

### 2.3. FIRE MANAGEMENT

Fire in the Mitchell River has been an inevitable part of history and will occur whether lit naturally, accidentally, negligently or deliberately. The vegetation patterns of woodland and eucalypt are susceptible and adapted to fire while the climatic conditions of Australia are conducive to the elements required for fire to occur.

There are three elements required for a fire - hot weather, oxygen and fuel. Of these only fuel can be easily controlled. Given the seasonal conditions, land managers can control the effect of these fires through proactive management. Under the *Queensland Fire and Rescue Authority Act 1990*, fire on a property is deemed the owners' responsibility to control, contain and extinguish.

Firebreaks are a necessity where fire could spread to areas where burning is not wanted. Removal of dead plant material and the promotion of green vegetation or the use of poorly burning trees are effective firebreak methods in small acreage areas, especially on sloping land. Roads and tracks are not only good bases to implement back burning from but can be utilised for access in the event of fire breakout. Sometimes a cool fire will provide a firebreak for a hot fire later in the dry season.

Aerial ignition, as practiced in Cape York Peninsula north of Coen, is another a valuable tool in preventative burning strategies. This low intensity burning is normally carried out during the day to self extinguish during the night, leaving burnt strips for fire breaks. Major roadways are targeted to lessen the possibility of tourist visits causing wildfires. Aerial burning can be carried out very economically covering extensive distances in a short time. For example, three hours aerial burning would take about five days of ground burning at a much cheaper cost. Property owners are subsidised if they are members of a registered Rural Fire Brigade or recognised body.

There are over 1,500 Rural Fire Brigades under the umbrella of the Rural Fire Service which was formed with the implementation of the *Queensland Fire and Rescue Authority Act, 1990*. The Rural Fire Service provides volunteers with equipment, training, research and fire safety programmes. It is the largest voluntary organisation in Queensland with approximately 52,600 volunteers and 2,200 fire wardens.

Research into fire management is ongoing. Because of the long history of fire in Australia some native wildlife have adapted to it and indeed some flora depend on fire for germination. It also plays a vital role in maintaining some ecosystems, although there

has been limited work on the effect of burning regimes on different species during wet and dry seasons in different geographical areas.

There are many advantages and disadvantages associated with the use of fire. Landholders can use fire to encourage better pasture growth, to remove rank grass, in woody weed control or as a firebreak to safeguard their property in the event of wildfire. If used incorrectly fire can lead to erosion due to reduced ground cover, loss of drought stockfeed reserves and greater runoff leading to less infiltration of water into the soil.

Differing views and understanding on the use of fire often leads to conflict. A common problem in the Mitchell River catchment is the starting of wild fires from camper's fireplaces not being extinguished or from novice gold prospectors who burn to improve the effectiveness of their metal detector. In areas of higher population, local governments receive complaints about smoke nuisance if burning off is required in cane fields or along road reserves.

An ever present issue is the differing ethical, social and environmental values of fire management. It is often argued whether using fire as a management tool assists Australia's natural resource processes or interferes with the development of ecosystems that have been altered with the continued use of fire over many thousands of years. Fire frequency is often a question of social response versus safety needs. Fire management is for life, property and environment - but which takes precedence is often debated. It is only through a cooperative approach to developing and implementing burning regimes that all stakeholders' interests will be recognised.



**Figure 9** *Fire is one effective tool to control Rubbervine*



**Goal:**

*A cooperative and educated approach to  
best fire management practices*

**Objectives:**

- The best fire management procedures
- A cooperative approach to implementation of fire management
- The use of fire as a natural resource management tool
- An increased awareness of fire types and fire use benefits

**Strategies:*****Education***

**FM1** Promote education of community and visitors in fire prevention methods and the dangers of wildfire

**FM2** Promote landholder awareness of best fire management practices for their particular property

***Information and Communication***

**FM3** Investigate the impacts of fire in land degradation issues

***Improving Resource Management***

**FM4** Identify best fire management practices

**FM5** Identify and monitor vegetation types and their response and susceptibility to fire and fire regimes

***Adopting a Cooperative Approach***

**FM6** Encourage further liaison between the Rural Fire Service and landmanagers

**Outcomes:**

Achievement of these strategies will result in the following outcomes:

- Increased cooperation between stakeholders in best fire management
- A decrease in wildfires
- A minimal loss in stock and property
- A visible decrease in fire related land degradation
- Healthy and productive natural and pastoral ecosystems

**Strategy FM1**

Promote education of community and visitors in fire prevention methods and the dangers of wildfire

| Actions   | Stakeholders          | Performance Indicators            | Priority | Cross Reference to |
|---|-----------------------|-----------------------------------|----------|--------------------|
| Use roadside and park signs to inform of fire prevention methods                        | MRWMG, DMR, RFS       |                                   | ★        | TR1                |
| Provide firesites or cooking facilities in high use recreational areas                  | MRWMG, EPA, Lgov      |                                   | ★★       | TR1                |
| Provide information to community on fire break techniques                               | RFS, MRWMG            | Leaflets, 2 Newspaper articles/yr | ★        |                    |
| Encourage the community to be prepared for wildfires before they pose a definite threat | RFS, DNR              | Leaflets, 2 Newspaper articles/yr | ★        |                    |
| Create visitor awareness that fire management is used in area                           | RFS, DNR, MRWMG, Lgov |                                   | ★★★      |                    |

**Strategy FM2**

Promote landholder awareness of best fire management practices for their particular property

| Actions  | Stakeholders                            | Performance Indicators | Priority | Cross Reference to |
|--|---|------------------------|----------|--------------------|
| Educate landholders of flammability and the effect of fire on their vegetation types                           | DNR, RFS, DPI, MRWMG, CSIRO,            |                        | ★★★      | FM5                |
| Extend information regarding what type of fire certain weeds or pasture types require for effective management | DNR, DPI, MRWMG, Industry groups, CSIRO |                        | ★★★      | FM4<br>WE1<br>GM2  |
| Ensure that the seasons are used to their best advantage in fire management                                    | RFS, EPA, DNR, Lgov, Landholders        |                        | ★★       |                    |
| Hold workshops to extend relevant information and gain feedback from the landholders                           | MRWMG, DNR, Landholders, RFS,           |                        | ★        | FM2                |
| Encourage stronger networking between landholders and the RFS  | MRWMG, RFS, Lgov, Landholders           |                        | ★★       | FM6                |
| If a landholder has a “no fire policy” encourage the use of firebreaks to safeguard his/her property           | RFS, EPA, MRWMG, Lgov                   |                        | ★★       |                    |

**Strategy FM3**

Investigate the impacts of fire in land degradation issues

| Actions   | Stakeholders                   | Performance Indicators                   | Priority | Cross Reference to |
|---|--------------------------------|--|----------|--------------------|
| Use extension information to ensure that landmanagers are aware of the land degradation issues affected by fire use | MRWMG, EPA, DNR, RFS           | Pamphlet mailout 3 weeks before workshop | ★        | FM2                |
| Hold workshops to gain local knowledge of what impacts fire has on land degradation issues                          | MRWMG, DNR, EPA, RFS, CU, BSES |  | ★        | FM2<br>FM4         |
| Use trial burning to investigate issues not sufficiently covered by local knowledge                                 | RFS, MRWMG, TWRC, CSIRO        |  | ★★       | FM4<br>FM5         |
| Compile the information into an accessible format   | MRWMG, DNR, EPA, RFS, CSIRO    | Concise GIS database                     | ★★       | WE6                |

**Strategy FM4**

Identify and promote best fire management practises

| Actions  | Stakeholders  | Performance Indicators                        | Priority | Cross Reference to |
|--|---|---|----------|--------------------|
| Use a questionnaire to gain local knowledge of positive and negative impacts of various fire management techniques | MRWMG, RFS  | Questionnaire mailout 3 weeks before workshop | ★        | FM3                |
| Collate existing information on successful fire management techniques used in other catchments                     | MRWMG, DNR, ICM, CSIRO, BSES, EPA, DPI                    | List of viable options for Mitchell River     | ★★       |                    |
| Hold workshops to compare ideas and identify best fire management practises  | MRWMG, RFS, DNR, EPA, DPI, Lgov, BSES, CSIRO, Landholders |   | ★★       | FM3                |

**Priorities Achieved By:**

★ 1 - 2 years

★★ 2 - 3 years

★★★ 3 - 5 years

**Strategy FM5**

Identify and monitor vegetation types and their responses and susceptibility to fire and fire regimes.

| <b>Actions</b>   | <b>Stakeholders</b>                    | <b>Performance Indicators</b> | <b>Priority</b> | <b>Cross Reference to</b> |
|--|--|-------------------------------|-----------------|---------------------------|
| Compile a list of major vegetation types in the catchment  | MRWMG, DNR, EPA                        | List of vegetation types      | ★★★             | NC3                       |
| Use local knowledge to ascertain how each vegetation type burns and the impact of fire on the ecosystems | MRWMG, Landholders                     |                               | ★★★             | FM3                       |
| Trial burn vegetation types not covered by local knowledge   | MRWMG, DNR, ICM, CSIRO, BSES, EPA, DPI |                               | ★★★             | FM3<br>FM4                |
| Compile information to be used by fire management agencies, landmanagers and educational institutions    | MRWMG, DNR, ICM, CSIRO, BSES, EPA, DPI | Readable table                | ★★★             |                           |

**Strategy FM6**

Encourage further liaison between the Rural Fire Service and land managers

| <b>Actions</b>   | <b>Stakeholders</b>  | <b>Performance Indicators</b>                 | <b>Priority</b> | <b>Cross Reference to</b> |
|--|--|---|-----------------|---------------------------|
| Encourage the RFS to workshop with landholders to discuss cooperative burning regimes and best fire management practises | MRWMG, RFS, Landholders                                    | Workshops at the beginning of burning seasons | ★               | FM4                       |
| Promote understanding between stakeholder groups of eachother's reasons for fire use and the issues involved             | MRWMG, Aboriginal groups, Graziers, Prospectors, Lgov, DME |   | ★★              |                           |
| Involve the RFS in other land management discussions, eg, Land degradation, Weeds, Grazing                               | RFS, MRWMG, DNR, DPI, DME, Lgov                            |   | ★★              | LD5<br>WE7<br>GM5         |

**Priorities Achieved By:**

★ 1 - 2 years

★★ 2 - 3 years

★★★ 3 - 5 years