



BUSHFIRE MANAGEMENT PLAN

Wallerawang Quarry

FINAL

August 2020



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Prepared by
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on behalf of
Walker Quarries Pty Ltd

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Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
V2.1	Alex Irwin	24 April 2020	Johann van der Merwe (Walker Quarries)	24 April 2020
V2.2	Alex Irwin	4 August 2020		

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1.0 Introduction

1.1 Scope

This Bushfire Management Plan (BFMP) for the Wallerawang Quarry (the Quarry) has been reviewed and updated by Umwelt (Australia) Pty Limited (Umwelt) on behalf of Walker Quarries Pty Ltd (Walker Quarries) in satisfaction of Condition 40 of Schedule 3 of Development Consent DA 344-11-2001 (DA 344-11-2001). The BFMP is an important tool for Walker Quarries to refer to, for both its staff and contractors, to minimise the risk of fire initiation and/or manage bushfires should they occur within or adjacent to the Quarry.

The Wallerawang Quarry (the Quarry) is located approximately 8 kilometres (km) northwest of Lithgow (see **Figure 1.1**) and is operated in accordance with development consent DA 344-11-2001. DA 344-11-2001 approves disturbance up to a maximum of 28.6 ha for the purpose of quartzite and other hard rock extraction, processing, stockpiling, management and on-site disposal of non-saleable (overburden) materials, and ancillary infrastructure. The Quarry is approved to produce 500 000 tonnes per annum (tpa) of hard rock aggregate material and sand.

The BFMP applies to the Quarry Site, as approved by DA 344-11-2001. The Quarry Site covers an area of 61.1 hectares (ha) and coincides with Mining Lease (ML) 1633 and proposed extensions (as applied for to the NSW Division of Resources & Geoscience (DRG) of the Department of Planning, Industry & Environment (DPIE) made on 19 June 2019) and is located on both Crown Land (of Lidsdale State Forest) and freehold land (Lot 6, DP 872230 which is owned by Sitegoal Pty Ltd of which Walker Quarries is a subsidiary) (see **Figure 1.1**). The BFMP covers all activities which may impact on or influence a risk to local bushfire occurrence and/or management.

- Fire initiated on the Quarry Site.
- Fire initiated on Company owned land beyond the Quarry Site.
- Bushfire on adjoining land which threatens assets and human safety of the Quarry Site and surrounding land holdings.

The BFMP addresses the following elements.

- The activities approved under DA 344-11-2001 (as amended 26 February 2020).
- Consultation undertaken during preparation of this Plan.
- Potential sources of fire as a result of Quarry operations.
- The legal and other requirements associated with bushfire management.
- Objectives and key performance outcomes.
- Bushfire management practices that will be implemented during the ongoing operation of the Quarry.
- Incident reporting procedures.
- Roles and responsibilities in implementing the BFMP.
- Competence training and awareness for personnel and contractors.
- Plan review and continual improvement.

Legend

-  Quarry Site Boundary
-  Quarry Site ML Extension
-  Quarry Site (ML1633)
-  EL 4473
-  State Forest
-  NPWS Estate

1.2 Plan History

The original BFMP was prepared and provided to the Department of Planning & Environment (DPE), Lithgow City Council (LCC) and the Wallerawang branch of the NSW Rural Fire Service (RFS) in September 2008. The BFMP was updated in October 2014, and resubmitted to these agencies and authorities prior to the commencement of activities at the Quarry. The October 2014 version of the BFMP was never endorsed by the DPE, and was subsequently updated, submitted to and approved by the DPE in September 2016. Subsequent versions of the BFMP were submitted to the DPE in November 2017 and February 2019 following Modifications 1 and 2 to DA 344-11-2001.

This version of the BFMP (V1) was reviewed and updated following the approval of Modification 3 to DA 344-11-2001 on 26 February 2020. **Table 1.1** provides the complete history of BFMP review and approval.

Table 1.1 Document Status History

Rev No.	Prepared by		Purpose
	Name	Date	
0	P. Hensley	October 2014	Draft submitted to department prior to commencement
1	RW Corkery & Co	September 2016	Updated and approved following first IEA
2	RW Corkery & Co	November 2017	Updated following Modification 1 (issued August 2017)
3	RW Corkery & Co	September 2018	Updated Following 2 nd IEA
4	RW Corkery & Co	November 2018	Updated following 2018 Annual Review
V0	Alex Irwin	February 2019	Updated following Modification 2 (issued December 2018)
V1	Alex Irwin	March 2020	Updated following Modification 3 (issued February 2020)
V2.2	Alex Irwin	August 2020	Updated following DPIE Review of V1

1.3 Consultation

A request to provide input to the content of the BFMP (Rev 2) was made to Forestry Corporation NSW (FC NSW) and the Rural Fire Service (RFS) in November 2017. Once drafted, a copy of the BFMP was provided to FC NSW, LCC and the RFS for review prior to finalisation.

FC NSW was again consulted as to content requirements or recommendations of the BFMP on 18 March 2020. A response from FC NSW was received on 8 April 2020 confirming FC NSW as satisfied with the content of the BFMP.

Copies of the consultation, along with the responses of these organisations, are included as **Appendix 1**. **Appendix 2** provides a summary as to how matters raised by FC NSW (in 2017) have been considered and addressed as part of the preparation of this BFMP.

Any amendments to the BFMP, e.g. as a consequence of changes in personnel, contact details or procedures, will be provided to FC NSW, the RFS, Lithgow City Council (LCC) and the Department of Planning, Industry & Environment (DPIE).

1.4 Local Setting

The NSW Rural Fire Service website, the Project Site is identified as occurring on bushfire prone land (<https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl>).

There is no record of bushfire on the Quarry Site or adjacent land (including the Lidsdale State Forest and adjoining Crown Land in the period since Walker Quarries (Sitegoal Pty Ltd) commenced investigations regarding the development of a quarry on the subject land (circa 1999).

1.5 Quarry Operations and Potential Sources of Fire

Figure 1.2 presents the layout of the Quarry which includes the following features:

- a secured and signed entrance with the Great Western Highway and sealed access road to the main site office, weighbridge and wheel wash.
- site amenities, workshop facilities and parking areas.
- an open cut mining area and haul road.
- crushing, screening and washing facilities, stockpile areas and water management infrastructure.
- various internal roads and erosion and sediment control structures.

An assessment of the bushfire hazard over the Quarry Site was undertaken during the preparation of the EIS (Pacrim, 2001), as well during the preparation of subsequent assessments of modifications to the Quarry (RWC, 2017, Umwelt 2019), confirming a low hazard rating. This notwithstanding, potential sources of fire initiation at the Quarry have been identified as follows:

- ignition of fuel or other flammable material on working equipment.
- ignition of fuel or flammable materials during equipment or plant maintenance, e.g. welding, electrical maintenance.
- ignition of vegetation leaf litter within uncleared areas, or areas under rehabilitation as a result of heat or spark from mobile equipment or vehicles.
- inappropriate disposal of cigarettes.
- lightning strike of vegetation or on-site structures.

1.6 Distribution

A copy of the BFMP is held by the Quarry Manager (at the Quarry) and Fire Officer.

A copy of the BFMP has been supplied to:

- The Wallerawang branch of the RFS,
- FC NSW,
- LCC, and
- the DPIE.

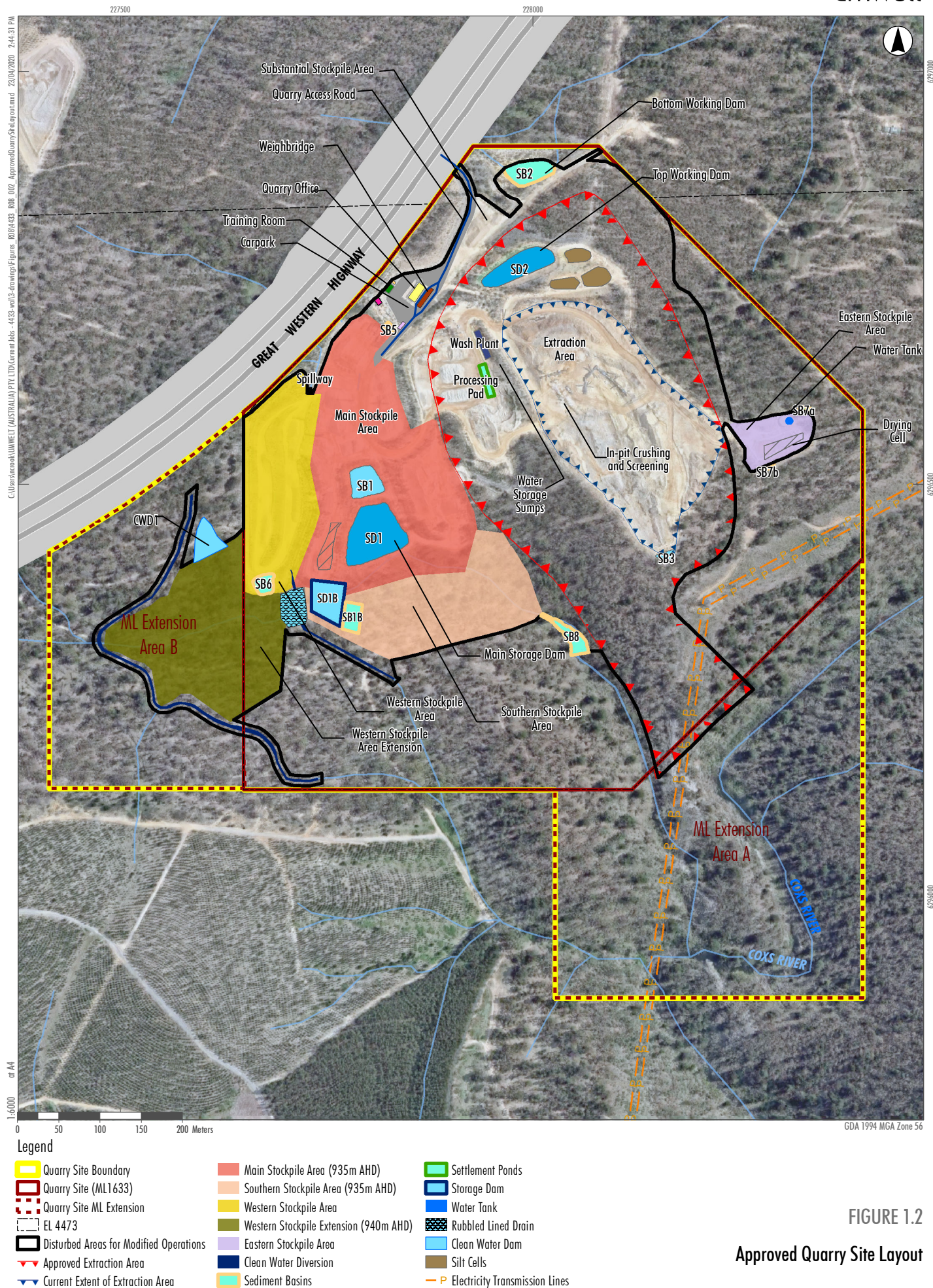


FIGURE 1.2

Approved Quarry Site Layout

2.0 Regulatory Requirements

2.1 Development Consent DA 344-11-2001

Condition 3(39) of DA 344-11-2001 (as modified on 26 February 2020) provides instruction as to the requirements of Walker Quarries in relation to site preparation and fire response. *Condition 3(40)* requires the preparation of a *Bushfire Management Plan*. **Table 2.1** identifies each of the conditional requirements associated with bushfire management, as well as the preparation of management plans more generally, and identifies the section of this BFMP where each is addressed.

Table 2.1 Bushfire Related Conditional Requirements of DA 344 – 11 – 2001

No	Condition	Section
Bushfire		
3(39)	The Applicant must:	
	a) ensure that the development is suitably equipped to respond to any fires on-site; and b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.	4.1, 4.2.1 4.2.2, 4.3
3(40)	The Applicant must prepare a BFMP for the site, in consultation with FC NSW, to the satisfaction of the Rural Fire Service ¹ .	1.3, App 1
Management Plan Requirements		
5(3)	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) a summary of relevant background and baseline data; (b) details of: - the relevant statutory requirements (including any relevant approval, licence or lease conditions); - any relevant limits or performance measures and criteria; and - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) any relevant commitments or recommendations identified in the document/s listed in condition 2(c) of Schedule 2; (d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (e) a program to monitor and report on the: - impacts and environmental performance of the development; and - effectiveness of the management measures set out pursuant to condition 2(c) of Schedule 2; (f) contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (g) a program to investigate and implement ways to improve the environmental performance of the development over time;	N/A 2.1 N/A 4.3 4.0 4.0 5.0 6.0 7.3

No	Condition	Section
	(h) a protocol for managing and reporting any: - incident, non-compliance or exceedance of the impact assessment criteria or performance criteria; - complaint; or - failure to comply with statutory requirements; and (i) public sources of information and data to assist stakeholders in understanding environmental impacts of the development; and (j) a protocol for periodic review of the plan.	5.0 N/A 7.3
5(3A)	The Applicant must ensure that management plans prepared for the development are consistent with the conditions of this consent and any EPL issued for the site.	7.3
5(4)	The Applicant must continue to apply existing approved management plans, strategies or monitoring programs that have most recently been approved under this consent, until the approval of a similar plan, strategy or program under this consent.	Noted
5(5)	Within 3 months of the submission of an: (a) incident report under condition 9 below; (b) Annual Review under condition 11 below; (c) audit report under condition 14 below; and (d) any modifications to this consent, the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.	7.3

Note 1: RFS have indicated it does not endorse bushfire management plans and therefore does have any comments to make.

The NSW *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (WHS Reg) also includes requirements for controls and safeguards relating to fire. **Table 2.2** identifies the relevant requirements of Schedule 1 of the WHS Reg and identifies the section of this BFMP where each is addressed.

Table 2.2 Bushfire-Related Conditional Requirements of Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 – Schedule 1

No.	Condition	Section
Clause 6 - Fire or Explosion		
1	The following matters must be considered in developing the control measures to manage the risks of fire or explosion:	Noted
	(a) the potential sources of flammable, combustible and explosive substances and materials, both natural and introduced, including gas, dust, ores, fuels, solvents and timber	1.4
	(b) the potential sources of ignition, fire or explosion, including plant, electricity, static electricity, spontaneous combustion, lightning, light metal alloys, hot work and other work practices	4.1
	(c) the potential for propagation of fire or explosion to other parts of the mine or petroleum site	4.1
	(d) the potential sources of flammable material with a flash point of less than 61° Celsius, including materials on the top of any shaft, outlet or well at the mine or petroleum site	N/A

No.	Condition	Section
	(e) arrangements for the management and control of the transport and storage of combustible liquids	External Contractor (Lowes Petroleum)
	(f) arrangements for the prevention of fires, including the types and location of systems for the early detection and suppression of fires	4.1
	(g) the equipment for fighting fire at the mine or petroleum site	4.1
	(h) in the case of an underground mine—the arrangements for the management and control of volatile or hazardous materials.	N/A
2	A principal hazard management plan that addresses fire or explosion is to include details of any procedures to be used for carrying out hot work at the mine or petroleum site.	4.1 Welding/ Hot Work Operations

2.2 Fire Officer

A Fire Officer will be appointed by the Quarry Manager or the Quarry Manager may appoint himself/herself to the Fire Officer's role. The Fire Officer's responsibilities will include:

- compliance with the BFMP
- ensuring maintenance and inspection of fire fighting equipment is carried out
- reporting and replacing of damaged fire equipment.

The Fire Officer will report directly to the Quarry Manager and will be required to complete periodic reports of his/her inspections.

3.0 Objectives and Outcomes

Table 3.1 presents the objectives and key performance outcomes relating to bushfire management of the Quarry.

Table 3.1 Bushfire Management Objectives and Key Performance Outcomes

Objectives	Key Performance Outcomes
To ensure compliance with all relevant Quarry approval conditions, statements of commitment and reasonable community expectations.	Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.
To identify, manage and control all fire hazards of the Quarry.	No avoidable ignition of fire as a result of Quarry operations.
To implement appropriate bushfire management and mitigation measures during all stages of the Quarry.	All identified management and mitigation measures implemented.
To contain any outbreak of fire as a result of Quarry operations.	No spread of fire initiated on the Quarry Site beyond the Quarry Site.
To provide assistance as required to RFS in the event of a local bushfire event.	All identified management and mitigation measures implemented.
To implement appropriate corrective and preventative actions, if required.	Corrective and preventative actions implemented, if required.
To implement an appropriate incident reporting program, if required.	Incidents (if any) reported in an appropriate manner.

4.0 Operational Controls, Safeguards and Management Measures

4.1 Prevention and Management of On-Site Fire

Walker Quarries is conscious of the need to ensure adequate bushfire controls are maintained so that its activities do not increase the potential for fires on or surrounding the Quarry.

Operational controls and safeguards to be implemented to minimise the risk of fire on at the Quarry are as follows.

Earthmoving Machinery

- All earthmoving machinery will be maintained in good working order with efficient exhaust systems and spark arrestors. Regular inspections will be carried out.
- All earthmoving machinery and mobile equipment will be fitted with appropriate sized and approved fire extinguishers suitable for the control of flammable liquid and electrical fires. Some of the heavy machinery will be fitted with independent fire suppression systems in addition to two 80:BE rated fire extinguishers while all light vehicles will be fitted with one fire extinguisher.

Workshops and Offices

- All workshops and offices will be installed with an approved 80:BE rated fire extinguisher. Their location will be indicated by an appropriate sign.

Fuel and Oil Management

- All fuel and oil storage will be located and constructed in accordance with the requirements of the *Dangerous Goods Act*.
- Fuel and oil storage areas will be signposted as to the contents of the storages and will be fitted with approved 80:BE rated fire extinguishers.
- All fuel tanks on-site will be fully or self-bunded to ensure that in the event of a leak or rupture, no fuel escapes from the bunded area. Each bunded area will have the capacity of at least 110% of the largest tank. Bunds may be integrated, i.e. form part of the tank structure, or be external.

No Smoking Areas

Designated “No Smoking” areas will be clearly marked on-site. These will include:

- fuel and oil storage areas
- within areas flagged or barricaded areas in preparation for blasting
- when transporting explosives or within 20 m of a vehicle transporting explosives
- within workshops
- all buildings and offices
- any gas cylinder storage areas.

No smoking will be permitted in any forested areas during the Bushfire Danger Period of October to March.

Fire Equipment

- Provision of fire equipment on-site will be in accordance with the requirements of legislation.
- All fire extinguishers will comply with AS/NZS 1841.11:1997 will be compatible with those of the Rural Fire Service.
- All fire equipment will be kept in a serviceable condition and be inspected at Pre-start and inspected every 6 months.
- The water truck (see below) will be maintained on-site to provide immediate response to a bushfire.

Water Truck

- A water truck will be:
 - available for use when the open cut quarry is in operation
 - tested at least monthly for mobility and operation of the water pump
 - properly maintained, with operators trained in the use of all equipment
 - able to be supplied with water from operating mobile water trucks should the need arise, and
 - equipped with:
 - 2 x 80:BE fire extinguishers
 - Hose and fittings to fill Rural Fire Service Truck.
- Most fire equipment will be compatible with that of the RFS.

Fixed Plant

Approved 80:BE rated extinguishers shall be installed and maintained at the following locations.

- Fuel and Lube Bay: 2 x Extinguishers.
- Offices: 2 x Extinguishers.
- Workshops: 2 x Extinguishers.

Equipment Storage

- Equipment will not be stored on uncleared ground.

Water Supply

- Water will be retained within the Main Storage Dam (SD1) and Top Storage Dam (SD2) at all times.

Clearing Operations

- Clearing will be scheduled preferentially for April to September, to avoid the Bushfire Danger Period of October to March.
- If clearing is required during the October to March, the following protocols will be followed.
 - Immediately prior to and during clearing campaigns during the fire season, Walker Quarries will refer to the FCNSW daily Colour Code and observe all requirements and restrictions as per FC NSW's regulations in **Appendix 3**.

- Only diesel fuelled equipment may enter or operated within the clearing zone.
- Potential spark sources, e.g. outcropping rock, will be identified, marked and care taken when operating mobile equipment which could create a spark through collision.
- A spotter, with fire suppression equipment available, will be employed to monitor the works and extinguish any fire initiated.
- The cleared zone (and any pushed up vegetation) will be monitored for at least ½ hour following completion to ensure no ignition from smouldering vegetation.
- Stockpiling of cleared vegetation will be avoided. This will be mulched or chipped when safe to do so and used in rehabilitation of the Quarry. If stockpiling of cleared vegetation is unavoidable, as a result of restricted access to chipping equipment due to steep terrain, it will be stockpiled away from potential ignition sources
- No vegetation will be burned on the Quarry Site.
- All vehicle movements will be confined to defined roads or tracks.
- Where appropriate, controlled high intensity short term grazing will be employed on privately owned lands to assist in the reduction of vegetative fuel loads.

Blasting Operations

- All blasting operations will be carried out and confined to the open cut.
- All flammable material will be removed by pre-stripping the topsoil prior to any drilling and blasting operations taking place.
- All blasting will be carried out in accordance with the Guideline as set out by Wallerawang Quarry Blast Management and Explosives Control Plan.

Welding/Hot Work Operations

- All welding activities will, as far as practicable, be conducted and confined to the workshop. If welding or cutting is to be carried out outside the workshop area, equipment and restrictions as per **Appendix 3** will be observed, as well as the following.
- The area within a 20 m radius will be cleared of all flammable material.
- All oils and greases will be cleared from the work area.
- Fire extinguishers of an 80:BE rating will be positioned within 10 m of the work area.
- A water truck will be put on stand-by during the welding or cutting operations.
- During welding, a second person will be present to observe the welding area.

Rehabilitated Area

- Fire prevention and fuel load reduction in rehabilitated areas will be undertaken, in consultation with the NSW RFS, in accordance with the Quarry Biodiversity Management Plan. This could include:
 - Installation of fire breaks
 - controlled burns (in consultation with the RFS and FCNSW).
- Fuel load/fire security in rehabilitated areas will be inspected bi-annually (refer to **Section 5.0**) and where identified as high will be referred to the NSW RFS for advice on management.

4.2 Active Bushfire Response and Management

4.2.1 Preparation for Bushfire Event

The following measures will be implemented to enable appropriate management of active or bushfires identified in the local area and with the potential to impact on the Quarry.

- Incorporate the BFMP into the overarching Emergency Response Plan for the Quarry.
- Provide for equipment noted in **Section 4.1** for management of ember attack on Quarry buildings and other structures.
- All mobile equipment will be equipped with appropriate communication equipment, including two-way radios and/or mobile telephones.
- Establish compatible connection points from the Quarry's water infrastructure to permit the accessibility of this water to firefighting equipment.
- Maintain all internal access roads and tracks to ensure safe access and egress from the Quarry Site in the event evacuation is called.
- All tracks will be regularly checked and kept clear of all obstructions and debris to permit the safe ingress and egress of personnel from the Quarry Site.
- The RFS Fires Near Me App/Webpage will be checked regularly.
- Training will be provided by the Quarry Fire Officer to site personnel in relation to the use of the fire equipment nominated in **Section 4.1** and specific fire fighting tasks and procedures.

With the exception of training provision, which is the responsibility of the Quarry Manager, the Fire Officer is responsible for the establishment, implementation and/or maintenance of the above measures.

4.2.2 Managing Active Bushfire

Following identification of an imminent bushfire threat, the following management measures will be implemented.

- Human life is the most important asset to be protected. 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. Once emergency services have been notified, contact the FC NSW 24 hr fire duty officer on 02 6332 4812.
- 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 Rural Fire Service operations.
- If the fire is not in close proximity and it is determined to be safe to do so, work will continue with the following provisions.
 - Fire fighting equipment, including the water truck and extinguishers will be brought close to hand.
 - UHF radio, local AM radio and RFS Fires Near Me App/Website monitored for fire updates.
 - Check regularly to determine if the fire front is moving closer.

- In the event of a local bushfire which threatens the Quarry boundary, all personnel on the Quarry Site would be directed to assemble at the designated Emergency Assembly Area. A head count would be undertaken to confirm all site personnel and visitors are accounted for. At this time, instructions as to specific procedures to be followed, i.e. site protection or evacuation, would be provided in accordance with the Emergency Management Plan and any advice provided by the RFS.

The responsibility for application of the above measures is the Quarry Manager, who will take advice from the Fire Officer and off-site resources, e.g. NSW RFS, FC NSW and Council as necessary in making decisions.

4.3 Managing Bushfire Risks – Agency Cooperation

As bushfires typically impact on more than one property, Walker Quarries is committed to ensuring that the RFS and other Emergency Services, as well as other agencies responsible for emergency response such as Mines Rescue, are adequately informed of activities within the Quarry Site.

Walker Quarries representatives will, at the request of relevant officers of FC NSW, the RFS or LCC, provide for an inspection of the Quarry Site to identify potential fire hazards, identify areas where fuel load reduction may be required and discuss any other relevant matters.

Walker Quarries will assist emergency services to the extent practicable if there is a fire in the vicinity of the Quarry Site.

5.0 Monitoring and Notifications

An inspection of the Quarry Site and land boundaries owned and controlled by Walker Quarries will be carried out by the Fire Officer at least every 6-months. The following will be noted during these inspections.

- Maintenance of safe access and egress routes from the Quarry Site in the event evacuation is called.
- Maintenance of access to water storage dams and operation of water pumping equipment.
- Adequacy of access tracks to ensure that they remain free of vegetation and are accessible.
- Assessment of vegetation fuel loads to ensure that they remain at safe levels.

In addition, the following monitoring will also be undertaken.

- Quarterly inspections of fire fighting equipment.

The results of this monitoring, along with an assessment of the effectiveness of management measures, will be reported in the Quarry Annual Review.

6.0 Incident and Complaint Management

6.1 Incident Management

6.1.1 Incident Identification

An incident may take the form of either:

- a fire related event on or adjoining the Quarry Site, or
- non-compliance with the conditional requirements of DA 344-11-2001 related to bushfire management.

6.1.2 Fire Event

In the event of the initiation of a fire on the Quarry Site or reported near miss, or the spread of bushfire onto or adjacent to the Quarry Site, Walker Quarries will initiate an investigation. The investigation will seek to determine:

- what occurred at the time of the incident,
- the root cause of the incident (if initiated on the Quarry Site),
- any contributing factors which led to, or exacerbated the incident, and
- whether appropriate controls were implemented to prevent the incident.

Corrective and/or preventative actions will be assigned to relevant responsibilities as a result of the investigation. Actions will be communicated through planning meetings and toolbox talks. If required, this BFMP will be amended and all personnel with responsibilities under the updated plan review the amended code. Outstanding actions will be monitored for their effectiveness upon completion.

All reports associated with the incident(s) will be retained on site for 5 years.

A brief summary of any bushfire prevention works, bushfires occurring or any other reportable bushfire-related activities will be collated into the Annual Review for the Quarry which would also be made publicly available on Walker Quarries website, once accepted.

6.1.3 Non-compliance

Condition 5(39) of DA 344-11-2001 requires that the Applicant must:

- (a) ensure that the development is suitably equipped to respond to any fires on site; and
- (b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.

If the nominated fire fighting equipment nominated in **Section 4.1** (as identified under sub-headings **Fire Equipment**, **Water Truck**, **Fixed Plant** and **Water Supply**) is not confirmed as present and functional during the quarterly inspection (refer to **Section 5.0**), a non-compliance incident will be triggered.

Within seven days of becoming aware of a non-compliance, Walker Quarries will provide written notification to the DPIE by email to compliance@planning.nsw.gov.au.

Written notification of a non-compliance will:

- (a) identify the development and application number,
- (b) out the condition of this consent that the development is non-compliant with,
- (c) why it does not comply and the reasons for the noncompliance (if known), and
- (d) what actions have been, or will be, undertaken to address the non-compliance.

6.2 Complaint Management

A complaints handling procedure is provided in *Section 6.2.1* of the *Environmental Management Strategy*. Following receipt of a complaint, appropriate action will be taken within two working days to determine the cause of the complaint and identify appropriate actions to remediate the complaint source. The following details will be recorded following receipt of any complaint related to fire hazard, bushfire or related matters.

- The date and time of the complaint.
- The method by which the complaint was made.
- Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect.
- The nature of the complaint.

Within 48 hours of receipt of a complaint, action to identify the cause of the complaint and identify appropriate actions to remediate this will be commenced. On completion of actions to address the complaint, the following information will be added to the complaint register:

- The action taken in relation to the complaint, including any follow-up contact with the complainant.
- If no action was taken, the reasons why no action was taken.

All complaints will be investigated and an appropriate response provided to the complainant.

Should the complaint relate to fuel loads or other matters associated with Crown Land external to the Quarry Site, the complainant will be referred to the relevant government authority.

7.0 Plan Implementation

7.1 Roles and Responsibilities

Table 7.1 presents the roles and responsibilities of the personnel at the Quarry for the implementation of BFMP.

Table 7.1 Roles and Responsibilities

Roles	Responsibilities
Managing Director	Ensuring that sufficient resources are allocated to allow for the complete implementation of the BFMP.
Quarry Manager	- Overall responsibility for the implementation of the BFMP. - Ensuring a Fire Officer is established at the Quarry. - Ensuring the Fire Officer has sufficient resources to undertake his/her responsibilities. - Ensuring Quarry personnel are aware of fire management obligations and responsibilities. - Training of personnel in bushfire management (as required). - Communication with FC NSW, RFS and LCC personnel (as required). - Implement inspections and training of Quarry personnel as required.
Fire Officer	- Ensuring the implementation of the operational controls, safeguards and management measures described in the BFMP. - Completing daily, monthly and 6-monthly inspections. - Ensuring maintenance and inspection of fire fighting equipment is carried out. - Reporting and replacing of damaged fire equipment.
All personnel	Comply with all relevant Bushfire Control Measures.

7.2 Competence training and awareness

All personnel undergo bushfire management awareness training as a component of the site induction program. The following areas are covered in the induction for all employees, contractors and visitors.

- Safety first.
- Obligations toward prevention and notification.
- Emergency response procedures.
- Locations of fire fighting equipment.

To reinforce this training and instruction, regular reminders of responsibilities and obligations regarding bushfire prevention will be provided at toolbox talks.

All quarry personnel, visitors and sub-contractors will be advised of the nominated muster area in the case of an emergency.

7.3 Plan Review and Continual Improvement Protocol

In accordance with the *Environmental Management Strategy*, and *Condition 5(5)* of DA 344-11-2001, the BFMP will be reviewed within three months of the submission of an:

- a) incident as defined by **Section 6.0**
- b) Annual Review
- c) an Independent Environmental Audit completed in accordance with *Condition 5(14)* of DA 344-11-2001
- d) any modifications to this consent.

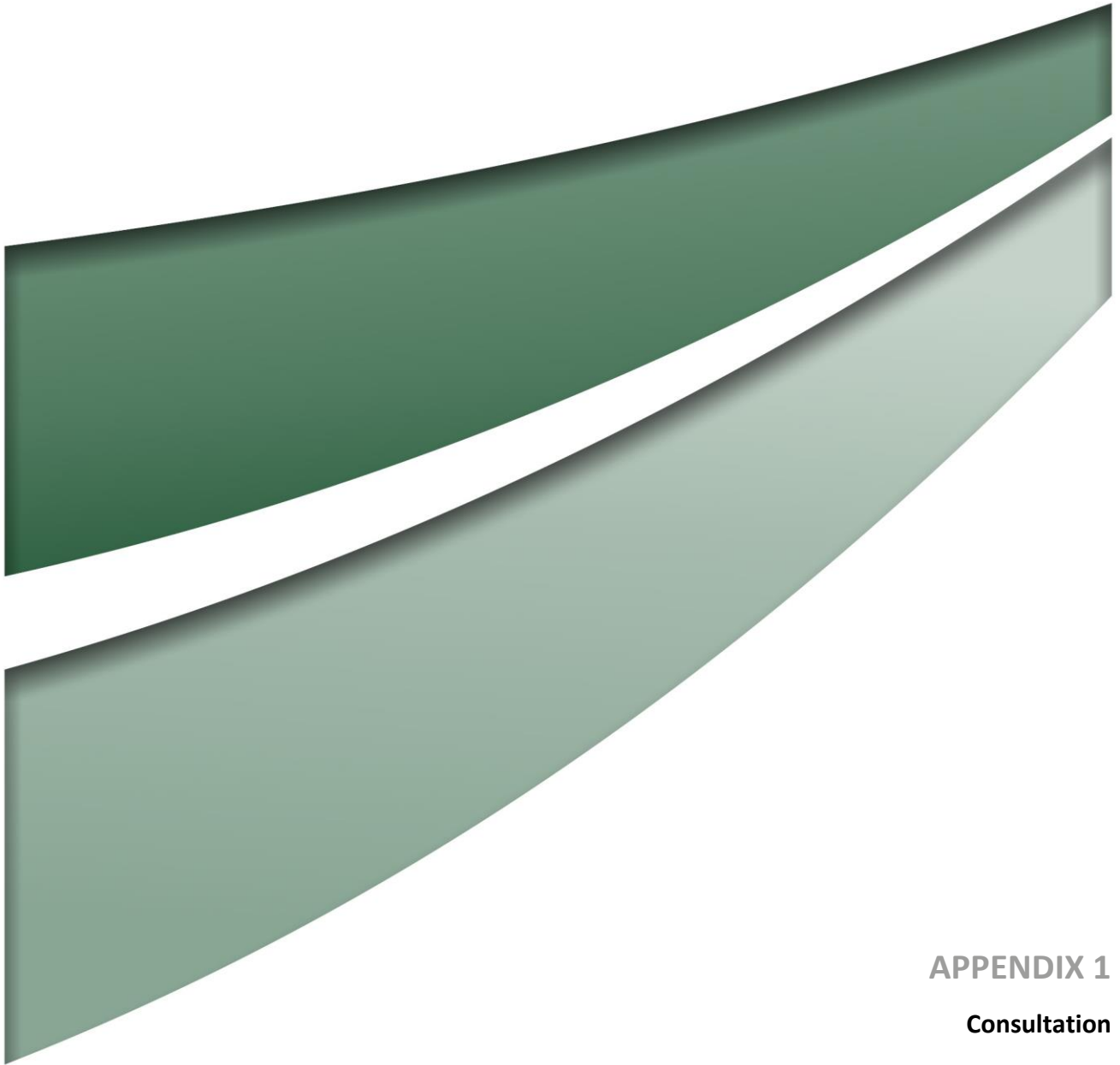
Walker Quarries will notify the DPIE in writing of any review being undertaken and if this review results in any revisions to the BFMP, submit a copy to the Secretary of the DPIE for approval (within 6 weeks of the review). The reviews will ensure the adequacy of the BFMP and allow for opportunities of adaptive management and continual improvement.

8.0 References

Pacrim Environmental (Pacrim) (2001). Environmental Impact Statement Proposed Wallerawang Quarry. Prepared for Sitegoal Pty. Limited, November 2001 (report 01/206.1).

RW Corkery & Co. Pty Limited (RWC) (2017). Environmental Assessment for Modification to Operations at the Wallerawang Quarry (DA 344-11-2001). Prepared on behalf of Walker Quarries Pty Ltd (Report No. 949/05).

Umwelt (Australia) Pty Limited (Umwelt) (2019). Statement of Environmental Effects Wallerawang Quarry Modification 3 (DA 344-11-2001)



APPENDIX 1

Consultation

Consultation – 2017

Forestry Corporation / NSW Rural Fire Service

Forestry Corporation NSW

From: Alex Irwin
Sent: Friday, 3 November, 2017 11:54 AM
To: 'dan.kirby@fcns.w.com.au'
Subject: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW
Attachments: Notice of Modification_25 August 2017.pdf

Good afternoon Dan,

Walker Quarries Pty Ltd received approval for a modification to the project approval for the Wallerawang Quarry (DA 344-11-2001) on 25 August 2017 (attached).

Previously I noted Condition 3(31) of DA 344-11-2001 requires Walker Quarries to consult with FC NSW in the preparation of a Rehabilitation Management Plan. I have also identified that Condition 3(40) requires Walker Quarries to consult with FC NSW in the preparation of a Bushfire Management Plan.

With respect to the nominated condition, can you provide any specific requirements of FC NSW for the preparation and/or update of this plan.

I note DA 344-11-2001 requires these plans to be submitted to the Secretary for approval by 25 November 2017 and so we would appreciate any advice as soon as possible.

Regards,

Alex Irwin
Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

Geological and Environmental Consultants



Brooklyn
Level 1, 12 Dangar Road
PO Box 239
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Website: www.rwcorkery.com

Phone: (02) 6362 5411
Fax: (02) 6361 3622
Email: orange@rwcorkery.com

Phone: (07) 3205 5400
Fax: (02) 6361 3622
Email: brisbane@rwcorkery.com

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From: Alex Irwin
Sent: Friday, 10 November, 2017 12:23 PM
To: 'melanie.klootwijk@fcns.w.com.au'
Cc: Dan Kirby
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW
Attachments: 94902h_Bushfire MP_November 2017.docx

Melanie,

I've attached a draft Bushfire Management Plan for Wallerawang Quarry.

You may find it easier to provide any comments / feedback once you've read through the commitments of Walker Quarries to bushfire management. Please note the green text represents modifications from the previous Bushfire MP.

Regards,

Alex Irwin
Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

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From: Dan Kirby [mailto:Dan.Kirby@fcns.w.com.au]
Sent: 3 November 2017 2:51 PM
To: Alex Irwin <alex@rwcorkery.com>
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

Hi Alex,

Thanks for this. I will pass it on to Mel Klootwijk for her comment. If I recall correctly we may have been asked for this information directly from Dept of Planning, and Mel was handling that, so I'd like to check with her. If we have already done so I'll get her to supply you a copy. If we have not already done so I'll ask her to prepare a comment for you.

Regards,

From: Melanie Klootwijk <Melanie.Klootwijk@fcns.w.com.au>
Sent: Wednesday, 15 November, 2017 11:44 AM
To: Alex Irwin
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW
Attachments: 94902h_Bushfire MP_November 2017.docx

Hi Alex,

Attached are some initial comments on the plan. Please let me know if you want to discuss any of the comments. What is your process? Will you note the comments in the appendix or will you address them and incorporate them into the Plan as appropriate?

Regards,
Melanie

From: Alex Irwin [mailto:alex@rwcorkery.com]
Sent: Friday, 10 November 2017 12:23 PM
To: Melanie Klootwijk <Melanie.Klootwijk@fcns.w.com.au>
Cc: Dan Kirby <Dan.Kirby@fcns.w.com.au>
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

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You may find it easier to provide any comments / feedback once you've read through the commitments of Walker Quarries to bushfire management. Please note the green text represents modifications from the previous Bushfire MP.

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Alex Irwin
Senior Environmental Consultant
(Mobile 0429 635 975)

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From: Dan Kirby [mailto:Dan.Kirby@fcns.w.com.au]
Sent: 3 November 2017 2:51 PM

To: Alex Irwin <alex@rwcorkery.com>

Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

Hi Alex,

Thanks for this. I will pass it on to Mel Klootwijk for her comment. If I recall correctly we may have been asked for this information directly from Dept of Planning, and Mel was handling that, so I'd like to check with her. If we have already done so I'll get her to supply you a copy. If we have not already done so I'll ask her to prepare a comment for you.

Regards,

Dan Kirby | Fire & Stewardship Manager
Forestry Corporation of NSW | Northern Softwoods

Cnr Browning St & Panorama Ave | Bathurst NSW 2795
PO Box 143 | Bathurst NSW 2795
M: 0448 033 325 | E: dan.kirby@fcnsww.com.au | W: www.forestrycorporation.com.au

From: Alex Irwin [<mailto:alex@rwcorkery.com>]

Sent: Friday, 3 November 2017 11:54 AM

To: Dan Kirby <Dan.Kirby@fcnsww.com.au>

Subject: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

Good afternoon Dan,

Walker Quarries Pty Ltd received approval for a modification to the project approval for the Wallerawang Quarry (DA 344-11-2001) on 25 August 2017 (attached).

Previously I noted Condition 3(31) of DA 344-11-2001 requires Walker Quarries to consult with FC NSW in the preparation of a Rehabilitation Management Plan. I have also identified that Condition 3(40) requires Walker Quarries to consult with FC NSW in the preparation of a Bushfire Management Plan.

With respect to the nominated condition, can you provide any specific requirements of FC NSW for the preparation and/or update of this plan.

I note DA 344-11-2001 requires these plans to be submitted to the Secretary for approval by 25 November 2017 and so we would appreciate any advice as soon as possible.

Regards,

Alex Irwin

Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

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From: Melanie Klootwijk <Melanie.Klootwijk@fcnsw.com.au>
Sent: Thursday, 23 November, 2017 2:16 PM
To: Alex Irwin
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW
Attachments: 94902h_Bushfire MP_November 2017_v2_MK edits.docx

Hi Alex,

Thanks for including those suggestions, I've added a few more comments after reviewing the doc with Dan.

The main one is in relation to clearing and other high risk activities. You included your requirements in relation to the RFS information, which I wanted to read before making the following comments. The below information is required for anyone and everyone working within a State forest, I send out this information every year as a reminder to all organisations/contractors etc before the fire season starts. Ray Sharwood (the quarry manager) is aware of the colour code system, and receives the daily SMS with that info.

I suggest you insert the below information in an appendix and just refer to it under the relevant sections.

We usually require the below for **all** activities, however as the quarry site has a relatively low fire risk due to the work not being close to vegetation or other flammable material, we would require the below for clearing operations and any other activities close to high risk vegetation, eg welding.

I am not back in the office until next Tuesday. If you require further discussion or clarification, please contact Dan.

FCNSW refers to the Bushfire Danger Period, generally Oct-March, depending on conditions. During this time FCNSW calculates the FDI for specific forest areas and each day is categorised into a colour code: yellow, orange or red. Depending on the colour code there are requirements to carry certain types of equipment/water as classified as category 1, 2 or 3 fire preparedness (as a minimum). During the Bushfire Danger Period everyone working within a State forest is required to always follow category 1 requirements and when the colour code is Orange or Red, carry the additional equipment.

Yellow (category 1) a knapsack (or fire extinguisher) minimum capacity of 15L water
 a dry chemical fire extinguisher
 a rakehoe
 chainsaws can only be used after 1pm on approved cleared areas provided Category 2 requirements are met

Orange (category 2) all category 1 requirements, plus
 400L of water with a pump unit of 2.2kw minimum capacity
 60m of hose
 Nozzle capable of delivering a fog spray and jet stream
 Fully fuelled pump motor
 Trenching/ripping or other earthworks in rock to cease at 1pm
 Vegetation clearing/mulching with exposed rock to cease at 1pm

Red (category 3) all category 2 requirements, plus
 operations are located in low fire-risk areas
 operations are prohibited where significant amounts of slash have been cured for more than one week
 No grinding, welding or other activities involving a naked flame, sparks or with the potential to cause ignition (including dozer work)
 all work must cease by 1pm

The colour codes are calculated each afternoon for the following day. To find out the colour code for each day you are working in the forest please call the Fire Duty officer on 6332 4812 that morning, or if you will be working on State Forest for a prolonged period of time you can receive an automated SMS advising the colour code.

Regards,

Melanie Klootwijk | Stewardship Supervisor (NOTE: I work Tues - Thurs)
Forestry Corporation of NSW | Northern Softwoods Region

Cnr Panorama Ave and Browning Street | Bathurst NSW 2795
PO Box 143 | Bathurst NSW 2795
T: 06 6330 1002 | M: 0427 259 503 | F: 02 6331 5528
E: melanie.klootwijk@fcnsw.com.au | W: www.forestrycorporation.com.au

From: Alex Irwin [<mailto:alex@rwcorkery.com>]
Sent: Friday, 17 November 2017 4:06 PM
To: Melanie Klootwijk <Melanie.Klootwijk@fcnsw.com.au>
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

Melanie,

An updated Bushfire MP is attached.

Further detail on the review of FDI is included.

Also, on reflection specific firebreaks are unlikely to be implemented on the Mine Site. However, the Company will ensure that once clearing has been completed equipment does not operate within 6m of the surrounding vegetation.

Regards,

Alex Irwin
Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

Geological and Environmental Consultants



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From: Melanie Klootwijk [<mailto:Melanie.Klootwijk@fcnsw.com.au>]
Sent: 15 November 2017 11:44 AM
To: Alex Irwin <alex@rwcorkery.com>
Subject: RE: 949 - Wallerawang Quarry - Requirement to Consult with FC NSW

NSW Rural Fire Service

From: Jason Maslen <Jason.Maslen@rfs.nsw.gov.au>
Sent: Wednesday, 29 November, 2017 2:24 PM
To: Alex Irwin
Subject: FW: 949 - Wallerawang Quarry - Bushfire Management Plan
Attachments: 94902h_Bushfire MP_November 2017.pdf

Afternoon Alex,

Thanks for your email.

A review of NSW RFS files and Department of Planning and Environment Major Projects website indicates that the development application was not referred to the NSW RFS and did not impose the condition requiring the plan to be to its satisfaction. In addition, the NSW RFS does not endorse bushfire management plans and therefore does not have any comments to make.

Instead, I recommend that you contact the local NSW RFS District Office to seek advice of any particular operational requirements to be considered. The District office can be contacted on 1300 258 737.

Regards,

Jason Maslen



Jason Maslen | Team Leader, Development Assessment and Planning | Planning and Environment Services
NSW RURAL FIRE SERVICE
42 Lamb Street, Glendenning 2761 | Locked Bag 17 Granville NSW 2142
P 1300 NSW RFS E jason.maslen@rfs.nsw.gov.au
www.rfs.nsw.gov.au | www.facebook.com/nswrfs | www.twitter.com/nswrfs
PREPARE. ACT. SURVIVE.

From: Planning & Environment Services
Sent: Wednesday, 29 November 2017 9:41 AM
To: Records <Records@rfs.nsw.gov.au>
Subject: FW: 949 - Wallerawang Quarry - Bushfire Management Plan

From: Alex Irwin [<mailto:alex@rwcorkery.com>]
Sent: Tuesday, 28 November 2017 12:35 PM
To: Planning & Environment Services
Cc: 'Gen Seed'; 'Paul Hensley (pfhensley@gmail.com)'; 'davidm@walkerquarries.com.au'
Subject: 949 - Wallerawang Quarry - Bushfire Management Plan

Good morning,

Condition 3(40) of development consent DA 344-11-2001 for the Wallerawang Quarry requires a Bushfire Management Plan to be prepared to the satisfaction of the NSW Rural Fire Service.

BUSHFIRE

39. The Applicant must:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
 - (b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.
40. The Applicant must prepare a Bushfire Management Plan for the site, in consultation with FCNSW to the satisfaction of the Rural Fire Service.

On behalf of Walker Quarries, RWC has consulted with FC NSW and updated the Bushfire Management Plan for your consideration. Changes from the previous Bushfire Management Plan which was supplied to the RFS are provided in green.

Could you please advise as to whether the attached Bushfire Management Plan is to the satisfaction of the NSW RFS.

Regards,

Alex Irwin

Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

Geological and Environmental Consultants



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RFS Disclaimer:

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From: Gen Seed <genevieve.seed@planning.nsw.gov.au>
Sent: Monday, 18 December, 2017 9:20 AM
To: Alex Irwin
Cc: Georgia Dragicevic
Subject: RE: 949 - Wallerawang Quarry - Bushfire Management Plan

Good Morning Alex

Sorry for the delay on this one. The Department acknowledges that the RFS will not be commenting on the bushfire management plan.

The Department notes that the management plan has been prepared in consultation with FCNSW and although endorsement cannot be obtained from RFS, the condition has been satisfied to the best of the applicant's ability.

I will make note of this on our file for compliance purposes.

Kind regards,

Gen

From: Alex Irwin [mailto:alex@rwcorkery.com]
Sent: Wednesday, 29 November 2017 2:30 PM
To: Gen Seed <genevieve.seed@planning.nsw.gov.au>
Cc: 'davidm@walkerquarries.com.au' <davidm@walkerquarries.com.au>; 'Paul Hensley (pfhensley@gmail.com)' <pfhensley@gmail.com>; 'John McAuley' <pmcauley@ozemail.com.au>
Subject: FW: 949 - Wallerawang Quarry - Bushfire Management Plan

Gen,

Please refer to the email from NSW RFS below.

Based on the comment, it would not appear possible for the Proponent to comply with the condition. Is it possible for the DPE to provide an acknowledgement that obtaining the satisfaction of the NSW RFS is not possible, or provide an alternative approach that the DPE would consider to satisfy the condition.

Regards,

Alex Irwin
Senior Environmental Consultant
(Mobile 0429 635 975)

RW Corkery & Co Pty Limited

Geological and Environmental Consultants

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Phone: (02) 9985 8511



8/04/2020

Ref No.: F2010/01613

Alex Irwin
Umwelt Australia
Office 1, 3 Hampden Avenue
Orange NSW 2800

Sent via email: airwin@umwelt.com.au

Dear Alex,

Wallerawang Quarry Review of Management plans – FCNSW response

Thank you for the opportunity to comment on the review of the following management plans for Wallerawang Quarry:

- Bush Fire Management Plan
- Rehabilitation Management Plan (incorporated into the MOP)

Bushfire Management Plan

FCNSW is satisfied with the current contents of the plan and has no further recommendations for incorporation.

Rehabilitation Management Plan

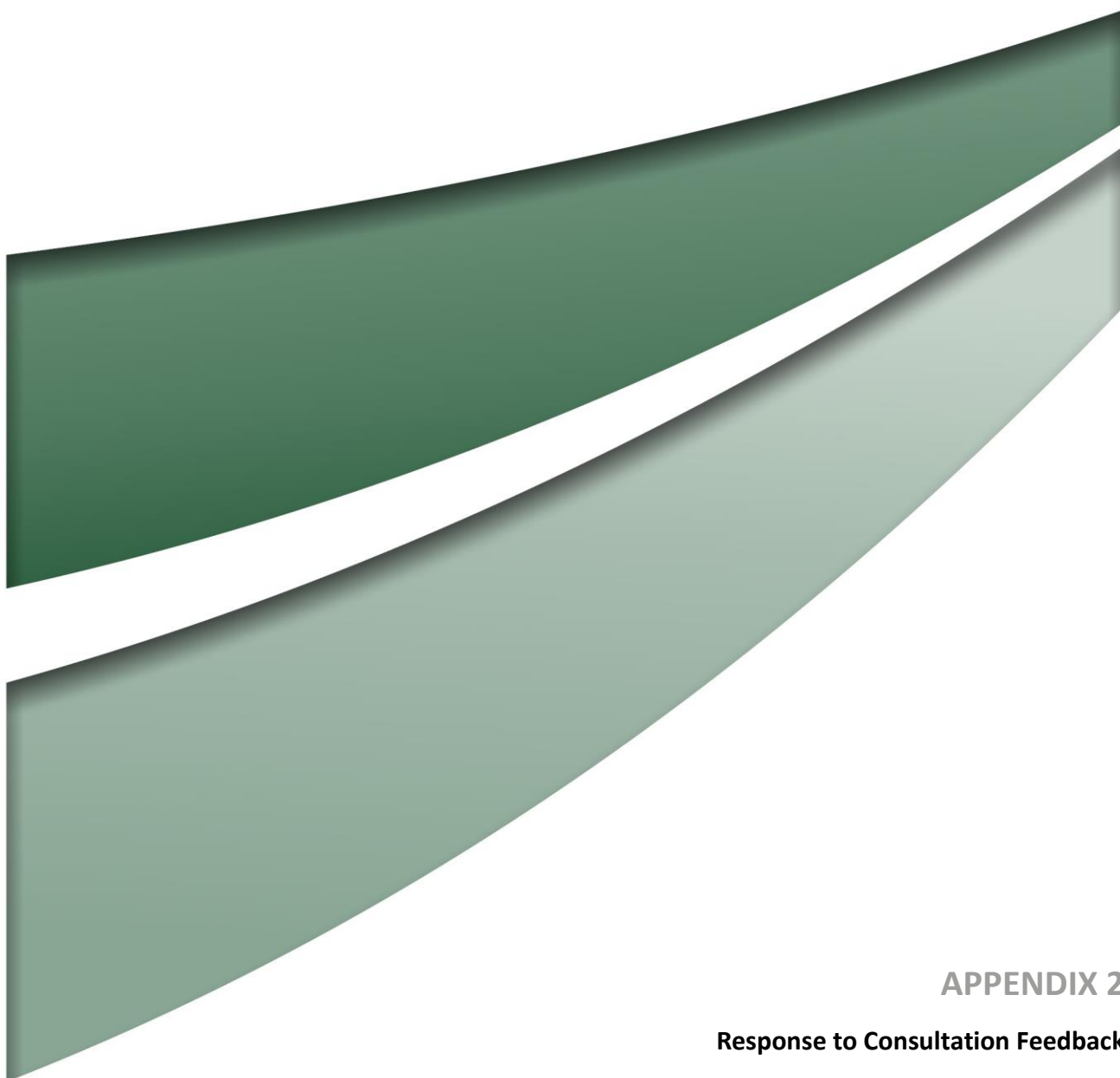
FCNSW and Walker Quarries have had several discussions and correspondence in relation to the Rehabilitation Management Plan since the current one was written. FCNSW requests updated information in relation to rehabilitation is incorporated into the plan, as outlined in the recent MOD3 documentation.

FCNSW requests to review final drafts of both management plans prior to submission to ensure our interests are covered.

Kind Regards,



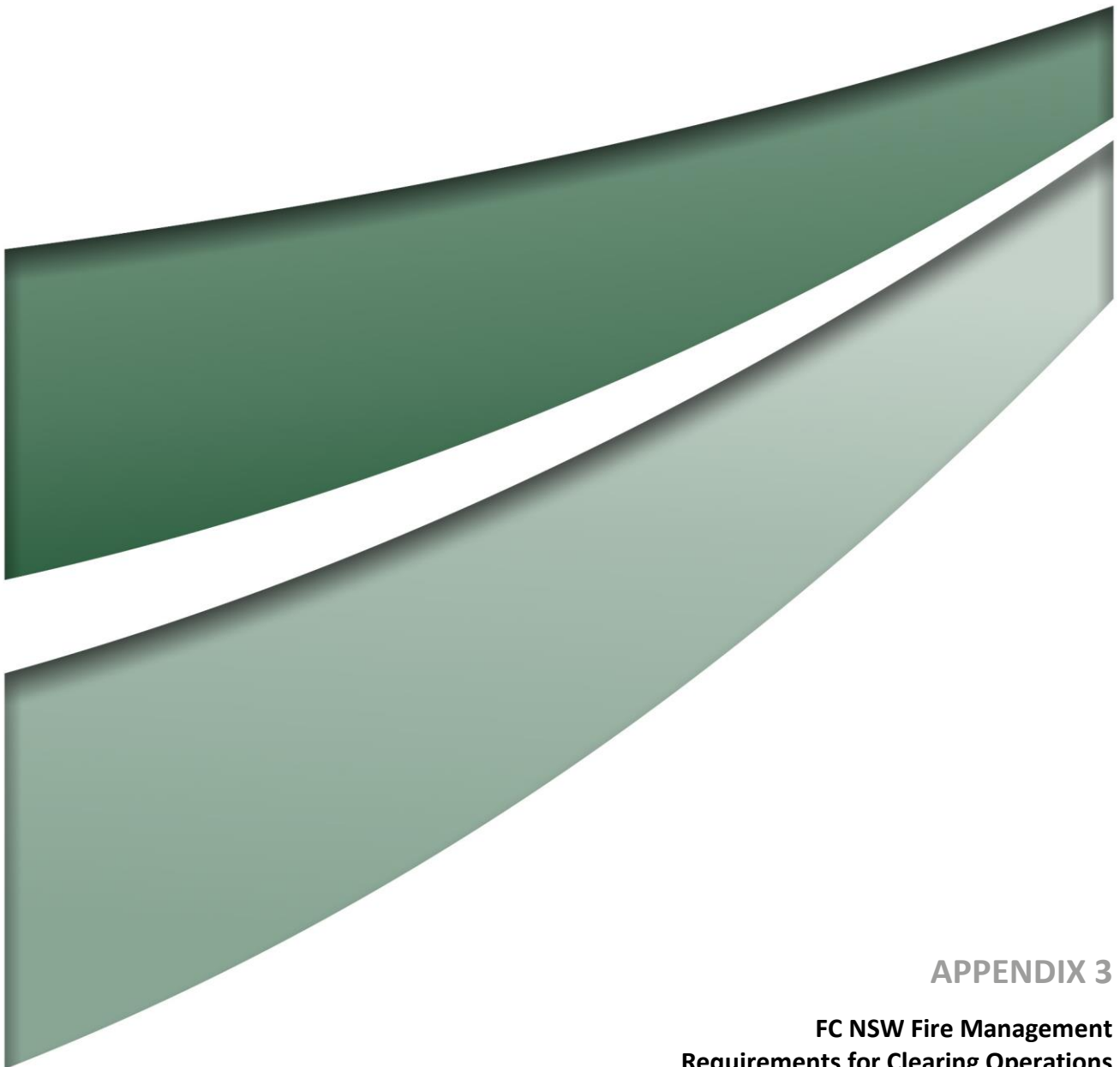
Melanie Klootwijk
Stewardship Coordinator
Northern Softwood Region



APPENDIX 2

Response to Consultation Feedback

Agency	Consulted on:	Replied on	Requests / Requirements	Addressed
FC NSW	20/10/2017	15/11/2017	Request for the plan to reference equipment requirements under the FC NSW Bushfire Danger colour coding system.	Complete (refer to Section 4.2)
RFS	28/11/2017	29/11/2017	None	



APPENDIX 3

FC NSW Fire Management Requirements for Clearing Operations

Appendix 2

FC NSW Fire Management Requirements for Clearing Operations

FCNSW refers to the Bushfire Danger Period, generally Oct-March, depending on conditions. During this time FCNSW calculates the FDI for specific forest areas and each day is categorised into a colour code: yellow, orange or red. Depending on the colour code there are requirements to carry certain types of equipment/water as classified as category 1, 2 or 3 fire preparedness (as a minimum). During the Bushfire Danger Period everyone working within a State forest is required to always follow category 1 requirements and when the colour code is Orange or Red, carry the additional equipment.

Yellow (category 1)

- a knapsack (or fire extinguisher) minimum capacity of 15L water
- a dry chemical fire extinguisher
- rakehoe
- chainsaws can only be used after 1pm on approved cleared areas provided Category 2 requirements are met

Orange (category 2)

All category 1 requirements, plus

- 400L of water with a pump unit of 2.2kw minimum capacity
- 60m of hose
- Nozzle capable of delivering a fog spray and jet stream
- Fully fuelled pump motor
- Trenching/ripping or other earthworks in rock to cease at 1pm
- Vegetation clearing/mulching with exposed rock to cease at 1pm

Red (category 3)

All category 2 requirements, plus

- operations are located in low fire-risk areas
- operations are prohibited where significant amounts of slash have been cured for more than one week
- No grinding, welding or other activities involving a naked flame, sparks or with the potential to cause ignition (including dozer work)
- all work must cease by 1pm

The colour codes are calculated each afternoon for the following day. To find out the colour code for each day you are working in the forest please call the Fire Duty

officer on 6332 4812 that morning, or if you will be working on State Forest for a prolonged period of time you can receive an automated SMS advising the colour code.

