths • provision of surface drainage infrastructure comprising: – diversion of upslope runoff around infrastructure (excluding PV modules) – surface drainage measures as required to control runoff generated within the site, minimise soil erosion potential and direct runoff towards receiving drainage lines. Sheet flow conditions will be maximised, and construction of diversion drains, channels and table drains to be minimised to the extent practicable – suitable treatments, including rock rip rap where appropriate, will be used to armour earthwork batters and site drainage as needed for scour protection and to achieve stable waterways where flow concentrations cannot be avoided – maintain existing flow paths where possible and minimise catchment diversions, with the objective of minimising changes to flow regimes in receiving watercourses • prompt stabilisation of disturbed areas and progressive rehabilitation as early as practicable • maintaining drainage, erosion and sediment control measures • monitoring and adjustment protocols for drainage, erosion and sediment control practices to achieve the desired performance standard • drainage, erosion and sediment control personnel competence • stormwater runoff from buildings will be captured in rainwater tanks for use on site, to minimise demand for imported water • implement procedures for hazardous material storage and spill management as defined in applicable guidelines • maintain spill kits onsite at all times during construction and operation • consider weather preparedness and response planning • identify requirements for monitoring and maintenance of water management and drainage systems.	Pre-construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	W2	Specific stormwater management measures for the substation area will include: • diversion of clean runoff away from potentially oil-contaminated areas • bunding of potentially oil-contaminated areas • provision of stormwater treatment device(s) to remove oil/grease, hydrocarbons and sediment from runoff prior to discharge to the downstream drainage system.	Pre-construction
		Erosion and sediment control	
	W4	Implementation of erosion and sediment control measures and site rehabilitation and revegetation in accordance with best practice comprising <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> (Landcom 2004) and <i>Best Practice Erosion and Sediment Control</i> (IECA 2008). The LRA (Appendix F) describes a range of proposed measures for adoption. Proposed measures will be considered further and formalised as part of detailed design and will form part of the SWMP.	Pre-construction
	W5	Progressive Erosion and Sediment Control Plan (PESCPs) will be implemented for all discrete disturbance areas.	Pre-construction
		Flood risk management	
	W6	Develop and implement a Flood Management Plan (FMP) to describe required site management and protocols in the event of flood events that could impact construction sites or access, including: • suitable early warning/prediction measures and communication protocols • site preparedness activities and procedures • triggers for closure, evacuation and recovery • emergency response and support.	Pre-construction
	W7	Construction site planning at detailed design stage to: • consider flood risk and adopt appropriate placement of temporary works, plant, materials and workforce facilities, that gives due consideration to overland flow paths and mainstream flood risk • ensure that temporary works minimise offsite flooding impacts as far as practical.	Pre-construction Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
Hazards and risk	W8	Design and construction of permanent works to: - locate sensitive infrastructure (e.g. substation, BESS) on high ground above 1% AEP flood levels (or other suitable level of flood immunity as may be determined during detailed design), and avoid or otherwise divert local overland flow paths around infrastructure - ensure finished ground levels are constructed at-grade and not materially higher than existing levels in areas subject to existing mainstream flooding, in order to minimise potential offsite flooding impacts as far as practical.	Pre-construction Construction
	W9	Update FMP to describe required site management and protocols in the event of flood events that could impact ongoing operation of the site.	Operation
	Watercourse crossings		
	W10	Watercourse crossings to be designed and constructed to: - consider the appropriate level of serviceability and flood immunity required for the project - consider local hydraulic conditions and minimise scour potential - minimise local flooding impacts - be consistent with relevant guidance comprising Guidelines for watercourse crossings on waterfront land (DoPI 2012) and <i>Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings</i> (Fairfull, S. and Witheridge, G. 2003).	Construction
	H1	Design, install, operate and maintain all plant and equipment in compliance with relevant international and/or Australian standards and guidelines, including but limited to AS 5139.	Pre-construction Construction Operation
	H2	Prepare a Fire Management Plan in consultation with the local NSW RFS district office (outlining measures for the construction, operation and decommissioning phases). Ensure the Fire Management Plan is prepared by a suitably qualified consultant.	Pre-construction
	H3	Ensure all plant and equipment is operated and maintained in accordance with manufacturer specifications.	Construction Operation
	H4	Ensure warning signs are displayed in accordance with relevant international and/or Australian standards and guidelines.	Construction Operation
	H5	Ensure storage and handling of chemicals and fuel complies with AS 1940.	Construction Operation

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	H6	Prepare and implement an Emergency Response Plan, in accordance Australian Standard AS3745 2010 <i>Planning for Emergencies in Facilities</i> . Consult with Fire and Rescue NSW and local NSW RFS district office during preparation of Emergency Response Plan.	Construction Operation
	H7	Install security fencing around site to prevent unauthorised access.	Construction Operation
	H8	Prepare and implement safety procedures including, but not limited to, use of appropriate personal protection equipment (PPE).	Construction Operation
	H9	Ensure mitigation measures outlined in the bushfire chapter of this EIS are also implemented (Table 6.33).	As applicable.
	H10	Currently, the O&M building is sited within the BESS fenced area. As it will be staffed by onsite personnel, it is recommended that the location of the O&M building be revisited during detailed design in consideration of access and egress from the building in the event of an emergency.	Pre-construction
	H11	Consider and/or implement the recommendations in the Technical Due Diligence Report (DNV 2022) for the BESS.	Pre-construction Construction Operation
	H12	Review the investigation reports on the Victorian Big Battery Fire (occurred on 31 July 2021) and implement relevant findings for the project.	Pre-construction Construction Operation
	H13	Consult with Fire and Rescue NSW to ensure that the relevant aspects of fire protection measures have been included in the design. These may include: • type of firefighting or control medium • demand, storage and containment measures for the medium. The above aspects will form an input to the Fire Safety Study (as applicable).	Pre-construction Construction
Bushfire	B1	Establish an asset protection zone (APZ) of at least 10 m around the solar farm development footprint perimeter (Figure 6.28).	Pre-construction Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	B2	Prepare and implement a Bushfire Management Plan in consultation with the local NSW RFS district office (outlining measures for the construction, operation and decommissioning phases). Ensure the Bushfire Management Plan is prepared by a suitably qualified consultant and is updated annually to capture legislative changes and to ensure the risk analysis and mitigation actions are relevant to the project and environment.	At all times
	B3	Ensure the Bushfire Management Plan includes a requirement to: • maintain APZ (and all areas within the APZs) to the standard of an Inner Protection Area (IPA) in accordance with Appendix 4 of PBP and the NSW RFS document <i>Standards for Asset Protection Zones</i>, for the life of the project • monitor fuel loads of the APZ (and the areas within the APZ) annually in August (i.e. before the fire season) • maintain fuel loads in accordance with the PBD (e.g. ensure APZ and all areas within the APZs comprise sand, gravel, or grass that is maintained at a height of less than 10 cm)² • avoid any tree canopy in the APZ • minimise vehicle movements off access roads and through long grass • comply with construction procedures, particularly hot works procedures • comply with cigarette butt disposal procedures • ensure flammable liquids are stored and handled in accordance with Australian Standard AS 1940:2017 • prohibit prescribed burning onsite • prohibit combustible fencing within 10 m of any structure • ensure fuel loads below individual photovoltaic modules are kept to a minimum • locate onsite electricity supply and distribution infrastructure underground, wherever possible • prohibit hot works on total fire ban days, or when local authorities or the site manager deems weather conditions too dangerous • include 24-hour emergency contact details including alternative contact details • ensure fire-fighting infrastructure and systems are regularly tested and maintained • identify location of hazards (physical, chemical, electrical) • include any other requirements requested by NSW RFS district office.	At all times

² Including any areas proposed to be used for grazing within the development footprint.

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	B4	Ensure all buildings (including the BESS, substation and the management hub) are designed and constructed to reduce the risk of ignition from a bushfire, in accordance with bushfire attack level (BAL) 12.5 construction standards detailed in AS3959-2018, Chapter 3 and Section 5.2–5.8.	Pre-construction Construction
	B5	Ensure site infrastructure includes a dedicated, static, water storage tank for fire-fighting purposes. The tank location should be determined in consultation with NSW RFS. The tank should include the following specifications: • made of steel • capacity of at least 50–80 kilolitres • fast-fill water connections (65 mm Storz fittings) • easily accessible fill points • be located on a hardstand area able to support the weight of the tank and a 23 tonne fire truck (e.g. fully loaded category 1 firefighting vehicle) • be located on a hardstand area able to allow adequate turning room for a 23 tonne fire truck.	Pre-construction Construction
	B6	Ensure Bushfire Management Plan includes a requirement to maintain the following areas to provide for safe and unobstructed passage by a category 1 firefighting vehicle: • access road • internal roads • main access/egress point. Ensure these areas have: • a trafficable surface with a minimum width of 4 m • an overhead clearance height of at least 4 m • curves inner radius 6 m • crossfall less than 6 degrees • surfaces and crossing structures capable of carrying vehicles with a gross vehicle mass of 23 tonnes • turnaround provisions of 22 m diameter or T junction at the termination of each access track and in position of the dedicated water supply tanks • drainage and wet areas crossing are trafficable (where possible) or avoided.	Pre-construction Construction Operation
	B7	Ensure the construction induction process highlights the bushfire risks and the requirements of the Bushfire Management Plan.	Pre-construction Construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	B8	Prepare and implement a bushfire emergency response plan, in accordance with <i>Development Planning – a Guide to Developing a Bush Fire Emergency Management and Evacuation Plan</i> (RFS 2014) and Australian Standard AS3745 2010 <i>Planning for Emergencies in Facilities</i> . Display the bushfire emergency response plan in a prominent location.	Pre-construction Construction Operation
	B9	It is recommended that the site layout includes an alternate access point for emergency situations.	Pre-construction Construction Operation
Social	S1	Implement a construction traffic management plan (CTMP), approved by Inverell Shire Council and Transport for New South Wales, as applicable. CTMP to include (but not limited to): • driver code of conduct • requirement to reinstate property accesses along the access road route • requirement to implement traffic controls to ensure residents can continue to access their properties • requirement to implement standard dust control measures, including but not limited to use of a water cart as required • generally limit construction traffic to standard construction hours. Exceptions to these hours may be required on limited occasions. Regulatory authorities (including the Inverell Shire Council) and surrounding landholders will be notified of any exceptions prior to any works being undertaken • safety initiatives in relation to pedestrians, livestock and school bus routes (include a requirement for heavy vehicles to avoid operating during school run periods i.e. typically 8:00 am to 9:30 am and 2:30 pm to 4:00 pm during school days) • induction process for vehicle operators • a complaint resolution procedure • any community consultation measures for peak construction periods.	Pre-construction Construction
	S2	Provision of a daily shuttle bus service for transport of workers to/from Inverell/Glen Innes.	Construction
	S3	Establish and maintain a project grievance mechanism (i.e. a project phone number and project email) as well as maintain a community complaints register to: • provide the opportunity for stakeholders to raise complaints, grievances, and provide feedback • record and address any issues raised by stakeholders and community members.	Pre-construction

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	S4	Establish a community benefits fund, with a specified amount of funding to be allocated each year. The community benefits fund will be facilities by a community liaison committee, to help guide the most effective and meaningful way to determine how the funding is allocated to local community programming and projects to address community needs. Sundown Solar will communicate the establishment of the community benefits fund, the application process, and the decision-making process to the local community through ongoing engagement and consultation.	Construction Operation
	S5	Establish a local employment policy which specifies a preferential hiring approach to prioritise the employment of workers with relevant skills from the local area, then the regional area, followed by hiring outside of these areas (where feasible and practical).	Pre-construction
	S6	Provide advance notice to health care services in Inverell and Glen Innes regarding ramping up of construction activities and likely influx of construction workers.	Pre-construction Construction
	S7	Develop workforce housing strategy prior to construction that assesses the housing and accommodation environment and identify and addresses potential accommodation and rental market pressures in the local and regional area.	Pre-construction
	S8	Liaise with the Inverell Chamber of Commerce and the Glen Innes Chamber of Commerce to communicate project accommodation needs so that local accommodation businesses can be notified in advance to allow capacity building.	Pre-construction Construction
	S9	Liaise with Inverell Shire Council Waste Manager prior to commencement of construction to establish an effective waste management strategy.	Pre-construction
	S10	Engage with Councils outside of Inverell Shire Council where feasible and practical to assess the potential for recycling of materials that are not able to be processed by Inverell Shire Council, as applicable.	Pre-construction
	S11	An ACHMP will be developed in consultation with Heritage NSW, RAPs and DPE. The AHMP will detail the management and mitigation of all identified Aboriginal sites along with special procedures and training and reporting protocols.	Pre-construction
	S12	Liaise with Inverell Shire Council to develop safety protocols at the school bus zone on the Gwydir Highway/Spring Mountain intersection when construction traffic (both heavy vehicles and workforce vehicles) are driving through these zones.	Pre-construction
	S13	Liaise with local and regional employment and training services to identify pathways for apprenticeship and training opportunities with the project.	Pre-construction
	S14	Establish a local procurement policy which includes a target percentage of local spend in the project budget.	At all times
	S15	Develop a register (e.g. online) where local contractors and suppliers can sign up for updates on upcoming contract opportunities.	At all times

Table N.1 **Summary of mitigation measures**

Discipline	Ref	Proposed management measures	Timing
	S16	Liaise with Inverell Chamber of Commerce and Glen Innes Chamber of Commerce to provide information on upcoming contract opportunities.	At all times
Waste	WM1	Manage all waste in accordance with the NSW <i>Protection of the Environment Operations Act 1997</i> (POEO Act), the NSW <i>Waste Avoidance and Resource Recovery Act 2001</i> and the following hierarchy, which is listed in order of preference: • reduce waste production • recover resources • dispose of waste appropriately.	At all times
	WM2	Manage waste to ensure that: • the generation of waste is kept to a minimum • no waste is received or disposed of onsite • waste is stored, handled and disposed in accordance with the EPA's Waste Classification Guidelines 2014 (or its latest version) • waste is removed from site as soon as practicable • waste is reused, recycled or sent to an appropriately licensed waste facility for disposal.	At all times
Cumulative	C1	Continue to liaise with Goldwind Australia regarding the construction schedule for the approved expansion of White Rock Wind Farm.	Pre-construction

Australia

SYDNEY

Ground floor 20 Chandos Street
St Leonards NSW 2065
T 02 9493 9500

NEWCASTLE

Level 3 175 Scott Street
Newcastle NSW 2300
T 02 4907 4800

BRISBANE

Level 1 87 Wickham Terrace
Spring Hill QLD 4000
T 07 3648 1200

CANBERRA

Level 2 Suite 2.04
15 London Circuit
Canberra City ACT 2601

ADELAIDE

Level 4 74 Pirie Street
Adelaide SA 5000
T 08 8232 2253

MELBOURNE

Suite 8.03 Level 8 454 Collins
Street
Melbourne VIC 3000
T 03 9993 1900

PERTH

Suite 9.02 Level 9 109 St
Georges Terrace
Perth WA 6000

Canada

TORONTO

2345 Young Street Suite 300
Toronto ON M4P 2E5

VANCOUVER

60 W 6th Ave Suite 200
Vancouver BC V5Y 1K1



[linkedin.com/company/emm-consulting-pty-limited](https://www.linkedin.com/company/emm-consulting-pty-limited)



emmconsulting.com.au