

## WAL-GRS-HS-PLN-0011- Fire Management Plan

### Fire Management Plan

Project: **WALLA WALLA SOLAR FARM**

<b>AUTHOR</b>	<b>APPROVED</b>	<b>REV.</b>	<b>DATE</b>	<b>REASON OF ISSUE</b>
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*This FMP was developed in consultation with the RFS and Fire & Rescue NSW:*

## Policy Control

The latest approved version of this Policy will be available for all Project personnel on the **Electronic Document Management System 'AIMS'**.

### Uncontrolled Copies

All uncontrolled hard copy documents will be up to date at issue and issued to outside organizations, customers, etc., upon request and approval by a Workplace Manager. Such uncontrolled documents will be clearly marked "Uncontrolled Copy When Printed" and will not be subject to an update.

### Review & distribution

This document will be reviewed according to the section Document Amendment and distribution of this document.

The Integrated Management System - Systems Representative on the Project is responsible for the controlled internal distribution of this document and changes. Personnel have access to the latest revision of the Policy through AIMS.

### Disclosure

Title roles and responsibilities mentioned within this Policy are not intended to be formal designation. Position titles, roles and authority can be subject to change. The titles listed within this Policy are a conventional depiction of the role's function.

### Revision History

As per section in this document Revision status

*This document is an 'uncontrolled copy when printed'.  
Controlled copies are stored on the document management database.*

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### Note:

This Policy is subject to modification and adaptation to the meet the specific Project Scope Requirements or Contract Specifications. The content listed within provides the general processes and procedures undertaken by GRANSOLAR at corporate level.

The content of this document is subject to each Workplace contractual and Client requirements.

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## ACRONYMS AND ABBREVIATIONS

APZ	Asset Protection Zone
BFMC	Bushfire Management Committee
BFDP	Bushfire danger period
BFRMP	Bushfire Risk Management Plan
CoC	Conditions of Consent
CEMP	Construction Environmental Management Plan
DPIE	(NSW) Department of Planning, Industry and Environment
ECO	Emergency Control Organisation
EMS	Environmental Management Strategy
EIS	Environmental Impact Statement
EPA	Environment Protection Authority (Previously DECCW and/or OEH)
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
ERSED	Erosion and Sediment
EWMS	Environmental Work Methods Statement
ESCP	Erosion and Sediment Control Plan
FMP	Fire Management Plan
HSEQ	Health Safety and Environment and Quality
HSSE	Health, Safety, Security and Environment
LEMC	Local Emergency Management Committee
NCC	National Construction Code
NPWS	National Parks and Wildlife Services
NSW New South Wales	New South Wales
MP	Management Plan
SoC	Statement of Commitment
TFB	Total Fire Ban
TBD	To be Developed
WAL	Walla Walla Solar Farm
WHS	Work Health and Safety

## 1.0 Introduction

### 1.1 Purpose

The purpose of this Plan is to provide information or a framework to help users prevent fires and ensure good standards of fire safety management on Gransolar construction sites.

A fire has the potential to have serious consequences including loss of life and major damage to buildings and infrastructure, as well as introducing complications and delay in the delivery of the project. In many (but not all) cases fires can be prevented by designing out risk; the risk of fire can be reduced even further by taking a few simple precautions and ensuring that safe working practices are defined and complied with.

By following the fire safety management plan & guidelines or references from the *RFS's Planning for Bushfire Protection 2019*, the risk of fire can be substantially reduced.

This Fire Management Procedure is prepared in connection the Fire and Rescue NSW (FRNSW) & the Rural Fire Service NSW (RFS) *see appendix 7*.

The purpose of this Fire Management Plan (FMP) is to identify the fire risks and controls of the development, and the procedures that will be implemented if there is any fire on site or in the vicinity of the site during construction of the Walla Walla Solar Farm project.

This Fire Management Plan is to be read in conjunction with the Emergency Response Plan (as referred in Walla Walla EWA Contract Appendix 2, schedule 3 condition 32, and RFS's Planning for Bushfire Protection 2019 & the Riverina Bush Fire Management Committee Bush Fire Risk Management Plan 2015.

### 1.2 Document Responsibilities

This Fire Management Plan must be in place and operational prior to commencement of construction work.

The Project HSE Manager in conjunction with the Site Project Team will ensure that the plan is monitored, reviewed (every 6Mths or after an Incident), maintained and updated as necessary and kept up to date during the course of the project.

Hardcopies of the Fire Management Plan and associated plans will be maintained & kept on site by the HSE Team (document-controlled revision) for the duration of the EPC contract, also one hard copy will be kept by the Security team located at the main entrance to the solar farm.

### 1.3 Document Amendment and Distribution

This document shall be reviewed as follows:

- As requested by Management Review
- When there is a change of method and/or technology that may affect the accuracy of this document; or
- When there has been a significant event to which this document was relevant; or
- As a result of a Non-Conformance resulting from an audit

Document amendments and distribution will be conducted as per detailed in the Project Management Plan and the Records Management Plan

New and amended documentation issued after the initial approval and distribution of this plan to controlled copy holders shall be identified in the Document Control Register. Revision details shall be recorded in the Section 1.3.1. Revision Status of this plan.

All changes to documents shall be reviewed and approved by the same function that performed the original review and approval and as per the cover of this plan, unless specifically designated otherwise.

### 1.3.1 Revision Status

This procedure is reviewed every 6Mths or if an incident occurs for its effectiveness in the management at GRS controlled sites and for continual improvement of the GRS WHS Management System.

Revision	Revision Date	Issue	Nature of modification

### 1.4 Key Reference Documents

The FMP is to be read in conjunction with the below mentioned Management Plans. The CMP includes the following Management Plans to be developed in the time frames as noted within the contract agreement and to enable site works to commence as quickly as possible:

Construction Management Plan, TBD
Health & Safety Management Plan, TBD
Environmental Management Plan, TBD
Traffic Management Plan, TBD

## 2.0 Objectives and Targets

### 2.1 Objectives

The key objective of the FMP 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 operations to minimise fire risks.
- Ensure appropriate measures are implemented to address the mitigation measures detailed in the EIS, Response to Submissions (RTS) and Conditions of Consent (CoC).
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in this FMP

### 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



### 3.0 Project Description

The Project site is located within the Greater Hume Shire Council (Greater Hume/Council) Local Government Area (LGA) in NSW approximately four kilometres north east of Walla Walla. The town of Walla Walla is located approximately 40 kilometres north of Albury and 100 kilometres south west of Wagga Wagga in NSW. Currently home to approximately 840 residents, the Walla Walla area offers residents a country lifestyle in close proximity to the major regional centre of Albury Wodonga. Direct access to Albury is via the Olympic Highway located approximately 14 kilometres south east of Walla Walla.

The site also has several important features including Back Creek running through the middle of the site, several dams and a number of existing trees scattered across the whole site & a gas pipeline running through the site.



The site consists of an area of approximately 438 ha of rural land will be utilised for electricity generating equipment.

The geographic coordinates of the project are:

Lat: 35°44'29.5"S  
Long: 146°58'30.0"E

The construction will last approximately 20 months and the plant will be operated for a duration of 30 years. GRS is the Principal Contractor for the scope of works, and is responsible for Engineering, Procurement and Construction (EPC).

The project will be delivered in a number of stages outlined below:

- Stage 1  
Civil works consisting of land clearing, levelling and earthworks, internal road construction, drainage installation, laydown area preparation, fencing installation, site establishment, preparation of delivery inverter station, and vegetation screening/landscaping.
- Stage 2  
Mechanical works consisting of foundation piling (ramming and augering), tracker installation, module installation and delivery.
- Stage 3  
Electrical works consisting of solar cabling of aerials and conduits, DC main cabling via direct burial, MV cabling from inverter station to delivery station through direct buried, module connection, connection of junction boxes-inverters-delivery station, connection to grid and finally testing and commissioning.
- Stage 4  
Inter connection Substation works between GRS & TransGrid.

For further information about the Project Scope please refer to the Construction Management Plan (*TBD*).

## 4.0 Organisation

### 4.1 Responsibilities and Authorities

This section defines the duties, responsibilities, accountabilities and authorities of key persons with respect to the Fire Management Plan. Everyone has a role to play in planning for bush fires – fire authorities, landowners, land managers, planning authorities, local councils and the community.

#### 4.1.1 Project Management Team

- ✓ Ensuring appropriate resources are available for the implementation of the FMP
- ✓ Making sure emergency contacts are communicated through all work site, and are up to date
- ✓ Ensuring that emergency drills are planned and conducted, and are debriefed afterwards
- ✓ To ensure that the Emergency Management & Evacuation Plan are up to date & active

#### 4.1.2 HSE Site Team

- ✓ Responsible for providing assistance and advice to the Project Site team to fulfil the requirements of this Plan, assessing data from inspections, monitoring and reporting, and providing project-wide advice to ensure consistent approach and outcomes are achieved
- ✓ Responsible for providing necessary training for project personnel to cover fire prevention and emergency preparedness and response
- ✓ Ensure that all personnel are advised of Total Fire Ban Days through Daily Prestart, direct contact with Subcontractors via emails & phone calls and then ensure all relevant controls are in place for that day.
- ✓ The HSE Site team are also responsible for the review and update of this Plan

#### 4.1.3 Superintendents/Supervisors

- ✓ Responsible for developing/revising the construction schedule in consultation with the HSE Site Team to minimise the risks of fire on the HSF
- ✓ Identifying, analysing and treating the risks before commencing Site works each day and ensuring that the appropriate controls are implemented and effective; thus, controls may be increased or decreased as required
- ✓ Ensuring all flora and fauna controls are implemented and effective in controlling impacts

#### 4.1.4 All workers on Site

In relation to Fire management, all workers on site are required to:

- ✓ Implement and maintain all applicable control measures in relation to any permits open during the fire season, eg fire extinguishers, fire blankets, spotters, etc
- ✓ Report any potential and/or actual incidence of fire both near & far
- ✓ Follow the emergency management procedures and plans

#### 4.1.5 Employers

Under the NSW Work, Health & Safety Regulations 2017, as an employer you have the responsibility for the health and safety of everyone in your workplace, including any visitors. To provide the following:

- Any Information, training, instruction and supervision are provided
- adequate workplace facilities
- workers' health and workplace conditions are monitored, etc

To properly implement and evaluate safety at their site. All Employers should emphasize the need for fire safety and create a mindset amongst all employees that fire safety is a top priority especially during the notified season.

reference: NSW Work, Health & Safety Regulations 2017

#### 4.1.6 Workers

Under the above-mentioned Act All workers must follow prescribed safety methods of work and demonstrate concern for the health and safety of themselves, fellow employees and others who may be affected by their actions. In relation to Fire Management

All Workers should:

- ✓ Report any potential fire hazards both near & far.
- ✓ Observe all fire safety rules both site-based & relevant NSW Government declared days of fire danger, also any procedures and codes of safe practices; and,
- ✓ Use, with all reasonable care, the tools, safety equipment and personal protective equipment (PPE) appropriate to the worksite.

#### 4.1.7 Site Visitors

Any Individual visiting the WSF are required to check in with the Site team, who will ensure all visitors are made aware of the site safety requirements, & procedures, including the fire safety requirements for that day.

They should also be required to wear appropriate PPE, including, at minimum:

- ✓ Hard hat and Defined Visitors safety vest.
- ✓ Goggles; and
- ✓ Appropriate safety shoes.

Also,

*While on the WSF, visitors should:*

- ✓ Always remain visible.
- ✓ Remain alert and aware of their surroundings.
- ✓ Never approach any equipment unless the operator has acknowledged their presence; and
- ✓ Never park vehicles in a way that blocks fire department access.

## 5.0 APPLICABLE REQUIREMENTS

### 5.1 Legal Requirements and Guidelines and Standards

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

- Environmental Planning and Assessment Act 1979
- Rural Fires Act 1997
- Planning for Bush Fire Protection (PBP) guidelines (RFS, 2006)
- BUSH FIRE ENVIRONMENTAL ASSESSMENT CODE, 2006, NSW
- The main guidelines, specifications and policy documents relevant to this FMERP include:
- Planning for Bush Fire Protection (PBP) Guidelines (RFS, 2019).
- Development Planning: A guide to developing a Bush Fire Emergency Management and Evacuation Plan (NSW RFS 2014).
- Standards for Asset Protection Zones.
- AS1940-2004: The storage and handling of flammable and combustible liquids.
- AS4777-2015: Grid Connection of Energy Systems via Inverters.
- AS 3959 – 1999: Construction of buildings in bushfire prone areas.
- National Construction Code (NCC).
- ISSC 3 Guideline for Managing Vegetation Near Power Lines

### 5.2 Contractual Requirements

GRS have identified the contractual requirements for the project as per the *DA SSD 9874* & the *EWA Appendix 2*,

This information can be found in Appendix 1 of this plan.

### 5.3 Agency Submissions

A submission was received from Fire and Rescue NSW during the exhibition period of the Walla Walla Solar Farm on the 12<sup>th</sup> of November 2019. The items raised in the submission have been included below.

A draft Fire Management Plan (FMP) shall be prepared for the proposed development and provided to the local NSW RFS District Office for comment. Any return comment from the District shall be adopted into an amended FMP. As a minimum, the FMP shall include:

- 24-hour emergency contact details including alternative telephone contact;
- Site infrastructure plan;
- Fire fighting water supply plan that provides suitable fittings and identifies operational access for fire fighting vehicles to connection points;
- Site access and internal road plan that has been designed and constructed in accordance with the fire trail specifications defined in section 4.1.3(3) of Planning for Bush Fire Protection 2006;
- Construction of asset protection zones (APZ) around all critical assets and infrastructure and their continued maintenance;
- Location of hazards (physical, chemical, and electrical) that will impact on the fire fighting operations and procedures to manage identified hazards during the fire fighting operations;
- Mitigation measures designed to prevent fire occurring within the site, and prevent fire escaping the site and developing into a bush/grass fire risk to the surrounding area; and
- Such additional matters as required by the NSW RFS District Office.

For a full copy of the submission see appendix 6

## 6.0 COMPETENCE, TRAINING AND AWARENESS

As stated in this Fire Management Plan all GRS personnel & Subcontractors will receive training & awareness as a group during, Site Inductions, Toolbox Talks & or Pre-Starts. From time-to-time, GRS personnel may also attend specific External Fire safety training sessions, as necessary.

Examples of topics that will be covered during project Site Inductions, Toolbox Talks & or Pre-Starts may include but not limited to:

- ✓ Minimizing the risks of fire controls
- ✓ Emergency Contacts.
- ✓ Emergency Response Diagram.
- ✓ Emergency Evacuation Protocol.
- ✓ Hot work permits
- ✓ Emergency evacuation
- ✓ Spotters
- ✓ TFB days or high Fire danger days as defined by the NSWRFSS

## 7.0 FIRE MANAGEMENT

### 7.1 Objectives

The key objective of the Fire Management Plan 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 these objectives, GRS will:

- During periods of high fire danger Monitor all relevant fire websites & apps for daily updates & relay of all information to each Subcontractor via emails & mobile phone calls.
- Ensure measures are in place to appropriately response in the event of a fire
- Remove combustibles from work area

### 7.2 Potential Risks

Some of the potential Risks of the Project associated with Fire Management are:

- Hot works
- Improper wiring of electrical apparatus
- Arson or disgruntled workers
- Mulch piles from clearing and grubbing
- Increase to fire fuel loading from clearing and grubbing
- Vehicle use and parking
- Smoking and careless disposal of cigarettes onsite
- Site maintenance activities such as
  - mowing,
  - slashing and
  - using other petrol-powered tools



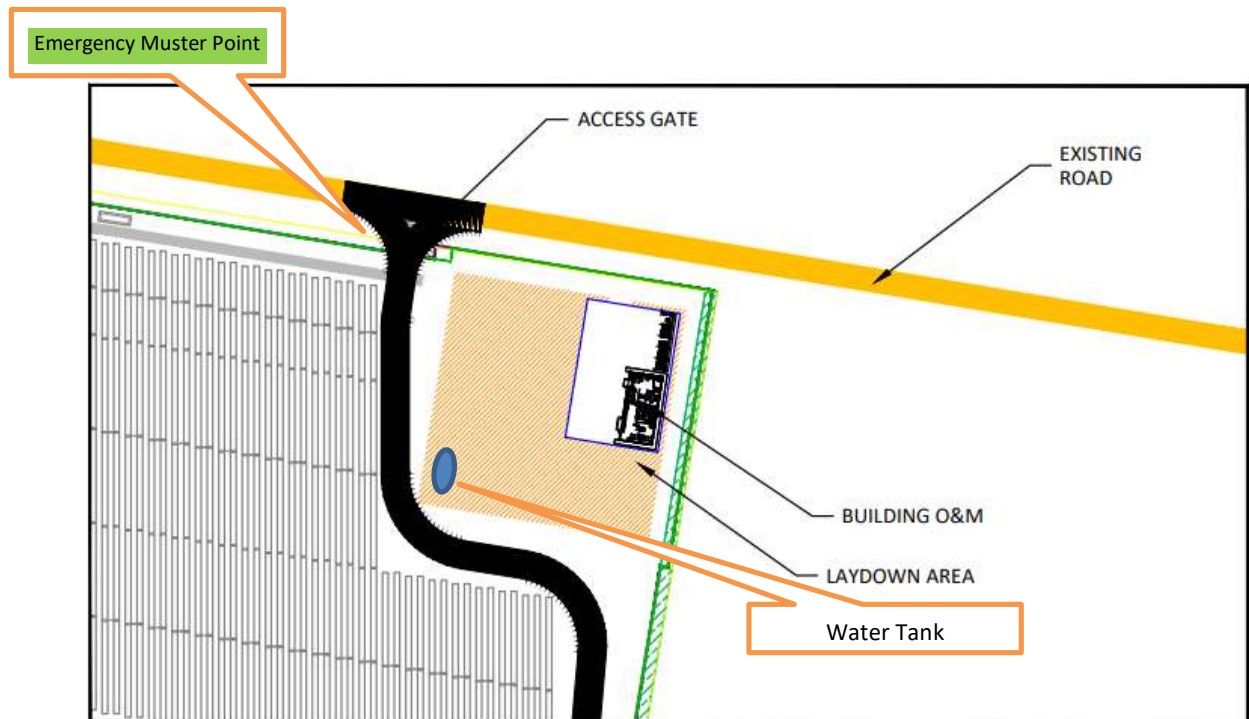
### 7.3 Management and Mitigation Measures

In accordance with the Planning for Bush Fire Protection Guidelines, an acceptable level of protection from bushfires is achieved through a combination of strategies which:

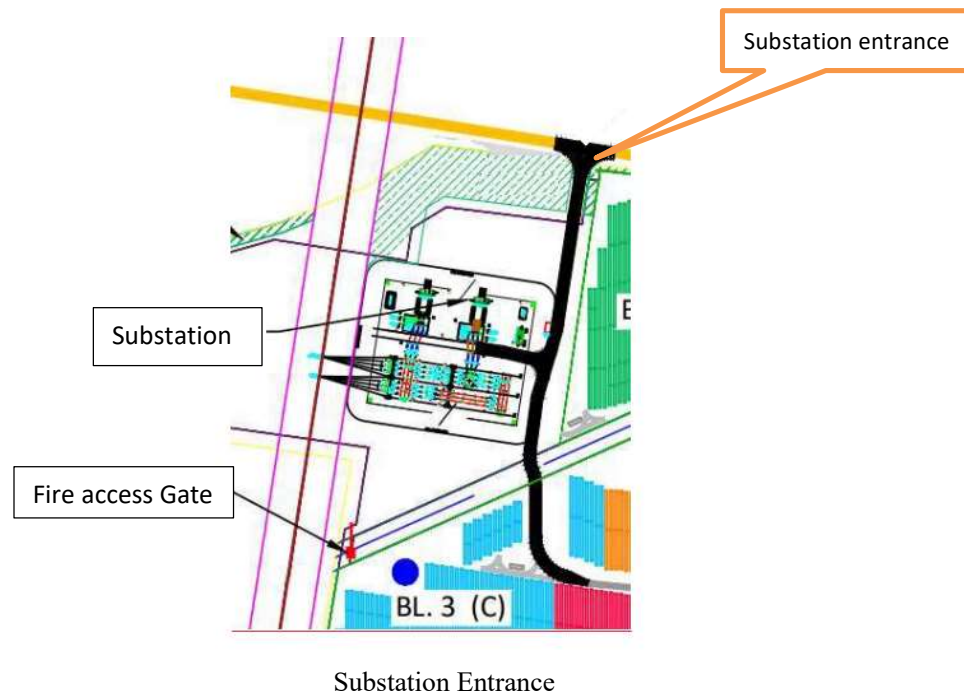
- Minimise the impact of radiant heat and direct flame contact by separating the development from the bush fire hazard.
- Reduce the rate of heat output (intensity) of a bush fire close to a development through control of fuel levels.
- Minimise the vulnerability of buildings to ignition from radiation 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 Asset Protection Zones (APZs), fire trails, access for firefighting and on-site equipment for fire suppression.

The GRS guidelines provide six key Bush Fire 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. Construction standards and design.
3. Appropriate access standards for fire fighters, emergency service workers and those involved in evacuation.
4. Adequate water supply, 40,000Ltr tank as per the DA requirements.
5. Emergency management arrangements for fire protection and/or evacuation.
6. Suitable landscaping, to limit fire spreading to a building.



Main Site Entrance



The following Fire Management measures will be implemented:

- On all TFB days all permits that create sparks or have flames will be cancelled, all other permits will be still ok to use.
- Report immediately to GRS & relevant authorities any incident that initiated or could initiate fire, as per the Incident Management Procedure
- Regular inspection of the works to ensure procedures and precautions are in place to minimise risk to human health and the environment
- The development of a contingency response if monitoring indicates a risk to sensitive receptors or human health
- Implement any specific conditions applied to the project by regulatory authorities
- Correct use of hot work permits
- Correct storage of Hazardous substances as per the Risk and Hazard Management Procedure
- Correct disposal of waste as per the DA requirements

The success of management strategies will be reviewed on a regular basis to confirm its continued suitability for the site. Should the risk to the environment or to human health change during the construction period, management options will be reviewed.

## 7.4 Asset Protection Zones

Appendix 2 of the PBP guidelines provides minimum Asset Protection Zone (APZ) requirements for habitable buildings in residential developments designated as bush fire prone. While the Project is not residential, these APZ prescriptions will be applied to the solar farm infrastructure to provide defendable space and to manage heat intensities at the infrastructure interface.

The PBP guidelines indicate a minimum APZ width of 10 metres for grassy woodlands (total fuel load 15 tonnes/hectare) and semi-arid woodlands (total fuel load 18 tonnes/hectare) on flat ground. This setback is based on the need to conform to Level 3 construction (AS 3959 – 1999) for a building of Class 1 or 2 under the BCA. Condition 25 (b) of Schedule 3 states that:

The Applicant must:

(b) Ensure that the development:

- Includes at least a 10-metre defendable space around the Electric Storage Facility (ESF) as well as the perimeter of the solar array area that permits unobstructed vehicle access.

An APZ of minimum width of 10m will be provided around the solar farm buildings, substation and Inverters, and around the outside perimeter of the solar array. The 10m APZ setback requirement will also be applied to any woody vegetation plantings undertaken around the perimeter of the solar farm. All of the APZ would be managed as an Inner Protection Area. The APZ surrounding the proposed Inverters and substation will be mown regularly in accordance to Bush fire protection measure (BMP) to minimise the risk of fire escaping from the facilities and the risk of external fire affecting other facilities.

## 7.5 Firefighting Resources & Preparedness

Fire Danger Warning signs will be located at the entrance to the site compounds on Days of extreme & TFB Days.

Condition 31 of Schedule 3 states that:

*The Applicant must:*

*(a) minimise the fire risks of the development, including managing vegetation fuel loads on-site;*

*(b) ensure that the development:*

- *includes at least a 10 metre defendable space around the perimeter of the solar array area that permits unobstructed vehicle access;*
- *manages the defendable 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 2019 (or equivalent) and Standards for Asset Protection Zones;*
- *is suitably equipped to respond to any fires on site including provision of a 40,000 litre water supply tank fitted with a 65 mm Storz fitting and a FRNSW compatible suction connection located adjacent to an internal access road;*

*(c) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site; and*

*(d) notify the relevant local emergency management committee and RFS following construction of the development, and prior to commencing operations.*

A 40,000L water storage tank will be installed for fire- fighting uses. Rainwater tanks installed beside site buildings for staff amenities could also enable RFS connectivity. Suitable fire extinguishers and PPE will be maintained at site buildings. If Identified, additional equipment on site will include a 1000 litre water cart retained on site on a precautionary basis, particularly during any blasting and welding operations. Equipment lists would be detailed in Work Method Statements. Safe and efficient access (suitable for firefighting appliances) would be established and maintained over the solar farm site.

Documentation of all firefighting resources will be maintained at the site, including an inspection and maintenance schedule. The preparedness of local RFS and Fire and Rescue brigades will be enhanced through site orientation and information events & regular site visits, The NSW RFS and Fire and Rescue would be provided with a 24-Hour contact point for the solar farm, during construction and operation. See *Appendix 3*

## 7.6 Shut down procedure

The vast majority of power during construction would be provided by separate generators with the exception of the O&M office, thus a shutdown procedure is not required. Electricity generating infrastructure would be tested prior to using network electricity until commissioning at the commencement or before the operation & maintenance period.

There is low fire risk during operation, as the buildings will be constructed of low-combustibility or non-combustible materials in accordance with the BCA. In the event of a fire, the AC circuit breaker in the substation would be closed remotely by operational staff. TransGrid would also be able to shut off the supply from outside the site if required.

DC voltage within the panel array will be shut of Manually and all inverters would be able to be remotely isolated; as such, the voltage would be isolated in the field by a suitably qualified electrician or high voltage operator. Personnel would coordinate with FRNSW and RFS to manage fire emergencies.

## 8.0 IDENTIFY AND ASSESS

### 8.1 DA Requirements

Refer to the following for site specific information in Appendix 1.

## 9.0 IMPLEMENT CONTROLS

### 9.1 Fire Management Control Measures

The area for the Walla Walla Solar farm would be considered low risk for a potential fire as the only source for a fire would be the vegetation re-growth when it dries out could become a source of ignition at the site. Other areas of source are below;

- ✓ Hot Work
- ✓ Smoking
- ✓ Heating devices
- ✓ Electrical malfunctions
- ✓ Criminal activity and vandalism

Project mitigation and management measures for fire impacts during construction are outlined in the table below:

Source/Reference		
Mitigation Measure	Responsibility	Timing
<b>Pre-Construction</b>		
Incorporate discussion on fire impacts and mitigation measures into Site Induction	HSE Team	Pre- Construction
<b>General Construction</b>		
Fire Management Plan to be followed	All WSF workers	Ongoing
Mulch piles from cleared vegetation shall be inspected daily during Fire season for risk of combustion	Superintendent & Supervisors	As applicable
All hot works and other high fire risk activities require daily approval from GRS Superintendent/Supervisors prior to commencement. This includes hot work permits and inspections to ensure appropriate controls are available and implemented to prevent and response to fire	Superintendent & Supervisors	Ongoing
Vehicle access shall be maintained so that no vehicles are driving and/or parking in long grass	Superintendent & Supervisors	Ongoing
Fire extinguishers are to be located at high risk areas & in all Site Vehicles whilst on Site.	Superintendent & Supervisors	Ongoing

Fire danger ratings and total fire bans will be monitored via the NSW Emergency App and adhered to at all times	HSE Team	Ongoing
Dams will be provided at site for the NSWRFSS as required	Project Management Team	Ongoing
If burn offs are required, the relevant permits will be obtained from Council and the NSWRFSS prior to work commencing	Project Management Team	Ongoing
All APZ's will be maintained in accordance with the conditions of approval and Planning for Bush Fire Protection 2006	Project Management Team	As applicable
In the event of a fire that becomes outside GRS's capacity to manage, RFA will be notified. GRS will assist by providing all available on-site fire management equipment (fire extinguishers, Dams, Water Tanks, trained personnel, machinery, etc.)	Project Management Team	As applicable
<b>Post Construction</b>		
All Maintenance and Operational Management activities of the APZ post-construction will be developed by the O&M team prior to taking responsibility of the WAL solar Farm	O&M Team	As per the EPC Contract

These measures are consistent with the Safety Management Plan and Emergency Management Plan for the project.

## 10.0 INSPECTION AND TEST

### 10.1 Monitoring, Inspection and Reporting

Visual inspections of the construction site will be undertaken by the Site HSE Team and construction personnel on a regular basis to identify any management issues in relation to this plan. Any identified corrective actions to be undertaken as a result of these site inspections will be recorded in the Corrective & Preventative Actions Register.

All inspections will be conducted as per the GRS WHS Management Plan.

## 11.0 RECORDS

A record shall be maintained as per Document Control and Record Management Procedure.

## Appendix 1 Relevant condition of Approval

DA SSD 9874, Schedule 3

### Operating Conditions

31. The Applicant must:
- (a) minimise the fire risks of the development, including managing vegetation fuel loads on-site;
  - (b) ensure that the development:
    - includes at least a 10 metre defendable space around the perimeter of the solar array area that permits unobstructed vehicle access;
    - manages the defendable 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 2019 (or equivalent)* and *Standards for Asset Protection Zones*;
    - is suitably equipped to respond to any fires on site including provision of a 40,000 litre water supply tank fitted with a 65 mm Storz fitting and a FRNSW compatible suction connection located adjacent to an internal access road;
  - (c) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site; and
  - (d) notify the relevant local emergency management committee and RFS following construction of the development, and prior to commencing operations.



EWA Appendix 2 Schedule 3 Condition 32

Schedule	Condition	Requirements
3	32	<p>Prior to commencing construction, the Contractor must develop a comprehensive Emergency Plan and detailed emergency procedures for the development, to the satisfaction of FRNSW and the RFS. The Contractor must keep two copies of the plan on-site in a prominent position adjacent to the site entry points at all times. The plan must:</p> <ul style="list-style-type: none"> <li>(a) be consistent with the RFS's Planning for Bushfire Protection 2019 (or equivalent);</li> <li>(b) identify the fire risks and hazards and detailed measures for the development to prevent or mitigate fires igniting;</li> <li>(c) list works that should not be carried out during a total fire ban</li> <li>(d) include availability of fire suppression equipment, access and water;</li> <li>(e) include procedures for the storage and maintenance of any flammable materials;</li> <li>(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;</li> <li>(g) include a figure showing site infrastructure, Asset Protection Zone and the on-site water supply tank;</li> <li>(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;</li> <li>(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;</li> <li>(j) include bushfire emergency management planning;</li> <li>(k) include details of the how RFS would be notified, and procedures that would be implemented, in the event that: <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; and.</li> </ul> </li> <li>(l) offer representatives of the local RFS brigade an opportunity to undertake a site familiarisation following construction of the development, and prior to commencing operations.</li> </ul> <p>Following approval, the Contractor must implement the Emergency Plan.</p>

## Appendix 2: Existing Environment

A Comprehensive Biodiversity Development Assessment Report on the Walla Walla Solar Farm has been completed by NHG in March 2022

The study area is relatively flat, these are present as linear roadside vegetation but also as patches of open woodland in paddocks outside of the solar farm site. The majority of the site proposed for development has been cleared and cultivated in the past.

In terms of existing bushfire hazards, there are no areas of native vegetation on the site, isolated paddock trees and several rows of planted trees and shrubs away from the site. Ground cover is grazed but can also be susceptible to grass fires in hot and windy conditions. There are power lines inside the defined boundaries located close to the northern boundary of the site.

The local bush fire danger period occurs between October and March. The harvest period in the township of Walla Walla is from November to mid-December, this is considered a prime risk period due to machinery in crops and generally high activity in the rural sector. January and February present the highest temperatures, coupled with low humidity and dry crop stubble over extensive areas.

In terms of resources to fight a fire, the local fire service is well equipped to resource & deal with any potential incident they are approx. 9Km's away (*as per appendix 5*), there are several farm dams located both inside & outside of the site that could be used if needed, and the addition of the Dust suppression water tanker can be utilized when on site, and for the office and surrounding GRS building fire extinguishers are available.

In terms of assets at risk from bush fire, there are several dwellings that are located within 2 kilometers of the site. Additionally, farm sheds, and equipment are common in the local area. As stated above, November to mid-December represents a period of high activity when many people may be active in harvest and other farm activities onsite and in the local area, during this period the solar farm will be placed on high alert with monitoring of all emergency websites & local RFSNSW.

## Appendix 3 Fire Safety Guidelines

### 1. Contact Personnel

Provide a list of names and telephone numbers of person(s) to be contacted during non-operating hours or in emergency situations.

- 1.1 Project Management Team:  
David Tullis: 0429 420 038  
Sergio Sánchez Artime: 0419 782 001

Phone #: 000 Fire/Police/Ambulance:

### 2. IN THE EVENT OF AN EMERGENCY

- All personnel on site will follow the Emergency Response Plan at all times
- If required all Personnel will go to the designated muster area located in the near the security gate upon notification of the Evacuation alarm.
- The site EMC or Chief Warden shall Notify the fire department if required.
- Once the alarm has been sounded and it is safe to do so, trained workers may attempt to extinguish small fires. All fires need to be reported the GRS Manager and HSE Manager as soon as they can.
- When all site has been evacuated, a head count shall be done by each site sub-contractor supervisor accounting for all workers and sub trades on site including those who may be trying to extinguish the fire.
- A List of personnel on site, updated and current will be kept in the GRS office and sub-contractor's offices of their own personnel.
- The site GRS construction/HSE managers or supervisor is responsible to ensure that the security guards are notified and that they meet the fire department and gives all pertinent information.
- GRS personnel will be assigned as "Chief Warden & Wardens" and will represent all GRS personnel. All sub-contractors will have their own wardens for their area and to appoint various trades working on location as their fire warden working in their area at site.

### 3. Training of site personnel on Fire & Evacuation procedures including:

- Site Inductions and company safety guidelines will be given to each sub-contractor on site by the GRS Management or GRS nominated warden.
- During the fire season regular fire safety updates will be incorporated into regular safety pre-starts & Tool-box meetings.
- Simulated drills as applicable and warranted will be given by the HSE Manager.

#### 4. Site personnel Responsibilities:

- All Sub-contractors shall ensure combustibles materials on the site and around their buildings are disposed of as per the DA requirements, with monitoring from GRS personnel on a regular basis to ensure they comply.
- All Site personnel are responsible for general site housekeeping.
- Removal of excess garbage material on a regular basis. GRS and Sub-contractor to notify their waste removal company when bins require to be emptied.
- Maintain separation of combustibles from open flame devices as per the Fire storage regulations.
- Fabrics and films used to temporarily enclose buildings shall be securely fastened to prevent them from being blown against heaters or other ignition sources. Sub-contractor Supervisor or Safety coordinator will inspect all fabrics and films (eg. Tarps).

#### 5. Firefighting Services

- All fire extinguishers in locations around office and workshop buildings, shall be tested and located in approved designated areas prior start of construction.
- Maintained clear access ways to fire extinguishers.
- The site properly addressed and the sign visible and legible to emergency crews.
- Maintain clear unobstructed access for the local fire department apparatus and unobstructed access to Buildings on site.
- Certification showing extinguishers are Up to date, serviced shall be retained on site by GRS HSE Manager.
- Extinguishers will be identified with proper signage, at exit locations or where required or Adjacent to areas where flammable liquids or gases are stored or handled the required fire extinguisher will be situated close by.
- The area shall be clear of flammable and combustible materials.
- Where required a “Fire Watch or spotter” will be assigned during hot works operation and for a period of 30 minutes after its completion to the person responsible for the hot works.
- A final inspection of the hot works area 1 hours after completion will be completed by site sub-contractor supervisor or designator.
- All work shall be performed by trained or certified personnel.
- GRS HSE Manager with sub-contractor supervisor/safety advisor shall issue a hot works permit prior to any work.

## 6. Flammable and Combustible Storage

*All Materials shall be risked assed for site use & appropriately stored as per the relevant regulations*

- Storage area separated from combustible material by 3m.
- Storage area and vented.
- Storage area protected from vehicular/ industrial motorized traffic.
- Portable pressurized (full or empty) cylinders secured when not in use.
- Area have proper signage or placard in place.
- A current or updated list of dangerous goods on site in construction trailer.
- A portable appropriate extinguisher in close proximity to storage and work areas
- Storage area away from egress and access routes to the site.
- The sub-contractor site supervisor and or safety coordinator shall be responsible for all flammable and combustible storage.

## 7. Security

- The Walla Walla Solar Farm will have a security fence around its boundary. A gate will be provided to allow emergency vehicles to access all portions of the site.
- Site Security will be on site 24/7 during Construction & will be able to assist during any emergency

Note:





It is expected that all workers and sub-contractors to be familiar with the fire safety plan and work safely.

## Appendix 4 Bush Fire Warning System

During a bushfire, emergency services will provide you as much information as possible through a number of different methods.

There are **four levels of warning**. These change to reflect the increasing risk to your life or property, and the decreasing amount of time you have until the fire arrives.

### Bushfire Warning System

-  **ADVICE**
-  **WATCH AND ACT**
-  **EMERGENCY WARNING**
-  **ALL CLEAR**

**ADVICE**

A fire has started but there is no immediate threat to lives or homes. Be aware and keep up to date.

**WATCH AND ACT**

There is a possible threat to lives or homes. You need to leave or get ready to defend – do not wait and see.

**EMERGENCY WARNING**

You are in danger and need to take immediate action to survive. There is a threat to lives or homes.

**ALL CLEAR**

Take care to avoid any dangers and keep up to date.

Once GRS has the information this will be relayed to each Subcontractor via Email & mobile phone call to ensure the correct information has been received & actioned



## Appendix 5 Location of RFS NSW

Emergency contacts

### **In an Emergency Always call Triple Zero (000)**

Bushfire Information: Call the NSW Rural Fire Service:

Phone: [02 6051 1511](tel:0260511511)

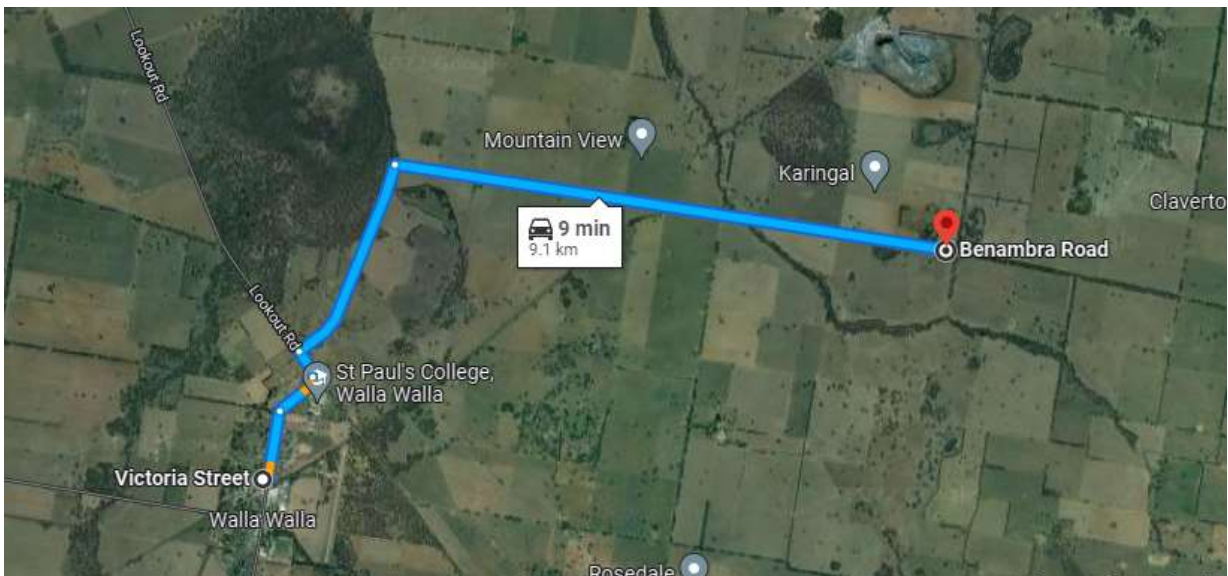
Website: [www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au) [external link]

Address: *Victoria Street, Walla Walla NSW 2659*

Maps: Below.

Staff type: On-call

Our highly skilled fire officers and support staff provide rapid, reliable help in emergencies, 24 hours a day, seven days a week. Our aim is to save lives and reduce the number of injuries caused by emergencies and disasters. We also protect the environment and minimise damage to property, including major infrastructure. In partnership with the community and other emergency services, we strive hard to prevent emergencies while planning and training to deal with those that do occur.



## Appendix 6 NSW Fire Service Letter



Submission below





## NSW RURAL FIRE SERVICE

Dept. Of Planning - Urban  
GPO Box 39  
Sydney NSW 2001

Your reference: SSD-9874  
Our reference: DA20191105000854-Original-1

**ATTENTION:** Rob Beckett

Date: Tuesday 12 November 2019

Dear Sir/Madam,

**Development Application  
Other - Part3A - Other**

Walla Walla NSW AUS, 1//DP1069452, 17//DP753735, 87//DP753735, 16//DP753735, 21//DP753735, 20//DP753735, 118//DP753735, 108//DP753735, 109//DP753735, 89//DP753735, 88//DP753735

I refer to your correspondence regarding the above proposal which was received by the NSW Rural Fire Service on 25/10/2019.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and notes that the proposed development has the potential to increase the level of bush fire risk within the landscape and, the development may be impacted upon during a bush fire event. As such, the proposed development should incorporate the following bushfire protection measures:

1. A draft Fire Management Plan (FMP) shall be prepared for the proposed development and provided to the local NSW RFS District Office for comment. Any return comment from the District shall be adopted into an amended FMP. As a minimum, the FMP shall include:

- 24-hour emergency contact details including alternative telephone contact;
- Site infrastructure plan;
- Fire fighting water supply plan that provides suitable fittings and identifies operational access for fire fighting vehicles to connection points;
- Site access and internal road plan that has been designed and constructed in accordance with the fire trail specifications defined in section 4.1.3(3) of *Planning for Bush Fire Protection 2006*;
- Construction of asset protection zones (APZ) around all critical assets and infrastructure and their continued maintenance;
- Location of hazards (physical, chemical, and electrical) that will impact on the fire fighting operations and procedures to manage identified hazards during the fire fighting operations;
- Mitigation measures designed to prevent fire occurring within the site, and prevent fire escaping the site and developing into a bush/grass fire risk to the surrounding area; and
- Such additional matters as required by the NSW RFS District Office.

1

**Postal address**

NSW Rural Fire Service  
Locked Bag 17  
GRANVILLE NSW 2142

**Street address**

NSW Rural Fire Service  
4 Murray Rose Ave  
SYDNEY OLYMPIC PARK NSW 2127

T (02) 8741 5555  
F (02) 8741 5550  
[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au)



2. The entire solar array development footprint shall be managed as an asset protection zone as outlined within section 4.1.3 of *Planning for Bush Fire Protection 2006* and the NSW RFS document *Standards for asset protection zones*.
3. To allow for emergency service personnel to undertake property protection activities, a 10-metre defensible space, managed as an asset protection zone, shall be provided around the buildings, substation, battery storage units, around the outside perimeter of the solar array, and around all areas of unmanaged vegetation being retained within the site.
4. An access road designed and constructed to comply with the specifications outlined in section 4.1.3(3) of *Planning for Bush Fire Protection 2006* shall be provided along the property boundary/fence line and around all areas of unmanaged vegetation being retained within the site.
5. All proposed internal roads shall comply with the design and construction specifications outlined in section 4.1.3(3) of *Planning for Bush Fire Protection 2006*.
6. A minimum 20,000-litre water supply (tank) fitted with a 65mm Storz fitting shall be located adjoining the internal property access road within the required asset protection zone.
7. All landscaping within the site shall comply with the principles of Appendix 5 of *Planning for Bush Fire Protection 2006*.

For any queries regarding this correspondence, please contact Bradley Bourke on 1300 NSW RFS.

Yours sincerely,

Martha Dotter  
**Team Leader, Dev. Assessment & Planning**  
**Planning and Environment Services**

## Appendix 7 Fire Service NSW Consultation Emails

Re: WAL EMP & FMP consultation process



Barry Fisher <Barry.Fisher@fire.nsw.gov.au>  
To: David Tullis

You replied to this message on 21/09/2022 2:47 PM.

Reply Reply All Forward

Wed 21/09/2022 2:38 PM

Hi David from viewing the docs I can see no reason why they can't be sent as you appear to have covered all of the areas in regard to fire and rescue New South Wales view point. Kind Regards Barry

Sent from my iPhone

On 19 Sep 2022, at 9:56 am, David Tullis <[dtullis@gransolar.com](mailto:dtullis@gransolar.com)> wrote:

**CAUTION:** This email originated from outside of Fire and Rescue NSW. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Barry  
Can you please resend the confirmation email to me

Regards

David Tullis  
Project Manager – Walla Walla Solar Farm

**David Tullis**

---

**From:** Andrew Gray <Andrew.Gray@rfs.nsw.gov.au>  
**Sent:** Tuesday, 27 September 2022 10:18 AM  
**To:** David Tullis  
**Cc:** Ben Clifton  
**Subject:** RE: WAL - EMP&FMP Consultation process

You don't often get email from [andrew.gray@rfs.nsw.gov.au](mailto:andrew.gray@rfs.nsw.gov.au). [Learn why this is important](#)

**CYBERSECURITY WARNING:** El correo electrónico se originó fuera de la organización. No haga clic en los enlaces o abra los archivos adjuntos a menos que reconozca al remitente y sepa que el contenido es seguro. Reporte el correo si duda de la autenticidad del mismo.

Good morning David,

I have gone through the draft documents and discussed with my Manager and can see no issues in the DRAFT documents as supplied.

Regards,

Andrew



**Inspector Andrew Gray** | Regulatory FI Coordinator | Area Command South Western  
**NSW RURAL FIRE SERVICE**  
[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.**

*I acknowledge the Traditional Owners and Custodians of the lands on which I live and work and pay my respect to Elders past, present and future.*



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**From:** David Tullis <dtullis@gransolar.com>  
**Sent:** Thursday, 15 September 2022 11:04 AM  
**To:** Andrew Gray <Andrew.Gray@rfs.nsw.gov.au>  
**Subject:** RE: WAL - EMP&FMP Consultation process

Good Morning Andrew  
Thank you for your time today,

Can you please confirm that the following documents, Emergency Management Plan & the Fire Management Plan sent to you, that there are no objections to these draft documents from the NSW Rural Fire Service prospective, and you are happy for GRS to submit these draft documents to the DPIE or the planning secretary for approval.

Can you please reply back to us with an agreement or no objection email.