

Guidelines for the development of Pastoral Station Bush Fire Management Planning



Purpose of the Guidelines

The purpose of this document is to provide guidance for the development of a comprehensive and consistent approach when compiling a 'Pastoral Station Bush Fire Management Plan'.

Purpose of the Plan

The purpose of the 'Pastoral Station Bush Fire Management Plan' is to provide guidance for the planning and management of potential bush fire threat on a pastoral station or within specified areas of the station. The identified areas can be single paddocks or the entire station.

The template outlined in this document has been developed to assist with bush fire planning on stations by providing a guiding framework.

When preparing a fire management plan, consider the following points which may be included in the overall plan:

- What will be achieved by applying this plan?
- What strategic firebreaks are required (e.g. burning and firebreak selection and placement required) to protect this station and its primary assets?
- What pasture management requirements are required as a component of this plan?

The following consideration should be specified to ensure that the plan remains up to date:

- A time limit for the revision and accompanying update of the plan (this may be every five years).

Objective

To provide a template to guide pastoralists when developing a pastoral bush fire management plan.

Note: It is acknowledged that **not** all components of the template may be required when developing plans for individual pastoral stations.

Requirements

The specific objectives and requirements of the pastoral station for bush fire management planning should be clearly identified and recorded within the plan. The plan will be map-based unless the pastoralist wishes to enhance the plan with text.

Maps required

To assist with the development of your fire management plan, a number of maps will be required. These may include:

1. Carrying capacity map.
2. Vegetation map.
3. Soils map.
4. Topographic map with contours.
5. Fire footprint.
6. Cultural heritage map.
7. Environmental protection.
8. Rainfall.

Recommended Process

The following step-by-step process is recommended to assist Pastoralists with the development of a map-based Pastoral Bush Fire Management Plan.

Step 1 Know your fuels

Identify and understand fuel type, load / age analysis—this may require some field work and reporting.

Step 2 Review Maps

Review maps of your station and compare opportunities with risks. For example the following should be considered:

- (a) Vegetation.
- (b) Infrastructure.
- (c) High value pasture (carrying capacity).
- (d) Cultural heritage.
- (e) Environmental protection.
- (f) Rainfall.
- (g) Soil types.

Step 3 Identify plan components

Identify plan components—values / risks / options.

Step 4 Implement plan

- (a) Phase 1—development / training.
- (b) Phase 2—Operational implementation / mentoring / review / adapt.

Protection Burning

1. Identify the key values requiring protection:
 - (a) Infrastructure;
 - (b) High value pasture (carrying capacity);
 - (c) Cultural heritage;
 - (d) Environmental protection.
2. Analyse vegetation map and fire footprint.
3. Apply fire management principles for the hard spinifex and pasture grasses (tussock grass) buffers.
4. Pasture grasses (tussock grasses) burn plan.
5. Analyse primary risk of ignition.
6. Set objectives for a strategic break (300 m–1000 m).



Burning for pasture management

1. Pasture growth rates / senescence rates.
2. Regeneration requirements.
3. Methods of regeneration.

Firebreaks

The location, construction and maintenance of firebreaks are key considerations in the establishment of a 'Pastoral Station Bush Fire Management Plan'. The method of maintaining the firebreak is also very important as a poorly located or maintained firebreak will not achieve its objective, or it may result in erosion and require remedial work. Some of the options are listed below:



Grading

1. Identify the key values requiring protection:
 - (a) Infrastructure.
 - (b) High value pasture (carrying capacity).
2. Cultural heritage.
3. Environmental protection.
4. Analyse soil type, soil structure, propensity to erode:
 - (a) Water.
 - (b) Wind.
5. Slope.
6. Firebreak width.
7. Cut offs width / length / spacing (linear).
8. Method of grading.
9. Production rate.

Chemical/Herbicide

1. Identify the key values requiring protection:
 - (a) Infrastructure.
 - (b) High value pasture (carrying capacity).
 - (c) Cultural heritage.
 - (d) Environmental protection.
2. Analyse soil type, soil structure, propensity to erode:
 - (a) Water.
 - (b) Wind.
3. Impact of chemical on target / non-target species.
4. Impact of root contact / water movement on target / non-target species.
5. Application rate / concentration of chemicals.
6. Spraying unit operating speed.
7. Mode of operation / grass height / root development.

Herbicide should be applied towards the end of pasture growth between late February and March and whilst the non-treated plants are still actively growing. The actual period of treatment will depend on the height of plant growth required to develop a suitable root growth to minimise erosion whilst not being so tall that the grass growth does not break down and prevent a mineral earth firebreak being established.

When spraying, drift and run-off management are critical to ensure non-target species and locations are not affected by the chemical. Root transference of the chemical is also important to minimise off-target impacts.