

Prescribed Burning Activities General

Operational Protocol

Scope

This Operational Protocol must be followed when conducting prescribed burning activities.

2 Protocol

- > All prescribed burning activities where RFS members are in attendance must be approved by the Fire Control Officer (FCO/District Manager) or, their absence, a Deputy Fire Control Officer (DFCO), for the relevant rural fire district. Prescribed burning activities may include agricultural and pile burns.
- A Basic Burn Checklist or a Prescribed Burn Plan must be completed for all prescribed burns, except for pile burns that are in accordance with the RFS Standards for Pile Burning, refer to RFS OPG - Planning for a Prescribed Burn.
- A prescribed burn plan must be approved by the FCO or delegate and the Burn Incident Controller (BIC), before the burn is conducted. The FCO or delegate must not sign the plan more than 12 months prior to the burn being conducted.
- An Operational Map is required for all Level One (Simple) and Level Two (Complex) prescribed burns. The operational map must be made available to all personnel on the
- > A prescribed burn plan must take into account the safety of members of the public and personnel participating in the burn activity, the protection of property, the protection of environmental values and associated legislative requirements.
- In preparing a prescribed burn plan, a planner should consider whether consultation with specialists is necessary. For example; Environment Services, Aviation - Incendiary Operations Supervisor (IOS) and/or Predictive Services (Fire Behaviour Analysis, Smoke Modelling, Weather Advice).
- > An effective system of command/control and communications in accordance with Incident Control System (ICS) principles must be applied.
- The prescribed burn shall be under the overall coordination of a BIC.
- > The FCO must ensure that all hazard reduction prescribed burning proposals and completed activities, including completed prescribed burn plan documentation, is entered into the current RFS system.

Special Considerations 3

- Procedures applied during the burn activity are to be of the same safety standard as those specified for equivalent activities conducted in Fireground operations.
- > The LACES safety checklist system (Lookouts Awareness Communications Escape routes – Safety refuges) is to be applied to all prescribed burning activities.

Related Information 4

Basic Burn Checklist

Prescribed Burn Plan Template - Level One SIMPLE

Prescribed Burn Plan Template - Level Two COMPLEX

NSW Interagency Prescribed Burn Field Operations Attachment

Prescribed Burn Operational Map Guidelines

Prescribed Burn Operational Map Example

Request to Enter Land to Assess Bush Fire Risk

RFS Hazard Reduction Consent Letter

RFS Hazard Reduction Notification Letter

Land Owner Occupier Request for Assistance Letter



Prescribed Burning Activities General

Definitions

AAR After Action Review - Similar to a debrief, an AAR involves

> describing what was intended, what actually happened, what mistakes were made and how participation might

improve in the future.

Basic Burn Checklist Very low risk burns as determined by the Fire Control

Officer.

Operational Protocol

BIC Burn Incident Controller - The person who has overall

> control of the burn and is responsible for the implementation of the prescribed burn plan in the field. The Burn Incident Controller is responsible to a senior officer, such as the Fire

Control Officer who is remote from the burn site.

BOM Bureau of Meteorology - Australia's national weather,

> climate, and water agency which provides regular weather forecasts, warning advice for floods, fires and storms, and also monitoring and advice for the Australian region and

Antarctic territory.

CLW or CLG Crew Leader Wildfire - Members must have successfully

completed Advanced Firefighter (including API, CSW, HYD,

NAV & WFB).

DDO District Duty Officer

DFCO Deputy Fire Control Officer

FBA Fire Behaviour Analysis

FBI The Fire Behaviour Index - provides a scale of potential fire

danger (should a fire start) based on the predicted rate of

fire spread.

FCO Fire Control Officer (District Manager)

ICS Incident Control System - An operational management

> system adopted by the RFS for integrating personnel, procedures, facilities, equipment and communications into a

common organisational structure.

IOS **Incendiary Operations Supervisor**

IWF Incident Weather Forecasts - provides critical information

> relating to key weather parameters (e.g. wind changes, potential for thunderstorms/precipitation, and condition uncertainties) to incident managers to help them make

important operational decisions.

Level One (Simple) **Prescribed Burn**

A prescribed burn characterised by low risk, low intensity, small area, low potential impact on assets, completion in

one shift and minimal variation of fuel and terrain. (As

determined by the Fire Control Officer).



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Level Two (Complex) Prescribed Burn

A prescribed burn characterised by moderate to high risk, a range of fire intensities, medium to large areas, significant potential impacts on assets and may involve a variety of fuels and terrain. The burn operation may involve a large number of resources requiring the establishment of a formal management and support structure. It may require several separate ignitions (ground and/or aerial), possibly over several days. It may have a number of high value assets requiring complex protection actions. (As determined by the

Fire Control Officer).

Prescribed Burning The controlled application of fire under specified

environmental conditions to a predetermined area and at a time, intensity, and rate of spread required to attain planned

resource-management objectives.

Prescribed Burn Plan An approved plan that incorporates the specifications and

conditions under which the operation is to be conducted.



Planning for a Prescribed Burn

Operational Protocol

1 Scope

This Operational Protocol must be followed when planning for a specific prescribed burn.

2 Protocol

Basic Burn Checklist (Pile Burns, Windrow Burns & Very Low Risk Burns only)

- A Basic Burn Checklist records information about the activity being undertaken. It must be completed when a brigade is assisting a landowner/occupier in conducting a burn that is inconsistent with the RFS Standards for Pile Burning (e.g. a windrow), or for a very low risk burn, e.g. a routine agricultural burn.
- The landowner/occupier is responsible for obtaining all relevant environmental approvals, obtaining a fire permit if required (refer to Part 4 Division 5 of the *Rural Fires Act 1997*), making notifications and establishing control lines.
- The Basic Burn Checklist can be completed by the Officer in Charge on the day of the burn. The activity requires Fire Control Officer (FCO) approval.

Prescribed Burn Plans

- Prescribed Burn Plans describe the desired outcomes of the activity and suggest the operational tactics to be implemented. The plans also allow for the recording of information during and after the activity.
- A Prescribed Burn Plan must be prepared when the RFS is proposing and conducting a simple/complex prescribed burn. The contents of the prescribed burn plan may vary depending on the size, nature of the hazard and safety issues associated with the proposed activity. The FCO, or Deputy Fire Control Officer (DFCO), is to consider the complexity of the burn and select the most appropriate level of plan.
- > There are two Prescribed Burn Plan options available:
 - Level One (Simple) Prescribed Burn Plan; or
 - Level Two (Complex) Prescribed Burn Plan.

Level One (Simple) Prescribed Burn Plan

- A simple prescribed burn is characterised by low risk, low intensity, small area, low potential impact on assets, completion in one shift and minimal variation of fuel and terrain. The plan must conform to the Prescribed Burn Plan Template Level One SIMPLE.
- The Prescribed Burn Operational Map should conform to the Prescribed Burn Operational Map Guidelines.
- An Operational Map must be made available to all personnel on the fireground.
- > RFS District staff are responsible for ensuring the completion of the prescribed burn plan and Operational Map, however Volunteer Members may assist with the preparation.

Level Two (Complex) Prescribed Burn Plan

A complex prescribed burn is characterised by moderate to high risk, a range of fire intensities or ignition methods, medium to large areas, significant potential impacts on assets and may involve a variety of fuels and terrain. The plan must conform to the Prescribed Burn Plan Template Level Two COMPLEX.

- The Prescribed Burn Operational Map should conform to the Prescribed Burn Operational Map Guidelines.
- An Operational Map must be made available to all personnel on the fireground.



Planning for a Prescribed Burn

Operational Protocol

- The minimum information provided to all personnel on the fireground is a completed A3 NSW Interagency Prescribed Burn Field Operations attachment.
- > RFS District staff are responsible for ensuring the completion of the prescribed burn plan and Operational Map, however Volunteer Members may assist with the preparation.

3 Special Considerations

Consents for RFS to conduct Prescribed Burn Activities

- The RFS requires consent from land owners or occupiers to enter their land for the purpose of planning, preparing and undertaking a prescribed burn (hazard reduction).
- A Request to Enter Land to Assess Bush Fire Risk Form must be used when the RFS is assessing an area for a proposed Hazard Reduction Burn.
- An RFS Hazard Reduction Consent Letter must be sent to a landowner when the RFS is initiating the proposal to undertake a prescribed burn. In this case, the RFS would be responsible for obtaining all relevant environmental approvals, making notifications, and establishing control lines.
- An RFS Hazard Reduction Notification Letter should be used to notify adjoining landowners/occupiers of the prescribed burn activity.
- A Certificate of Currency is NOT required unless specifically requested. Refer to ONE NSWRFS for an application.

Requests for RFS Assistance in undertaking Prescribed Burn Activities

- A formal request letter is required from the land owner/s or occupier/s when a request is made for RFS assistance in undertaking a prescribed burn. The land owner/occupier must use the Landowner/Occupier Request for Assistance Letter template.
- In this case, the landowner would be responsible for obtaining all relevant environmental approvals, a fire permit (refer to Part 4 Division 5 of the *Rural Fires Act 1997*), making notifications and establishing control lines.
- Note: under Part 4 Division 5 of the *Rural Fires Act 1997*, Section 95 Fire Permits are not required for fires lit by public authorities.

4 Related Information

NSW Environment Protection Authority

RFS - Bush Fire Hazard Reduction Certificate (application process)

RFS Fire Permit

RFS Standards for Pile Burning

Rural Fires Act 1997

Rural Fires Regulation 2022



Preparing for a Prescribed Burn

Operational Protocol

1 Scope

This Operational Protocol must be followed when preparing for a specific prescribed burn.

2 Protocol

In preparing a prescribed burn, confirmation should be sought on the following:

- That an appropriate prescribed burn plan has been prepared and approved within 12 months of the burn being conducted;
- > That all information is adequately addressed in the prescribed burn plan;
- That conditions in the area of the burn are still as described in the prescribed burn plan. Such conditions may include; land status and tenure, occupancy, fuel type, fuel moisture content, fuel load, and topography;
- That control lines are completed and the burn is fully prepared;
- The A3 NSW Interagency Prescribed Burn Field Operations attachment with an Operational Map printed on the back is completed as the minimum information required for field personnel;
- That weather forecasts for prescribed burning activities have been provided from official sources (Bureau of Meteorology [BoM]). An Incident Weather Forecast (IWF) is recommended for Level Two Complex burns;
 - Note IWF requests should be made to BoM by 1400 for same day processing.
- That all notifications have been completed and the burn activity is recorded in the current RFS systems;
- The burn can be implemented to safely achieve the objectives of the prescribed burn plan under the current/forecasted weather and fuel moisture conditions/readings, within the planned operation period;
- Assess appropriate timing for implementation of prescribed burning, including on site conditions and weather forecast;
- Resources required to safely implement the burn are available;
- Contingency arrangements have been established; and
- That smoke impact has been considered, and if required, smoke modelling and analysis has been requested. All requests are to be emailed to FBA@rfs.nsw.gov.au.
 - > Smoke modelling is required for prescribed burns with a planned area of over;
 - > 10ha in proximity to high density or high risk population centres,
 - > 50ha for low density or low risk population centres.

Confirmation is also required that the personnel involved in the burn are currently competent. In particular that:

- For Basic Burns, the Burn Incident Controller (BIC) should be competent to RFS Crew Leader level (CLW or CLG or equivalent);
- For all prescribed burns undertaken using the Level One Simple Prescribed Burn Plan, the BIC should be accredited in this competency Conduct Simple Prescribed Burn or is authorised in writing by the Fire Control Officer (FCO), to undertake the burn in accordance with this protocol; and
- For all prescribed burns undertaken using the Level Two Complex Prescribed Burn Plan, the BIC should be accredited in this competency Conduct Complex Prescribed Burn or is authorised in writing by the FCO to conduct the burn in accordance with this protocol.



Preparing for a Prescribed Burn

Operational Protocol

3 Special Considerations

Nil.

4 Related Information

Rural Fires Act 1997



Conducting a Prescribed Burn

Operational Protocol

1 Scope

This Operational Protocol must be followed when conducting a prescribed burn.

2 Protocol

- > The safe and effective conduct of a prescribed burn requires careful and thorough planning to ensure that the objectives can be safely achieved.
- If the Fire Behaviour Index (FBI) exceeds the optimum FBI range (typically up to 11 for a low intensity burn) specified in the prescribed burn plan, then the 'FBI exceeded checklist' must be completed and the decision of whether to proceed or not must be made by the Burn Incident Controller (BIC) and final approval to proceed given by the Fire Control Officer (FCO) or delegate.
- Prior to ignition, the BIC shall complete the Burn Incident Controller Checklist located in the prescribed burn plan (Appendix 1) to ensure that all necessary precautions and planning details have been considered and are in place.
- > Prior to ignition, the BIC shall notify the FCO (or delegate) of the imminent intention to implement the prescribed burn plan.
- Procedures used during a prescribed burn are to be of the same safety standard as those specified for equivalent activities conducted in Fireground operations.
- **)** A burning operations log must be completed by the BIC.
- A Safety Officer reporting directly to the BIC is to be appointed for all prescribed burns. At Level One Simple burns and Basic Burns, the function of the Safety Officer may be retained as part of the role of the BIC. Where this occurs the role must be carried out as an integral function.
- Prior to ignition, all personnel are to be briefed using the SMEACS format and provided access to an A3 Operational Map for Level One and Level Two Burns. The A3 NSW Interagency Prescribed Burn Field Operations attachment is the minimum information required for all Level Two Complex burns.
- Ignition of the burn is to be under the overall coordination of the BIC.
- The prescribed burn should be planned around suitable containment lines and with suitable refuge areas and escape routes in place. Ignition patterns/lighting sequence must not place personnel at risk whilst undertaking operations.
- It is the responsibility of the BIC to monitor and record burn site weather readings at the start of the burn, hourly during the burn and at the completion of the burn. Additional readings may be required during the burn if unpredicted weather changes occur.
- Once the burn is contained, the burn area is to be secured and patrolled until the BIC is confident that the burn is completely extinguished. Ensure adequate resources are established during the patrol period, including night patrol where required.
- The BIC is responsible for the burn until the burn is declared out or is handed over. If the BIC is unable to monitor the burn site, the FCO/District Duty Officer (DDO) may assume responsibility. Monitoring forecast weather and regular or systematic patrol of the burn perimeter must continue until the burn is declared out.
- Pile burns or windrows that have the potential to continue smouldering undetected must have a mineral earth break established around the perimeter of the burnt area. Where the fire has been left in the care of the property owner, and if a permit is required, the permit must have a condition for the maintenance and patrol of this break.



Conducting a Prescribed Burn

Operational Protocol

3 Special Considerations

Nil.

4 Related Information

Australian Fire Danger Rating System: AFDRS
RFS – Bush Fire Environmental Assessment Code
RFS Hazard Reductions
Rural Fires Act 1997

Owner: Predictive Services Maintained by: Operational Performance



Evaluating a Prescribed Burn

Operational Protocol

1 Scope

This Operational Protocol must be followed when evaluating a specific prescribed burn.

2 Protocol

- It is important that burn outcomes are evaluated and recorded in as much detail as appropriate. This information is useful for future planning and should form part of the documentation of the burn report.
- All personnel involved in a prescribed burn should participate in an After Action Review (AAR) at the appropriate level as deemed by the Burn Incident Controller (BIC).
- > The AAR should follow the standard format of:
 - What did we set out to achieve?
 - What actually happened?
 - > What can we do better next time?
- > For Level One Simple and Level Two Complex prescribed burns, the BIC shall complete an After Action Review located in the prescribed burn plan (Appendix 4).
- The BIC should provide the District Office/ Fire Control Officer (FCO) with the following documents as soon as practical after the completion of the burn:
 - A copy of the completed prescribed burn plan including operations log and any additional documents.
- A post burn assessment, in accordance with the relevant prescribed burn plan template, must be conducted by the Prescribed Burn Planner and the BIC (where possible). Where any remedial action is required consult with the FCO.
- Where a prescribed burn resulted in an accident, near miss, or significant escape of fire, or damage to any asset, the FCO shall initiate an investigation of the burn, under relevant Operational Procedures and Guidelines (OPG).

3 Special Considerations

Nil.

4 Related Information

<u>Lessons Management Framework</u> *Rural Fires Act 1997*