

Berrybank 1 & 2 Windfarm- Bushfire Management Plan

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General procedure

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1. Purpose

The aim of this plan is to reduce the potential for loss or injury to life, property and the environment which could occur at the windfarm and adjoining properties. The plan is based on the application of sound risk management principles and using risk and evidence-based bushfire procedures that have been approved by Berrybank Windfarm management supported by fire protection equipment, systems and training as part of the windfarms development and ongoing management.

This plan will assist with achieving compliance with the Occupational Health & Safety Act 2004 which requires development of any emergency response plan to be practical, risk based and achievable whilst meeting the planning permit conditions.

The principal of this plan is to protect the lives and safety of people as a priority.

2. Scope

This procedure will apply to Berry Bank wind farms during the operation stage of the project life as a sub plan to the Berrybank Windfarm Emergency Response Plan.

This BFMP is to be used by GPG and/or contractors (as applicable) to enable implementation of bushfire management strategies required by legislation, authority requirements and guidance.

3. Reference documents

- Berrybank Wind Farm Emergency Response Plan
- NT.00071. Identification, assessment and control of occupational risks
- NT.00073. Emergency preparedness
- AS 3745:2010 Planning for emergencies in facilities
- CFA VIC Renewable Energy Facilities – Design & Model Guidelines

4. Definitions

4.1 Terminology and abbreviations

ABBREVIATION / TERM	DEFINITION
AED	Automated External Defibrillator
Bushfire Protection Area	Nearest Turbine Hardstand
BFMP	Bush Fire Management Plan (This Plan)
CFA	Country Fire Authority (Vic)
Competent	Competent means that a person has been deemed to meet the combination of licenses, qualifications, training and instruction as defined by the Company or by legal requirements for an activity or works
CR	Control Room (offsite facility providing operational oversight) this may also include OEM/contractor services
Dynamic Risk Assessment	Continuous mental process of identifying hazards, assessing risk, taking action to eliminate or reduce risk, monitoring and reviewing, in the rapidly changing circumstances of a bushfire.
EC	Emergency Controller (Chief Warden)
ECO	Emergency Control Organisation
Emergency	a serious, unexpected, and often dangerous situation requiring immediate action
EMS	Emergency Management Services (fire, ambulance ,etc.)
ERP	Emergency Response Plan
FDR	Fire Danger Rating
Fire Danger Period	A declared period by the fire services for each municipality when climate conditions and vegetation (grass scrub, forest etc) changes to the point that



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	there exists an increased risk of ignition and difficulty of 'contain', 'control' or 'extinguish' during days of high temperature, low humidity and medium to strong winds.
Muster Point	Muster Point
BBWF ERP	Berry Bank Wind Farm Emergency Response Plan
HSE	Health, Safety, Environment department
LV	Low Voltage
ProSafety	GPG incident management system, online or mobile
RTO	Registered Training Organisation
Worker	A person who carries out work in any capacity for a person conducting a business or undertaking, including work as: • an employee, or • a contractor or subcontractor, or • an employee of a contractor or subcontractor, or • an employee of a labour hire company who has been assigned to work in the business or undertaking, or • an outworker, or • an apprentice or trainee or a student gaining experience
WTG	Wind Turbine Generator

4.2 Emergency Events

POTENTIAL EMERGENCY SITUATIONS	
FIRE	• Grass or bush fire during the declared fire danger period or on a day of high fire danger, or • Fire at a site building, substation, at a storage facility of dangerous goods or fires occurring in vehicles or mobile plant

5. Responsibility

5.1 Emergency Control Organisation

ECO Responsibilities

ECO TITLE	RESPONSIBILITY
Emergency Controller	Person in command and control of the emergency to decide initial response and to take charge of the emergency until arrival of responding emergency services
Deputy Emergency Controller	Person who has been delegated position of Emergency Controller should they be unavailable.
Emergency Warden	Person to control the movements of people and conduct building checks during evacuations, operate fire and other emergency equipment, assist persons with specific needs and secure incident scenes
First Aid Officer	Person to provide first response first aid and triage those injured from the emergency
Heights Rescue Specialist	Person to carry out rescue and retrieval of persons who have fall arrested or are in suspension trauma.
LV/HV Rescue Specialist	Person to extricate a casualty from an electrocution incident and perform basic life support.



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5.2 Site Personnel

Site Management

The Site Manager is required to know the risk. They should be aware of weather conditions and whether there is any fire danger at site. They are responsible for ensuring staff understand this document and that the ERP is adhered to. They are also responsible for ensuring that;

- all personnel at the facility receive emergency information and training relevant to their role.
- overall procedure implementation and coordination,
- GPG leadership and HSE are contacted in the event of an emergency,
- adequate emergency response/escape equipment is available at the facility,
- all personnel maintain a level of competency suitable to their role as defined in this procedure.
- incidents are investigated and reports are reviewed and approved.
- lessons learned are reviewed and implemented as required.

In addition, the Site Manager is responsible for making sure that site is maintained throughout the bushfire season and that there are no potential areas which could be considered “fuel” for any fire.

The Site Manager must also ensure that staff are aware of the fire danger ratings and make the decision to reschedule work should it pose a risk, for example, no hot work should be completed during total fire ban's or if the fire danger rating is high or above. Further information on the fire danger rating system is available on pg. 14 and our Fire Danger Response Guide at **AX.04 Fire Danger Rating/Response Guide**.

Workers

- Notify site management as soon as practicable of any potential emergency,
- Follow the emergency procedures in this plan,
- Follow the directions of the ECO,
- Participate in emergency activities required by this plan.
- Participate in investigations as required.
- Participate in training as required by this plan

5.3 Operations Personnel

Control Room (offsite monitoring facility)

The Control Room provides 24/7 remote monitoring of the site and shall;

- Understand and maintain current emergency documentation availability to CR operators,
- Participate in emergency drills, training exercises and debrief sessions,
- Maintain a level of competency suitable to their role as defined in this plan,
- Ensure GPG leadership and HSE are contacted in the event of an emergency,
- Define and document procedures in response to the CR role as defined in this procedure.

HSE Personnel

- Assist site management with coordination of activities of this plan;
- Identify suitable emergency response equipment required for facilities.
- Determine if exceedances/spills reach reportable quantities and report to the applicable authorities.
- Review emergency procedures annually.
- Review inspections, drills, training and associated record keeping are completed.



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- Ensure all incidents are investigated and reports provided, participate in/lead investigations depending on the severity and contractual conditions surrounding the event.
- Ensure all incidents/accidents are entered into incident management system(ProSafety)
- Develop business specific procedures associated with this procedure and ensure their communication and review at site level.
- Review of this document bi-annually or due to material changes at site, or within jurisdictional legislation.
- Ensure learnings are developed and shared across the business for future improvements.

6. Development

6.1 Bushfire Preparedness

The arrangements that must be put in place to ensure a safe and effective response to a bushfire situation.

The Site Manager is required to know the risk. They should be aware of weather conditions and whether there is any fire danger at site. The Site Manager is responsible for making sure that site is maintained throughout the bushfire season and that there are no potential areas which could be considered “fuel” for any fire.

The Site Manager must also ensure that staff are aware of the fire danger ratings and make the decision to reschedule work should it pose a risk, for example, no hot work should be completed during total fire ban's or if the fire danger rating is high or above. Further information on the fire danger rating system is available on pg. 14 and our Fire Danger Response Guide at **AX.04 Fire Danger Rating/Response Guide**.

6.2 Bushfire Risk

Bushfire presents a threat to human life and assets and can adversely impact ecological values. Bushfire risk can be considered in terms of environmental factors that increase the risk of fire (fuel quantity and type, topography and weather patterns), as well as specific activities (such as hot works and construction activities) or infrastructure components that exacerbate combustion or ignition risks (such as transmission lines and other electrical components).

Existing bushfire hazards are present within the site boundary, including several patches of woodland and derived native grasslands that are typical of a highly fragmented rural landscape (Figure 3-3). It is intended that the vegetation fuel around the turbine (hardstands), within the overhead transmission line easements and access roads will be maintained in a low fuel state by mechanical, manual and chemical clearing methods prior to construction activities commencing and as part of ongoing maintenance activities for the duration of the Project.

ASSET	DESCRIPTION	VULNERABILITY TO BUSHFIRE
Project Infrastructure	• Wind Turbine Generators • Obstacle Lighting • Meteorological Monitoring Mast • Substation • O&M facility	Wind turbines, masts and obstacle lighting are made from non-combustible material and do not present a significance risk. Wind turbines also have a variety of on-board control systems specifically designed to mitigate the risk of fire. Each wind turbine is connected to a control centre (within the existing Berrybank windfarm), which constantly monitors the wind turbine and shuts down the turbines if there is a risk of overheating. Turbines also automatically shut down if they are close to functioning outside their design conditions such as wind speeds greater than 25 m/s. Turbines are equipped with fire detection systems can initiate automatic shutdown and electrical disconnection.

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		Wind turbines will be shut down immediately during emergency operations – where possible, blades should be stopped in the 'Y' or 'rabbit ear' position, as this positioning allows for the maximum airspace for aircraft to manoeuvre underneath the blades and removes one of the blades as a potential obstacle. Substation management measures must be to Electricity Assets. This requires assets to be maintained to minimise the risk of fire ignition and to ensure that vegetation clearances are maintained. This will be the responsibility of the TransGrid as the asset owner. The O&M facility has been constructed according to the Building Regulations and incorporates fire detection systems and fire fighting equipment, which are maintained to statutory and manufacturers requirements.
Electrical Reticulation	33 kV Cable and Fibre Optic Network Grid connection would be achieved from a connection to the 220KV electricity transmission line connecting the site. The project would utilise and be connected to the single substation, control room and facilities that form part of the Berrybank Wind Farm	For the safe operation of the existing transmission line connecting the substation to the wider electricity transmission network, certain activities will be restricted within the easement such as planting and growing trees, construction of buildings, or erection of antennae or masts. Management measures must be applied to electricity Assets. This requires assets to be maintained to minimise the risk of fire ignition and to ensure that vegetation clearance are maintained. This will be the responsibility of the TransGrid as the asset owner. Onsite cable network is installed underground and poses no fire risk. In the event of a fault it will automatically be deenergised through the protection mechanism in the cable circuit breaker
Assets within the Project Site Boundary		
Access	The primary access would be from Padgetts Lane, centrally located within the windfarm boundary. Existing farm tracks would be used where possible to reduce the need for additional soil disturbance. During the construction phase of the project tracks are constructed to support the extra load of trucks carrying equipment and cranes for the erection of the towers. This width would then be approximately 5m. The tracks would continue to be used by the farmer to access the property and to attend to grazing livestock	As a minimum, and to enable access for CFA all roads will be maintained to original design criteria.
Assets surrounding the Project Site Boundary		
Residential Properties and Farms	There are a number of dwellings within and neighbouring the site, dispersed across the agricultural landscape at a low dwelling density. Houses are generally located within agricultural land. The closest residence is approx. 1.1km from a turbine.	It is important to note that there are residential dwellings on rural properties scattered throughout the landscape that may be at risk from bushfire. This is an existing hazard.



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6.3 Bushfire Risk

The bushfire prevention and readiness conditions as listed in section 12 e) of the planning permits will be implemented.

“A bushfire prevention and emergency response plan prepared to the satisfaction of the Minister for Planning in consultation with the Country Fire Authority and Corangamite Shire Council/ Golden Plains Shire Council.

This plan must include and provide for the implementation of the following:

- i. A comprehensive risk management process incorporating risk identification, assessment and control (treatment) conducted with reference to CFA's Guidelines for Renewable Energy Installations 2019.
- ii. A Fire & Emergency Management Plan (F&EMP) prepared to the satisfaction of CFA's State Infrastructure and Dangerous Goods Unit (sidgu@cfa.vic.gov.au), for both the construction and operational phases of the renewable energy facility.
- iii. The Fire & Emergency Management Plan (F&EMP), and the provision of on-site emergency information must be prepared and made available in accordance with the CFA's Guidelines for Renewable Energy Installations, Part 2: Emergency Management, dated February 2019.”

This Plan has been produced in consideration for the CFA Design Guidelines and Model Requirements- Renewable Energy Facilities V4 and demonstrates the current facility management practices in place.

It is important to also read sections 6.4, 6.5, 6.6 and 6.11 of this BFMP to see how all bushfire risk mitigation and controls are interdependent, provide a holistic approach to bushfire management to fully understand how they will meet / exceed the planning permit conditions within a practical operational context.

6.4 Consultation

During the planning, design , implementation, testing and review of emergency processes, procedures or equipment consultation shall take place with the following appropriate stakeholders as a minimum;

- Workers
- Contractors
- Management
- Emergency services
- Relevant Authorities
- Industry experts (consultants, trainers etc.)
- Relevant internal Departments(HSE, Legal etc.)

Periodic consultation shall be made on a suitable frequency but shall be 3 yearly as a minimum and can be incorporated in any of the requirements within this plan or the BBWF ERP.

Consultation shall be documented and recorded in site files.

6.5 Bushfire Management Strategies

Bushfire prevention is defined as strategies and tactics directed towards the prevention and suppression of bushfires within the skills, training and capabilities of employees working at the wind farm during the declared fire danger period.

A goal of bushfire prevention is to educate windfarm employees to take precautions to prevent potentially harmful bushfires, have readiness strategies in place so they are prepared in case of a bushfire and response tactics if a bushfire occurs from within or external to the windfarm to ensure their safety and wellbeing.



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An important fire prevention strategy is to have an emergency management structure in place. This will ensure bushfire prevention, readiness and response strategies / tactics are continually tested through exercises, training and improvements made from lessons learnt. The result is windfarm employees working together effectively as possible to contribute towards achieving a safe workplace.

Bushfire prevention also involves providing firefighting capability to responding fire brigades which have a regulatory responsibility (section 20 under the CFA Act 1958) for the prevention and suppression of fire and for the protection of life and property in case of fire in the country area of Victoria. To assist the fire brigades to achieve these statutory obligations, the windfarm has provided CFA's preferred safety measures as detailed in the planning permit conditions listed below.

The provision of strategic fire suppression and access areas through the wind energy facility clear of raised crops. **Note – raised crops only occupy 5 – 7% of the windfarm site footprint. It is not possible, necessary nor safe for a direct fire attack of fires on raised crops. The fire suppression strategy would be an indirect attack, i.e. wait for the fire to reach an access area / track / road and suppress. Refer site plan in AX.01 for details on access tracks.**

Constructed roads should be minimum of 4 metres trafficable width, with a 4 metre vertical clearance for the width of the formed road. **Note – road width constructed a minimum 5m width.**

Roads should be constructed to a standard so that they are accessible in all weather conditions and capable of accommodating a vehicle of 15 tonnes for the for the trafficable road width. **Note – the road network will be constructed to be fit for purpose for over- dimensional vehicles with axle loadings up to 20T/axle.**

Dips in the road should have no more than a 1 in 8 (12.5%) (7.1°) entry and exit angle. **Note - all entry and exits will be relatively flat.**

The average grade should be no more than 1 in 7 (14.4%) (8.1°) with a maximum of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres. **Note – the landscape is mainly flat with some low-lying undulation and therefore below the required average road grade.**

Water access points shall be located in safe easily identifiable areas, accessible in all weather conditions. **Note – refer to windfarm site plan in AX.02 of this BFMP showing all water storage areas.**

Water access points should be designed, constructed and maintained for a load limit of at least 15 tonnes. **Note – the road network which includes water access points is constructed to be fit for purpose for over-dimensional vehicles with axle loadings up to 20T/axle.**

A turning point with a minimum radius of 10metres is provided for fire appliances at all water access points. Fire brigade is able to park within 4 metres of the water supply outlet on a hard- standing area. Bulk static water storages are provided adjacent to main access tracks for firefighting and will be constructed of concrete or steel. **Note – location/size of water tanks installed, refer to windfarm site plan in AX.02.**

All tanks have a hard-suction point provided with a 150mm full bore isolation valve equipped with a Storz connection, sized to comply with local CFA requirements.

Water access are marked by appropriate signage as per CFA's Guidelines for identification of street hydrants for firefighting purposes.

Fire breaks are established and maintained around the perimeter of control rooms, electricity compounds, substations and all other buildings and structures on-site of a minimum distance of 10m. **Note - In addition to this condition, all unnecessary fuel and combustible materials around electricity compounds and substations will be managed (i.e. overgrown vegetation trimmed/removed, fine fuels / leaf litter removed when more than 10mm deep, rubbish disposed of, etc).**

Hardstands around wind turbine bases will be maintained as a fire break.



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There should be no long grass or deep leaf litter in areas where plant and heavy equipment will be working.

Note – plant and equipment will be restricted to travel and work from roads and hardstands, unless authorized by the site manager and risk assessed specifically.

No screening has been planted around the perimeter of control rooms, electricity compounds, substations and all other buildings and structures on-site.

All plant and heavy equipment carry a minimum 1 x 9 litre water stored pressure fire extinguisher with a minimum rating of 3A.

Internal fire protection, where appropriate, is installed at the wind energy facility.

Lightening protection devices, where appropriate, installed at the wind energy facility.

Dedicated monitoring systems within each wind turbine that detect temperatures increases in turbines and then shuts down when threshold temperature is reached.

Ability for the facility to be completely disconnected from the power supply network in the event of an emergency situation.

The installation has been notified to CFA and Air Services Australia for inclusion in the Vertical Obstruction Database.

On-site buildings and structures have been constructed according to the National Construction Code and applicable standards for fire detection and suppression.

Storage of hazardous Substances and Dangerous Goods will be in accordance to the Australian Standard. A comprehensive arc-flash assessment has been conducted for the facility, any arc -flash outlets are contained within the electrical and wind turbine infrastructure so fall within the minimum 10 m fire break. Arc flash outlets will be clearly signed.

The facility is monitored at all times by remote control centres, the monitoring system ensures that any shorts, faults or equipment failures with the potential to ignite or propagate fire are rapidly identified and controlled, and any fire is notified to 000 immediately.

All infrastructure, equipment and vehicles at the facility shall be Inspected, maintained and repaired in line with any relevant Statutory requirements, Australian Standards and the manufacturer's requirements.

The facility will conduct a program of familiarization of volunteers and paid CFA personnel in fire suppression in and around the wind energy facility

A site specific Emergency Response Plan has been developed for the facility, of which this BFMP is a sub plan. An emergency information container is located at the main site entrance and contains:

- Site Layout Drawings including Fire Protection Drawings
- Dangerous Goods Manifest
- On and Off-Site Emergency Contact List
- Evacuation Points
- Safety Data Sheets (SDS)

6.6 Prevention during the non-fire danger period

- Ensure all flammable and combustible liquids are safely stored to prevent accidental spillage, vapour escape, rupture and are well away from potential ignition sources. Treat empty flammable / combustible liquid storage containers as full.



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- Ensure there is an up-to-date dangerous goods manifest available at the site office and at the main storage area and Safety Data Sheet (**SDS**) for each dangerous good being stored and handled on site.
- Dispose of any unused or excess *hazardous substances*, and ensure incompatible *hazardous substances* are stored separately to prevent accidental mixing;
- Ensure the correct type of fire extinguisher (minimum 4.5kg dry chemical) for flammable / combustible liquids and *hazardous substances* are installed and easily accessible;
- Implement and monitor the site's no smoking policy except in designated areas;
- Ensure all fire-fighting equipment is in place, maintained and inspected, ready for use;
- Ensure water access point signage is in place and clearly visible;
- Ensure CFA has a map with the location of all fire water tanks and their access tracks;
- Inspect emergency information container which is painted red and marked 'EMERGENCY INFORMATION' in white contrasting lettering not less than 25mm high at main access points installed at a height of 1.2m – 1.5m. Ensure the container has the following contents:
 - Site Layout Drawings including Fire Protection Drawings
 - Dangerous Goods Manifest
 - On and Off-Site Emergency Contact List
 - Evacuation Points
 - Safety Data Sheets
- Ensure all ECO, staff, and contractors are trained in the use of all fire protection equipment available at the windfarm and on their roles and responsibilities in the operation of this BFMP;
- Maintain written records of all testing, maintenance, training and exercising etc.
- Ensure unnecessary fuel and combustible materials within the windfarm and around buildings, storage containers, electricity compounds and substations are managed (i.e. grass is cut (100mm), overgrown vegetation trimmed, fine fuels / leaf litter removed when more than 10mm deep, rubbish is disposed of, etc.) and maintained to a minimum distance of 4 metres;
- Ensure lightning protection devices are installed where required and are regularly inspected and maintained.
- Liaise with the local fire brigade prior to each fire danger period to discuss the windfarms evacuation strategy and response protocols to get their input and advice and to provide situational awareness.

6.7 Readiness- During the fire danger period

- Ensure the windfarm emergency warning system (i.e. UHF/CB radio system) is working and tested regularly as determined by the emergency controller;
- Ensure all portable fire extinguishers installed around site offices, storage containers etc are in place, easily accessible and checked monthly to ensure they are in working order, i.e. check extinguisher body and hose for damage, pressure gauge etc;
- Ensure all static fire water tanks for firefighting are full at all times, are easily accessible and CFA connections valves are regularly checked and maintained;
- Ensure the BFMP always remains accessible to deputy emergency controllers and Emergency Control Organisation (ECO) members;
- Ensure all staff are aware of emergency procedures, and participate in training and exercise drills at least yearly and preferably prior to each fire danger period, include emergency services where able to
- Ensure the bushfire protection area / safe assembly points are checked for any deficiencies, this includes ensuring the area is clear of any combustible material, hazardous substances etc,
- Ask all staff and contractors to download the Vic Emergency App on their phones and set them to receive all bushfire warnings and severe weather events in the area;
- Continually monitor the 4-day FDR for planning purposes, refer AX.05 for FDR's and potential fire behaviour.



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- When the FDR is going to reach or has reached High or above, communicate it to all site personnel and contractors in the morning prestart meeting and plan works accordingly;
- Implement a heightened fire awareness of all ECO members, staff and contractors during High and above FDR to ensure they strictly adhere to all fire prevention and readiness requirements and have increased vigilance to prevent fire, to constantly look for fires and are clear on their delegated response role;
- Ensure all cars, trucks and mobile plant are restricted to site roads and hardstands only unless authorized by the site manager.
- Ensure all plant and equipment is inspected to ensure there are no faults or mechanical defects and the silencing device / spark arrestor is working efficiently;
- Ensure the exhaust of all vehicles likely to be driven near or in contact with any vegetation, passes through a silencing device / spark arrestor and are carrying a 1 x 9 litre water stored pressure fire extinguisher with a minimum rating of 3A;
- Ensure all vehicles, plant and heavy equipment have will stored pressure fire extinguisher with a minimum rating of 3A and must remain in the vicinity of any operating machinery at all times;
- Ensure no welding, grinding or other hot works that could emit a spark or flame is undertaken unless the following controls are in place:
 - No hot works on days of Extreme or above fire danger rating at the windfarm,
 - Hot works are completed in a cleared area of vegetation matter and easily ignitable material,
 - Minimum 2 x 9L water fire extinguishers are at hand for immediate use,
 - A hot works permit has been issued with the above prescription before work commences.
- Conduct monthly inspections to identify any poor housekeeping issues to ensure all hardstand areas (*bushfire protection area*) and fire breaks around all site buildings, storage containers etc. are maintained in a clean state as much as practicable to prevent the accumulation of *combustible materials*, vegetation or other hazards, i.e. *hazardous substances*.

6.8 Training

All workers and visitors to the site or facility shall complete an induction inclusive of emergency procedures. Additionally training and information for personnel will consist of;

- HSE Notice Board on site
- Prestart meetings
- Toolbox Talk meetings
- Emergency Pack on front gate for emergency services

All ECO members, including nominated deputies, must be trained in the skills and knowledge necessary to carry out the duties set out in the emergency response procedures.

Sufficient personnel are to be trained in all ECO positions to allow for absences from the facility site. Training and assessment in nationally recognised units of competency through an RTO is required, as outlined in table below.

All site personnel working on site are required to complete and maintain current competencies. For WTG Works, GWO Basic Safety Training (GWO BST) every two years and Low Voltage (LV) Rescue(including CPR) annually.

The following training competencies are included in GWO BST and LV Rescue, as such, site personnel are trained in the below as a minimum:

- PUAWER008 Confine Small Workplace Emergencies
- HLTAID011 Provide first aid
- HLTAID009 Provide Cardiopulmonary Resuscitation



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- UETDRRF004 Perform Rescue from LV
- PUASAR022 Participate in a rescue operation
- RIIWHS204E Work Safely at Heights, and
- RIIWHS202E Enter and work in confined spaces

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ECO Training requirements

POSITION	UNIT OF COMPETENCY
Emergency Controller	PUAWER006 Lead an emergency control organisation
All Site Personnel	PUAWER008 Confine Small Workplace Emergencies
Emergency Warden	- PUAWER005 Operate as part of an emergency control organisation - PUAWER008 Confine Small Workplace Emergencies
First Aid Officer	- HLTAID003 Provide first aid - HLTAID001 Provide Cardiopulmonary Resuscitation
Heights Rescue Specialist	PUASAR022 Participate in a rescue operation
LV Rescue Specialist	- UETDRRF004 Perform Rescue from LV - HLTAID001 Provide Cardiopulmonary Resuscitation

6.9 Emergency Plans

The emergency response equipment available across at the facility is determined based on the site risk register and its location, suitability and accessibility has been assessed by a competent person. Further assessments shall be performed if there are modifications to the facility layout or its use, that require changes to the emergency risk assessment.

Emergency systems and equipment shall be inspected, tested and maintained as required by legislative and manufacturers requirements. The facility shall create and maintain an inspection schedule for the emergency equipment. Where equipment fails an inspection, it shall be tagged out of service and repaired or replaced as soon as possible.

Emergency equipment must include as a minimum;

- Fire emergency equipment
- First Aid equipment including AED
- Rescue equipment (inc. heights, electrical & confined space)
- Spill kits
- Snake bite kits
- Communication equipment

6.10. Emergency Plan

This BFMP is a sub-plan to the BBWF ERP and will be communicated as such to all personnel at site and made available in a suitable location. It shall be provided to the emergency authorities for review.

6.11. Drills/Scenarios

Training drills will be conducted throughout the year as required by the BBWF ERP. For bushfire readiness the CFA will be informed of applicable drill scenarios and invited to attend. Bushfire drills should be conducted prior to the fire danger period.



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For all evacuation drills an observer should be tasked as a scribe to document the time in relation to the evacuation sequence and any problems that occurred, which should provide the basis for discussion at the exercise debriefing session.

Immediately after an emergency response exercise, the ECO and any other key participants must attend a debriefing session conducted by the EC. The debrief is to address any issues or concerns from the drill or exercise and identify any key learnings where improvements can be made for future scenarios or real-life events.

Records of the drill/scenario and debrief sessions shall be entered into ProSafety as Findings together with any actions to be taken.

Where necessary, this ERP will be updated to reflect any changes required.

[GPG Emergency Event Drill Report.docx](#)

[GPG Emergency Debrief Form.docx](#)

6.12. Assurance

To ensure the currency and applicability of this plan, compliance inspections and audits shall be carried out periodically as defined in the HSE assurance schedule.

This plan shall be reviewed in conjunction with the BBWF ERP as a minimum every 3 years.

Additional triggers for review will be drill scenarios, incidents, changes in the project and facilities, legislation, authority guidance and official requests from the emergency services.

Updates/changes shall be cross referenced and consistent with the BBWF sustainability risk register and BBWF ERP.

6.13. Emergency Procedures

The response procedures within this plan are specifically related to fire response and should be read in conjunction with the BBWF ERP.

Emergency controller (or deputy, in their absence)

- Ensure the health and safety of all staff, contractors and visitors at the windfarm; Evacuate all staff, contractors and visitors to the safe assembly point if time permits;
- If time does not permit, ensure all staff and contractors working in the area or in the path of the bushfire are instructed to evacuate to their nearest bushfire protection area, or well clear of the windfarm to a safe location that is not in the path of the fire,
- Ensure the fire brigade have been notified;
- Ascertain the location and size of the bushfire by conducting a dynamic risk assessment;
- Ensure a role call is immediately taken at the assembly point and at the bushfire protection area using the UHF/CB radio network;
- If required, delegate roles and responsibilities to deputy emergency controllers, ECO members and trained staff and contractors to protect the assembly point, exposures, including site buildings, storage containers etc;
- Coordinate all response activities based on relevant bushfire response procedures;
- If the bushfire is small and is within the capability of the ECO, and/or trained staff and contractors and there is sufficient fire firefighting equipment available (weight of attack), initiate fire response if safe to do so;

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- Ensure the fire brigade are met on arrival at the relevant windfarm site point of entry, provide a quick briefing on the fire situation and potential exposures including the number of persons taking shelter at bushfire protection area/s and any other relevant information;
- If considered necessary and time permits, advise neighbouring properties of any bushfire within or could threaten the windfarm and may impact / affect their property;
- Ensure all ECO, trained staff and contractors, are dressed in the minimum protective clothing prior to undertaking any bushfire response roles including:
 - protective clothing made from natural fibres (cotton or wool) or fire rated materials (FR2) such as overalls or a long- sleeved shirt and long trousers or jeans;
 - leather safety boots;
 - safety helmet;
 - cotton or leather gloves;
 - goggles or safety glasses; and
 - minimum P2 mask.

Only attempt to control a fire if you're trained and it is safe to do so.

REMEMBER, PROTECTION OF LIFE IS THE FIRST PRIORITY!

Minor Fires

1. Evacuate the immediate area;
2. Immediately report the fire / incident to the emergency controller or in his/her absence, *deputy emergency controller* via the UHF/CB radio network or mobile phone;
3. If required, call the **Fire Brigade on 000** and give the following information:
 - a. Name of person making call and the name of the windfarm;
 - b. Nearest access point to the fire; and
 - c. Type and size of the fire.
4. If there has been an injury requiring medical treatment, administer first aid if safe and able to do so, call for an **Ambulance on 000**;
5. Emergency controller or in his/her absence, deputy emergency controller immediately undertake a dynamic risk assessment and action the following:
 - determine the size of the fire and what material is involved and any exposures;
 - if required, remove any *exposures* well clear of the fire / incident;
 - identify the most appropriate extinguishing agent and procedures using the fire class table below to 'contain', 'control' and 'extinguish' the fire;
 - if safe to do so – task a trained staff member, contractor or the ECO to 'contain', 'control' and 'extinguish' the fire / incident; and
 - if it is not safe to 'contain', 'control' and 'extinguish' the fire / incident, ensure the area remains evacuated and await the arrival for the fire brigade.

FIRE CLASS	EXAMPLES OF MINOR FIRES	FIRE RESPONSE PROCEDURES
A	Ordinary combustible materials such as wood, cloth, paper, grass, scrub, rubber and plastics.	WATER FIRE EXTINGUISHER AND/OR WATER TANKER
B	Flammable and combustible liquids – fuel, oils, greases.	DRY CHEMICAL FIRE EXTINGUISHER



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C	Flammable / combustible gases – LP Gas cylinders, aerosol cans,	Attempt to turn off the cylinder if safe to do so and extinguish consequence fires based on the Class of fire. If it is not possible to turn off the gas cylinder IMMEDIATELY EVACUATE THE AREA AND REFER TO PROCEDURES FOR LARGE FIRES. DO NOT EXTINGUISH THE FIRE.
D	Combustible metals – aluminium, magnesium.	IMMEDIATELY EVACUATE THE AREA. DO NOT ATTEMPT TO EXTINGUISH THE FIRE.
E	Electrical – appliances, switchboards.	Switch off power or disconnect battery and extinguish consequence fires based on Class of fire. If power cannot be turned off, use DRY CHEMICAL FIRE EXTINGUISHER.

Emergency controller or in their absence, **deputy emergency controller** direct all staff, contractors or ECO members and equipment in response to the fire / incident until the fire brigade arrives.

Bushfire

1. Immediately report the fire to emergency controller or in his/her absence, deputy emergency controller via the UHF/CB radio or mobile phone,
2. Emergency controller or deputy emergency controller ascertain the location and size of the bushfire by conducting a dynamic risk assessment;
3. Dynamic risk assessment must include:
 - The FDR of the day and information/advice/direction from the fire authorities which may include; • Potential fire behaviour – refer AX.04,
 - Location of fire and direction of spread,
 - Determine potential rate of spread,
 - If the bushfire is external, determine location and approximate distance from the windfarm, approximate time and point of impact, rate of spread, and potential fire behaviour,
 - Determine any potential exposures in the path of the bushfire, including staff, contractors, plant or equipment, safe assembly points, site offices, storage containers etc,
4. If required, emergency controller or deputy emergency controller notify all staff and contractors to immediately cease all work activities, put all hazardous substances, LP Gas cylinders, welding equipment, portable plant and equipment etc inside a closed storage container, ensure all vehicles, mobile plant and equipment are parked on a cleared area with no combustible material within 6m (only if safe to do so) and then immediately evacuate to the assembly point if time permits and do a roll call.
5. If there is not enough time to evacuate all staff and contractors to an assembly point, instruct those working in the area or path of the bushfire to go to the nearest bushfire protection area and to position their vehicle / plant at the safest part of the protection area to minimise exposure to the radiant heat and smoke and remain inside their vehicle / plant with the engine running and air conditioning operating. Once the fire front has passed, immediately make their way to the safe assembly point and notify *Emergency controller or Deputy Emergency Controller*.
6. If it is not possible to safely reach a bushfire protection area instruct the relevant staff and/or contractors to travel away from the fire and provide direction so as they are moving away from the fires path of travel.
7. Ensure the fire brigade is called on **000** and give the following information:
 - a. Name of person making the call,
 - b. Name of windfarm and nearest access point to the fire,



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- c. Bush fire situation including any threat to life and exposures,
 - d. Number of staff, contractors and visitors at the windfarm, and
 - e. Location of assembly points.
8. If there is enough time and ECO members/trained staff are available before the bush fire impacts the windfarm, the following readiness options should be considered:
- Strategically position water tankers and/or firefight trailer around the assembly point where the fire is likely to impact and to protect exposures
9. Emergency controller or deputy emergency controller direct all staff, contractors, and equipment and after the passage of the fire front, continually monitor the whole windfarm and surrounding area for at least 4 hours.

Note: Methods to assist with a dynamic risk assessment include:

- Listening to local ABC radio,
- Monitoring the Vic Emergency App,
- Visiting the Vic Emergency Web: www.emergency.vic.gov.au,
- Direct communication with emergency services,
- Own observations and local weather conditions to determine wind speed and direction, smell of smoke and smoke plume colour, size and direction, is bushfire visible etc, and
- Training and experience.

7. Records and data. Applicable formats (Optional)

RECORD	PERSON RESPONSIBLE FOR ISSUE	ARCHIVE MEDIUM / LOCATION	FORM	FILE MANAGER	PRESERVATION TIME
BFMP	HSE Specialist	Electronic / Site Files	Plan	HSE	5 years
Drill / Debrief	Site Manager	Electronic / Site Files	Form	Site Manager	5 years
Communications	Site Manager	Electronic / Site Files	Email	Site Manager	5 years
Fire equipment inspection	Site Manager	Electronic / Site Files	Inspection Record	Site Manager	5 years
Training	Site Manager	Electronic / Site Files	Training Record	Site Manager	3 years

8. List of Appendices

- Appendix 00: Revision log
- AX.01 Site evac diagram
- AX.02 Site Description
- AX.03 Contacts- GPG, Contractos, Stakeholders, Landowners
- AX.04 Site/Substation emergency equipment location/Evac map
- AX.05 Substation emergency equipment location/Evac map
- AX.06 Fire Danger Rating/Response Guide

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Appendix 00: Revision log

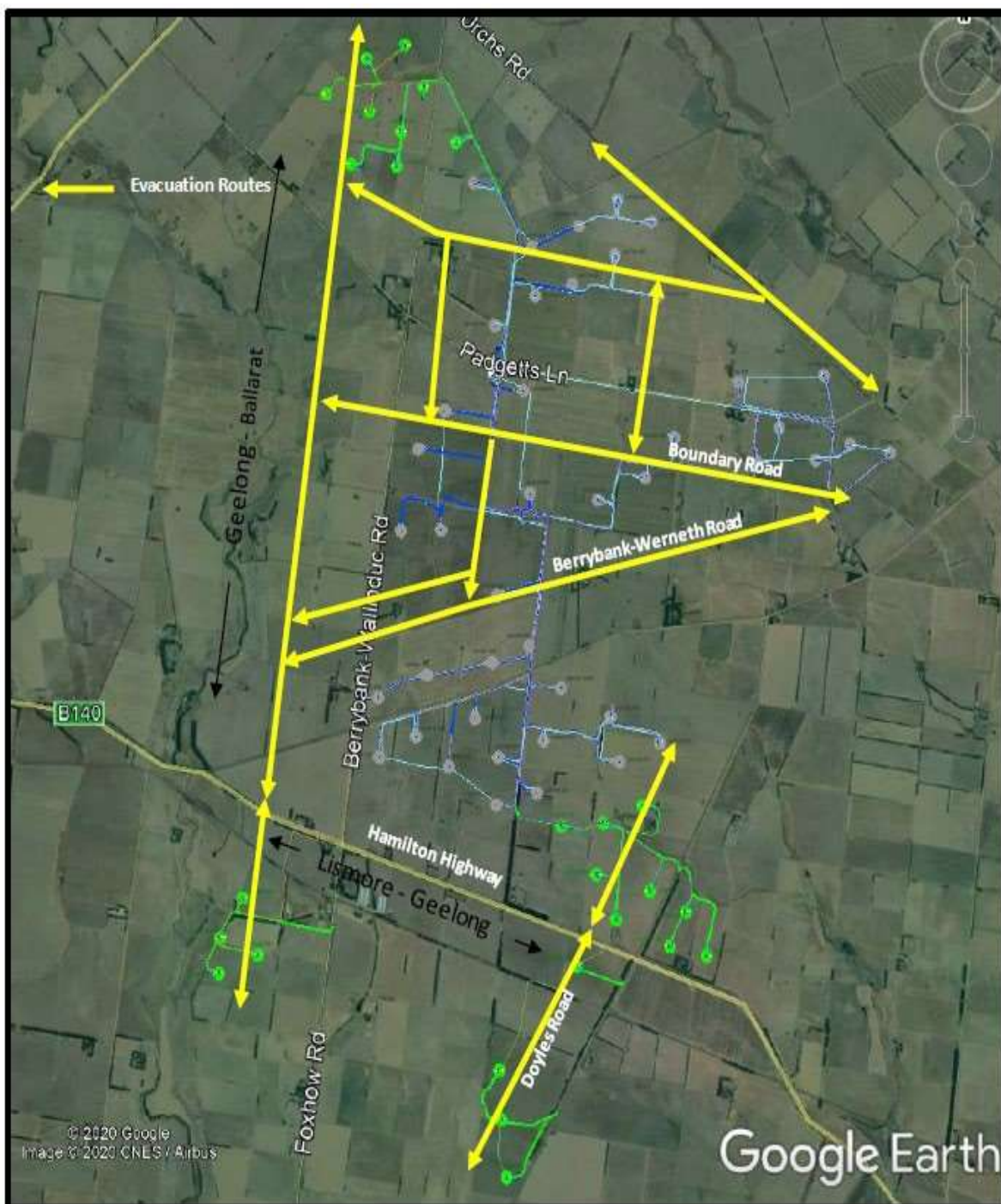
VERSION	DATE	SUMMARY OF CHANGES
1	01/05/2024	Update of the document to reflect operations and new CFA guidelines - A. OGILVIE
2	23/07/2024	Formatting and amendments as per advice from VIC CFA- K. LEVINGS



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AX.01 Site Evacuation diagram

It should be noted that each turbine hardstand is considered to be a bushfire protected areas. Staff should evacuate to the nearest hardstand if they are not able to evacuate from site altogether. If it is not possible to safely reach a bushfire protection area instruct the relevant staff and/or contractors to travel away from the fire and provide direction so as they are moving away from the fires path of travel.





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AX.02 Site Description

The Operational Berrybank 1&2 Windfarm (Entrance 1) is located about 20km east of Lismore on Padgetts lane. The windfarm was constructed and operational in May 2021. The windfarm is situated on the proprietor operational farming lands of crops.

Berrybank Infrastructure

Berrybank windfarm consists of:

- The electrical substation and switchyard, connecting BBWF to TransGrid's electrical transmission system; and a site control room / facility building.
- 69 x 4.2 Mw Turbines located on compacted gravel hardstands
- 2 x meteorological masts
- A network of site tracks to provide access to each turbine on the site and to the substation and a network of underground electrical and communications cables.
- Turbine blade tip to ground distance is 45m.
- Each turbine is fitted with 7 smoke alarms with 3 separate fire suppression systems

Operational Activities

The Berrybank Wind Farm is operated as a manned electricity generator providing up to 289.6 MW of renewable power at full capacity into the 330kV network owned by TransGrid.

The following activities are likely to occur during the operation of the Wind Farm:

- Generation of electricity
- Switching turbines on/off depending on the suitability of the wind resource in generating electricity
- Maintenance of turbines, nacelles, blades and towers
- Maintenance of substation (part of which will be owned and managed by TransGrid as a separate facility)
- Maintenance of other electrical infrastructure, including underground cables
- Maintenance of access roads and other civil infrastructure

Berrybank Development Pty Ltd. owns the wind farm. Vestas is contracted for the operation and integrated maintenance of the turbines and associated control infrastructure. It should be noted that Vestas supplied and installed the wind turbines and will operate under its own technical guidance.

Control Activities

Berrybank 1 & 2 Windfarms is equipped with 24/7 remote monitoring by GPG control room located in Canberra. In the event of an emergency the Control Room will notify CFA and required GPG personnel.

Vegetation

Vegetation around infrastructure is pastoral land with crops that are to be maintained to a maximum of 1.5m in height.

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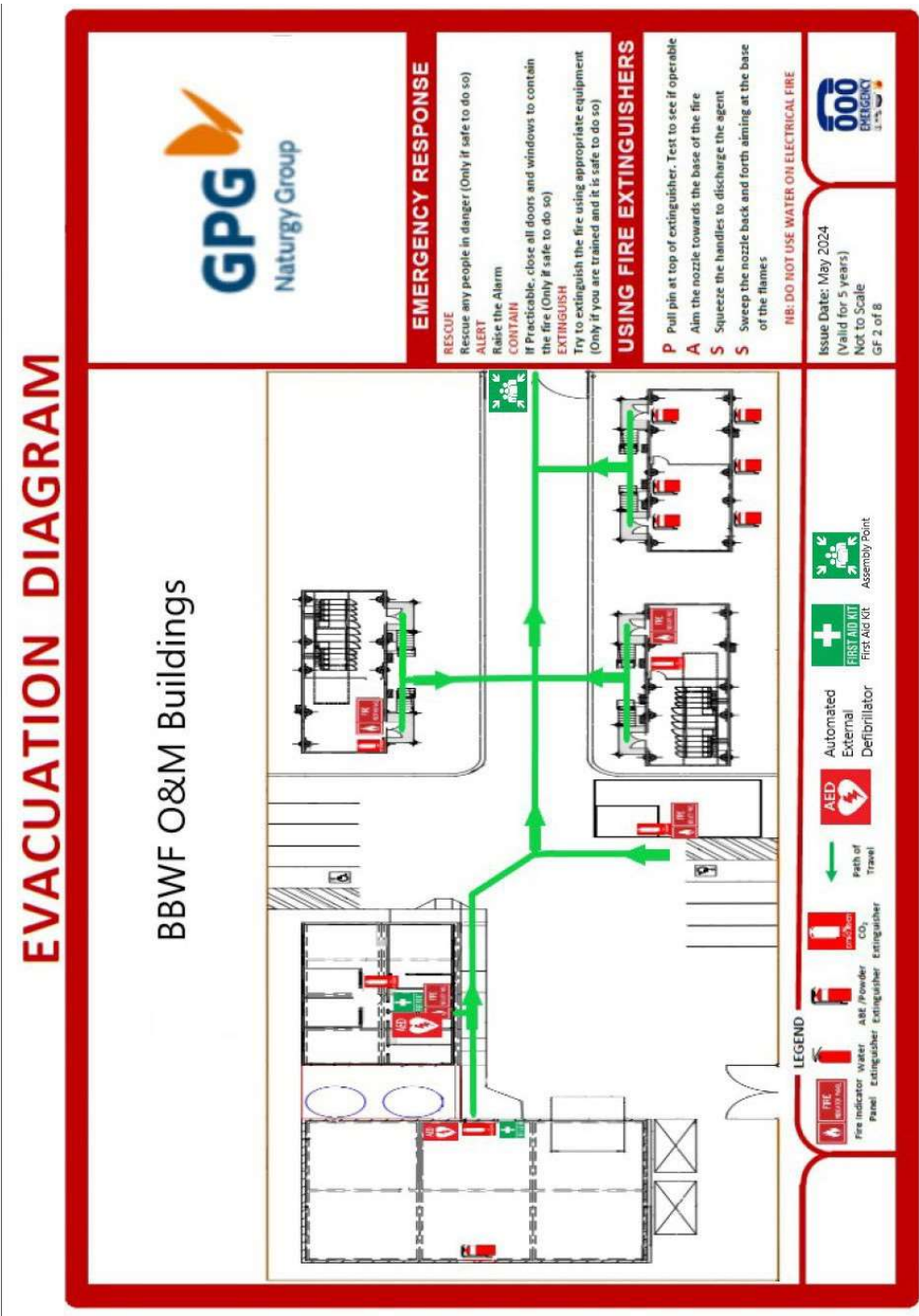
AX.03: Contacts – GPG, Contractors, Landowners, Stakeholders

SERVICES/AUTHORITIES	EMERGENCY PHONE #	ENQUIRY #
Police	000	(02) 4824 0799
Ambulance	000	(02) 4822 1822
Fire	000	(02) 4824 7205
SES	132 500	138 737 138
VIC EPA		1300 372 842
Transgrid	(02) 8818 0621	
Poisons Hotline		13 11 26
Work Safe		13 23 60
Ballarat Base Hospital	000	(03) 5320 4000

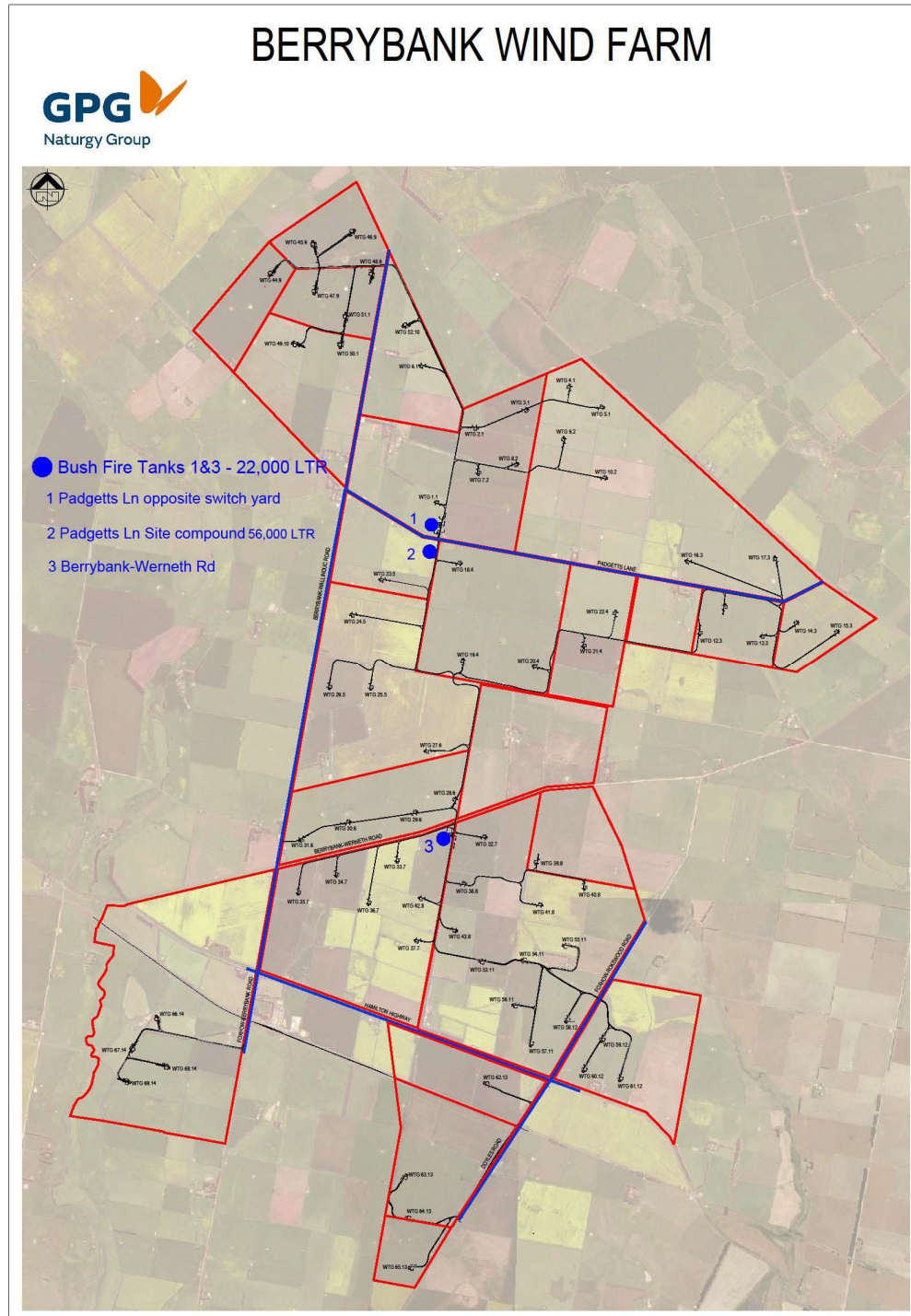
COMPANY	ROLE	NAME	PHONE #
GPG	VIC Regional Manager	Luke Hatherell	0417 960 747
GPG	Control	APREC	0409 346 935
GPG	Site Supervisor	Lachlan Martin	0448 593 578
GPG	Community Engagement	Benn Remmington	0400 403 282
GPG	WHSEQ	Kirsty Levings	0458 166 084
GPG	Environmental	Garry Pearson	0482 837 559
GPG	Legal	Isabelle Purdy	0409 686 917
Transgrid	Systems Operations	Operator	88180621
GPG	Berrybank High Voltage Operating Authority	Luke Hatherell	0417 960 747
GPG	IT communications (Claritti)	Muammar Najjar	0438 440 000
Vestas	Manager	Christine Dwyer	0457 169 184
Vestas	Supervisor	Charles McIver	0436 802 258
Vestas	HSE	Craig Mitchell	0448 278 479



AX.04 Site emergency equipment location/Evac map



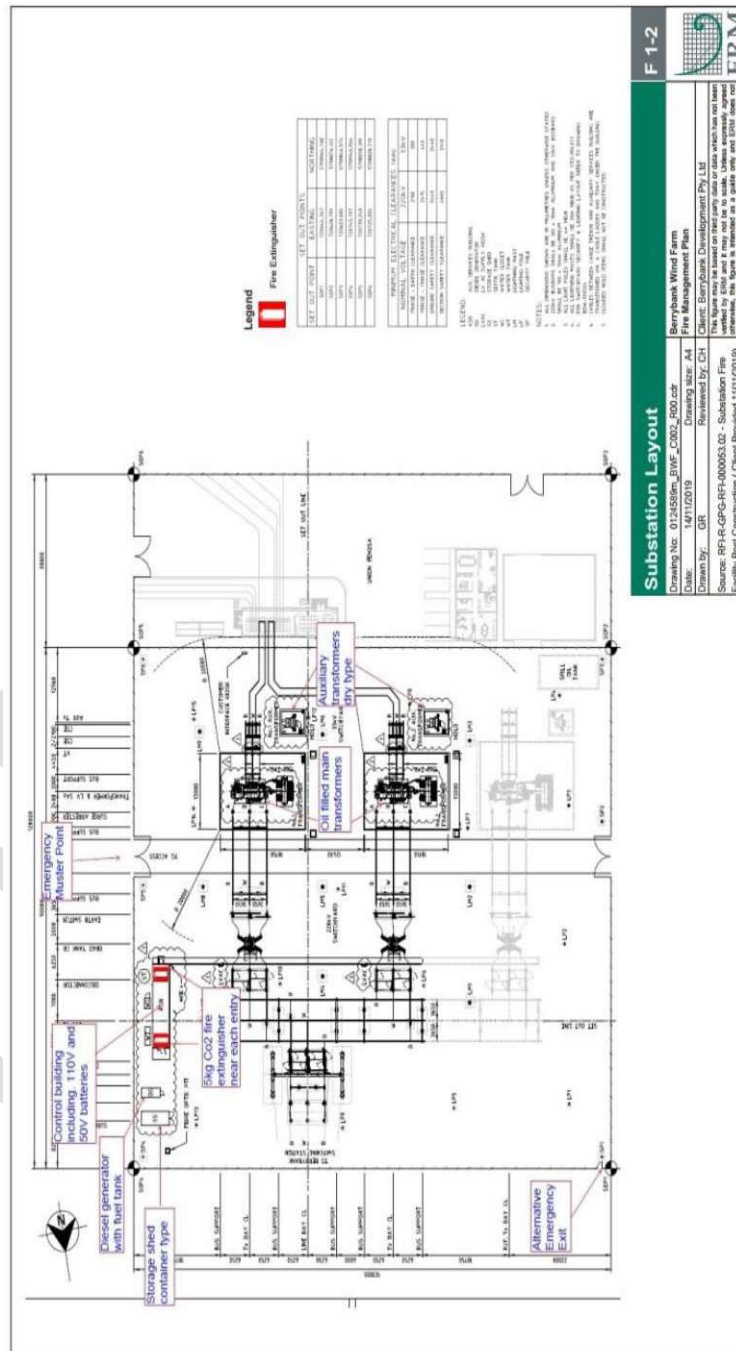
Berrybank 1 & 2 Windfarm- Bushfire Management Plan



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AX.05 Substation emergency equipment location map

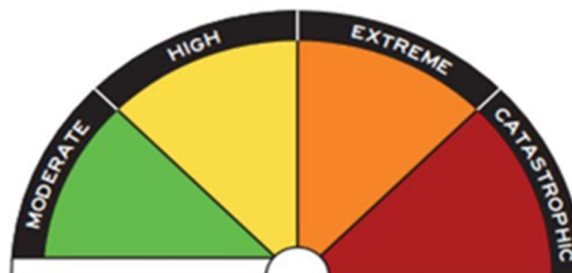




AX.06 Fire Danger Rating/Response Guide

WHAT YOU NEED TO KNOW

The Fire Danger Ratings have four levels, which are:



MODERATE

Plan and prepare.

Most fires can be controlled

- Stay up to date and be ready to act if there is a fire.

HIGH

Be ready to act.

Fires can be dangerous.

- There's a heightened risk. Be alert for fires in your area.
- Decide what you will do if a fire starts.
- If a fire starts, your life and property may be at risk.
- The safest option is to avoid bushfire risk areas.

EXTREME

Take action now to protect your life and property.

Fires will spread quickly and be extremely dangerous

- These are dangerous fire conditions.
- Check your bushfire plan and that your property is fire ready.
- If a fire starts, take immediate action. If you and your property are not prepared to the highest level, go to a safer location well before the fire impacts.
- Reconsider travel through bushfire risk areas.

CATASTROPHIC

For your survival, leave bushfire risk areas.

If a fire starts and takes hold, lives are likely to be lost.

- These are the most dangerous conditions for a fire.
- Your life may depend on the decisions you make, even before there is a fire.
- Stay safe by going to a safer location early in the morning or the night before.
- Homes cannot withstand fires in these conditions. You may not be able to leave and help may not be available.



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Fire Danger Index	What Does It Mean??	Working Restrictions and Actions	Preparedness	Site Restrictions
Moderate	There is little risk to personnel or property from a fire in these conditions, as long as it is monitored/suppressed by suitably qualified fire personnel. Be aware of how fires can start and minimise the risk. Controlled burning off may occur in these conditions if it is safe - check to see if permits apply.	No fires (such as hot works) to be left unattended. No other specific restrictions in place.	Users to verify emergency exit points.	Awareness of emergency access and assembly area
High	Fires can be controlled but there is risk of local spot fires developing as a result of embers carried by wind. Some fires may be fast moving and difficult to control. There is risk of spot fires developing up to 2 km away from fire front, as a result of embers carried by wind.	Consider suspending activities with the potential to cause accidental ignitions. The following activities are considered to be high fire risk activities: • welding; • gas cutting; • soldering; • grinding; • charring; and • the use of power operated abrasive cutting discs. Any person conducting or engaging in a high risk activity must ensure: • a shield or guard of fire resistant material is placed or erected in such a way as to prevent the emission of sparks, hot metal or slag; and • the area for a radius of at least 1-5 m from the activity is clear of all flammable material or wetted down sufficiently to prevent the spread of fire; and • there is available for immediate use in the event of fire, a reticulated water supply or an effective water fire fighting system with a tank capacity of not less than 9 L and fully charged with water.	Monitor weather conditions and CFA alerts. When bushfire warnings are issued you need to understand what each one means. Be aware that action may be necessary.	Site activities will be reviewed. Emergency preparedness and response will be highlighted in team talks and works



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Fire Danger Index	What Does It Mean??	Working Restrictions and Emergency Actions	Preparedness	Site Restrictions
Extreme	Some fires will be very fast moving, unpredictable and difficult to control. There is a risk of spot fires developing up to 4 km away from the fire front, as a result of embers carried by wind. Expect hot, dry and possibly windy conditions. If a fire starts and takes hold, it will be uncontrollable, unpredictable and fast moving. Spot fires will start, move quickly and come from many directions. You must be physically and mentally prepared to defend in these conditions.	<u>Suspension of activities likely to cause sparks or fire.</u> Non-essential users are to depart the windfarm. When working on a Extreme Fire Danger Rating day, a risk assessment of the work site must be undertaken before works can start. If for any reason activities likely to cause sparks or fire are required, Vic CFA must be notified. Some wind turbines may be shut down. Where possible, blades should be stopped in the 'Y' or 'rabbit ear' position, as this positioning allows for the maximum airspace for aircraft to manoeuvre underneath the blades and removes one of the blades as a potential obstacle.	Be aware of local conditions. Check the VicEmergency website for current incidents www.emergency.vic.gov.au	Parts of the site may be closed in response to escalating fire danger and all non-essential access and works at site will be reviewed/restricted.
Catastrophic	These are the worst conditions for a bush or grassfire. Homes are not designed or constructed to withstand fires in these conditions. The safest place to be is away from high-risk bushfire areas.	<u>Suspension of activities likely to cause sparks or fire.</u> <u>Non-essential users are to depart the site.</u> There is to be no high risk activities other than Emergency works. If for any reason emergency works likely to cause sparks or fire are required, Vic CFA must be notified. Some wind turbines may be shut down.. Where possible, blades should be stopped in the 'Y' or 'rabbit ear' position, as this positioning allows for the maximum airspace for aircraft to manoeuvre underneath the blades and removes one of the blades as a potential obstacle.	Be aware of local conditions. Check the VicEmergency website for current incidents www.emergency.vic.gov.au List en to local media.	The site may be closed in response to escalating fire danger and all non- essential access and work will be restricted.

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