



## APPENDIX E      MITIGATION MEASURES TABLE

## APPENDIX E MITIGATION MEASURES TABLE

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Biodiversity</i>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <i>BD1</i>                  | Residual impacts on habitat would be offset through the Biodiversity Offset Scheme.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>BD2</i>                  | A Biodiversity Management Plan (BMP) would be prepared to the satisfaction of the Environment Agency Head for implementation prior to/during construction and through the operational period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>BD3</i>                  | <p>Prepare and implement the following:</p> <ul style="list-style-type: none"> <li>• Construction Environmental Management Plan (CEMP);</li> <li>• Traffic Management Plan (TMP);</li> <li>• Biodiversity Management Plan (BMP);</li> <li>• Erosion and Sediment Control Plan (ESCP); and</li> <li>• Pest Animal Management Plan (PAMP).</li> </ul>                                                                                                                                                                                                                                                                                                                              |
| <i>BD4</i>                  | Where vegetation is to be removed it would be undertaken in accordance with specifications provided in a vegetation clearing protocol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <i>BD5</i>                  | Mitigation and management measures to minimise impacts and support habitat management for resident fauna (such as the Keys' Matchstick Grasshopper) will be included in a BMP, or as recommended as part of any consent                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <i>BD6</i>                  | <p>'Environmental Sensitive No-Go Zones' would be established around areas of significance including threatened fauna habitat and threatened flora species locations outside the Development Footprint.</p> <p>To avoid unnecessary removal or damage to retained vegetation, the limit of clearing would also be clearly demarcated and signed as 'Environmental Sensitive No-Go Zones' prior to the commencement of clearing.</p>                                                                                                                                                                                                                                              |
| <i>BD7</i>                  | <p>The following requirements would be implemented in the areas of retained vegetation:</p> <ul style="list-style-type: none"> <li>• Vehicles or machinery will not be permitted to park within or drive through;</li> <li>• Construction materials will not be stockpiled or stored within areas of retained vegetation;</li> <li>• Ancillary facilities will not be located beyond the limits of clearing;</li> <li>• Temporary fencing and signage will be maintained throughout construction; and</li> </ul> <p>Site inductions will be given by the civil contractor to all personnel and visitors to ensure all site workers and visitors are aware of any No-Go Zones</p> |
| <i>BD8</i>                  | Plain wire perimeter fencing (opposed to barbed-wire fencing) will be used to avoid potential entrapment of fauna on fences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>BD9</i>                  | Hours of construction would be restricted to standard construction working hours. Construction and environmental management controls will be implemented to reduce overall noise, dust, and light spill.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>BD10</i>                 | Weed management procedures will be implemented to prevent the spread of weeds both inside and outside the site. Ongoing weed monitoring is to be implemented, and potential weed infestations are appropriately managed to minimise the spread of weeds.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>BD11</i>                 | A pathogen management protocol will be implemented. The risk of spreading pathogens and the mitigation measures required on site will be regularly communicated to staff and contractors during inductions and toolbox talks.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <i>BD12</i>                 | Feral pest management programs would be developed and implemented for the Project, with focus European Foxes. All control methods would be completed in accordance with relevant legislation / standard operating procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BD13                        | Erosion and sediment control will be implemented and maintained during the project construction and operation phases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| BD4                         | Where vegetation is to be removed it would be undertaken in accordance with specifications provided in a vegetation clearing protocol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| BD5                         | Mitigation and management measures to minimise impacts and support habitat management for resident fauna (such as the Keys' Matchstick Grasshopper) will be included in a BMP, or as recommended as part of any consent                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| BD6                         | 'Environmental Sensitive No-Go Zones' would be established around areas of significance including threatened fauna habitat and threatened flora species locations outside the Development Footprint.<br>To avoid unnecessary removal or damage to retained vegetation, the limit of clearing would also be clearly demarcated and signed as 'Environmental Sensitive No-Go Zones' prior to the commencement of clearing.                                                                                                                                                                                                                                                      |
| BD7                         | The following requirements would be implemented in the areas of retained vegetation: <ul style="list-style-type: none"> <li>• Vehicles or machinery will not be permitted to park within or drive through;</li> <li>• Construction materials will not be stockpiled or stored within areas of retained vegetation;</li> <li>• Ancillary facilities will not be located beyond the limits of clearing;</li> <li>• Temporary fencing and signage will be maintained throughout construction; and</li> <li>• Site inductions will be given by the civil contractor to all personnel and visitors to ensure all site workers and visitors are aware of any No-Go Zones</li> </ul> |
| BD8                         | Plain wire perimeter fencing (opposed to barbed-wire fencing) will be used to avoid potential entrapment of fauna on fences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| BD9                         | Hours of construction would be restricted to standard construction working hours. Construction and environmental management controls will be implemented to reduce overall noise, dust, and light spill.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| BD10                        | Weed management procedures will be implemented to prevent the spread of weeds both inside and outside the site. Ongoing weed monitoring is to be implemented, and potential weed infestations appropriately managed to minimise the spread of weeds.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| BD11                        | A pathogen management protocol will be implemented. The risk of spreading pathogens and the mitigation measures required on site will be regularly communicated to staff and contractors during inductions and toolbox talks.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BD12                        | Feral pest management programs would be developed and implemented for the Project, with focus European Foxes. All control methods would be completed in accordance with relevant legislation / standard operating procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| BD13                        | Erosion and sediment control will be implemented and maintained during the project construction and operation phases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Aboriginal Heritage</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AH1                         | <ul style="list-style-type: none"> <li>• The proposed Project should limit impacts to identified Aboriginal sites as well as identified associated cultural values as much as possible.</li> <li>• If the site design changes and the PAD (AHIMS # 52-4-0134) is within proximity the Disturbance Area, then a Cultural Heritage Management Plan would be required to manage impacts to the site.</li> </ul>                                                                                                                                                                                                                                                                  |

| Mitigation Measures tableID  | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AH2                          | If the site design changes and AHIMS #52-4-0134 will be impacted, a CHMP should be developed to record and describe the processes and procedures required to be implemented regarding Aboriginal cultural heritage prior and during the construction and operational phases of the Project. The ACHMP should be developed in partnership with the RAPs and include at a minimum, measures regarding the following recommendations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| AH4                          | All personnel involved with construction activities within the Project Area should undertake a cultural awareness induction prior to commencing any activities in the works site. The cultural awareness induction should include: <ul style="list-style-type: none"> <li>• A summary of the cultural heritage values of the Project Area and surrounds;</li> <li>• Guidance on the identification of potential Aboriginal objects; and</li> <li>• An explanation of the Unexpected Finds Procedure.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| AH5                          | In the event that cultural heritage sites or materials (or suspected cultural sites or materials) are discovered during earthworks the Unexpected Finds Procedure set out in Figure 11.1 in Appendix H is to be implemented.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <i>Historic Heritage</i>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| HH1                          | Prior to the commencement of works, all staff and contractors should be briefed on the requirements of the Heritage Act and the Unexpected Finds Protocol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| HH2                          | The HHA has identified that the archaeological potential of the Project Area is Low. However, in the event that relics are unexpectedly recovered during the proposed works, all works should cease immediately, and the Unexpected Finds Protocol should be followed. The following steps are provided below in the event that unexpected heritage items are identified during the proposed works: <ul style="list-style-type: none"> <li>• Where a potential historic heritage item is found during works, all works within the vicinity of the item, or with the potential to impact the item should cease and a temporary exclusion zone established;</li> <li>• An appropriately qualified heritage consultant should examine the item to assess its significance and further archaeological potential;</li> <li>• Where a relic is found, the NSW Heritage Council should be notified (in accordance with Section 146 of the Heritage Act) and approval will likely be required prior to the continuation of works. Other archaeological deposits should be recorded and assessed for significance and potential salvage by an appropriately qualified heritage consultant; and</li> <li>• Depending on the nature of the discovery, additional assessment and approval under the Heritage Act may be required prior to the recommencement of works in the affected area.</li> </ul> |
| <i>Soils and Agriculture</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| AG1                          | <ul style="list-style-type: none"> <li>• The Applicant will develop a CEMP, OEMP and an ESCP that addresses specific erosion risks.</li> <li>• Soil that will be disturbed will be stripped and re-used in rehabilitation measures on site to mitigate long term risks on-site.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| AG2                          | <ul style="list-style-type: none"> <li>• Biosecurity protocols will be implemented in the CEMP and OEMP.</li> <li>• Weeds will be managed in accordance with the Biosecurity Act 2015 and the relevant regional strategic weed management plans and in consultation with landowners.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AG3                         | <ul style="list-style-type: none"> <li>At the end of the Project operations, the ground condition will be returned to the condition that existed prior to the Project construction, in accordance with the Decommissioning and Rehabilitation Strategy that will be developed for the Project;</li> <li>Underground infrastructure (such as cables and footings) will be removed where practical to a depth of 0.5 m below ground surface, but may otherwise remain; and</li> <li>Any contamination or waste would be removed or managed in consultation with the landowners and according to regulations and weed infestations will be controlled during the decommissioning process, as possible.</li> <li>A Decommissioning and Rehabilitation Plan will be prepared within 5 years prior to the completion of Project operations.</li> </ul> |
| <i>Landscape and Visual</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| LV1                         | Retain and protect the existing vegetation present around the Project Area to maintain the existing level of screening and to reduce the overall visual impact.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| LV2                         | Incorporate setbacks to infrastructure to allow for on-site screening in the form of perimeter planting, if required in future.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| LV3                         | Consideration of the height of ancillary structures to ensure the Project does not contrast significantly with the surrounding landscape.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| LV4                         | Consider the colours of the ancillary structures to ensure minimal contrast and to help blend into the surrounding landscape to the extent practicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <i>Noise</i>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| N1                          | <p>Noise generating work and activities should be limited (where possible) to ICNG standard working hours:</p> <ul style="list-style-type: none"> <li>Monday to Friday: 7am to 6pm;</li> <li>Saturday: 8am to 1pm; and</li> <li>No work on Sundays or public holidays.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| N2                          | For construction works outside of the ICNG recommended standard hours, more specifically for the roadworks along Botany Road / Bunnerong Road intersection road reserve at Matraville, NSW, a negotiated agreement may be considered between the affected individuals at 650 Bunnerong Rd and the construction manager.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| N3                          | <p>Where an equipment item (drum roller, the padfoot roller, the cranes, the small pile driving rigs, scraper and tub grinder / mulcher) operates close to the Project Boundary and these works are anticipated to generate high levels of noise (e.g., &gt; 45 dB(A) at a sensitive receiver), potential respite periods should be applied (e.g., three hours of work, followed by one hour of respite should be applied).</p> <p>Respite may extend the duration of works and inadvertently increase noise impacts; hence due care should be taken.</p>                                                                                                                                                                                                                                                                                        |
| N4                          | Appropriate plant, equipment and/or machinery for each task should be selected and efficient work practices adopted to minimise the total construction period and the number of noise sources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| N5                          | Unnecessary noise due to idling engines should be avoided. High engine speeds should be avoided when equipment can be powered down and lower engine speeds are feasible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| N6                          | <p>All plant, equipment and/or machinery used should be in suitable condition, regularly serviced according to manufacturers' instructions and maintained in proper working order. Particular emphasis on:</p> <ul style="list-style-type: none"> <li>Exhaust silencers;</li> <li>Covers on engines; and</li> <li>Inspection of squeaking or rattling components.</li> </ul> <p>Excessive noise-generating machines should be repaired or removed.</p>                                                                                                                                                                                                                                                                                                                                                                                           |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N7                          | Reversal alarms shall be replaced with broadband “squash duck” motion alarms, where feasible.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| N8                          | <p>All construction workforce should receive inductions to commencing works. Inductions may occur via toolbox meetings, training and/or education, and should inform staff of:</p> <ul style="list-style-type: none"> <li>• Procedures to operate plant and equipment in a quiet and efficient manner;</li> <li>• Driving practices;</li> <li>• Location of nearest sensitive receivers;</li> <li>• Standard construction hours;</li> <li>• Relevant approval conditions; and</li> <li>• Incidents and complaints handling procedures.</li> </ul> |
| N9                          | <p>If any validated noise complaints are received, operator attended noise validation and compliance measurements should be undertaken to measure and compare noise level contributions to the NMLs presented in this report.</p> <p>All site noise levels should be measured and quantified in the absence of any influential noise sources not associated with the Project. If the measured site noise levels are above the NMLs presented in this report, further mitigation and/or management measures should be considered.</p>              |
| N10                         | <p>Unattended noise monitoring systems shall be established at selected worst-affected sensitive receivers, depending on the activities and construction stage.</p> <p>The results shall inform noise mitigation and management measures for the Project so that best practice noise control is continually implemented.</p>                                                                                                                                                                                                                      |
| N11                         | A CNVMP containing noise mitigation and management measures shall be created for the construction phase of this Project                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <i>Transport</i>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| T1                          | A Traffic Management Plan will be prepared prior to the commencement of construction in consultation with TfNSW and Goulburn Mulwaree Council                                                                                                                                                                                                                                                                                                                                                                                                     |
| T2                          | During construction the sections of the road network used by the Project will be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the BESS would be rectified.                                                                                                                                                                                                                                                                                                               |
| T3                          | Neighbours of the Project will be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access                                                                                                                                                                                                                                                                                                                                                                                 |
| T4                          | Heavy vehicles should avoid travel along Brayton Road during peak bus operating time to limit the interaction of larger vehicles and vulnerable road users                                                                                                                                                                                                                                                                                                                                                                                        |
| T5                          | OSOM vehicle trips should be timed so they do not coincide with other OSOM vehicles within the surrounding area to limit the impact to the road network, which can be undertaken as part of the permit application                                                                                                                                                                                                                                                                                                                                |
| T6                          | A complaints and safety incident monitoring register will be implemented prior to construction to assist in managing the traffic impacts.                                                                                                                                                                                                                                                                                                                                                                                                         |
| T7                          | Specific warning signs will be placed on approaches to and from the transport routes on Council roads, as required, which will advise of the changed traffic operations and heavy vehicle movements.                                                                                                                                                                                                                                                                                                                                              |
| T8                          | Onsite mitigation measures will be implemented, which may include speed restrictions, dust suppression measures, internal access tracks maintenance program, loading, unloading and storage will occur within the Project Area only, and the provision of car parking.                                                                                                                                                                                                                                                                            |
| T9                          | A Drivers Code of Conduct will be established.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| T10                         | At the end of construction, a post-condition survey will be undertaken to ensure the road network is left in a condition equivalent to that at the start of construction.                                                                                                                                                                                                                                                                                                                                                                         |

| Mitigation Measures tableID          | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T11                                  | <p>Road upgrades will be provided as part of the Project which are to be constructed prior to construction commencing. The road upgrades proposed includes:</p> <ul style="list-style-type: none"> <li>• Resurfacing Canyonleigh Road between Brayton Road and the Project Area;</li> <li>• Dilapidation surveys and necessary road maintenance of Canyonleigh Road on the proposed access route, should road maintenance be required;</li> <li>• Provision of a basic right turn treatment at the intersection of Brayton Road/Canyonleigh Road; and</li> <li>• Minor road works, comprising roadside hardstands, temporary road sign and bollard relocations, are proposed to accommodate the largest OSOM vehicle combination.</li> </ul>                                                                                                            |
| <i>Water, Hydrology and Flooding</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| WR1                                  | <p>Implement the following measures during detailed design:</p> <ul style="list-style-type: none"> <li>• Limit water crossing to existing access tracks where possible; and</li> <li>• Arrange BESS modules such that stream disturbance and modifications (filling / diversions) are limited to minor watercourses.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| WR2                                  | <p>In the event construction of watercourse crossings is required, these will be designed, constructed and maintained to consider DPE Guidelines for instream works on waterfront land (DPE, 2022) and Guidelines for Riparian Corridors on Waterfront Land (DPE, 2022).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| WR3                                  | <p>Implement the following mitigation measures during detailed design stage to minimise impacts to flooding:</p> <ul style="list-style-type: none"> <li>• Minimise filling of substation, switching station sites and on-site facilities;</li> <li>• Minimise extent of Project infrastructure within the 1% AEP flood extent;</li> <li>• Design to manage flood impacts and flow conveyance at watercourse crossings (if any);</li> <li>• Design appropriate stormwater treatment measures (e.g. vegetated swales, bioretention areas).</li> </ul>                                                                                                                                                                                                                                                                                                     |
| WR4                                  | <p>Floodplain management planning to determine site management protocols during flood events that could impact construction or access areas, including:</p> <ul style="list-style-type: none"> <li>• Suitable early warning and communication protocols;</li> <li>• Triggers for closure, evacuation and recovery; and</li> <li>• Emergency response and support.</li> </ul> <p>Flooding isolation during construction and operations will be managed through development of a flood emergency response plan. This Emergency Response Plan will:</p> <ul style="list-style-type: none"> <li>• Consider emergency response in rare events.</li> <li>• Be developed in accordance with existing community emergency management arrangements for flooding.</li> <li>• Be developed in consultation with Goulbourn-Mulwaree Council and NSW SES.</li> </ul> |
| WR5                                  | <p>Increased stormwater runoff during operations would be managed through an appropriately designed Stormwater Management System which will consider:</p> <ul style="list-style-type: none"> <li>• Location of site infrastructure away from existing watercourses or areas subject to high levels of overland flow;</li> <li>• Diversion of upstream flows around site infrastructure as required, to minimise scouring and erosion; and</li> <li>• Inspection and monitoring regimes to maintain stormwater and erosion and sediment control structures.</li> </ul>                                                                                                                                                                                                                                                                                   |
| WR6                                  | <p>The total area of disturbance at any time should be minimised where possible and progressive rehabilitation and stabilisation strategies implemented throughout construction</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| WR7                                  | <p>During construction, the following will be considered to minimise potential for sediment mobilisation:</p> <ul style="list-style-type: none"> <li>• Locate stockpiles away from drainage lines, or areas subject to high levels of overland sheet flow and minimise stockpile size;</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Mitigation Measures tableID        | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                    | <ul style="list-style-type: none"> <li>Develop and implement area specific erosion and sediment control measures including bunding and diversion drains (as required);</li> <li>Use stockpile stabilisation techniques such as covering;</li> <li>All runoff from disturbed areas to pass through an appropriate sediment trap prior to discharging to the receiving environment; and</li> <li>Concrete washout to be undertaken in a lined bunded.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WR8                                | <p>The CEMP would include will be developed to identify site specific controls and procedures to minimise the potential for hydrocarbons and other contaminants being discharged into the environment. This would include:</p> <ul style="list-style-type: none"> <li>Storage of hydrocarbons and other liquid chemicals within an above ground, bunded areas away from watercourses or area subject to high levels of overland sheet flow;</li> <li>Re-fuelling of construction vehicles and equipment to be limited to designated areas, with adequate spill management controls;</li> <li>Maintain an emergency spill kit and relevant emergency spill response procedures;</li> <li>Transport and dispose of any hydrocarbons and chemicals captured (or materials contaminated with hydrocarbons or chemicals) during Project construction and operation of the substations and switchyards at an appropriately licenced facility; and</li> <li>Ongoing monitoring and maintenance.</li> </ul> |
| WR9                                | <p>The CEMP would consider management measures to minimise potential impacts to surface and groundwater quality. This includes development and implementation of a suitable monitoring regime of all stormwater and erosion and sediment control structures, particularly following large flow events.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| WR10                               | <p>All required water licensing and approvals will be coordinated with associated landholders, regulators and/or suppliers (if required to support water demand).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| WR11                               | <p>Design and implement a wastewater treatment system that is appropriately sized for the Project infrastructure and operations. This would be designed and operated in accordance with best practices:</p> <ul style="list-style-type: none"> <li>Designing and Installing On-Site Wastewater Management Systems, A WaterNSW Current Recommend;</li> <li>AS/NZS 1547:2012 Onsite domestic wastewater management; and Environment &amp; Health Protection Guidelines: On-site Sewage Management for Single Households.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Preliminary Hazard Analysis</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| HR1                                | <p>The BESS will be tested in accordance with Standard for Test Method for Evaluating Thermal Runaway Fire Propagation In BESS units (American and Canadian Standard in lieu of Australian Standard) UL9540A and will be installed in accordance with manufactured and UL9540A report recommended clearances based on testing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| HR2                                | <p>The BESS will be tested to demonstrate clearances required to prevent propagation of fires between separated units.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| HR3                                | <p>The BESS will be installed with fire protection systems specified by the manufacturer and UL9540A report.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| HR4                                | <p>Detailed design to validate the system will be installed in the Project Area before construction, while meeting the recommended clearances.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| HR5                                | <p>A Fire Safety Study to be prepared in accordance with HIPAP No.2 and Large Scale external Lithium-Ion Battery Energy Storage Systems, Fire Safety Study Considerations (FRNSW, 2023). Recommendations of this study are to be implemented.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| HR6                                | <p>The vent covers of the BESS shall be constructed of a non-combustible material.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| HR7                                | <p>The vents shall not be located above battery packs within the BESS container.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HR8                         | Design to include adequate separation of hazards, Such as adequate separation between BESS containers, and adequate freeboard above the 1% AEP flood level.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| HR9                         | An asset protection zone (APZ) to be maintained in accordance and an exclusion zone of 20 m will be maintained around the substation and BESS components to reduce the risk of fire propagation between items of equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Bushfire</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| BF1                         | <ul style="list-style-type: none"> <li>A minimum 12 m to 24 m APZ will be established around the perimeter of the BESS and on all sides of the associated infrastructure.</li> <li>Essential equipment should be designed and maintained so that it will not serve as a bushfire risk to surrounding property. All APZ are to be managed as an IPA as outlined within Appendix 4 of PBP 2019, and NSW RFS 'Standards for Asset Protection Zones'.</li> <li>APZ will not extend beyond the property boundary or rely on actions being undertaken by adjacent landowners.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| BF2                         | <ul style="list-style-type: none"> <li>Access to the site during construction and operations is expected via the regional council road network, via three access points located on Canyonleigh Road, via Brayton Road / Hume Highway.</li> <li>All roads will be maintained to the minimum standards as outlined within the NSW RFS Fire Trail Standards (NSW RFS, 2023). All access roads must be maintained and kept free of parked vehicles or other obstructions.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| BF3                         | <ul style="list-style-type: none"> <li>A dedicated water supply with appropriate access is required at the site to assist in the event of a fire.</li> <li>The final list of fire suppression equipment and water storage requirements will be confirmed in consultation with NSW RFS and FRNSW following project approval and detailed design.</li> <li>The most appropriate locations and number of tanks required will need to be identified in response to the final BESS design.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| BF4                         | For the safe operation of the transmission line, certain activities will be restricted within the easement such as planting and growing trees, construction of buildings, or erection of antennae or masts. While it has not been confirmed how the easement will be formally registered, for the purposes of this bushfire risk assessment, key responsibilities and management measures will be applied and are the responsibility of the asset owner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| BF5                         | <p>The following measures are recommended to be implemented during the entire period of construction:</p> <ul style="list-style-type: none"> <li>The APZ and access roads will be constructed prior to the installation of the BESS or related infrastructure;</li> <li>Fire detection and suppression systems should be installed at the earliest stage of construction for BESS infrastructure.</li> <li>Ensure appropriate bunding in areas where there is potential for flammable fuels and oils to leak and create bushfires or other environmental risks;</li> <li>Install appropriate signs to assist emergency response crews determine the location of infrastructure;</li> <li>Ensure that appropriate permits have been issued for work during the Fire Danger Period, and that any conditions on permits are adhered to;</li> <li>Adhere to restrictions on TOBAN or days of high fire danger;</li> <li>Suitable firefighting equipment (specific requirements to be confirmed in consultation with NSW RFS) is present onsite;</li> <li>Carry fire extinguishers or firefighting equipment in vehicles;</li> <li>Carry emergency communications equipment;</li> <li>Restrict smoking to prescribed areas, and provide suitable ash and butt disposal facilities;</li> <li>All plant, vehicles and earth moving machinery are cleaned of any accumulated flammable material (e.g., vegetation);</li> </ul> |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <ul style="list-style-type: none"> <li>On days when High fire danger or worse is forecast, the “fires near me” app is to be checked regularly for the occurrence of any fires likely to threaten the site; and</li> <li>On days of Extreme or Catastrophic fire danger, access to the site should be limited to essential works only.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| BF6                         | <p>Vegetation fuels throughout the BESS are to be maintained in a minimal condition by grazing, or with additional slashing or mowing if required. A Bushfire Emergency Management and Operations Plan will be prepared with consideration of Australian Standard/ISO 31000 Risk management principles and guidelines and Australian Standard 3745: Planning for emergencies in facilities. That provides the following:</p> <ul style="list-style-type: none"> <li>A site plan showing infrastructure, site access and the internal road layout;</li> <li>Control and coordination arrangements for emergency response;</li> <li>Hazard reduction strategies;</li> <li>Fire suppression equipment details;</li> <li>Location of all fire control advantages and APZ;</li> <li>Flammable materials storage requirements;</li> <li>Minimum evacuation zone distances</li> <li>Fire reporting and response to formal emergency alerts; and</li> <li>Any other risk control measures required to be followed by firefighters.</li> </ul> |
| <i>Social</i>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SO1                         | Implementation of a Community Benefit Fund                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| SO2                         | Prepare and implement a Stakeholder Engagement Plan (SEP) during the construction of the Project to facilitate stakeholder appropriate, transparent, and meaningful engagement. The SEP will include the requirement to provide regular Project updates (e.g., electronic and hard-copy communication materials).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SO3                         | A community enquiry and complaints mechanism will also be developed and implemented throughout the life of the Project to manage concerns that may arise during day-to-day construction and operational activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Economic</i>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| EC1                         | <p>The Applicant will work in partnership with the local councils and the community to help maximise the projected economic regional benefits whilst minimising any impacts. Economic mitigation and management measures could include:</p> <ul style="list-style-type: none"> <li>Employment of regional residents where they have the required skills and experience.</li> <li>Participating, as appropriate, in business groups, events or programs in the regional community;</li> <li>Locally sourcing non-labour inputs to production where local producers can be cost and quality competitive;</li> <li>Establish a Community Benefit Sharing Fund to provide support the regional community;</li> </ul>                                                                                                                                                                                                                                                                                                                      |
| <i>Waste Management</i>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| WM1                         | Adopt protocols to identify opportunities to follow the waste hierarchy, to encourage the most efficient use of resources, as well as reduce costs and environmental harm in accordance with the principles of ESD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| WM2                         | Adopt purchasing protocols in the selection of all components of the Project, in order to reduce the likelihood of equipment failure and minimise the potential for waste.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| WM3                         | Engage with Goulburn Mulwaree Council to discuss the options for disposal and reuse of the identified waste streams likely to be generated, in order to ensure that any use of local waste management facilities does not exhaust available capacity, nor disadvantage the local community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| WM4                         | Classify wastes in accordance with the NSW EPA Waste Classification Guidelines – Part 1: classifying waste (NSW EPA, 2014a) and Addendum (NSW EPA, 2016).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Mitigation Measures tableID | Mitigation Measure                                                                                                                                                                                             |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WM5                         | Provide waste storage locations within assigned area, with sufficient space for separation and storage of different waste.                                                                                     |
| WM6                         | Store and dispose of waste lawfully at a licensed waste facility, including fuels, oils and hazardous substances used onsite.                                                                                  |
| WM7                         | Separate recyclable and non-recyclable materials on-site prior to being transported to waste facility.                                                                                                         |
| WM8                         | Investigate opportunities for recycling of wastes prior to sending to landfill.                                                                                                                                |
| WM9                         | Waste receptacles will be collected on a regular basis by licensed contractors or Council collection service and transported for offsite disposal at an appropriately licensed landfill or recycling facility. |
| WM10                        | Provide toilet facilities for onsite workers and how sullage would be disposed of (e.g., pump out to local sewage treatment plant).                                                                            |
| WM11                        | Provisions protocol for the packaging, transportation of spent lithium-ion batteries to collection and recycling facilities.                                                                                   |



## REMOVE FROM PDF

|            |              |                                              |
|------------|--------------|----------------------------------------------|
| Argentina  | Mozambique   | ERM's [Office name]                          |
| Australia  | Netherlands  | Add address 1                                |
| Belgium    | New Zealand  | Add address 2                                |
| Brazil     | Panama       | Add address 3                                |
| Canada     | Peru         | State, Zip/Post code                         |
| China      | Poland       | T +1 000 000 0000                            |
| Colombia   | Portugal     | F +1 000 000 0000                            |
| Denmark    | Romania      | <a href="http://www.erm.com">www.erm.com</a> |
| France     | Singapore    |                                              |
| Germany    | South Africa |                                              |
| Hong Kong  | South Korea  |                                              |
| India      | Spain        |                                              |
| Indonesia  | Switzerland  |                                              |
| Ireland    | Taiwan       |                                              |
| Italy      | Thailand     |                                              |
| Japan      | UAE          |                                              |
| Kazakhstan | UK           |                                              |
| Kenya      | US           |                                              |
| Malaysia   | Vietnam      |                                              |
| Mexico     |              |                                              |