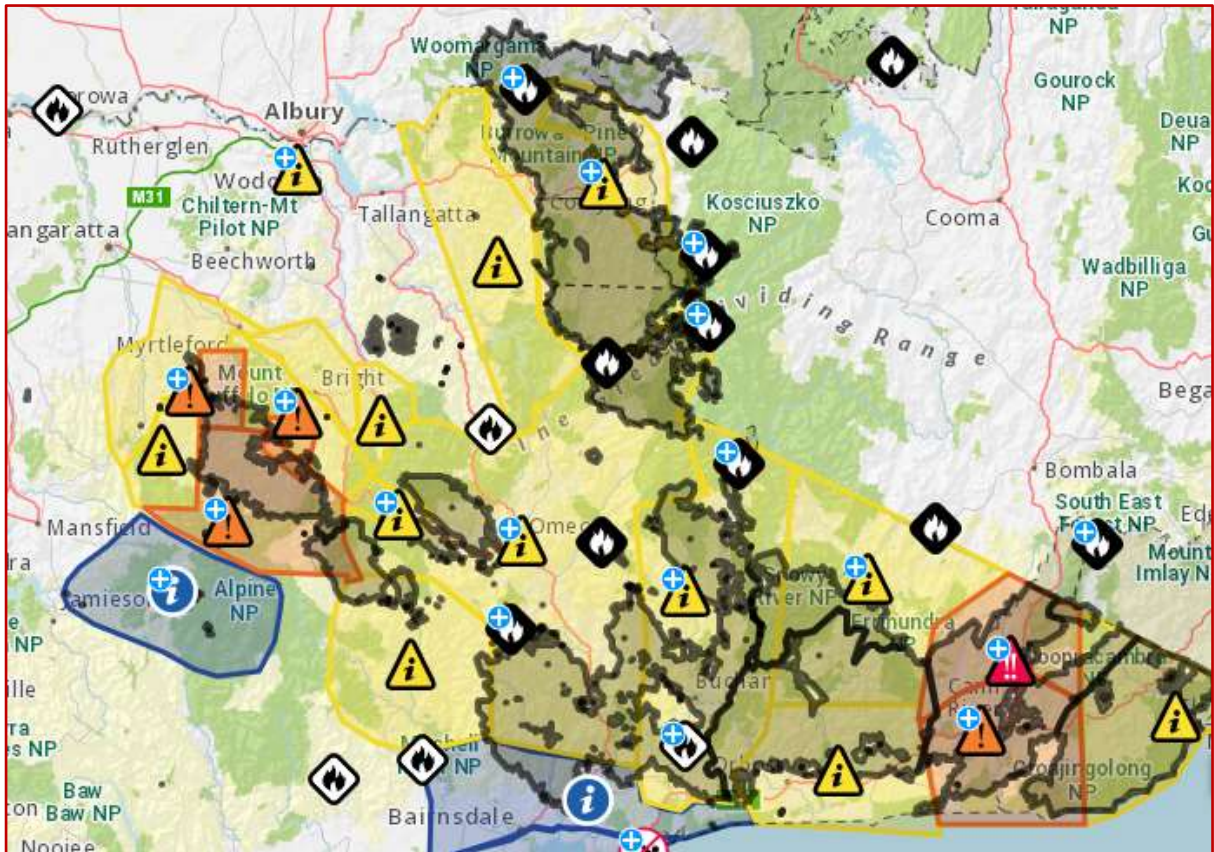


CMPA



Bushfire Response and Readiness Plan Template

September 2020

Acknowledgements

The CPGA would like to acknowledge those who contributed to the development of this Bushfire Response and Readiness Plan Template.

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Disclaimer

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The guidelines here may not apply in all circumstances and should not replace a quarry manager's considered assessment of a particular situation before them.

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CMPA

1. Introduction to the Bushfire Response and Readiness Plan Template

Objective

The objective of this Bushfire Response and Readiness Plan Template is to assist CMPA members in ensuring that procedures are in place and that responsibilities are defined and understood to prevent the ignition of a bushfire on a quarry site and or to reduce the impact of an encroaching bushfire.

Relevant Legislation

- Victorian Occupational Health and Safety (OHS) Act 2004
- Victorian OHS Regulations 2017
- Mineral Resources (Sustainable Development) Act 1990
- Mineral Resources (Sustainable Development) (Extractive Industries) Regulations 2010;
- Environmental Protection Act 2017
- Dangerous Goods (Storage and Handling) Regulations 2012

References and Guidance Materials

The CMPA acknowledges the publication and provision of the following documents that have provided relevant information and guidance when establishing this Bushfire Response and Readiness Plan Template.

- Preparation of Work Plans and Work Plan Variations, Guideline for Extractive Industry Projects December 2018. Earth Resources Regulation
- Code of Practice for Small Quarries, Department of Primary Industries, Earth Resources Regulation May 2010
- <https://www.cfa.vic.gov.au/home>

Code of Practice for Small Quarries Requirements

The Code of Practice for Small Quarries (2010) section 5.8 Fire Management lists the following requirements (R) with the objective of ensuring that a quarrying activity does not contribute to, or exacerbate fire hazards:

- R28. The Work Authority holder must take all reasonable measures to prevent the ignition and spread of fire
- R29. The Work Authority holder must ensure that all buildings, fixed plant and mobile equipment are fitted with fire-fighting equipment, such as fire extinguishers, fire blankets, knapsack spray pumps and rake-hoes

The Code recommends that Work Authority holders establish the following practices:

- Develop a fire management plan
- Maintain appropriate fire - fighting equipment at a work site
- Check the undersides of vehicles periodically to ensure they are kept free of vegetation debris that could dry out and ignite
- Store flammable materials such as waste hydrocarbons away from ignition sources

2. How to use this Bushfire Response and Readiness Plan Template

CMPA members can use this template as a guide to establish a site specific Bushfire Response and Readiness Plan.

To do so, follow the prompts provided by the coloured text:

- Black text is proposed headings/text that may be left as is or amended to suit your site specific requirements
- Blue text is hints on what text should be included and must be removed before finalisation
- Red text is sample texts that would require customisation before finalisation

The Bushfire Response and Readiness Plan is a risk based management plan that assembles the overall approach to the management of bushfire.

Where and if applicable Safe Work Procedures, Safe Work Methods Statements, checklists and so forth should be referred to in your Bushfire Response and Readiness Plan.

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3. Introduction and Authorisation

This Bushfire Response and Readiness Plan referred to as (the plan/this plan) has been prepared by XXXX Quarries (add Company Name) for the XXXX Quarry site (add Quarry Site Name).

The Quarry is located at (add address and any relevant detail re location e.g. major utilities or sensitive receptors, adjacent to, surrounded by)

{Add details of property size, vegetation type and coverage}

Quarry Name	
Quarry Address	
Municipality	
CFA declared Fire District	
Authorised by	<i>Name</i>
Position or Title	<i>Managing Director / CEO/ Regional Manager</i>
Version/Issue Number	<i>Version/Issue number and date</i>

4. Site Location

{Consider adding Google Map to illustrate location and its surrounds}
{Add location of site evacuation area – refer section titled Site and Site Evacuation Assessment}
{Add location of fuel storage areas and firefighting equipment}

5. Our approach to Prevention & Control

For a bushfire to occur there are three factors which must be present, an ignition source, oxygen and fuel.

Sources of ignition may be quarry related activities such as hot works or external ignition sources, such as electricity transmission lines, lightning or arson.

The progress and consequence of a bushfire will be affected by fuel availability, including type and amount, as well as terrain and weather, including winds, humidity and ambient air temperature.

The progress and consequence of a bushfire can potentially be influenced through preventative and preparedness initiatives.

XXXX Quarries can prevent quarry-related activities being a source of ignition.

XXXX Quarries will be prepared to and where applicable attempt to control the progression and consequence of externally ignited bushfires that may impact the quarry and its assets, the quarry's neighbors and the surrounding community.

6. Our Objective

The objectives of our Bushfire Response and Readiness Plan are to ensure that:

- Quarry operational activities are managed in a manner that reduces the risk of a bushfire igniting from within the quarry site
- Quarry management and workers are aware of any encroaching bushfire that may threaten the quarry personnel, site and assets
- Quarry management and workers are prepared to safely react to any internally ignited or encroaching or impacting bushfire
- Our community and our firefighting services are aware of our approach to preventing and controlling bushfires

7. General Responsibilities

The following responsibilities are to be established to implement and maintain this Bushfire Response and Readiness Plan.

Quarry Manager

- Ensure all quarry workers, contractors and visitors are aware of the requirements of this plan as applicable
- Ensure compliance with the requirements of this plan
- Ensure the Country Fire Authority (CFA) are aware of this plan
- Liaise with and comply with directives from the CFA as required
- Initiate an emergency response as required
- Initiate the investigation of any fire or bushfire incidents that occur within the quarry
- Initiate the review of this plan as an when required

Quarry Workers & Contractors

- Comply with the requirements of this this plan
- Comply with directives from CFA as required

{Add any other site-specific responsibilities}

8. Training & Awareness

The following training and awareness initiatives are to be established to ensure the successful application of the Bushfire Response and Readiness Plan:

- Quarry workers and contractors shall undertake site specific bushfire awareness training prior to the bushfire season (November to March)
- The training shall take into account and be based on the content of this plan
- Regular reminders of responsibilities and obligations regarding bushfire prevention and control will be communicated at toolbox talks

Workers who may be potentially involved in firefighting shall undertake training that is inclusive of but not limited to:

- Fire Behavior
- Use of firefighting equipment
- Managing heat stress
- Use of personal protective equipment

{Add any other site-specific training and awareness initiatives}

Understanding Fire Ratings

The Fire Danger Rating predicts how a fire would behave if one started, including how difficult it would be to put out.

The Quarry Manager and any relevant workers will familiarise themselves with the CFA's Fire Rating protocols listed on the CFA website.

<https://www.cfa.vic.gov.au/warnings-restrictions/about-fire-danger-ratings/>

9. Site and Site Evacuation Assessment

The quarry site has been assessed for suitability to take shelter in a safe place.

{List the locations of shelter that could be potentially used taking into account the direction and travel path of the potential fire fronts}

The following off site locations have been identified in case of evacuation.

{List the offsite evacuations and the safe travel routes taking into account the direction and travel path of the potential fire fronts}

10. Hazard Id – Ignition Sources

Sources of ignition of a bushfire may be quarry related activities or external ignition sources.

From an ignition perspective, this plan focuses on the identification and control of quarry related activities.

Quarry related activities that have the potential to ignite a fire include:

- The use of mobile equipment or other vehicles in dry vegetated areas
- Hot Works such as welding, oxy acetylene cutting and grinding
- Bearings that catch fire through overheating
- Electrical equipment
- Smoking in unsafe areas or the unsafe disposal of cigarette butts
- Transformer stations infested with weeds or other vegetation
- Looping power lines
- Landfill materials

{Add any other site-specific potential ignition sources}

11. Bush Fire Management Controls

The following subsections describe the controls that shall be implemented and maintained to reduce the probability of a bushfire igniting or to prevent the spread of a bushfire.

Vegetation

The Quarry Manager shall identify any areas within or immediately external to the quarry that due to terrain, fuel, common wind directions or other factors may create a fire conduit to internal or external assets.

Where practicable, stand-off distances shall be maintained between quarry operations presenting a fire risk and vegetation.

Fuel loads within these potentially hazardous fire areas within the quarry shall be managed to ensure that a progressive reduction of bushfire fuels occurs between the potential bushfire hazards and the internal or external assets.

The management of fuel loads shall take into account the quarry obligations in regard to rehabilitation of the quarry site, general work authority requirements and recommendations made by the CFA

{Provide a list of specific management controls that shall be established and maintained as per the following example}

The management of fuel loads in these areas shall be inclusive of:

- Trees and shrubs shall be maintained where practicable in such a manner that the vegetation is not a continuous conduit to internal or external assets
- Noxious weeds will be reduced as far as practicable or eradicated as per the noxious weeds control plan
- Height of grass will be reduced as far as practicable by grazing or {add other} means

General Operations

- Smoking is prohibited in mobile equipment or any onsite vehicles
- Smoking is only allowed in designated smoking areas where enclosed windproof ashtrays and a 5 kg dry powder type fire extinguisher is provided
- All work areas will be equipped with suitable fire extinguishers with their location indicated by appropriate signage
- The site water truck shall be fitted with a water cannon to assist in the control of ember attack on quarry vegetation and or assets, e.g. buildings or the processing plant
- Compatible connection points from the quarry's water infrastructure to permit the accessibility of this water to firefighting equipment, including local CFA equipment*
- All on site fire breaks shall be maintained throughout the bushfire season
- All internal access roads and tracks shall be maintained and kept clear of all obstructions and debris to ensure safe access and egress from the quarry site in the event evacuation is called or access is required by firefighting services
- Bearings shall be checked on a {add frequency of checks} to ensure that grease levels are suitable and the bearings do not overheat
- All portable electrical equipment shall be tested and tagged as per the intervals outlined in AS/NZS 3760:2010, In-Service Safety Inspection and Testing of Electrical Equipment, Table 4 Testing and Inspection Intervals for Electrical Equipment
- Electrician shall provide a Certificate of Safety for all electrical installation
- Transformer Stations shall be routinely inspected; where weed infestation is occurring the power supply company will be notified. If no response is received WorkSAFE will be notified
- If power lines are observed to be looping the power supply company will be notified. If no response is received WorkSAFE will be notified
- Fuel Storage location shall comply with AS 1940: The Storage and Handling of Flammable and Combustible Liquids

{Add any other site-specific controls relevant to general operations}

- **See attachment a) CFA. Tank Connections Explained, Bushfire Management Overlay**

Mobile Equipment

- All mobile equipment will be maintained in good working order with appropriate fire suppression and extinguishing systems
- Mobile equipment working in vegetated areas will be fitted with engine exhaust spark arrestors
- Earthmoving equipment shall not be used to clear vegetation during periods of total fire bans
- Mobile equipment working in vegetated areas shall be inspected to ensure that they do not pose a risk of starting a bush fire. This will include inspection of exhaust spark arrestors and electrical systems, including, in the case of vehicles using unleaded petrol, catalytic converters
- Mobile equipment working in vegetated areas will not be left unattended with the engine running
- Refueling will be undertaken within designated fuel bays or within cleared areas of the quarry site
- Vehicles will be turned off during refueling
- 5 kg dry powder type fire extinguishers shall be maintained within site vehicles and refueling areas
- The on-site water truck will be tested at least weekly during the bushfire season to ensure it remains operational
- All mobile equipment will be equipped with appropriate communication equipment, including two-way radios and/or mobile telephones

{Add any other site-specific controls/procedures relevant to mobile equipment operations}

Personal Protective Equipment (PPE) and Communication Devices

Appropriate PPE shall be made available and shall be easily accessible to workers patrolling for and extinguishing small fires inclusive of:

- Cotton drill overall
- Safety boots
- Hard hats
- Safety wrap around glasses, sealed goggles and or face shields
- Leather Gloves
- P2 respiratory protection masks
- Canvass or leather boot spats

All workers patrolling for and extinguishing small fires will be equipped with appropriate communication equipment, including two-way radios and/or mobile telephones.

Hot Works

Welding, cutting or grinding operations (Hot Works) shall, as far as practicable, be conducted in the designated Hot Works area, e.g. the workshop.

Where Hot Works are conducted in other areas of the site, the activity shall be directed by a Safe Work Method Statement (SWMS) or Permit to Work (PTW).

Hot Work shall not be conducted on Total Fire Ban days without a CFA section 40 permit.

All oxygen and acetylene equipment shall be fitted with Flash Back Arrestors to both the torch and cylinder.

The SWMS or PTW shall be inclusive of the following controls:

- All portable ignition sources shall be moved to a safe distance away from where the hot work is to be performed
- All combustible structural members and other fixed combustible objects being shall be wet down, shielded or otherwise protected from sparks, slag or other hot particles inclusive of any holes, recesses or shafts where hot metal particles are likely to fall through or lodge. Shielding must be manufactured from a thermal barrier cloth with a melting temperature of not less than 1650°C or a tarpaulin manufactured from a fire-resistant material
- Receptacles for the disposal of offcuts, slag and electrode stubs shall be available
- Gas detectors shall be used if flammable/explosive gases/dusts are potentially present
- Where practicable the area surrounding and below the Hot Works activity shall be wet down when the activity has ceased
- A fire watch shall be conducted immediately after Hot Work Activities have ceased. Where practicable hot works shall not be conducted during that last 2 hours of the working day to allow the fire watch to occur
- Firefighting equipment for preventing the spread of fire shall be easily accessible and available for immediate use

{Add any other site-specific controls relevant to Hot Works}

Fuel Storage

The storage and handling of Dangerous Goods shall be undertaken taking into account the requirement of the Dangerous Goods (Storage and Handling) Regulations 2012, in particular Schedule 3—Information to be contained in a Manifest and Schedule 4—Placarding Requirements.

Hydrocarbons will only be stored within appropriately constructed and bunded hydrocarbon storage areas with suitable fire extinguishers and appropriate signage located in the vicinity.

Fuel Storage location shall comply with AS 1940: The Storage and Handling of Flammable and Combustible Liquids

{Add location and volume of all flammable and explosive dangerous goods stored on site. Where, if applicable the Manifest is stored and where if applicable, Placards are posted. The use of a site map may be a practical means of doing this}.

Power and Water

{Describe the source of electrical power provided to the site and any auxiliary power such as a generator that can be utilised to power electrical pumps}

{Describe type, location and energy source of pumps that may be potentially used as firefighting equipment}

{Describe the source of water supply, e.g. tanks, dams, quarry pit, its location and anticipated volume and how to access or connect to the supply}

Inspection and Maintenance of Controls

- All fire extinguishers have to be inspected and tested at six monthly intervals in accordance with AS1851 Section 10. Fire extinguishers shall be pressure tested and refilled every five years and recharged after discharge
- Fire pumps, fire vehicles, tankers and all other firefighting equipment shall be serviced prior to the bushfire season, and then checked on a weekly basis throughout the season to ensure correct working order
- All on site fire breaks, internal access roads and tracks shall be inspected on a weekly basis throughout the bushfire season
- Vegetation fuel loads within the quarry shall be routinely monitored to ensure that they remain at safe levels
- PPE supplies shall be assessed and re stocked as required prior to the commencement of the bushfire season

{Add any other site-specific controls relevant to inspection and maintenance of controls}

Fire Danger Period

CFA declares the Fire Danger Period for each municipality (shire or council) at different times in the lead up to the fire season. It depends on the amount of rain, grassland curing rate and other local conditions.

The Quarry Manager will be aware of when the CFA has declared a Fire Danger Period and will have an understanding of what restrictions apply.

For further information on restrictions and districts refer to the following website.

<https://www.cfa.vic.gov.au/warnings-restrictions/about-the-fire-danger-period>

Fire Danger Ratings and Total Fire Ban Days

The CFA declares Total Fire Ban Days on a Fire District basis prior to the declared day.

The quarry manager shall check the Fire Danger Ratings daily, during a Fire Danger Period.

Should the rating for the day be very high or above, the Quarry Manager shall:

- Consider reduced staffing, restricted activities and site closure in advance of these forecast days
- Notify site personnel of the increased risk and emphasise the need to be vigilant in managing potential ignition sources
- Monitor the Vic' Emergency Web site to obtain information about fire locations, warnings and advice
- Ensure all firefighting equipment is in working order and easily accessible
- Incorporate this plan into the overarching emergency response plan for the quarry
- Be aware of what operational activities require a section 40 permit on Total Fire Ban days, such as welding, cutting, grinding and use of gas torches

{Add any other site-specific controls relevant to Total Fire Ban days}

12. Active Bushfires

Bushfire in Broader Area

If a bushfire is identified in the broader area the Quarry Manager shall monitor the Warning and Incident page on the following website <https://www.cfa.vic.gov.au/warnings-restrictions/warnings-and-incidents>, and or monitor the Warning and Incidents information on the local designated emergency services AM/FM radio station.

If the fire is not in close proximity and it is determined to be safe to do so by the Quarry Manager in consultation with quarry workers, work will continue with the following provisions:

- Firefighting equipment will be brought close to hand
- UHF radio and local FM/AM radio emergency station shall be monitored regularly for fire updates
- CFA Warnings and Incidents website shall be monitored regularly to determine if the fire front is moving closer

If the fire is within close proximity the Quarry Manager shall:

- Enact the emergency response procedure directing all persons on site to assemble at the designated emergency (shelter) assembly area
- Conduct a head count to confirm all persons on site are accounted for
- In consultation with quarry workers and based on the Incidents and Warnings information as applicable, direct the course of action to be undertaken, e.g. site protection, site shelter or site evacuation

Bushfire Impacting Quarry Site

The impact may be from smoke, embers, fire activity or road access restrictions.

Following the identification of an imminent bushfire threat, or impact as described above the following controls shall be implemented.

- Human life shall be protected above all else. If it is safe to do so, then property is the second asset to consider preserving
- The fire will be reported to Emergency Services using the “000” telephone number
- If a fire has started in close proximity to a work area and the facilities are on hand to put it out and it is safe to do so then it should be contained and extinguished as quickly as possible, possibly in conjunction with CFA operations
- If the fire cannot be safely controlled the Quarry Manager will determine the course of action required and enact the sites emergency response plan The Quarry Manager in consultation with quarry workers will determine if evacuation to an onsite or off site shelter is required

{Add any other site-specific procedures or practices relevant to active bushfires}

13. Bushfire Investigation

In the event of a bushfire incident an investigation shall be conducted to determine:

- What occurred at the time of the incident?
- The root cause of the incident
- Any contributing factors which led to or increased the consequence of the incident
- Whether appropriate controls were implemented to prevent or reduce the consequence of the incident

Where applicable an external resource with bushfire expertise may be engaged to conduct the investigation.

Corrective and/or preventative actions will be assigned to relevant managers or workers as a result of the investigation.

If required, this plan will be amended and all managers or workers responsibilities will be updated.

Actions and amendments will be communicated through meetings and toolbox talks.

Outstanding actions will be reviewed and monitored for their effectiveness upon completion.

All reports associated with complaints or incidents will be retained on site for the life of the quarry.

{Add any other site-specific procedures or practices}

14. Internal Communication

Internal communication on bushfire related issues shall occur mainly through toolbox meetings conducted prior to and during the bushfire season.

In addition, following methods of communication with workers and contractors shall be utilised:

- Pre-Start meetings
- Awareness training
- Internal communications, e.g. safety alerts, bulletins.

{Add any other site-specific communication processes}

15. Bushfire Response and Readiness Plan Review

The Bushfire Response and Readiness Plan will be reviewed and amended as required by the Quarry Manager in consultation with relevant workers and potentially the CFA:

- Prior to the commencement of the Declared Fire Danger Period each year
- After a nearby off-site bushfire or on-site bush fire
- After an internal/external investigation related to an on-site bushfire
- After a modification to the Work Authority or Work Plan where relevant