

APPENDIX A REVISED MITIGATION MEASURES

Modified and new mitigation measures are present in **Bold**.

Safeguards and mitigation measures	C	O	D
A subdivision certificate will be obtained with respect to the subdivision of the existing house lot from the broader R1 zoned allotment	Design		
- Hollow-bearing trees within the development site would not be cleared between June and January, to avoid the breeding season of hollow-dependant fauna including the Superb Parrot as well as the Large-eared Pit Bat and Corben's Long-eared Bat, which whilst considered unlikely to occur within the site, nevertheless may have some small potential as occurring within the site from time to time. The nominated clearing period above will also help to avoid the core hibernation period for the two bat species. - If clearing outside of this period cannot be achieved, pre-clearing surveys would be undertaken to ensure these species do not occur.	C		
- Preparation of a Flora and Fauna Management Plan (FFMP) that would incorporate protocols for: - Protection of native vegetation to be retained (including EEC) - Best practice removal and disposal of vegetation - Staged removal of hollow-bearing trees and other habitat features such as fallen logs with attendance by an ecologist. Where possible, fallen timber with hollows is to be collected and placed into adjacent suitable habitats outside the development footprint. - The relocation of displaced fauna during clearing - Weed management, particularly noxious weeds - Pathogen management - Unexpected threatened species finds - Rehabilitation/stabilisation of disturbed areas	C		
- Stockpiling materials and equipment and parking vehicles will be avoided within the dripline (extent of foliage cover) of any native tree that originates from outside of the development site. - Prior to the commencement of work, a physical vegetation clearing boundary at the approved clearing limit is to be clearly demarcated and implemented. The delineation of such a boundary may include the use of temporary fencing, flagging tape, parawebbing or similar.	C		D
Use non barbed-wire on exterior fencing where possible.		O	
A groundcover management plan would be developed and implemented to ensure the existing ground cover is maintained beneath the array during operation of the solar		O	

Safeguards and mitigation measures	C	O	D
farm. The plan would be developed with reference to soil testing. Highly managed grazing may be used to maintain the height of ground cover during operation.			
Where possible, landscape plantings will be comprised of local indigenous species with the objective of increasing the diversity of the existing vegetation. Planting locations would be designed to improve the connectivity between patches in the landscape where consistent with landscaping outcomes.		O	
Avoid night works as much as possible, and avoid altogether where in close proximity to woodland habitats on adjacent properties.	C		D
Ensure lights (during nightworks and operation) are directed away from vegetation and adjacent habitats.	C	O	D
Weed and hygiene protocols will be prepared and implemented.		O	
Awareness training (fauna collision risks) during site inductions and enforcement of site speed limits.		O	
Feral species to be monitored and a management plan to be prepared and implemented to reduce feral species abundance.	C	O	
Implement plan which ensures that fauna movement still possible around perimeter of development site.	C	O	
A Biodiversity Offset Strategy (BOS) would be developed and implemented to retire the credits generated by the proposal, in accordance with the NSW Biodiversity Offsets Policy for Major Proposals.	C	O	
A Biodiversity Offset Plan is proposed to be prepared in consultation with OEH to define the final offset area. The Biodiversity Offset Plan will include details regarding the management (and any required monitoring) of the offset area, as required by the BioBanking Assessment Methodology.	C	O	D
If complete avoidance of the five recorded sites within the proposal area (Beryl Solar Farm IF 1, Beryl Solar Farm IF 2, Beryl Solar Farm IF 3, Beryl Solar Farm IF 4 and Beryl Solar Farm AS 1) is not possible, the artefacts must be salvaged prior to the proposed work commencing and moved to a safe area within the property that will not be subject to any ground disturbance.	C		
The collection and relocation of the artefacts should be undertaken by an archaeologist with representatives of the registered Aboriginal parties. A new site card/s will need to be completed once the sites are moved to record their new location on the AHIMS database.	C		
Once the sites Beryl Solar Farm IF 1, Beryl Solar Farm IF 2, Beryl Solar Farm IF 3, Beryl Solar Farm IF 4 and Beryl Solar	C		

Safeguards and mitigation measures	C	O	D
Farm AS 1 are salvaged, the proposed work can proceed with caution within the development footprint.			
First Solar should prepare a Cultural Heritage Management Plan (CHMP) to address the potential for finding additional Aboriginal artefacts during the construction of the Solar Farm and management of known sites and artefacts. The Plan should include the unexpected finds procedure to deal with construction activity. Preparation of the CHMP should be undertaken in consultation with the registered Aboriginal parties.	C		
In the unlikely event that human remains are discovered during the construction, all work must cease in the immediate vicinity. OEH, the local police and the registered Aboriginal parties should be notified. Further assessment would be undertaken to determine if the remains were Aboriginal or non-Aboriginal.	C		
Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the registered Aboriginal party and may include further field survey.	C	O	D
- If feasible, underground rather than overhead power lines would be considered. - If feasible, co-location of powerlines would be undertaken to minimise the look of additional power poles. If additional poles are required, these would match existing pole design as much as possible. - The materials and colour of onsite infrastructure will, where practical, be non-reflective and in keeping with the materials and colouring of existing infrastructure or of a colour that will blend with the landscape. Where practical: - Buildings will non-reflective and in eucalypt green, beige or muted brown. - Pole mounts will be non-reflective. - Security fencing posts and wire would be non-reflective; green or black rather than grey would reduce the industrial character of the fence.	Design stage		
- Dust would be controlled in response to visual cues. - Parking areas, material stock piles and other construction activities would be located as far as practical from nearby residences or screened (by existing vegetation or constructed screens) for the period of construction. - Areas of soil disturbed by the project would be rehabilitated progressively or immediately post-construction, reducing views of bare soil.	C		

Safeguards and mitigation measures	C	O	D
- Ground cover would be maintained beneath the panels and within the site boundary, to break up views of the infrastructure from the side and back views. - Night lighting would be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations).			
A Visual Impact Management Plan would address the 'as built' visual impacts of the proposed solar farm. The plan would include: - Onsite vegetation screening, guided by the proposed screening, provided in Appendix D of the VIA report Appendix F. - Involvement of the most affected landowners (relevant to medium impact view locations). This may include increased onsite planting density in specific locations suggested by the landowners (for example, where the proposed solar farm would be visible from outdoor recreational areas). - Verification of predicted and actual impacts. This would improve the reliability of the measures and provide a trigger to undertake additional mitigation if required. (Guidance regarding these measures is provided in Appendix D of the VIA report Appendix F).		O	
Supplementary onsite planting, on Lot 59 to mitigate views from recreational areas, in consultation with the landowners.	C	O	
Implement noise control measures such as those suggested in Australian Standard 2436-2010 "Guide to Noise Control on Construction, Demolition and Maintenance Sites", to reduce predicted construction noise levels.	C		
Preparation of a Construction Noise Management Plan. A draft plan is included in Appendix G.2.	C		
All impacted landowners also should have the opportunity to participate and provide feedback during the development of a Construction Noise Management Plan for the project to minimise noise impacts.	C		
- Additionally, during construction: - Use less noisy plant and equipment, where feasible and reasonable. - Plant and equipment should be properly maintained. - Provide special attention to the use and maintenance of 'noise control' or 'silencing' kits fitted to machines to ensure they perform as intended.	C		

Safeguards and mitigation measures	C	O	D
- o Strategically position plant on site to reduce the emission of noise to the surrounding neighbourhood and to site personnel. - o Avoid any unnecessary noise when carrying out manual operations and when operating plant. - o Any equipment not in use for extended periods during construction work should be switched off. • Develop and implement a noise complaint process. Each complaint would be investigated and appropriate noise amelioration measures put in place to mitigate future occurrences, where the noise in question is in excess of allowable limits. Keep people informed of progress. The person selected to liaise with the community should be adequately trained and experienced in such matters.			
• The array would be designed to allow sufficient space between panels to establish and maintain ground cover beneath the panels.	Design stage		
• A soil and water management plan (with erosion and sediment control plans) would be prepared, implemented and monitored during the proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. These plans would include provisions to: - o Carry out soil testing prior to any impacts, to inform any soil treatments and provide baseline information for the decommissioning rehabilitation. - o Install, monitor and maintain erosion controls. - o Ensure that machinery leaves the site in a clean condition to avoid tracking of sediment onto public roads which may cause risks to other road users through reduced road stability. - o Manage topsoil: In all excavation activities, separate subsoils and topsoils and ensure that they are replaced in their natural configuration to assist revegetation. Stockpile topsoil appropriately so as to minimise weed infestation, maintain soil organic matter, maintain soil structure and microbial activity. - o Minimise the area of disturbance from excavation and compaction; rationalise vehicle movements and restrict the location of activities that compact and erode the soils as much as practical. Any compaction caused during construction would be treated such that revegetation would not be impaired. - o Ensure any discharge of water from the site is managed to ensure ANZECC (2000) water quality criteria are met. • Manage works in consideration of heavy rainfall events; if a heavy rainfall event is predicted, the site should be stabilised and work ceased until the wet period had passed.	C		D
• A spill response plan would be developed as part of the overall risk management plan to prevent contaminants	C	O	D

Safeguards and mitigation measures	C	O	D
affecting adjacent surrounding environments. The plan would: - o Manage the storage of any potential contaminants onsite. - o Mitigate the effects of soil contamination by fuels or other chemicals (including emergency response and EPA notification procedures and remediation. • Ensure that machinery arrives on site in a clean, washed condition, free of fluid leaks.			
• A protocol would be developed in relation to discovering buried contaminants within the proposal site (e.g. pesticide containers). It would include stop work, remediation and disposal requirements.	C		D
• Design of footings for electrical componentry and panel mounts will consider flood risk.	Design stage		
• All staff would be appropriately trained through toolbox talks for the minimisation and management of accidental spills.	C	O	D
• All fuels, chemicals, and liquids would be stored at least 50m from any waterways or drainage lines and would be stored in an impervious bunded area.	C	O	D
• Adequate incident management procedures will be incorporated into the Construction Environmental Management plan, including requirement to notify EPA for incidents that cause material harm to the environment (refer s147-153 Protection of the Environment Operations Act).	C	O	D
• The refuelling of plant and maintenance would be undertaken in impervious bunded areas on hardstand areas only.	C	O	D
• Machinery would be checked regularly to ensure there is no oil, fuel or other liquids leaking from the machinery.	C		D
• A flood risk contingency plan would be prepared prior to construction and is to be implemented during construction, operation and decommission. The plan would: - o Detail who would be responsible for monitoring the flood threat and how this is to be done. - o A process for removing any necessary equipment and materials offsite and out of flood risk areas. - o Consideration of site access in the event that some tracks become flooded - o Establishment of an evacuation point	C	O	D
• The proponent would consult with the Mid Western Regional Council regarding the proposed upgrading of the site access. The upgrade would be subject to detailed	Design stage		

Safeguards and mitigation measures	C	O	D
design, and must be designed and constructed to the standards specified by RTA Guidelines.			
• The following improvements would be made to Beryl Road: ○ Additional Seal Width on Shoulders - additional seal width (1.0 metre) on the road shoulders to extend the seal width to 1.5 metres on each side. ○ Line-Marking – Council requests line-marking both on the centre line and edge lines to improve road safety.	C		
• A Haulage Plan would be developed with input from the roads authority, including but not limited to: ○ Assessment of road routes to minimise impacts on transport infrastructure. ○ Scheduling of deliveries of major components to minimise safety risks (on other local traffic). ○ Traffic controls (signage and speed restrictions etc.).	C		D
• A Traffic Management Plan would be developed as part of the CEMP and DEMP, in consultation with the Mid Western Regional Council and Roads and Maritime. The plan would include, but not be limited to: ○ Assessment of road condition prior to construction on all local roads that would be utilised. ○ A program for monitoring road condition, to repair damage exacerbated by the construction and decommissioning traffic. ○ The designated routes of construction traffic to the site. ○ Carpooling/shuttle bus arrangements to minimise vehicle numbers during construction. ○ Scheduling of deliveries. ○ Community consultation regarding traffic impacts for nearby residents. ○ Consideration of cumulative impacts. ○ Consideration of impacts to the railway. ○ Traffic controls (speed limits, signage, etc.). ○ Procedure to monitor traffic impacts and adapt controls (where required) to reduce the impacts. • Providing a contact phone number to enable any issues or concerns to be rapidly identified and addressed through appropriate procedures.	C		D
• A Road Dilapidation Report would be prepared and include audits of the road formation and/or pavement condition to be undertaken prior to construction and at the completion of construction, operation and decommissioning phases. The proponent would repair any damage resulting from proposal traffic (except that resulting from normal wear and tear) as required at the proponent's cost and in consultation with Mid-Western Regional Council.	C	O	D

Safeguards and mitigation measures	C	O	D
Consultation with proposal site mineral titleholder and Beryl Quarry regarding the proposal and potential impacts	C	O	D
Consultation with local community, to minimise impact of construction of adjacent agricultural activities and access.	C	O	D
Consultation would be undertaken with Transgrid regarding connection to the substation and design of electricity transmission infrastructure	C	O	D
- A Rehabilitation Plan would be prepared to ensure the array site is returned to its pre solar farm land capability. The plan would be developed with reference to base line soil testing and with input from an Agronomist to ensure the site is left stabilised, under a cover crop or other suitable ground cover. The plan would reference: - Australian Soil and Land Survey Handbook (CSIRO 2009) - Guidelines for Surveying Soil and Land Resources (CSIRO 2008) - The land and soil capability assessment scheme: second approximation (OEH 2012)			D
The materials and colour of onsite infrastructure will, where practical, be non-reflective and in keeping with the materials and colouring of the landscape.	C		
Should an item of historic heritage be identified, the Heritage Division (OEH) would be contacted prior to further work being carried out in the vicinity.	C	O	D
If any old farm machinery is to be removed, contact the Gulgong Historical Society to enquire about their interest in acquiring any items.	C		
Maintain the railway embankment formation as much as possible.	C	O	D
- A Waste Management Plan (WMP) would be developed to minimise wastes. It would include but not be limited to: - Identification of opportunities to avoid, reuse and recycle, in accordance with the waste hierarchy. - Quantification and classification of all waste streams. - Provision for recycling management onsite. - Provision of toilet facilities for onsite workers and identify that sullage would be disposed of (i.e., pump out to local sewage treatment plant). - Tracking of all waste leaving the site. - Disposal of waste at facilities permitted to accept the waste. - Requirements for hauling waste (such as covered loads).	C	O	D

Safeguards and mitigation measures	C	O	D
Septic system is installed and operated according to the Mid-Western Regional Council regulations.	C	O	
- The Community Consultation Plan will continue to be implemented, including but not limited to implementing protocols to: - Keep the community updated about the progress of the proposal and proposal benefits. - Inform relevant stakeholders of potential impacts (haulage, noise etc.). - Respond to any complaints received.	C		
Liaise with local industry representatives to maximise the use of local contractors, manufacturing facilities, materials.	C		
Liaise with local representatives regarding accommodation options for staff, to minimise adverse impacts on local services.	C		D
Liaise with local tourism industry representatives to manage potential timing conflicts with local events.	C		D
Development of a complaints procedure to promptly identify and respond to complaints.	C	O	D
Develop protocols to minimise vehicle and construction equipment emissions for inclusion in the construction and operational environmental management plans. This would include but not limited to Australian standards and the POEO Act.	C	O	D
Protocols would be developed minimise dust levels generated during construction (e.g. water carts or similar in response to visual cues).	C		D
All design and engineering would be undertaken by qualified and competent person/s with the support of specialists as required.	C		
Transmission lines would be located as far as practical from residences, farm sheds, and yards to reduce the potential for exposure to EMFs.	C		
Design of electrical infrastructure would minimise EMFs.	C		
- Develop a Bush Fire Management Plan to include but not be limited to: - Management of activities with a risk of fire ignition. - Management of fuel loads onsite. - Storage and maintenance of firefighting equipment, including siting and provision of adequate water supplies for bush fire suppression. This includes access to the onsite dam if required for fire emergency situations.	C	O	D

Safeguards and mitigation measures	C	O	D
- o The below requirements of <i>Planning for Bush Fire Protection 2006</i> - ▪ Identifying asset protection zones ▪ Providing adequate egress/access to the site ▪ Emergency evacuation measures - o Operational procedures relating to mitigation and suppression of bush fire relevant to the solar farm.			
• Prior to operation of the solar farm, an Emergency Response Plan (ERP) must be prepared in consultation with the RFS and Fire & Rescue NSW. This plan must include but not be limited to: - o Specifically addresses foreseeable on site and off site fire events and other emergency incidents. - o Detail appropriate risk control measures to mitigate potential risks to the health and safety of firefighters and other first responders - o Outline other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site. - o A copy of the ERP is to be stored in a location directly adjacent to the sites main entry points - o Once constructed and prior to operation, the operator is to contact with the relevant local emergency management committee regarding the site.		O	