



**NGH**



# Emergency Management Plan

## Avonlie Solar Farm

August 2022

Project Number: 21-699



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## Acronyms and abbreviations

AC	Alternating current
Ancillary infrastructure	All project infrastructure with the exception of solar panels, including but not limited to collector substations, switching stations, permanent offices, battery storage and site compounds, electricity transmission lines and internal roads
APZ	Asset Protection Zone
BSF	Battery Storage Facility
BESS	Battery Energy Storage System
BFDP	Bushfire Danger Period
BFMC	Bushfire Management Committee
BoM	Bureau of Meteorology
CoC	Conditions of Consent
Construction	The construction of the development, including but not limited to the carrying out of any earthworks on site and the construction of solar panels and any ancillary infrastructure (but excludes road upgrades or maintenance works to the public road network, building/road dilapidation surveys, installation of fencing, artefact survey and/or salvage, overhead line safety marking and geotechnical drilling and/or surveying)
Contractor	The Contractor responsible for construction of the solar farm
Decommissioning	The removal of solar panels and ancillary infrastructure and/or rehabilitation of the site
DPIE	(NSW) Department of Planning, Industry and Environment
ECO	Emergency Control Organisation
EMP	Emergency Management Plan
EMS	Environmental Management Strategy
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EP&A	<i>Environmental Planning and Assessment 1979</i>
FFDI	Forest Fire Danger Index
HSE	Health Safety and Environment
HSSE	Health, Safety, Security and Environment
IPA	Inner Protection Area
kV	kilovolts
LEMC	Local Emergency Management Committee
MW	Megawatts

NCC	National Construction Code
NSW RFS	NSW Rural Fire Service
NSW	New South Wales
PBP	Planning for Bushfire Protection 2019 (Guidelines)
PV	photovoltaics
RTS	Response to Submissions
SoC	Statement of Commitment(s)
SCRP	Soil Contamination Recovery Plan
SSD	Significant State Development
The proponent	Avonlie Solar Farm Pty Ltd
The Project	Avonlie Solar Farm

# 1. Introduction

## 1.1 Purpose and scope

Avonlie Solar Farm Pty Ltd (the proponent) received planning approval in 2019 for the construction and operation of a 254.1 megawatt (MW) alternating current (AC) photovoltaic (PV) solar farm. Subsequent Modification 1 and Modification 2 were approved in November 2020 and May 2021 respectively.

The 581-hectare (ha) development site is freehold rural land located around 20km south of Narrandera. The Avonlie Solar Farm ('the Project') is a State Significant Development (SSD-9031) and represents an important contribution to renewable energy generation in New South Wales.

This Emergency Management Plan (EMP) has been prepared as part of the overall Environmental Management Strategy (EMS). An emergency in relation to the Project is defined as a fire on site or in the vicinity of the site with potential to impact the site and surrounds. The purpose of the EMP is to identify fire risks and controls for the development and all procedures that will be implemented if a fire occurs on site or in the vicinity of the site. The EMP applies to the construction, operational and decommissioning phases of the Project.

In particular, this EMP:

- Describes measures that will be implemented to ensure that the vegetated buffer achieves the objectives of conditions 25 and 26 (Schedule 3) of the consent.
- Includes a program to monitor and report on the effectiveness of these measures.
- Includes details of who will be responsible for monitoring, reviewing and implementing the plan, and timeframes for the completion of actions.

This EMP forms part of the EMS for the Project and is applicable to all staff and sub-contractors associated with the Project. The EMP has been prepared in general accordance with Section 4 of the Department of Planning Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning, noting that the development is considered a "smaller facility", hence requiring a less detailed plan than more complex facilities.

## 1.2 The project

Avonlie Solar Farm Pty Ltd have engaged Beon Energy Solutions as an EPC (Engineering, procurement, and construction) contractor to construct the project. The contract includes all works necessary to design, construct, test, commission, energise, of an approximately 254.1MW alternating current (AC) solar farm.

The scope of works consists of but is not limited to:

- Photovoltaic solar arrays (450,000 solar panels would be mounted in rows on a single axis tracking system, with trackers likely to have a typical maximum tilt height of 4m.
- Power conversion units.

- A substation including an elevated busbar, switch room, a lightning protection system, current and voltage transformers and a connection into the existing TransGrid overhead transmission line (works by others, not Beon)
- A battery storage facility (BSF) (not part of current Beon scope)
- Operations and maintenance buildings with associated car parking.
- Access point to the site via Muntz Road.
- Underground cabling.
- Internal access tracks.
- Emergency lighting.
- CCTV system
- Security fencing.
- Subdivision of the property for the purpose of the substation and continued agricultural purposes.
- Clearing of vegetation.
- Road upgrades.
- Temporary facilities.

During construction and operational, the site will be accessed from Muntz Road. This access road entrance will be upgraded for access to the Project.

The construction period of the Project will commence in December 2021 and is expected to last approximately 18 months. Construction hours will be limited to Monday to Friday (7am-6pm), Saturday (8am-1pm). Any construction outside of these normal or agreed working hours, if required, will only be undertaken with prior approval from relevant authorities, or unless in emergency circumstances e.g., to make work safe.

A separate maintenance contractor will be engaged for the operation and decommission phases of the Project.

### **1.3 Environmental Management Strategic Framework**

The environmental management system for construction of the Project is described in the EMS. This EMP is part of the environmental management framework for the Project. Used together, the EMS, EMP, strategies and procedures form management guides that clearly identify required environmental management actions for use by personnel and contractors.

### **1.4 Agency submissions**

Throughout the assessment of SSD-9031 and following the exhibition period of the Avonlie Solar Farm Environmental Impact Statement (EIS) assessed under Part 4 of the *Environment Planning and Assessment Act 1979* (EP&A Act), a Response to Submissions (RTS) report was prepared. Fire and Rescue NSW and the NSW RFS provided a response on the RTS, which is outlined below. The items identified in the RTS were included in an amended EIS and have been included in the Statement of Commitments (SoC) (refer Table 2-1).

## Fire and Rescue NSW

Feedback received by Fire and Rescue NSW, following consideration of the RTS include:

*It is understood that Avonlie Solar Farm Pty Ltd (the Applicant) has submitted a response to submissions and amendment letter in response to comments received as part of the Environmental Impact Statement (EIS) Exhibition. A supporting Amendment Report has been prepared to address these changes in addition to the Response to Submissions report.*

*It is noted that the Applicant has committed to preparing an Emergency Response Plan (ERP) and Fire Safety Study (FSS) as stated on page 43 of the report. FRNSW are satisfied that no further comments or recommendations are required to address the proposed changes.*

A Fire Safety Study (FSS) will be prepared separately (at a later stage) in association with the BESS. The FSS will be prepared in consultation with Fire and Rescue NSW.

## NSW Rural Fire Service

Feedback received by the NSW RFS, following consideration of the RTS include:

*The subject land is not mapped bush fire prone land by Greater Hume Shire Council. However, it is noted that the land contains significant grassland vegetation formations. Further, the NSW RFS is the primary response agency for all structural fires on the land.*

*The NSW RFS recommends the following conditions be included in any approvals granted:*

- 1. A Fire Management Plan (FMP) shall be prepared in consultation with NSW RFS Southern Border Fire Control Centre. The FMP shall include:*
  - 24 hour emergency contact details including alternative telephone contact.*
  - Site infrastructure plan.*
  - Fire fighting water supply plan.*
  - Site access and internal road plan.*
  - Construction of Asset Protection Zones (APZ) and their continued maintenance.*
  - Location of hazards (Physical, Chemical and Electrical) that will impact on fire fighting operations and procedures to manage identified hazards during fire fighting operations.*
  - Such additional matters as required by the NSW RFS District Office (FMP review and updates).*
- 2. The entire solar array development footprint to be managed as an Asset Protection Zone as outlined within section 4.1.3 and Appendix 5 of 'Planning for Bush Fire Protection 2006' and the NSW Rural Fire Service's document 'Standards for Asset Protection Zones'.*
- 3. A 20,000 litre water supply (tank) fitted with a 65mm storz fitting shall be located adjoining the internal property access road within the required APZ.*
- 4. To allow for emergency service personnel to undertake property protection activities, a 10 metre defensible space (APZ) that permits unobstructed vehicle access is to be provided around the perimeter of each of the solar array development sites including associated infrastructure.*

The items raised above are addressed throughout this document.

## **1.5 Consultation**

### **Fire and Rescue NSW**

The draft Emergency Management Plan (V1.1) was supplied to FR NSW in February 2022. The plan was reviewed, and minor changes were discussed via phone conversation with NGH.

The Emergency Management Plan (V1.3) was re-submitted to FR NSW for review, and a response was received on 17 May 2022 (refer Appendix B) indicating FR NSW are satisfied the plan adequately addresses fire risks and controls for the Project.

### **NSW Rural Fire Service**

The draft Emergency Management Plan (V1.1) was supplied to the NSW RFS in February 2022.

The plan was reviewed, and a response received on 1 February 2022 (refer Appendix B). Minor suggestions were made regarding emergency contacts, otherwise it is noted that the plan is standard and relevant to the site. No further action is required from NSW RFS.

## 2. Planning

### 2.1 Legislative and other fire management requirements

#### 2.1.1 Legislation, guidelines and standards

The main legislation, guidelines, specifications and policy documents relevant to this EMP include:

- The *Rural Fires Act 1997*.
- NSW Rural Fire Service Guideline Planning for Bush fire Protection (PBP) 2019 (NSW RFS, 2019).
- NSW Rural Fire Service: A guide to developing a Bush Fire Emergency Management and Evacuation Plan (NSW RFS 2014).
- NSW Department of Planning: Hazardous Industry Planning Advisory Paper No 1, Emergency Planning (January 2011).
- AS 1940-2017: The storage and handling of flammable and combustible liquids.
- AS 4777.1:2016: Grid Connection of Energy Systems via Inverters.
- AS 3959 – 2018: Construction of buildings in bushfire-prone areas.
- National Construction Code (NCC).
- ISSC 3 Guideline for Managing Vegetation Near Power Lines.

### 2.2 Objectives and targets

#### 2.2.1 Objectives

The key objective of the EMP is to identify the fire risks and controls associated with the Project and identify procedures that are to be implemented in case of a fire on site or in the vicinity of the site. Specific objectives include:

- Secure the health, safety and welfare of all personnel on site.
- Contain an emergency.
- Protect property, plant, equipment and the environment.
- Manage the recovery and resumption of normal operations.

To achieve this objective, the proponent will:

- Ensure appropriate controls and procedures are implemented during construction and operations to minimise fire risks.
- Ensure appropriate measures are implemented to address the mitigation measures detailed in the EIS, RTS and CoC.
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 2.1 of this EMP.

## 2.2.2 Targets

The following targets have been established for the management of fire risks and impacts during construction, operation and decommissioning of the Project:

- Ensure full compliance with the relevant legislative requirements.
- Ensure full compliance with relevant requirements of the EIS, RTS and CoC.

## 2.3 Conditions of consent

CoC and SoCs are detailed below in Table 2-1. Conditions 25 of the CoC identifies requirements for operating conditions, including those relating to fire risks. Condition 26 of the CoC requires preparation of an EMP prior to the commencement of construction. The SoCs derive from the EIS; this EMP includes fire related commitments, as identified in Table 2-1 below.

This EMP meets these requirements.

Table 2-1 Conditions of consent and statements of commitment

Item	CoC	Where addressed
Conditions of consent		
25	The Applicant must:	
	a) minimise the fire risks of the development, including managing vegetation fuel loads on-site;	Section 3.3 Section 3.3.8
	b) ensure that the development: <ul style="list-style-type: none"> <li>• includes at least a 10 metre defendable space around the perimeter of the solar array area and battery storage areas that permits unobstructed vehicle access.</li> <li>• manages the defendable space and solar array areas as an Asset Protection Zone.</li> <li>• complies with the relevant asset protection requirements in the RFS's Planning for Bushfire Protection 2006 (or equivalent) and Standards for Asset Protection Zones.</li> <li>• is suitably equipped to respond to any fires on site including provision of a 20,000 litre water supply tank fitted with a 65mm Storz and a FRNSW compatible fitting located adjacent to the internal access road.</li> </ul>	Project design Section 3.3.7 Section 3.3 Section 3.3.11 Section 3.3.11
	c) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site; and	Section 4.1, and Appendix D
	d) notify the relevant local emergency management committee following construction of the development, and prior to commencing operations.	Section 4.1
26	Prior to commencing construction, the Applicant must develop and implement a comprehensive Emergency Plan and detailed emergency procedures for the development, to the satisfaction of FRNSW and the RFS. The Applicant must keep two copies of the	This EMP

Item	CoC	Where addressed
	<p>plan on-site in a prominent position adjacent to the site entry points at all times. The plan must:</p>	
	<p>a) be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning' and RFS's Planning for Bushfire Protection 2019 (or equivalent).</p>	This EMP
	<p>b) identify the fire risks and hazards and detailed measures for the development to prevent or mitigate fires igniting.</p>	Section 3.2, and Section 3.3
	<p>c) list work that should not be carried out during a total fire ban;</p>	Section 3.3.12
	<p>d) include availability of fire suppression equipment, access and water.</p>	Section 3.3.11
	<p>e) include procedures for the storage and maintenance of any flammable materials.</p>	Section 3.3.9
	<p>f) detail access provisions for emergency vehicles and contact details for both a primary and alternative site contact who may be reached 24/7 in the event of an emergency.</p>	Section 4.1, and Section 4.4
	<p>g) include a figure showing site infrastructure, Asset Protection Zone and the fire fighting water supply tank.</p>	Figure 3-1 Figure E-1
	<p>h) include location of hazards (physical, chemical and electrical) that may impact on fire fighting operations and procedures to manage identified hazards during fire fighting operations.</p>	Figure E-1
	<p>i) include details of the location, management and maintenance of the Asset Protection Zone and who is responsible for the maintenance and management of the Asset Protection Zone.</p>	Section 3.3.7, and Section 3.3.8
	<p>j) include bushfire emergency management planning; and</p>	This EMP
	<p>k) include details of the how RFS would be notified, and procedures that would be implemented, in the event that:</p> <ul style="list-style-type: none"> <li>• there is a fire on-site or in the vicinity of the site;</li> <li>• there are any activities on site that would have the potential to ignite surrounding vegetation; or</li> <li>• there are any proposed activities to be carried out during a bushfire danger period.</li> </ul>	Appendix D and Appendix F
Statement of Commitments		
HA1	An Emergency Response Plan, incorporating an Evacuation Plan and Spill and Contamination Response Plan would be developed prior to commissioning the solar farm. A copy of the plan would be kept on site in a prominent position adjacent to the site entry point at all times.	This EMP

Item	CoC	Where addressed
HA2	<p>Dangerous or hazardous materials would be transported, stored and handled in accordance with AS1940-2004: The storage and handling of flammable and combustible liquids, and the ADG Code where relevant. All potential pollutants kept on-site would be stored in accordance with relevant HAZMAT requirements and banded.</p>	<p>Section 3.3.9, and Section 3.3.10</p>
HA7	<p>A Bush Fire Management Plan would be developed and implemented during construction, operation and decommissioning, with input from the RFS, and include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Management of activities with a risk of fire ignition.</li> <li>• Management of fuel loads onsite.</li> <li>• Storage and maintenance of firefighting equipment, including siting and provision of adequate water supplies for bush fire suppression.</li> <li>• The below requirements of Planning for Bush Fire Protection 2006: <ul style="list-style-type: none"> <li>○ Identifying asset protection zones.</li> <li>○ Providing adequate egress/access to the site.</li> <li>○ Emergency evacuation measures.</li> </ul> </li> </ul> <p>Operational procedures relating to mitigation and suppression of bush fire relevant to the solar farm.</p>	<p>This EMP</p>
HA8	<p>A comprehensive Emergency Fire Response Plan would be developed and implemented during construction, operation and decommissioning, and include but not limited to:</p> <ul style="list-style-type: none"> <li>• Address foreseeable on-site and off-site fire events.</li> <li>• Details appropriate risk control measures that would need to be implemented to safely mitigate potential risk to the health and safety of firefighters and other first responders.</li> </ul> <p>Other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site.</p>	<p>This EMP</p>

## 3. Hazards

### 3.1 Existing environment

The Project is within the area of operation of the Riverina Murray LEMC. A Local Emergency Management Plan (EMPLAN) was established for the local government area (NSW Government) in 2019.

The Bushfire Danger Period (BFDP) generally runs from November to March, however it may vary with local conditions (Hume BFMP). The Hume Zone has highly seasonal weather pattern has a temperate climate. The average summer maximum temperature is about 31.1°C with a minimum of 15.7°C. The average winter maximum is 14.0°C with a minimum of 3.4°C. The mean annual rainfall is 609.9 mm (BoM, 2021). Rainfall is relatively evenly spread throughout the year with winter and spring months showing a slight predominance in statistics (LEMC).

The Hume BFMC area has on average 50 fires per year, of which typically very few are considered major fires. The main sources of ignition in the Hume BFMC area are escapes from legal burning off, lightning and equipment use.

The Hume BFMC area is located in the south of New South Wales and includes the Local Government Areas (LGAs) of Albury City and Greater Hume Shire. The Riverina Murray Zone Rural Fire Service (RFS) team has a number of rural fire brigades in addition to Fire and Rescue NSW brigades in the locality including North Albury, Albury Central, Albury Civic, Henty, Holbrook and Culcairn.

The Project site is currently used for grazing and agricultural purposes; therefore, understorey bushfire fuel loads vary from season to season. The primary existing bushfire hazard of site is the planted rows of trees along several paddock fence lines, adjacent grazing land, within the Project area.

Existing transmission lines runs throughout the site (refer to Figure 3-1). A new transmission line will be constructed (via direct buried cable/conduit) running from the North-east of site.

There are multiple associated residences located nearby to the site, however none are located within the Project site. One derelict associated residence is located within the Project site. There are no non-associated sensitive receptors located near the Project site.

No areas of the Project site are identified as Bushfire prone land in the Greater Hume bushfire prone land map (NSW RFS 2011). Minor existing bushfire hazards within the development site are:

- Native derived and exotic grassland.
- Narrow strips of vegetation that run along existing paddock fence lines.
- Scattered remnant paddock trees.
- Remnant patches of woodland vegetation.

The development site is situated within the Murray Catchment and the river is located 13km to the north of the development site. Two (2) farm dams located within the Project site will be retained. The indicative Project layout is provided in Figure 3-1 below.

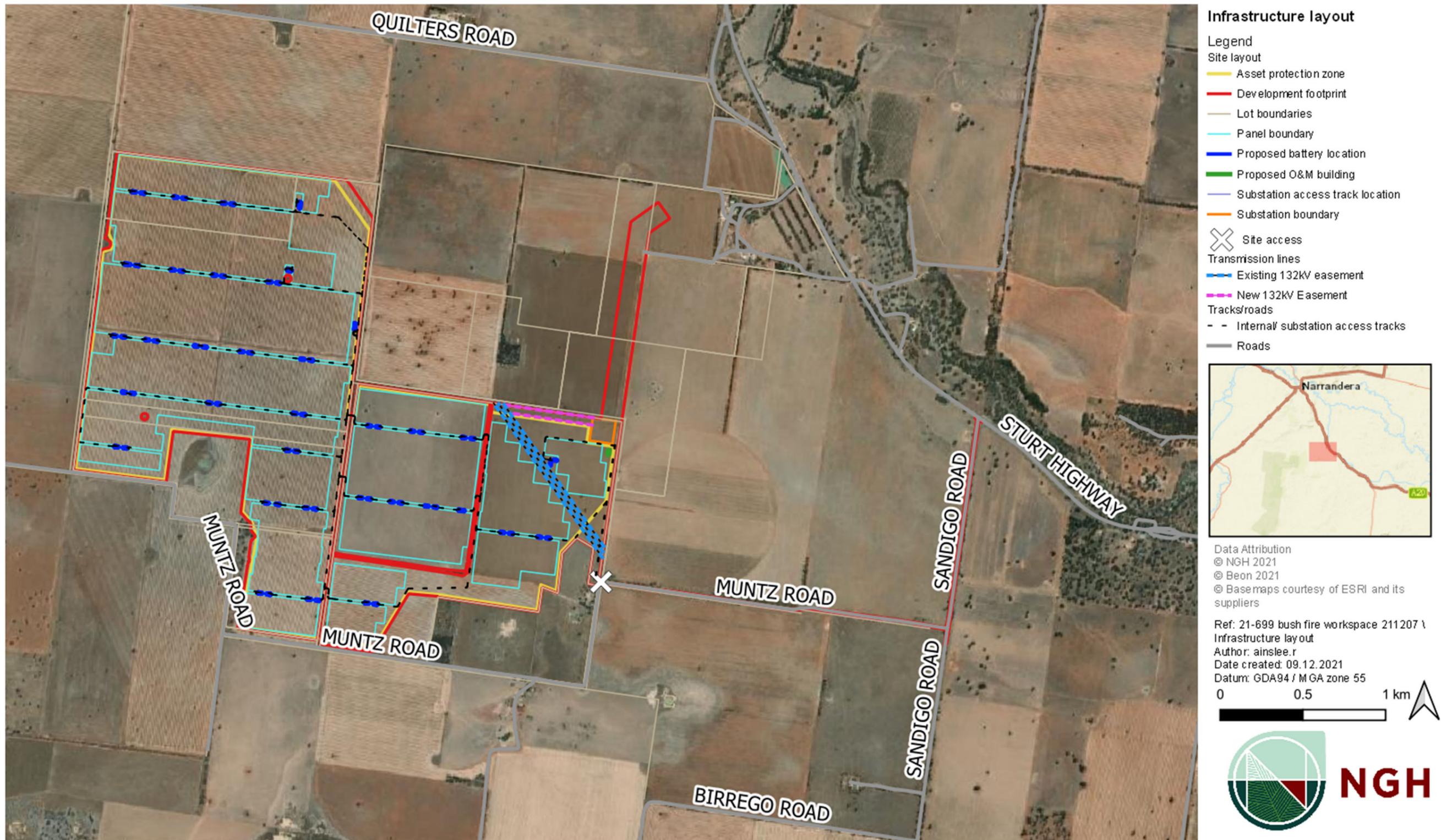


Figure 3-1 Site infrastructure plan

## 3.2 Identification of fire risks

Potential risks of fire at the site include:

- Bushfire and structural fire risk.
- Construction and maintenance i.e., hot works, mowing, use of combustible materials.
- Battery Energy Storage System (not part of current Beon scope).

### 3.2.1 Bushfire and structural fire risk

Potential bushfire (including grass fire) hazards relate to the risk of the Project causing a bushfire and impacting adjoining landowners or the risk of external bushfires affecting the solar farm. This could include:

- Poor maintenance of APZ or internal roads.
- Insufficient fire controls on site.
- Insufficient management of groundcover and fuel loads.
- Insufficient firefighting resources on site.
- Failure to coordinate with and monitor the local RFS.
- Lightning strikes and ember attack.

### 3.2.2 Construction and maintenance

Construction and maintenance hazards relate to the risk of the Project activities causing a fire. This could include:

- Hot works activities such as welding, soldering, grinding and use of a blow torch.
- Sparks and contact ignition from vehicles in long combustible vegetation.
- Smoking and careless disposal of cigarettes.
- Use of petrol-powered tools and equipment.
- Operating plant fitted with power hydraulics on land containing combustible material.
- Electrical faults during testing, commissioning and operation.
- Storage of chemicals and hazardous materials.

### 3.2.3 Battery Energy Storage System

At a future stage, a battery energy storage system (BESS) will be constructed and operated on site. The BESS is outside of the current Beon scope. The BESS will allow energy to be stored on site during periods of low demand and released to the network during periods of higher demand. The BESS will be comprised of lithium-ion batteries (LIB), as they are smaller, lighter, have an expected longer life span and ability to undergo deeper discharges, which reduces the capacity required (Helen Lewis Research 2016). LIBs have a long lifetime compared to other battery technologies, with over 5,000 charge cycles available (Finkel *et al.* 2017). In the event of a battery fire, the BESS (once operational) has the potential to impact other infrastructure on site and pose a risk to emergency services; therefore its function and operation is included in this EMP and the application of bushfire protection measures apply to the BESS.

The future proposed BESS will have a combined capacity of 100MW / 100MW hours (refer to Figure 3-1 for locations).

Before construction of the proposed BESS, a FSS will be undertaken separately, and the Emergency Management Plan updated to reflect the changes in consultation with Fire and Rescue NSW.

### **3.3 Fire risk controls and measures**

#### **3.3.1 Materials and maintenance**

There is low fire risk during construction and decommissioning from the use of materials. The buildings on site will be constructed of low combustibility or non-combustible materials suitable for buildings of class 5 to 8 and 10 in accordance with the National Construction Code (NCC).

All electrical components will be designed and managed to minimise potential for ignition. The solar array, which will occupy the majority of the site, will be largely constructed of glass, silicon, steel and aluminium/steel and will have very low flammability. The site office and staff amenity building will be incorporated into the solar farm, adjacent the substation area, located in the south-eastern corner of the development site.

A Sign in/Sign out register will be kept on site. This container will be clearly sign posted to notify emergency response personnel and provide accountability of onsite personnel during the event of an emergency.

#### **3.3.2 Hot works**

The following control measures must be implemented to mitigate the risk of fire during hot work activities:

- The Beon “Hot Works Permit” will be filled in and approved prior to any hot works (Appendix C)
- A designated fire watch observer will be present during hot work activities. A fire watch observer should be alert for any fire outbreak or hazards, take immediate action to combat any fire outbreak.
- A fire watch observer should not allow hot work to occur outside of designated areas, immediately stop work if a hazardous condition is observed and be aware of the location of the nearest fire extinguisher.
- All combustible materials must be removed or safeguarded (i.e., isolated).
- A suitable fire extinguisher must be located within 10m of the hot work being carried out.
- Signs must be erected at all access points to where hot work is being performed.
- Adequate flameproof material barricades (e.g., welding screens) must be positioned to protect adjacent work areas.
- Where essential hot work needs to occur during a Total Fire Ban, a formal exemption must be obtained from the NSW RFS.

#### **3.3.3 Operating plant on land containing combustible material**

The following control measures must be implemented during severe, extreme or catastrophic fire danger ratings to mitigate the risk of fire during earthwork activities:

- Consideration is given to separating combustible material (i.e., dry grass, bushland) from operating plant through the creation of fire breaks or pre-stripping work areas during favourable weather conditions; where permissible and practicable.
- Where combustible material and an ignition source cannot be separated, and an activity could start a fire, ensure:
  - The combustible material is saturated or doused with water prior to activities commencing.
  - Placement of hot material (such as cut steel) is onto a stripped area and separated from combustible material.
  - A fire watch (i.e., spotter) is ready to respond to extinguish a fire should it start.
  - A suitable water source is close by and accessible to use in response to a fire.
- On days of “Total Fire Ban” or “Harvest Ban”, hot work, trenching and land clearing with machinery must cease: Unless approval has been obtained from the NSW RFS. Hot work, trenching and land clearing with machinery must not recommence until the Total Fire Ban or Harvest Ban is lifted.

All mobile plant and machinery must be serviced as recommended by manufacturers. Unless risk assessed or the driver is in proximity, machinery and mobile plant must be switched off when unattended.

Any mobile plant used for excavation, trenching, or a similar tractor, must be:

- Free from faults and mechanical defects which could cause a fire.
- Fitted with a properly maintained spark arrestor which complies with AS1019:2000 Internal combustion engines – spark emission control devices unless fitted with a turbocharger or an exhaust aspirated air cleaner.
- Be diesel or battery fuelled.

### **3.3.4 Shutdown procedure**

The majority of power during construction will be provided by mobile generators with the exception of the site office, thus a shutdown procedure is not required. In the event of an emergency, all power generating equipment/mobile generators will be shut down prior to evacuating the site.

Electricity generating infrastructure will not be tested using network electricity until commissioning at the commencement of the operation.

This EMP will be updated prior to the commencement of operation and will include a detailed shut down procedure including separate and joint isolation of solar arrays, control room and substation. A communication process between the EPC contractor (construction) and maintenance contractor (operation), and RFS for safe entry to the site will also be detailed in the shutdown procedure.

### **3.3.5 Smoking**

Where smoking is permitted on site, designated smoking areas must be established that are located away from any combustible material and are equipped with appropriate cigarette bins and fire suppression equipment.

### **3.3.6 Bush fire protection guidelines**

In accordance with the PBP Guidelines, the Project could be afforded an acceptable level of protection from bushfires, through a combination of strategies which:

- Minimise the impact of radiant heat and direct flame contact by separating the development from the bushfire hazard.
- Reduce the rate of heat output (intensity) of a bushfire close to a development through control of fuel levels.
- Minimise the vulnerability of buildings to ignition from radiation and ember attack.
- Enable relatively safe access for the public and facilitate fire-fighting operations.
- Provide adequate water supplies for bush fire suppression operations.
- Facilitate the maintenance of APZs, fire trails, access for firefighting and on-site equipment for fire suppression.

The PBP Guidelines provide six key bushfire protection measures for developments:

1. The provision of clear separation of buildings and bush fire hazards, in the form of fuel reduced APZ (comprising inner and outer protection areas and defensible space).
2. Appropriate access standards for residents, fire fighters, emergency service workers and those involved in evacuation.
3. Construction standards and design.
4. Adequate water supply and pressure.
5. Suitable landscaping, to limit fire spreading to a building or asset.
6. Emergency management arrangements for fire protection and/or evacuation.

The following sections of the EMP outline how these six key bushfire protection measures will be addressed for the Project.

### 3.3.7 Asset protection zones

Asset Protection Zones (APZs) will be provided in accordance with Appendix 4 of PBP and the NSW RFS' guideline Standards for Asset Protection Zones (NSW RFS, 2005).

Schedule 3, Condition 25 (b) of the CoC states that during operation:

*The Applicant must:*

*(b) Ensure that the development:*

- *includes at least a 10 metre defensible space around the perimeter of the solar array area and battery storage areas that permits unobstructed vehicle access;*
- *manages the defensible space and solar array areas as an Asset Protection Zone.*
- *complies with the relevant asset protection requirements in the RFS's Planning for Bushfire Protection 2006 (or equivalent) and Standards for Asset Protection Zones.*

An APZ with a minimum width of 10m will be provided around the solar farm buildings, substation, BESS and around the outside perimeter of the solar array. The 10m APZ will be applied to any retained woody vegetation and landscape plantings and around the perimeter of the solar farm. In addition, unencumbered access will be provided to the defensible space. All APZs will be managed as an inner protection area (IPA).

The APZ surrounding the substation, inverter stations and BESS will be constructed and maintained as a gravel surfacing to minimise the risk of fire escaping from the facilities and the risk of external fire affecting the facilities.

Vegetation located under the solar array footprint will be managed to the specifications of an APZ.

### **3.3.8 Fuel hazard management**

According to the PBP guidelines, the APZ should provide a tree canopy cover of less than 15% located greater than 2m from any part of the roofline of a building (or in this case solar infrastructure). Trees should have lower limbs removed up to a height of 2m above the ground. The understorey should be managed (mowed or grazed) to treat all shrubs and grasses on an annual basis in advance of the fire season.

Grass height within the APZ will be maintained at or below 100mm throughout the November to March bushfire season. Where trees or shrubs are present within established APZ for the solar farm or within the solar array area, they will be maintained in accordance with PBP guidelines. Grassland fuel hazard is a function of grass height and cover, with variation according to curing and species fuel characteristics. Grass height outside the APZ, including beneath the solar array, will be maintained at or below 150mm throughout the fire season.

Avonlie Solar Farm will ensure the APZ is maintained to meet the specifications of the NSW RFS' guidelines.

Vegetation below the overhead powerlines at the site will be managed by trimming to ensure clearances to minimise potential ignition risks, in accordance with the ISSC 3 *Guideline for Managing Vegetation Near Power Lines*.

### **3.3.9 Storage of hazardous and flammable materials**

All chemicals and dangerous goods held onsite will be stored in a bunded, ventilated, labelled, lockable storage shed/container near the O&M building, adjacent to the substation. Extinguishers will be provided in the storage shed/container. Landowners and/or contractors may temporarily store small volumes <20L of fuel/chemicals on subcontractor vehicles during works. Individual containers of undiluted chemicals (20L) for vegetation management will be located in the storage shed on bunded pallets.

Chemicals and fuels will be kept in a hazardous storage cabinet on site in the storage shed. The cabinet has an internal bund to capture any leaks. Items stored in the hazardous storage cabinet will comprise, but are not limited to spray paint cans, touch up paints, and oils/grease for machines, methylated spirits and Loctite. A spill kit will be held and maintained adjacent to the storage area.

Batteries for tools and vehicles (light/all-terrain vehicles) and equipment spare parts such as trackers will also be stored in the storage shed.

A diesel fuel pod (up to, but not limited to 20,000 L; 2x 10,000 L fuel pods) will be kept on site during construction. The pods will be double walled or otherwise contain self-bunded fuel cells and equipped with fire extinguishers (x2).

### **3.3.10 Flammable and hazardous materials and decontamination procedure**

Flammable liquids and/or hazardous materials shall be appropriately stored on site to the specifications of the manufacturer's requirements, and a hazardous chemical register maintained. A Safety Data Sheet (SDS) will be readily available for each product. Storage of flammable liquids will be in accordance with AS1940: Flammable Liquids Storage and Handling.

A fire in the storage facility may present a chemical hazard depending on the materials being stored therein.

Substations shall be banded to contain 110% of any hazardous fluids in the event of a major leak or fire. Regular inspections of the banded area shall occur. In the event of an incident, where hazardous materials may be present, Fire & Rescue NSW, the lead agency for hazardous materials incidents will attend once the incident is reported.

A fire in the substation or inverter stations will potential present chemical hazards from the transformer fluid.

In the event of significant contamination, the affected area will be barricaded, and personnel removed from the vicinity. Emergency services will be contacted to provide assistance and a handover given by the Chief Warden where necessary.

As identified in Appendix D, the Chief Warden and the Area Warden are responsible for shutting down plant and/or equipment as necessary and if it is deemed safe to do so.

Decontamination will be implemented as soon as practicable.

Sources of chemical contamination at the site and decontamination actions are detailed in

Table 3-1 below.

Table 3-1 Contamination sources and corrective actions

Chemical	Source	Cause	Consequence	Decontamination
Petrol and diesel	Vehicles, machinery, generators	Mechanical failure Human error during transfer	Fire (if ignited) Injury/fatality Soil/surface water/groundwater contamination	Defendable boundary for firefighting will be established. Use appropriate personal protective equipment (PPE). Spill clean-up using absorbent material. Excavation of contaminated soil and disposal at a licensed waste disposal facility.
Lubricants and oils	Machinery	Human error during transfer	Injury/fatality Soil/surface water/groundwater contamination	Use appropriate PPE. Spill clean-up using absorbent material. Excavation of contaminated soil and disposal at a licensed waste disposal facility.
Pesticides	Machinery	Mechanical failure Human error during transfer	Injury/fatality Soil/surface water/groundwater contamination	Use appropriate PPE. Spill clean-up using absorbent material. Excavation of contaminated soil and disposal at a licensed waste disposal facility.
Solar panels	Solar panels are not deemed a potentially hazardous industry under the State Environmental Planning Policy No 33—Hazardous and Offensive Development (1992 EPI 129).			

In the event of contamination, the affected area will be cordoned off with yellow tape printed with the message “Caution Chemical Hazard”. Incidents will be reported to the NSW RFS District Office immediately. Decontamination actions will be implemented as soon as practicable.

### 3.3.11 Firefighting resources and preparedness

Fire danger warning signs will be located at the entrance to the site compound.

Part of Condition 25 (b) of Schedule 3 states that during operation:

*The Applicant must:*

*(b) Ensure that the development:*

- *is suitably equipped to respond to any fires on site including provision of a 20,000 litre water supply tank fitted with a 65mm Storz fitting and a FRNSW compatible suction connection located adjacent to an internal access road.*

### Water supply

Construction activities have the ability to increase the cause of ignition within the Project site. A minimum 20,000L steel or concrete water storage tank will be installed adjoining the internal access roads near the O&M Building for firefighting and other non-potable water uses. The water level in the tank will be maintained at full capacity at all times and checked monthly. Static water supply location is identified in Figure 3-1.

Water supply requirements shall comply with PBP, which include, but is not limited to the following specifications.

- A connection for firefighting purposes is located within the Inner Protection Area (IPA) or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet.
- Ball valve and pipes are adequate for water flow and are metal.
- A Fire and Rescue NSW compatible fitting/outlet will also be provided.
- Supply pipes from tank to ball valve have the same bore size to ensure flow volume.
- A hardened ground surface for truck access is supplied within 4m.
- Above-ground tanks are manufactured from concrete or metal.
- Unobstructed access can be provided at all times.

Rainwater tanks installed beside site buildings will also include a 65mm Storz fitting and a Fire and Rescue NSW compatible fitting/outlet. Tanks will be made of non-combustible materials (steel or concrete).

### Other Fire Fighting Equipment

Additional equipment on site will include one 13,000L water truck with appropriate firefighting fittings retained on site on a precautionary basis, particularly during any cutting and welding operations. The water truck will be tested monthly throughout the BFDP and moved as work progresses across the site.

Fire extinguishers will be located at each inverter module, fuel/chemical storage facilities and the site office. Equipment lists will be detailed in Work Method Statements.

During construction, fire extinguishers will be installed throughout the worker's compound. Installation and regular testing will be undertaken by Chubb Fire safety and Testing Services. All plant that enters the construction area will also be equipped with a fire extinguisher.

## Access

Safe and efficient access (suitable for firefighting appliances) will be established and maintained over the solar farm site. The APZ and defendable space around the perimeter of the site will be suitable for Category 1 Firefighting Vehicles; these require a trafficable surface with a width of 4m with any curves having a minimum inner turning radius of 6m. The perimeter track will comply with the relevant requirements of Appendix 3 of the PBP guidelines and the NSW RFS Fire Trail Standards (2016), including:

- A minimum carriageway width of 4m with an additional 1m wide strip on each side of the trail clear of bushes and long grass.
- A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches.
- Capacity for passing using reversing bays and/or passing bays every 200m suitable for fire tankers.
- There is suitable access for a Category 1 fire appliance to within 4m of the static water supply.
- The crossfall is not more than 10 degrees.

## Utilities

Electricity service connections, where provided in support of construction and operational phases, shall comply with the PBP. Where practicable, electrical transmission lines for buildings will be via underground methods.

## Other measures

Once the solar farm is operational, suitable fire extinguishers and PPE will be maintained at site buildings. This will include protective clothing and respiratory protection (P2 mask or similar) for the maximum number of staff on site at any period.

Fuel presents the main source of potential contamination onsite. Spill kits will be stationed at relevant areas across the site, including the site office.

Documentation of all firefighting resources will be maintained at the site, including an inspection and maintenance schedule.

Following commissioning of the solar farm, the local RFS and Fire and Rescue brigades will be invited to an information and orientation day covering access, infrastructure, firefighting resources on-site, fire control strategies and risks/hazards at the site. The preparedness of local RFS and Fire and Rescue brigades will be enhanced through site orientation and information events.

The NSW RFS and Fire and Rescue will be provided with a contact point for the solar farm, each time this EMP is reviewed and updated. As a minimum, this will be at the commencement of construction, on commissioning the operational solar farm and just prior to decommissioning.

Figure E-1 identifies the location of emergency equipment on site during the construction period. The location of the emergency equipment will remain the same throughout the construction period. The location of the equipment will be modified for the operations period to be primarily centralised around office and compound buildings. The figure identifying the location of emergency equipment will be updated prior to the commencement of the operations period. Figure E-2 and Figure E-3

Figure E-3 identifies the location of refuge sites in the case of emergency evacuation during construction or operations.

### **3.3.12 Equipment management**

Machinery capable of causing an ignition (refer Section 3.3.2) will not be used during bushfire danger weather, including Total Fire Ban days.

A hot works permit system will be applied to ensure that adequate safety measures are in place. Fire extinguishers and a water cart must be present during all hot works. Where possible hot works will be carried out in specific safe areas (such as the site compound). Where hot work, or any work that has the potential to ignite surrounding vegetation is to be undertaken, the RFS will be notified of the activity.

As identified in Appendix D, the Chief Warden and the Area Warden are responsible for shutting down the plant and/or equipment as necessary and if it is deemed safe to do so.

## 4. Implementation and operation

### 4.1 Structure and responsibility

Prior to operation, the proponent will provide this EMP will be supplied to the relevant LEMC, the Greater Hume LEMC and the NSW Rural Fire Service and Fire and Rescue NSW.

#### 4.1.1 Emergency Management Team

The roles relevant to this EMP and their responsibilities are detailed in Table 4-1. Specific roles and responsibilities during an emergency event are detailed in Appendix D.1.

Table 4-1 EMP roles and responsibilities

Role	Responsibility
Construction / Site Manager	<ul style="list-style-type: none"> <li>• Ensure that the EMP is developed, implemented, reviewed and approved.</li> <li>• Ensure that the hazard identification and risk management activities include emergency situations.</li> <li>• Ensure that the emergency control organisation is established and maintains the requirements associated with this EMP.</li> </ul>
Health, Safety and Environment Manager (HSE)	<ul style="list-style-type: none"> <li>• Emergency Planning Committee member.</li> <li>• Review procedures and organise test evacuations.</li> <li>• Report emergencies as per Incident Management Procedure</li> <li>• Ensure that emergency equipment inspections are completed as per requirements.</li> <li>• Coordinate Emergency Team meetings.</li> <li>• Ensure the Site Emergency Procedure is up to date and communicated adequately to all site personnel.</li> <li>• Plan and facilitate emergency evacuation trials.</li> <li>• Plan and arrange training for Emergency Wardens as required.</li> <li>• Liaise with Chief Emergency Warden and assist as required.</li> <li>• Provide advice to the LEMC as required.</li> <li>• Monitor changes in the work environment which may require the EMP to be updated.</li> </ul>
Chief Warden	<ul style="list-style-type: none"> <li>• The Chief Wardens' primary responsibility is to respond and co-ordinate the Emergency Control Organisation (ECO) in managing any emergency event until Emergency Services arrive.</li> </ul>
Head Count Warden	<ul style="list-style-type: none"> <li>• Ensure copies of sign on sheets are placed in the assembly point boxes each day after pre-start.</li> </ul>

Role	Responsibility
	<ul style="list-style-type: none"> <li>• During an emergency evacuation collect the visitors register and sign on sheets and conduct a head count at the muster point.</li> <li>• Report head count status to the Chief Warden. "All persons accounted for" or "persons unaccounted for" giving details of missing persons.</li> </ul>
ECO	<ul style="list-style-type: none"> <li>• Undertake training and familiarisation required to fulfil allocated role in the event of an emergency.</li> <li>• Fulfil specified duties in the event of an emergency, or an emergency drill.</li> </ul>
Emergency Committee	<ul style="list-style-type: none"> <li>• Develop and maintain EMP and procedures.</li> <li>• Allocate ECO roles.</li> <li>• Arrange training and drills in accordance with EMP requirements.</li> <li>• Meet to discuss EMP and requirements as regularly as is deemed necessary, particularly in light of changes to site, activities or key personnel.</li> <li>• Ensure all records associated with emergency activities are made available and kept in the specified records management system.</li> <li>• Monitor changes in the work environment which may require the EMP to be updated.</li> </ul>
Health, Safety, and Environment (HSE) Advisor	<ul style="list-style-type: none"> <li>• Ensure the EMP is in compliance with this procedure and also <i>AS3745 Planning for Emergencies in Facilities</i>.</li> <li>• Ensure that hazard identification and risk assessment activities include emergency situations.</li> <li>• Provide advice to the LEMC as required.</li> <li>• Monitor changes in the work environment which may require the EMP to be updated.</li> </ul>
Emergency Services	<ul style="list-style-type: none"> <li>• The role of Emergency Services is to provide the supporting resources to assist in the management of the emergency.</li> </ul>
All Staff and Contractors	<ul style="list-style-type: none"> <li>• Perform all duties in a manner which will ensure their own and others' safety.</li> <li>• Comply with the responsibilities assigned under relevant legislation.</li> <li>• Comply with all site safety rules and procedures.</li> <li>• Remain alert at all times to potential fire hazards.</li> <li>• Participate in the identification and elimination of hazards.</li> <li>• Immediately report any dangerous occurrence, injury, hazard or defective equipment.</li> <li>• Maintain knowledge of how to implement safe work</li> </ul>

Role	Responsibility
	<p>practices using the hazard identification, risk assessment and risk control techniques.</p> <ul style="list-style-type: none"> <li>• Maintain knowledge of emergency response procedures, including evacuation protocols and bushfire action statements.</li> <li>• Actively participating in safety meetings and programs, including training.</li> <li>• Actively participating in rehabilitation programs.</li> </ul>

It is noted that individual personnel may preform multiple roles.

## 4.2 Training, awareness and competence

All site personnel including sub-contractors will be instructed of the correct response to an occurrence, or emergency evacuation in accordance with the various procedures outlined in the appendices to this EMP, in particular:

- Emergency contacts.
- Emergency Response Diagram.
- Emergency Evacuation Protocol.
- Bushfire Action Statement.
- Emergency Services Contact Instruction.

The HSE Manager will ensure that the Project personnel are trained to respond appropriately to fire emergencies.

An evacuation drill will be undertaken annually prior to the bushfire season to ensure understanding of roles and procedures.

### 4.2.1 Health, Safety and Environment induction

All employees, contractors and staff working on site will undergo induction training covering all procedures and protocols included in this EMP. The site induction provides an introduction to fire risks and preventative controls as well as emergency procedures. Further details regarding staff induction and training are outlined in the EMS.

### 4.2.2 Pre-start meetings

Staff and contractors will attend pre-commencement meetings at the beginning of significant construction or maintenance work, which will include, but not be limited to:

- Daily fire risk rating and predicted weather, including heat index, maximum predicted temperature and wind speeds.
- Recent fire events on or in the vicinity of the site.
- Specific fire risks relevant to the day's activities.

### **4.3 Emergency communication**

Radio and/or mobile telephone communications will be the main means of communications in the event of an emergency. A detailed communications strategy incorporating use of mobile phones, radio use (type, channels and call-signs) will be established and implemented.

During an emergency, personnel are alerted by the call “Emergency, Emergency, Emergency.”

The Chief Warden responds by activating an alarm, to be installed at the site office to alert site workers and anyone in the vicinity of the facility. Upon sounding the alarm, the Chief Warden will contact emergency services where necessary.

The Chief Warden shall be in control of radio communications during an emergency. In the event of an emergency, persons not involved in the emergency shall maintain radio silence so as to allow radio communications between the Chief Warden and other services/ personnel involved in the emergency to flow uninterrupted.

### **4.4 Site access for emergency services**

Security measures for the site will ensure local emergency services are able to access the site at all times. Local emergency services, including the LEMC, will be consulted to establish the best method of ensuring access.

### **4.5 Termination of emergency**

Where emergency service response is required to respond to a fire the Chief Warden will hand control to the emergency services controller and provide relevant information and support as required.

The Chief Warden will maintain communication with emergency services to determine when an emergency can be deemed to be in control and no longer active. At this point the Chief Ward can have control of the facility returned at the emergency services controller discretion. The Chief Warden can declare the emergency over and inform worker and other relevant stakeholders.

## 5. Measurement and evaluation

### 5.1 System monitoring and maintenance

Table 5-1 Audit summary table

No.	Audit	Requirement	Timing	Responsibility	Recipient
1	Internal review	<p>Verify that the Project is compliant with conditions and that environmental control measures are effective.</p> <p>Audits will be planned, carried out and reported to provide assessment of the Project.</p>	<p>Regular reviews will be conducted during the construction of the Project. Internal audits will verify that the Project is compliant with conditions and that environmental control measures are effective.</p> <p>More frequent auditing may occur if environmental checks indicate major deficiencies with environmental management of the site. Audits will be planned, carried out and reported to provide assessment of the Project.</p>	HSE Manager, Site Manager	EPC contractor
2	Independent environmental audit (Conditions 7 and 7C - 7D of Schedule 4, CoC)	<p>The Applicant must commission and pay the full cost of Independent Environmental Audits of the development.</p> <p>(a) Independent Audits of the development must be conducted and carried out in accordance with the <i>Independent Audit Post Approval Requirements</i> (2020) to the following frequency: (within 3 months of commencing construction; and</p> <p>(b) within 3 months of commencement of operations.</p>	<p>Within 3 months of the commencement of construction.</p> <p>Within 3 months of commencement of operations.</p>	EPC contractor	EPC Contactor
		<p>In accordance with the specific requirements in the <i>Independent Audit Post Approval Requirements</i> (2020), the</p>	<p>The Independent Audit Report is be made publicly within 60 days of</p>	Avonlie Solar Farm	Avonlie Solar Farm

No.	Audit	Requirement	Timing	Responsibility	Recipient
		<p>Applicant must:</p> <ul style="list-style-type: none"> <li>(a) review and respond to each Independent Audit Report prepared under condition 7B of Schedule 4 where notice is given by the Planning Secretary.</li> <li>(b) submit the response to the Planning Secretary; and</li> <li>(c) make each Independent Audit Report, and response to it, publicly available within 60 days of submission to the Planning Secretary, unless otherwise agreed by the Planning Secretary.</li> </ul>	submission to the Planning Secretary.		
		Independent Audit Reports and the Applicant's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection as outlined in the <i>Independent Audit Post Approvals Requirements (2020)</i> unless otherwise agreed by the Planning Secretary.	The Independent Audit Reports and the Applicant's response to audit findings must be submitted to the Planning Secretary within 2 months of undertaking the independent audit site inspection.	Avonlie Solar Farm	Avonlie Solar Farm

## 5.2 EMP monitoring and reporting

Monitoring will be undertaken to ensure the fire management program is achieving the required outcomes. This allows for an adaptive management approach and will enable the identification of issues and any remedial actions or adjustments to the EMP. Reporting requirements are listed in Table 5-2.

Table 5-2 Reporting requirements

Reporting/ monitoring requirement	Timing
Prepare fire reports for ecological burns, accidental ignitions, and bushfire incidents (See Section 5.3).	Immediately post-fire/incident.
Review of fire reports to identify improvements needed and/or rehabilitation action – i.e., implementation of an adaptive management approach.	Immediately post-fire/incident Annually for reporting purposes.
Checklist to ensure all fire mitigation and preparation/response measures and procedures are in place.	Annually – pre- and post- fire season.
Fire Safety System assessment reports.	Biannually.
Vegetation condition monitoring.	Biannually.
Archiving of all fire reports, reviews, fire management actions and monitoring results.	As required.

## 5.3 Fire report for all fire incidents

A fire report should be completed for all fires that occur on or in the vicinity of the site, including all small fires and ignitions, prescribed ecological burn fires and wildfires.

If the incident is managed by the NSW RFS, the fire reports from that agency will be obtained, reviewed and kept on record for monitoring and reporting purposes for the Project.

The RFS will be notified of any fire that occurs on or in the vicinity of the site and a report will be prepared as a record a fire event and provided to the RFS.

A fire report should include details of the following:

- Fire name, ID and location.
- The person / agency responsible for the fire.
- The 'command and control' arrangements / incident team.
- A fire map, including a hand sketch or geographical information systems (GIS) map of the fire perimeter, at 1:25,000 or greater (e.g., 1:10,000) scale over a topographic base map. Fire mapping should include known or suspected ignition point/s, fire perimeter, fire paths, asset damage, islands of unburnt areas, fire control lines, and other information specific to the fire.
- Fire behaviour at different times and locations.

- Fire management/control measures and strategies. This may include a list of equipment, personnel, vehicles utilised and their role (including agencies/equipment/personnel).
- Any unintended fire impacts to ecological values or other assets.
- Follow up action and additional reporting requirements, such as near-miss or injury, extent of the damage, post-fire assessment requirements.

The annual monitoring for the Project will include a summary of all fire incidents. The fire reports and outcome will also be used to inform an adaptive management approach (e.g., improvements in fire mitigation procedures and/or response procedures) and incorporated as part of the document amendment procedure (refer section 5.4).

## 5.4 Document amendment and distribution

This EMP will be reviewed:

- Annually.
- When there is a change of method and/or technology that may require this document to be reviewed and updated.
- Following an emergency drill, response, or significant event to which the EMP is relevant.
- Following significant changes in methodology or technology.

The plan will be amended and redistributed as required by NSW RFS District Office.

All revisions will be identified in the revision status table as indicated in the document control table at the beginning of this EMP.

In accordance with Schedule 3 Condition 26:

*The Applicant must keep two copies of the plan [EMP] on-site in a prominent position adjacent to the site entry points at all times*

As per the condition, and as per the SoC established in response to the submission made by Fire and Rescue NSW, two copies of this EMP will be stored in a prominent 'Emergency Information Cabinet' located in a position directly adjacent to the site's main entry point(s).

## 6. References

Bureau of Meteorology (BoM). (2020). 'Climate statistics for Australian locations: Albury Airport AW [Climate statistics for Australian locations \(bom.gov.au\)](https://www.bom.gov.au/climate/australian-locations/)

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<https://www.nsw.gov.au/rescue-and-emergency-management/regions/riverina-murray>

NSW Rural Fire Service (RFS). (2014). *Development Planning: a guide to developing a Bushfire Emergency Management and Evacuation Plan*.

[https://www.rfs.nsw.gov.au/\\_data/assets/pdf\\_file/0003/29271/DPP1079-Emergency-management-and-evacuation-plan-FORM.pdf](https://www.rfs.nsw.gov.au/_data/assets/pdf_file/0003/29271/DPP1079-Emergency-management-and-evacuation-plan-FORM.pdf)

NSW RFS. (2019). *Planning for Bush fire Protection: a guide for councils, planners, fire authorities and developers*

NSW RFS (2019) *Fire Trail Standards*.

[https://www.rfs.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0009/69552/Fire-Trail-Standards-V1.1.pdf](https://www.rfs.nsw.gov.au/__data/assets/pdf_file/0009/69552/Fire-Trail-Standards-V1.1.pdf)

Hume Zone Bush Fire Management Committee, (2016). Hume Bushfire Risk Management Plan (BFRMP). <https://www.rfs.nsw.gov.au/plan-and-prepare/know-your-risk/bush-fire-risk-management-plans>

## Appendix A Site characteristics

Facility	
Facility type	Solar Farm.
Location	Sandigo NSW (2700).
Size of facility	581ha of solar infrastructure, including battery energy storage, site office, amenity building and transmission line.
Condition of buildings on site	Not applicable. No buildings on site.
Is the facility located in a bushfire prone area	Yes
How it may be affected by a bushfire	<ul style="list-style-type: none"> <li>• Destruction of infrastructure.</li> <li>• Harm to staff and visitors.</li> <li>• Grazing stock on site.</li> </ul>
Are the buildings constructed against bushfire attack?	In accordance with PBP Guidelines, buildings on site will be designed and constructed commensurate with the level of bushfire risk, in accordance with the NCC.
Is an APZ in place	Yes, in accordance with Section 8.3.5 of the PBP guidelines prescribing minimum APZ requirements.
Staff	
Number of staff on site	Up to 320 during peak construction, up to 3-4 during operations.
Number of staff with support needs	Assume at least one.
Location of staff on site	Across the site but concentrated at the site office and amenity building.
Access and assembly	
Site access information	The sites main access is off Muntz Road
Emergency assembly point	Carpark near site office.

The emergency response plan is presented in Figure 3-1 Figure E-1.

# Appendix B Consultation

**From:** [Jason Wall](#)  
**To:** [Sarah Hillis](#)  
**Cc:** [MIA Zone](#); [Deanne Bailey](#)  
**Subject:** RE: 21-699 - Avonlie Solar Farm Vegetation Clearing and Heritage  
**Date:** Tuesday, 1 March 2022 1:54:39 PM

---

Good Afternoon Sarah,  
Apologies for taking so long to get back to you, Everything in the Emergency Management plan looks pretty much standard and all relevant to the site.  
In Appendix F the following changes are suggested.

## Appendix A Emergency contacts

Organisation	Office/contact	Phone number
Fire and Rescue NSW	Narrandera Fire Station	+61 2 6959 1380
NSW Rural Fire Service	Bushfire information line	1800 679 737 1800 NSW RFS
<b>NSW RFS MIA District Office</b>	<b>General Enquiries only</b>	<b>02 6966 7800</b>
NSW Rural Fire Service	Website	<a href="http://www.rfs.nsw.gov.au">www.rfs.nsw.gov.au</a>
Emergency services	Ambulance <b>Fire</b>	000 <b>000</b>
Narrandera Local Emergency Management Committee	Local Emergency Management Officer	Fred Hammer 02 6959 5510

If you have any other enquiries please do not hesitate to contact the office, as we are only too happy to assist.

Regards

Jason



**Inspector Jason Wall** | District CoOrdinator | MIA District  
**NSW RURAL FIRE SERVICE**  
MIA District 200 Wakaden St Griffith NSW 2680  
**P** 02 6966 7800 **F** 02 6966 7878 **M** 0429 934 214 **E** [jason.wall@rfs.nsw.gov.au](mailto:jason.wall@rfs.nsw.gov.au)  
[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au) | [www.facebook.com/nswrfs](https://www.facebook.com/nswrfs) | [www.twitter.com/nswrfs](https://www.twitter.com/nswrfs)  
**PREPARE. ACT. SURVIVE.**



File Ref. No: FRN18/132 BFS22/2044 8000021097  
TRIM Doc. No: D22/38422  
Contact: Senior Firefighter Michael Millar

17 May 2022

Andy Wang  
Iberdrola Australia Limited  
Level 17, 56 Pitt Street  
Sydney, NSW 200, Australia

Dear Andy Wang,

**Re: Avonlie Solar Farm – Emergency Management Plan (EMP) (SSD-9031-PA-26)**

Fire and Rescue NSW (FRNSW) acknowledge correspondence received on 11 May 2022, requesting review of the submitted Emergency Management Plan (EMP) for Avonlie Solar Farm – (SSD-9031-PA-26). FRNSW have reviewed the Avonlie Solar Farm – Emergency Management Plan V1.3 document.

FRNSW are **satisfied** that the EMP for Avonlie Solar Farm adequately identifies fire risks and controls for the development and all procedures that will be implemented if a fire occurs on site or in the vicinity of the site. The EMP applies to the construction, operational and decommissioning phases of the Project.

For further information please contact the Operational Liaison and Special Hazards Unit, referencing FRNSW file number BFS22/2044. Please ensure that all correspondence in relation to this matter is submitted electronically to [firesafety@fire.nsw.gov.au](mailto:firesafety@fire.nsw.gov.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read "John Hawes".

Superintendent John Hawes  
Manager  
Operational Liaison and Special Hazards Unit

Cc: [andy.wang@infigenenergy.com](mailto:andy.wang@infigenenergy.com)

# Appendix C Hot Works Permit

# Hot Works Permit

Part A - Work Details	Refer to notes on page two before completion of the permit		
Name of permit requestor		Business name	
Contact number		Date of work	
Location of work		Permit Number	
Description of work			
Reason for hot work			
Likely ignition source type(s):	<input type="checkbox"/> Flame (welding, soldering, brazing, etc)	<input type="checkbox"/> Spark or slag (grinding, cutting, friction tools, welding, etc)	
	<input type="checkbox"/> Hot Object (metal surface, plate, etc)	<input type="checkbox"/> Other:	
Permit validation period	From Date: / / Time: ____am/pm	To Date: / /Time: ____am/pm	
Authorised Representative	Name Position		

Part B – Hot Work Permit					
<input type="checkbox"/>	<input type="checkbox"/>	As per the method of hot work and location described in <i>Part A</i> , identify control requirements in the relevant parts below.			
<input type="checkbox"/>	<input type="checkbox"/>	Fire extinguishers supplied by the workgroup / contractor are to be located immediately adjacent to the hot work area and within 10m (building / fixed location fire extinguishers are not to be relied upon)			
<input type="checkbox"/>	<input type="checkbox"/>	Catch mats or boards are to be positioned over grid-mesh, flooring, grates to catch sparks or slag			
<input type="checkbox"/>	<input type="checkbox"/>	Combustible and flammable materials or fuel sources are required to be cleared from the area (consider a 15m area around the hot work where practicable and include surfaces below & above the work area)			
<input type="checkbox"/>	<input type="checkbox"/>	Drains, cable racks, electrical cables and other heat/fire sensitive items are to be covered			
<input type="checkbox"/>		<b>Mandatory Fire watch must be conducted periodically during works and for a time period of at least one (1) hour after hot works are complete.</b> Fire Watcher is required to watch the area during and post work to monitor fire risk, sparks, slag, hot objects <b>Refer to Part E for Fire Watcher sign off</b>			
Specific Hot Work / Ignition Controls		Yes	NA	If Yes, Include Additional Control Details to be Used	
The hot work is to be undertaken on or adjacent to plant that will require an isolation (such as services, pipes, tanks, pressure vessels)		<input type="checkbox"/>	<input type="checkbox"/>		
The work area will require specific cleaning, purging, ventilating or pre-work atmospheric monitoring (due to flammable/explosive vapours, dusts, liquids or solid residues in the work area / location)		<input type="checkbox"/>	<input type="checkbox"/>		
The work area will require pre-work cleaning, stripping, surface preparation, or atmospheric monitoring during works (as a result of surfaces / coatings that may create harmful emissions when heated or cut)		<input type="checkbox"/>	<input type="checkbox"/>		
The nature of the work requires specific respiratory protection to be worn		<input type="checkbox"/>	<input type="checkbox"/>		
The nature of the work requires specific controls to be implemented to protect gas leads or other sensitive plant items involved in the work		<input type="checkbox"/>	<input type="checkbox"/>		
The hot work involves arc-welding whereby specific controls relating to ensuring electrical safety will be required		<input type="checkbox"/>	<input type="checkbox"/>		
Additional Hot Work Controls within Confined Spaces				Yes	NA
Locate equipment outside the space where practicable (such as gas cylinders, hoses, etc unless involved with respiratory devices)				<input type="checkbox"/>	<input type="checkbox"/>
Extraction fan inlet is to be located as close as practicable to the contamination source				<input type="checkbox"/>	<input type="checkbox"/>
Contaminants are to be expelled from the space (so that they cannot be recirculated and will not harm other workers)				<input type="checkbox"/>	<input type="checkbox"/>

# Hot Works Permit

As arc-welding activities are to be suspended for substantial periods, power sources will need to be de-energised, electrodes removed from holders and holders placed so that accidental contact or arcing cannot occur	<input type="checkbox"/>	<input type="checkbox"/>
As gas welding/cutting activities are to be suspended for substantial periods, torch and cylinder valves are to be closed with the torch and hose connections removed from the space and depressurised	<input type="checkbox"/>	<input type="checkbox"/>

## Part C - Permit Request

This acknowledgement signifies a formal request to commence hot works. As the person requesting this permit, I hereby certify that:

- I am competent to coordinate this hot work in accordance with the Risk Assessment (JSEA) & Hot Work Permit details;
- I shall undertake to implement all planned and necessary controls to ensure safe hot work methods; and
- I shall monitor the hot work hazards and control methods throughout the hot work.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

## Part D – Permit Approval and Issue

This Permit Issuer (PI) Authorisation signifies that the planning component of the Risk Assessment (JSEA) & Hot Work Permit has been completed, and that hot work is authorised to commence in accordance with the Permit Request.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Permit valid to: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

## Part E – Fire Watch

A fire watch has been undertaken to confirm that no fire risk exists at the work site or to surrounding areas (including to vegetation or other materials or equipment).

**Fire watch must be conducted periodically during hot works and for a minimum of 1 hour after hot works are completed.**

Fire watch start time \_\_\_\_\_ Fire watch finish time \_\_\_\_\_

Name of fire watcher: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

## Part F – Permit Cancellation and Closure

The hot work permit is either no longer required or the hot works are complete. Fire watcher has confirmed there is no risk of fire starting. The permit is now cancelled and is to be filed on the Permit register.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Notes:**

Permit number to be transcribed from the permit register

This hot works permit is valid for the time specified on the permit and must be:

- Completed by the person performing the work prior to commencement of any hot work
- Used in conjunction with a JSEA
- Checked by the Permit issuer prior to work commencing works
- Carried and produced when requested
- Provided to the Permit Issuer on completion of work for permit close out and filing

## Appendix D Bushfire Action Statement

Stage	Trigger	Action
Preparation	Prior to bushfire season	Ensure all personnel are trained in emergency procedures and roles and responsibilities.
	At start of bushfire season	Ensure all fire control measures are in place. Ensure buildings are prepared to limit impact of a bushfire.
Response	Bushfire approaches	Alert emergency services. Initiate evacuation protocol (Refer Appendix E).
	Fire front impacts site	Remain at refuge.
	Implement shutdown procedure	Shut down and isolate the solar farm from the substation. Isolate BESS and remotely monitor.
Recovery	After fire front has passed	Check with emergency services that it is safe to return to site before doing so. Complete post-fire report (Refer Sections 5.2 and 5.3).

### D.1 Roles and responsibilities

Position	Area of responsibility	Name and Mobile phone number
Chief Warden	<p>The Chief Warden's primary responsibility is to respond and co-ordinate the Emergency Control Organisation (ECO) as a whole in managing any emergency event until Emergency Services arrive.</p> <p><b>Initial actions of the Chief Warden</b></p> <ul style="list-style-type: none"> <li>• Proceed to scene/ area.</li> <li>• Evaluate the extent of the emergency.</li> <li>• Activate any alarms as required and request Emergency Services.</li> <li>• If safe to do so respond to any fire or spill and attempt to prevent escalation of incident.</li> <li>• Coordinate area wardens to initiate evacuation and area sweeps.</li> <li>• Shut down plant / equipment as necessary and if safe to do so.</li> </ul>	<p>Mark Whitehouse 0467 551 855</p> <p>Dennis Pana 0499 555 405</p>

Position	Area of responsibility	Name and Mobile phone number
	<p><b>Ongoing actions of the Chief Warden</b></p> <ul style="list-style-type: none"> <li>• Continue to coordinate and manage emergency until Emergency Services arrive on site.</li> <li>• Ensure the flow of up-to-date information is maintained at regular intervals with Area Warden.</li> <li>• Liaise with emergency services.</li> </ul> <p><b>Concluding actions of the Chief Warden</b></p> <ul style="list-style-type: none"> <li>• Prior to standing down ensure all ongoing and outstanding matters and obligations are completed.</li> <li>• Facilitate post incident review or investigation process.</li> <li>• Complete the log of events for the Project/Operations Manager and the Local Emergency Management Committee (LEMC) to review the effectiveness of the emergency.</li> </ul>	
Area Warden	<p><b>Initial actions of the Area Warden</b></p> <ul style="list-style-type: none"> <li>• Proceed to scene / area.</li> <li>• Evaluate the extent of the emergency.</li> <li>• If safe to do so respond to any fire or spill and attempt to prevent escalation of incident.</li> <li>• Shut down plant/ equipment as necessary and if safe to do so.</li> <li>• Activate any alarms if required.</li> <li>• Evacuate personnel and casualties (where required).</li> <li>• Provide for first aid/medical assistance and/or coordinate first aiders within team.</li> <li>• Notify and provide a situation report to the Chief Warden providing a description of the incident and providing details of: <ul style="list-style-type: none"> <li>○ Threats, injuries, fatalities.</li> <li>○ Environmental threat and damage.</li> <li>○ Equipment threat and damage.</li> <li>○ Actions taken.</li> <li>○ Any further support required at site.</li> </ul> </li> <li>• Assist the Chief Warden in appropriate plan of action to contain the immediate situation.</li> </ul> <p><b>Ongoing actions of the Area Warden</b></p>	Rebecca Coster 0499 320 170

Position	Area of responsibility	Name and Mobile phone number
	<ul style="list-style-type: none"> <li>• Continue to review and respond to emergency until the Chief Warden arrives on site to manage the emergency.</li> <li>• Ensure the flow of up-to-date information is maintained at regular intervals to the Chief Warden.</li> <li>• Assist emergency services at the scene.</li> <li>• Account for all personnel within their area (including contractors and visitors) at muster point.</li> <li>• Control access to the emergency site and implement restrictions on normal operations as appropriate until the Chief Warden arrives on site to manage the emergency.</li> </ul> <p><b>Concluding actions of the Area Warden</b></p> <ul style="list-style-type: none"> <li>• Prior to standing down ensure all ongoing and outstanding matters and obligations are completed.</li> </ul>	
Emergency Log Keeper	<p><b>Ongoing actions of the Emergency Log Keeper</b></p> <ul style="list-style-type: none"> <li>• Keep a timeline record of events / communications during an emergency event. Continually review the incident log for accuracy and if recording by electronic means, ensure that the data being entered is saved or backed up.</li> <li>• As requested, copy or print off log sheets for interested parties and mark the log sheet as an uncontrolled copy.</li> <li>• As this recording role is critical – The log keeper must not get involved in any activities other than on this checklist.</li> <li>• Clarify any confusion of events/actions as soon as apparent.</li> </ul> <p><b>Stand Down Actions of the Emergency Log Keeper</b></p> <ul style="list-style-type: none"> <li>• Under the direction of the Chief Warden, help coordinate post incident review or investigation process.</li> <li>• Complete the log of events for the Chief Warden.</li> <li>• On advice from the Chief Warden, complete all necessary log keeping and administration requirements.</li> <li>• Participate in the debrief.</li> <li>• Ensure all information received is filed correctly.</li> </ul>	<p>Mark Whitehouse 0467 551 855</p> <p>Dennis Pana 0499 555 405</p>

Position	Area of responsibility	Name and Mobile phone number
Head Count Warden	<ul style="list-style-type: none"> <li>Ensure copies of sign on sheets are placed in the assembly point boxes each day after pre-start.</li> <li>During an emergency evacuation collect the visitors register and sign on sheets and conduct a head count at the muster point.</li> <li>Report head count status to the Chief Warden: "all persons accounted for" or "persons unaccounted for" giving details of missing persons.</li> </ul>	Rebecca Coster 0499 320 170
Emergency Control Organisation	<ul style="list-style-type: none"> <li>Undertake training and familiarisation required to fulfil allocated role in the event of an emergency.</li> <li>Fulfil specified duties in the event of an emergency, or an emergency drill.</li> </ul>	To be confirmed
First Aid Personnel	<p><b>Initial actions of First Aid Personnel</b></p> <p>Under the direction of the Chief Warden or Area Warden:</p> <ul style="list-style-type: none"> <li>Proceed to scene with relevant Area Warden.</li> <li>Evaluate the extent of any injuries.</li> <li>Administer first aid (first aid personnel only, and only where safe to do so).</li> <li>Assess if injured personnel can be evacuated safely.</li> </ul> <p><b>Ongoing actions of First Aid Personnel</b></p> <ul style="list-style-type: none"> <li>Evacuate and attend any injuries at muster points.</li> <li>Notify Emergency Services of any remaining personnel, and location, within building.</li> <li>Assist Emergency Services onsite where required with ongoing treatment of injuries.</li> <li>Provide details to Emergency Services of suspected injuries.</li> </ul>	<p>Mark Whitehouse 0467 551 855</p> <p>Dennis Pana 0499 555 405</p> <p>Rebecca Coster 0499 320 170</p>
Emergency Services	<ul style="list-style-type: none"> <li>The role of the Emergency Services is to provide the supporting resources to assist in the management of the emergency.</li> </ul>	<p>Triple Zero (000)</p> <p>Local Emergency Management Officer</p> <p>Fred Hammer 02 6959 5510</p>

# Appendix E Evacuation protocol

In case of a fire emergency on site, the primary plan of action is evacuation. Details and protocol are described below.

## E.1 Designated assembly points

In the event of a bushfire, personnel on site are to proceed to the designated assembly point on site. The designated assembly point is located in the carpark by the site office building in the south-east of the site, adjacent the substation (Figure E-1).

Once all staff have assembled at the designated assembly points, transport to the off-site refuge site will commence. This involves exiting the Project via vehicle.

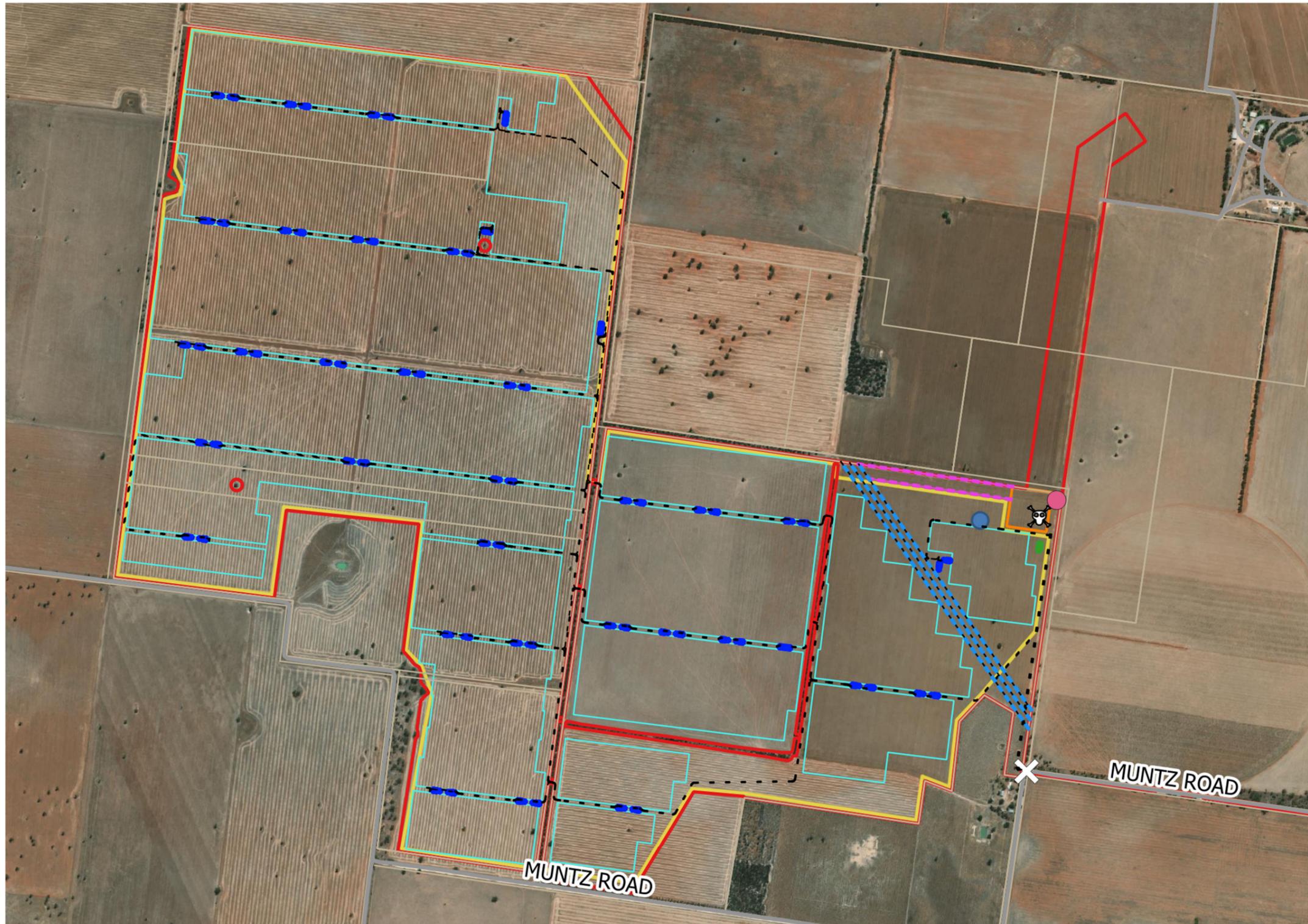
## E.2 Transport plan

Private vehicles, coaches and mini-buses (as per the Traffic Management Plan) will be used to transport personnel to the refuge site. All personnel will evacuate site via the main site access point and be transported to the primary refuge site (Figure E-2) or alternate refuge site (Figure E-3).

The refuge site and access routes are described in section 5.

### E.3 Offsite refuge

Refuge site	Primary refuge site	Alternate refuge site
Location	Marie Bashir Park Cnr Cadell Street and Twynam Street, Narrandera	Boree Creek Rural Fire Station
Is the refuge in an area away from effects of a bushfire	Yes	Yes
Are amenities available	Yes	Yes
Can the refuge accommodate the number of occupants?	Yes	Yes
Are there any personnel with support needs requiring a facility to support them?	Potentially	Potentially
Transportation to refuge	Primary refuge site	Alternate refuge site
Route from site to refuge site	Site egress – Muntz Road -Head north-east on Muntz Rd towards Sandigo Rd. -Turn right onto Sandigo Rd -Continue onto Orara St -Turn right onto Richmond St	Site egress – Muntz Road. -Travel east to Sandigo Road. -- Turn North. At intersection with Stuart Highway turn North-west. Travel North. -Turn right onto onto Cadell St/Newell Hwy/A39. -Turn left onto Stanley St and -Left again at Dalgetty St.
Distance/time from site to refuge site	24km, 20 minute drive	25km, 22 minute drive
Is the route to the refuge through or near bushfire risk areas?	The route is through patches of land mapped as bushfire prone land. Should the route be compromised, the Greater Hume Local Emergency Management Committee is placed to organised detours for access into the Narrandera town centre, as well as other emergency management procedures for the area.	
Is transport provided on site for all personnel?	Private vehicles will be used.	
Are there any personnel with support needs requiring specific transport?	Potentially. Any personnel with specific transport needs will utilise the same transport (i.e., a specialised vehicle) to depart the site.	



### Emergency Response Plan

#### Legend

-  Site access
-  Muster Point
-  Chemicals Storage
-  Static Water Supply
-  Internal/ substation access tracks
-  Roads
-  Asset protection zone
-  Development footprint
-  Lot boundaries
-  Panel boundary
-  BESS
-  O&M building
-  Substation boundary



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Ref: 21-699 bush fire workspace 211207 \\  
 Emergency Plan  
 Author: sarah.h  
 Date created: 10.03.2022  
 Datum: GDA94 / MGA zone 55

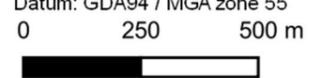
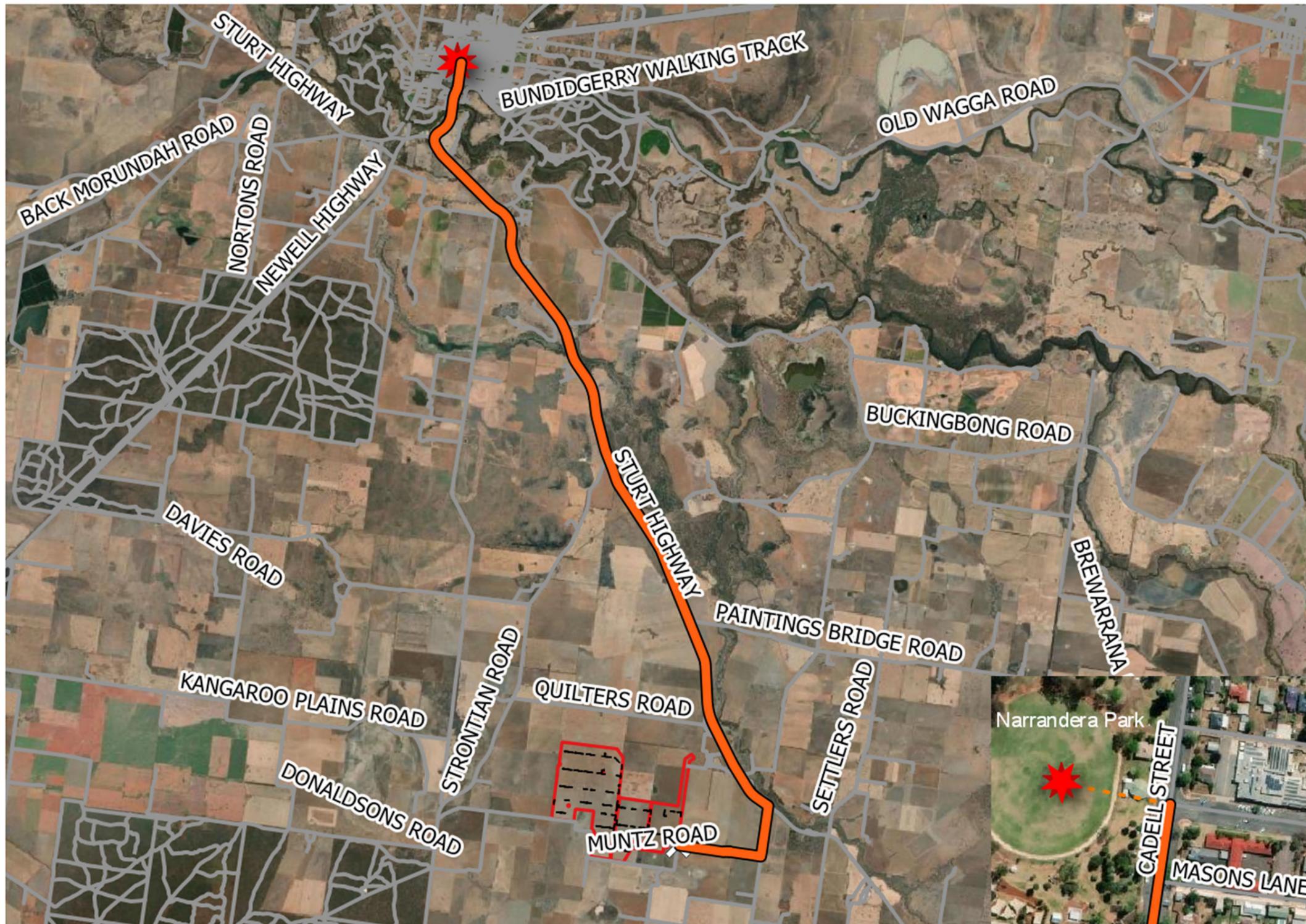


Figure E-1 Emergency response plan



**Primary transport route**

Legend

Emergency transport route  
 Emergency transport route

 Emergency muster point

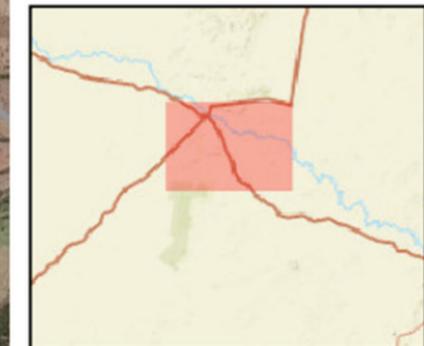
Access tracks

- - Internal/ substation access tracks

 Site access

 Roads

 Development footprint



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Ref: 21-699 bush fire workspace 211207 \\  
 Emergency Plan

Author: ainslee.r  
 Date created: 09.12.2021  
 Datum: GDA94 / MGA zone 55

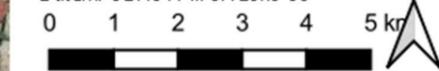
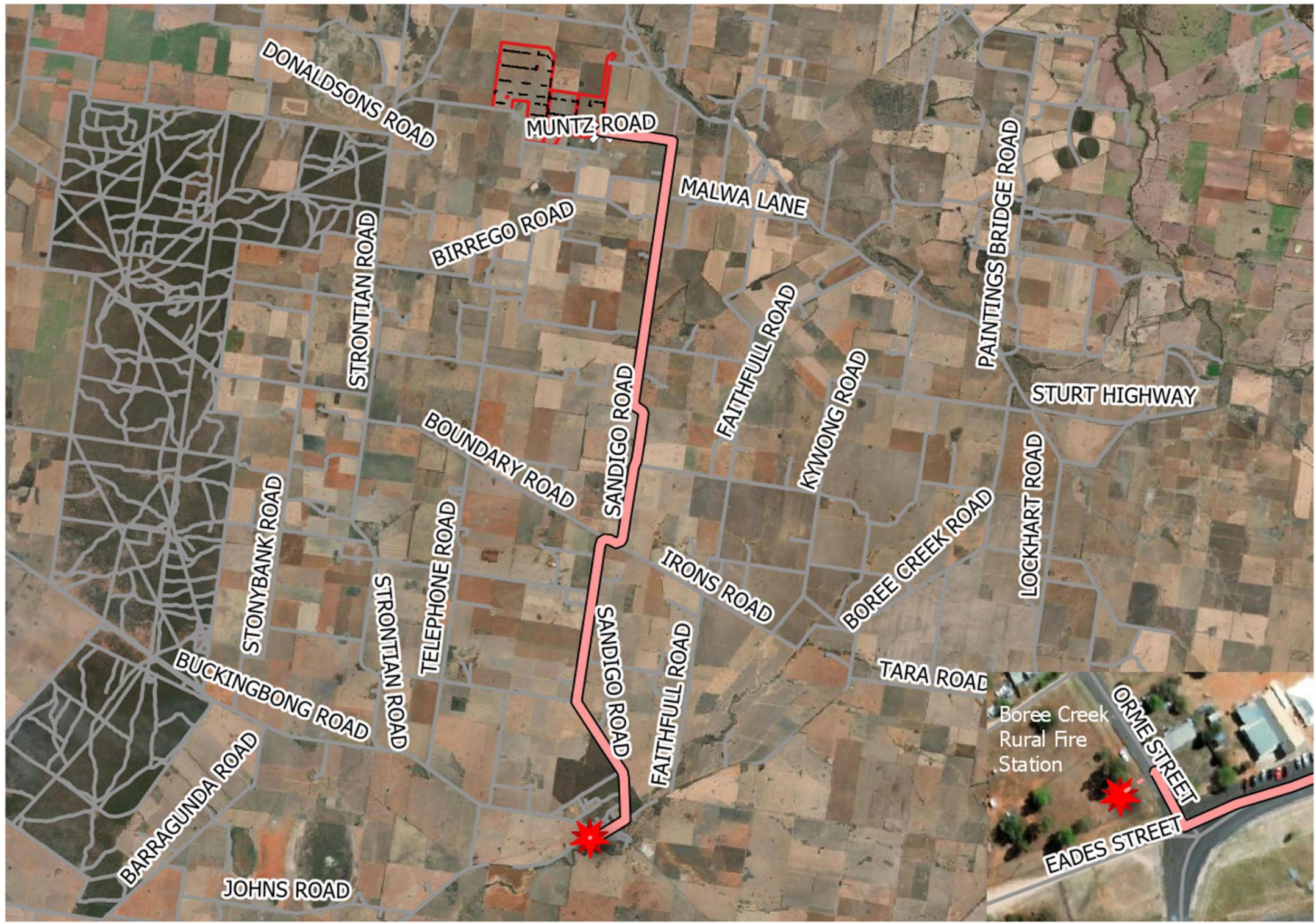


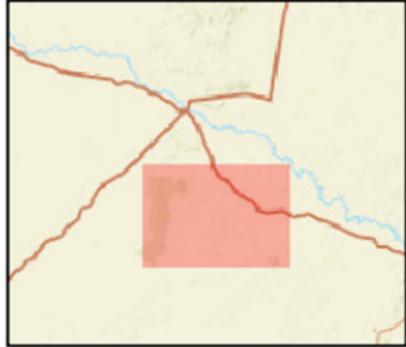
Figure E-2 Primary transport and refuge site



**Alternate transport route**

Legend

- Alternate emergency route
- Alternate muster point
- Alternate emergency route
- Access tracks
- Internal/ substation access track
- Site access
- Roads
- Development footprint



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Ref: 21-699 bush fire workspace 211207 \\  
 Alternat transport route  
 Author: ainslee.r  
 Date created: 09.12.2021  
 Datum: GDA94 / MGA zone 55  
 0 0.5 1 1.5 2 2.5 km

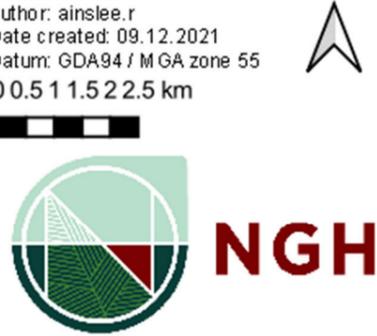
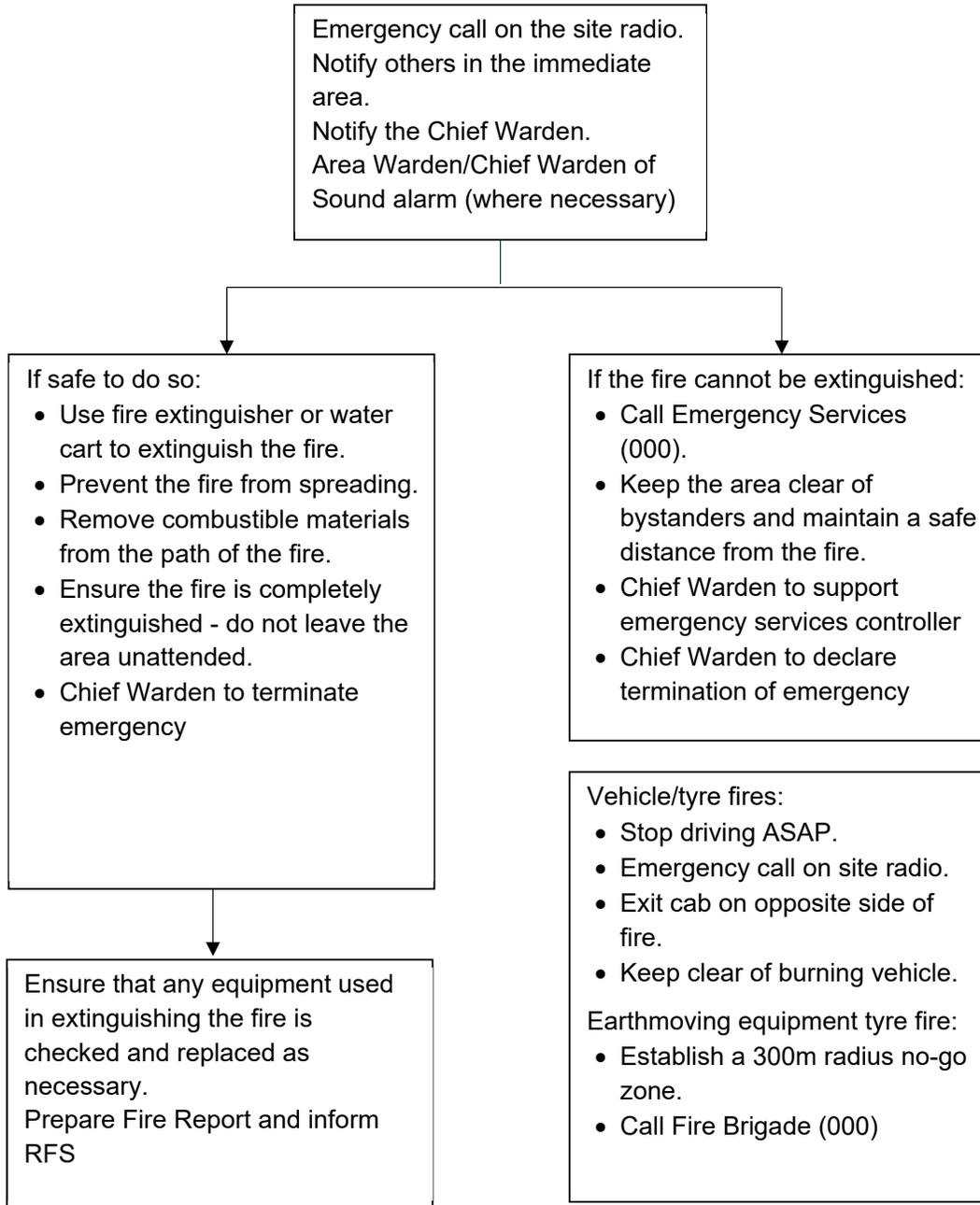


Figure E-3 Alternate transport and refuge site

# Appendix F Emergency Response – Fire Emergency Procedure

In case of fire on site, follow the steps below:



## Appendix G Emergency contacts

Organisation	Office/contact	Phone number
Fire and Rescue NSW	Narrandera Fire Station	+61 2 6959 1380
NSW Rural Fire Service  NSW RFS MIA District Office	Bushfire information line  General enquiries only	1800 679 737 1800 NSW RFS 02 6966 7800
NSW Rural Fire Service	Website	<a href="http://www.rfs.nsw.gov.au">www.rfs.nsw.gov.au</a>
Emergency services	Ambulance and Fire	000
Narrandera Local Emergency Management Committee	Local Emergency Management Officer	Fred Hammer 02 6959 5510
Avonlie Solar Farm		
Title/Role	Office/contact	Phone number
Construction Manager, Chief Warden and First Aid	Mark Whitehouse	0467 551 855
Site Manager (2IC), Deputy Chief Warden and First Aid	Dennis Pana	0499 555 405
HSE Advisor, Warden and First Aid	Rebecca Coster	0499 320 170

**Appendix H Hazardous Industry Planning Advisory  
Paper No. 1, 'Emergency Planning' –  
Consistency Checklist**

NSW Department of Planning –  
 Hazardous Industry Planning Advisory Paper No. 1, ‘Emergency Planning’ (Jan 2011)  
 – Consistency Checklist

Section 4 Writing the Emergency Plan	Where Section 4 requirements addressed in EMP
4.1 Introduction	Noted
4.2 Plan Title and Authority	Section 1 and Appendix A
4.3 Table of Contents	Refer - Table of Contents
4.4 Introduction and Definition of an Emergency	Section 1.1
4.5 Aim and Objectives of the Plan	Section 2.2
4.6 Roles of Agencies, Groups, Industry and the Community	Section 1.5, Section 3.2.11 Other measures
4.7 Hazards	Section 3.1 to 3.2
4.7.1 Details of Hazardous Materials	Section 3.3.9 to 3.3.10
4.7.2 Details of Other Hazards	Section 3.2
4.8 Types and Levels of Emergency	Refer Appendix F
4.9 Emergency Functions and Organisational Structure	Refer Section 4.1.1
4.9.1 Facility Emergency Control	Section 3.3
4.9.2 Identification	Section 3.3.11
4.10 Emergency Procedures	Appendix F
4.11 Emergency Resources	Section 3.3.11
4.11.1 Facility Emergency Control Centre	Not applicable to this scale of facility/development. Site office will be central location for alarm and other communication.
4.11.2 Emergency Equipment	Section 3.3.11
4.11.3 Emergency Alarm System	Section 4.3 (updated) Appendix D.1
4.12 Activation of the Emergency Plan	Section 4.1, Section 4.3 (updated)
4.12.1 Initial Advice to the Emergency Services	Section and Appendix F
4.12.2 Environmental Emergencies	3.3.11 Other measures
4.12.3 Special Cases	Not in scope of this EMP
4.13 Reporting of an Emergency	Section 5.3 Appendix F
4.14 Termination of an Emergency	Section 4.5 (updated)
4.15 Management of the Plan	Section 5.4
4.16 Supporting Information	Appendix E
4.16.1 Emergency Services Information Package	Not considered to be a large enough facility to trigger Hazardous Industry, hence ESIP not required. Approved battery capacity is not of sufficient size to warrant a Preliminary Hazard Assessment.
4.16.2 Safety, Health and Environmental Information	Section 4
4.16.3 Location Maps	Appendix E
4.16.4 Site Layout Plans	Appendix E
4.16.5 Emergency Contact Numbers	Appendix G
4.16.6 Other Supporting Information	Appendix H
4.17 Glossary of Terms and Abbreviations	Refer - Acronyms and abbreviations