

Mount Shadwell Scoria Quarry

WA1478-PLN 001732

Bushfire Management Plan



Version 2

November 2023

Prepared by

NAM P/L

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

Mount Shadwell Scoria Quarry is located 2km north of Mortlake on the Mortlake Ararat Road

See site Location Plan, page 3.

Quarry size. The quarry occupies an area of approximately 33ha.

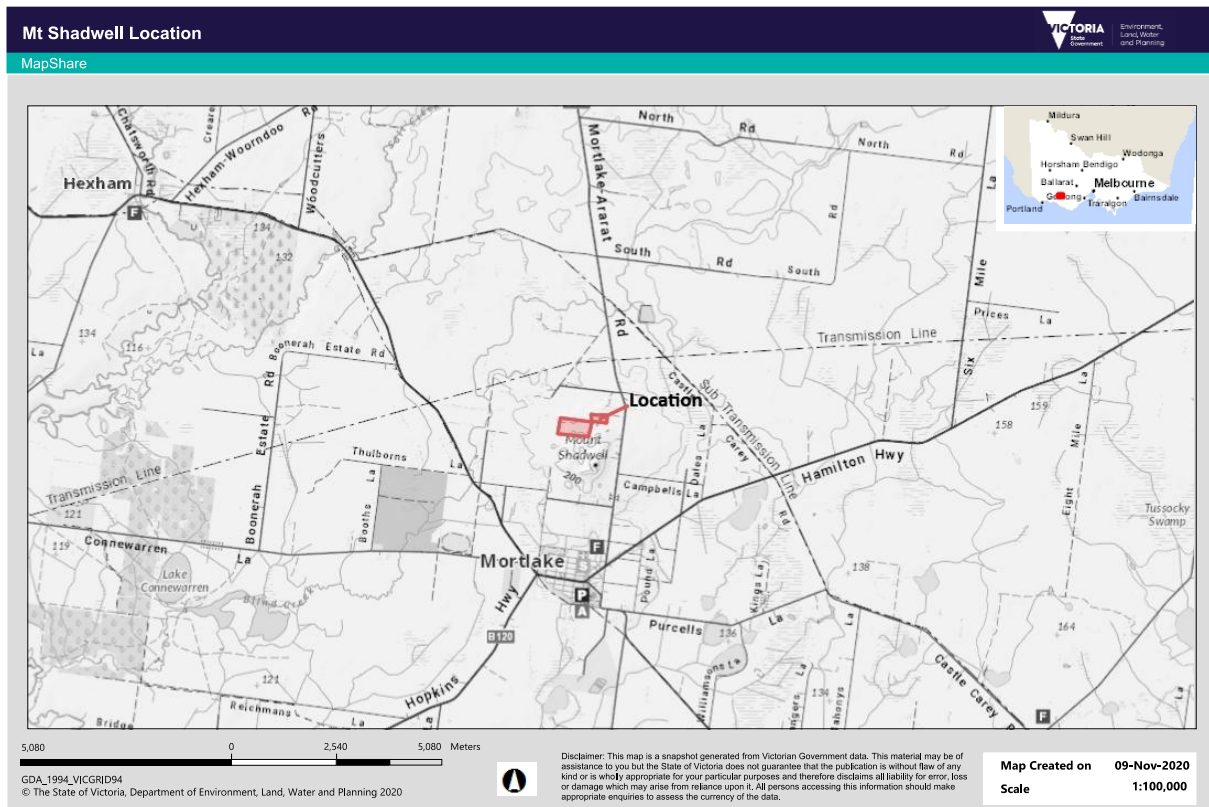
Vegetation type and coverage . The property is 100% cleared of native vegetation for grazing and cropping. There are 4 mature cypress plantations adjoining the quarry. Please see Water Point Plan, page 9.

Quarry Name	Mount Shadwell Scoria Quarry.
Quarry Address Municipality	Mortlake Ararat Road Mortlake.
CFA declared Fire District Authorised by Southwest CFA	


Position. Owner Operator

Version2/Issue number 1. Date. November 2023

4. Site Location



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.

Mount Shadwell Scoria Quarry can prevent quarry-related activities being a source of ignition.

Mount Shadwell Scoria Quarry 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 neighbours 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

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 Behaviour
- Use of firefighting equipment
- Managing heat stress
- Use of personal protective equipment

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/>

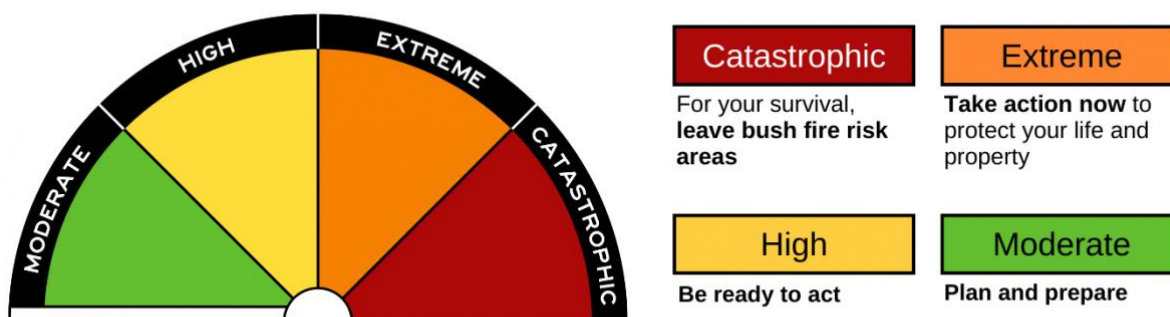
New 2023 CFA Fire Danger Ratings are:

On 1 September 2022 fire danger ratings changed in Australia to the Australian Fire Danger Rating System (AFDRS). The AFDRS is the same in **every state and territory**.

Fire Danger Ratings provide information so people in affected areas can take action to protect themselves and others. The higher the fire danger, the more dangerous the conditions and the greater the impact will be if a fire starts.

There are now four Fire Danger Ratings levels: **Moderate, High, Extreme** and **Catastrophic**. When no Fire Danger Rating is issued the arrow will point to a white ‘no rating’ level.

Daily fire danger ratings can be found on the [CFA website](#).



9.

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

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

- The Cypress windbreak 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

General Operations

- Smoking is prohibited in mobile equipment or any onsite vehicles
- a 5 kg dry powder type fire extinguisher is provided
- All on site fire breaks shall be maintained throughout the bushfire season. 20m buffers around work site are effective fire breaks
- 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
- 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

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 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
- Refuelling will be undertaken within designated fuel bays or within cleared areas of the quarry site
- Vehicles will be turned off during refuelling
- 5 kg dry powder type fire extinguishers shall be maintained within site vehicles and refuelling areas
- All mobile equipment will be equipped with appropriate communication equipment, including two-way radios and/or mobile telephones

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
- Canvas 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

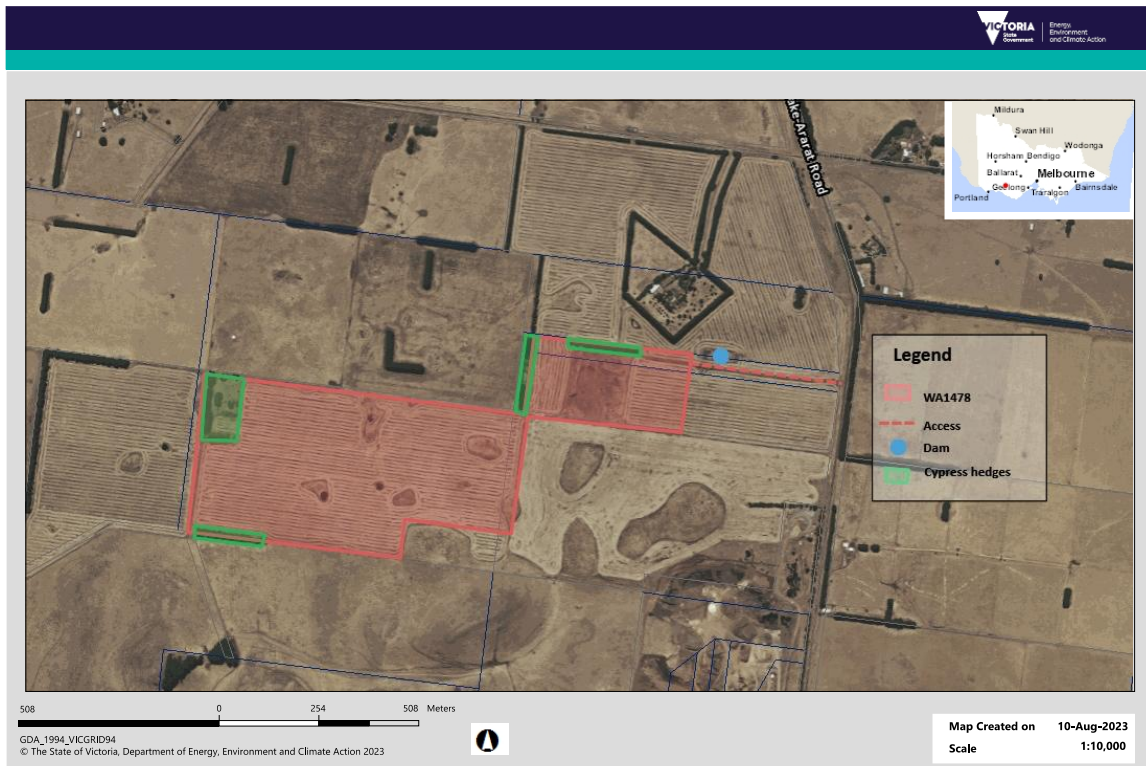
- Welding, cutting or grinding operations (Hot Works) shall, as far as practicable, be conducted in the designated Hot Works area.

Fuel Storage

- Fuels and lubricants will not be stored on site.
- A suitably certified fuel container located in the tray of a service vehicle will be used to refuel plant and equipment.

Power and Water

- There is no onsite power.
- Two sediment ponds are proposed to be located within the northeast corner of the existing quarry. 4 sediment ponds are proposed to be progressively constructed within the extension area as extraction extends across the area. These ponds may not hold water during the drier months. Please refer to the Work Plan design for the proposed locations of the sediment ponds, pages, 12&13.
- Water supply is limited, there is one stock water dam and associated bore on site. See Mount Shadwell Scoria Quarry Water Point plan below.



WA1478. Access, water point, cypress hedges.

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
- 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

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 extreme catastrophic, 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

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 offsite shelter is required

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.

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

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