

## ASSIST WITH PRESCRIBED BURNING



# CONTENTS

INTRODUCTION .....	1
1. BEFORE YOU START .....	2
2. ABOUT FIRES .....	6
3. GET READY .....	12
4. SUPPORT THE BURN .....	18
5. FINISH UP .....	22
RESOURCES .....	26
1. WHS LEGISLATION .....	26
2. BASIC TWO-WAY RADIO WORDS & PHRASES .....	26
GLOSSARY .....	27
REFERENCES .....	28

## PUBLICATION NOTES

*BHP Billiton Iron Ore is proud to support Greening Australia to provide valuable conservation and land management training to communities throughout the Pilbara through the Indigenous Training Program.*

*This Learning Guide series has been developed as part of our partnership of the program.*

Gavin Price, Head of Environment, BHP Billiton Iron Ore

*Greening Australia is proud to produce and provide the comprehensive suite of new ALEP Learning Guides. The guides are compatible with the new horticulture and conservation industries training package and suited to developing skills in Indigenous communities within remote areas of the country where employment opportunities are limited. We would like to thank BHPBIO for their generous support in the development of the guides.*

Brendan Foran, National CEO Greening Australia

The second series of ALEP Guides is aligned with a number of units of competence from the *Training Package AHC10 – Agriculture, Horticulture and Conservation and Land Management* (Release 8.0). The units selected are frequently used within Certificates I to III in Horticulture and Conservation and Land Management. As such they cover, where possible, the elements, performance criteria and required skills and knowledge of each unit.

The principal goal of these resources is to support the learning process; the learning activities may complement a trainer's assessment plan. The intent is that they will be used in an interactive manner with learners rather than as self-paced study guides. The structure and sequence have been designed to follow the logical steps of the practical tasks wherever possible. Concepts are introduced and then consolidated with discussion and/or practical activities.

The writers consider that these guides can provide a sound technical foundation but also strongly encourage trainers to complement the guides with additional, authentic resources from relevant industry texts and websites. The guides can be used in part or in their entirety but should always be linked to practical activities to strengthen the teaching and learning.

Genuine consideration was given to the level of language used in the guides. The goal has been to find a balance between simplifying the language to an accessible level and ensuring that the vocational concepts are addressed. The writers contend that with appropriate support these texts can provide an opportunity for students to strengthen their language, literacy and numeracy skills, which may be required for pathway progression.

A number of Aboriginal people have been involved in developing this ALEP Guide, which is considered suitable for use within a program based on Aboriginal pedagogies.

# INTRODUCTION

Welcome to *Assist with prescribed burning*. This learning guide covers information about helping with managed burns for agricultural or natural resource management purposes. To successfully help out with a managed burn job you need to know how to get ready for the burn, assist with the burn and clean up after the burn. When doing these activities, the two most important things are:

- A focus on safety
- Good communication

This learning guide can only present the broad ideas about prescribed burning. This knowledge needs to be used in practice as you carry out your duties in the field.

## EQUIPMENT REQUIRED

To complete this training you will need the following:

- Access to relevant workplace policies and procedures
- Appropriate Personal Protective Equipment (PPE)
- Access to relevant machinery and equipment

## LEARNING ACTIVITIES

There are five kinds of activities to complete. These activities may go toward your final assessment.

SECTION	ACTIVITY	SATISFACTORY (Y/N)	DATE
<b>RESEARCH ACTIVITIES</b>			
3.3	Fire-retardant chemicals		
<b>DISCUSSION ACTIVITIES</b>			
1.2	Legislation		
1.3	WHS		
2.5	Fire behaviour		
4.3	Monitoring fire		
<b>WORKBOOK ACTIVITIES</b>			
1.3	WHS		
3.3	PPE and equipment		
<b>PRACTICAL ACTIVITIES</b>			
2.5	Fire Danger Index (FDI)		
3.3	Communication – two-way radios		
3.3	Check equipment and vehicles		
4.4	Using suppression equipment		
<b>PROJECT</b>			
End	All aspects of prescribed burning		



## 1.1 WHY BURN?

Prescribed burning is both a traditional Aboriginal and western scientific land management strategy. It is often used along with other strategies to reduce the fuel load in an area. The fuel load is the amount of dry grass, leaf litter and wood that can feed and increase the intensity of a fire.

The best time to burn depends on the seasons in your region. In the south of Australia the ideal time to burn is autumn. In the north of Australia the early dry season is best. This allows for a slower, cooler fire and a mosaic or patchy result. This is desirable because it has a lower environmental impact.

A successful burn will create firebreaks that complement the topography of the area. If a fire does break out during the hot and dry time of year, a patchy effect will prevent the devastation of vast tracts of land in one event. This is the best way to preserve biodiversity in an area.

Reducing the fuel load will reduce the risk of wildfire during the hot, dry time of year. This reduces the risk of harm to:

- Buildings and other infrastructure such as power and phone lines
- Animal habitat
- Biodiversity – this is especially important for regions with vulnerable or endangered species and communities
- Stock and crops, including tree plantations
- Cultural sites

You and your work team will aim to reduce the chance of wildfire. You will use prescribed burning methods that do not significantly impact the biodiversity of the land you are protecting.



## 1.2 LEGISLATION

The main laws related to burning are concerned with protecting people, property and the environment.

### WORKPLACE HEALTH & SAFETY (WHS)

WHS legislation tells you that, as an employee, you have a 'duty of care'. This means you must look after your own safety and that of others. When working with fire you must:

- Wear the appropriate PPE
- Do the necessary training
- Tell your supervisor about anything that could make the workplace unsafe for you or anyone else
- Report any injury related to your work

The *Resources* section lists the main WHS legislation for each state.

### ENVIRONMENTAL PROTECTION

The *Environmental Protection and Biodiversity Conservation Act 1999* is national legislation protecting the environment in Australia. A permit will be needed for burning if it is likely to damage the habitat of protected species or ecological communities.

Your state or territory government will also have environmental protection legislation. This is usually managed by your department of parks and wildlife or environmental protection authority. It is often these agencies that will help organise prescribed burning jobs with you in your region.

### LOCAL GOVERNMENT LEGISLATION

Your local government may also have laws about fire management. They are often responsible for making sure that residential areas are protected. Local governments generally set restricted burn periods for their region.



See WHS Legislation  
*Resource R1*, page 26

#### NOTE

*You will find more detailed information about this in the ALEP Guide Participate in environmentally sustainable work practices.*



### DISCUSSION ACTIVITY

Talk with your trainer and supervisor about the legislation covering your region.



State legislation

Local government legislation



## 1.3 WORKPLACE HEALTH & SAFETY

There are a number of hazards when working on a prescribed burn, and the risks are often high.

A HAZARD is something that could cause an injury or damage.




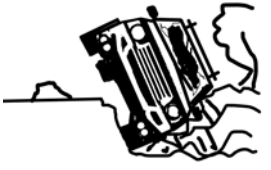


An INJURY is what could happen to someone.

RISK is the likelihood of an injury happening and the possible seriousness of injury.

A CONTROL is something you do or wear to reduce the:

- Likelihood of injury
- Seriousness of injury

### HAZARDS WITH PRESCRIBED BURNING

<p><b>FIRE</b></p> <p>Can cause: Burns, death</p>		<p><b>SLIPS, TRIPS AND FALLS</b></p> <p>Can cause: Sprains, bruising or broken bones</p>	
<p><b>SMOKE</b></p> <p>Can cause: Breathing difficulties Suffocation, causing death Injury caused by poor visibility</p>		<p><b>ROAD TRAVEL</b></p> <p>Can cause: Injury in a vehicle accident</p>	
<p><b>RADIANT HEAT</b></p> <p>Can cause: Heat stress, heat exhaustion, heat stroke, dehydration, fatigue, stress and death</p>		<p><b>WORKING LONG HOURS IN THE SUN</b></p> <p>Can cause: Fatigue, stress, heat exhaustion, dehydration</p>	

## RISK

Prescribed burning is a very high risk job. Risk is assessed by answering both of these questions:

- How likely is it that injury or damage will happen?
- How serious is injury or damage likely to be?

If you think about these questions you will probably agree that injury or damage is likely. Also, if injury or damage happens it can be very serious, even causing death.

There are two critical things you must do to reduce the risk of injury or damage.

- Communicate clearly
- Follow workplace procedures



## COMMUNICATION

Communication is about speaking, listening, reading and writing.

It is critical that you understand the fire plan, your role and who you report to. These will be explained at the **briefing**. It is important to ask questions if you don't understand. We'll look more at this in *Section 3.4*.

You also need to keep communicating during the burn. Let people know where you are and what you're doing. Also let them know if you notice anything that might affect the burn, for example, if there is a change in the wind direction.



## WORKPLACE PROCEDURES

It is very important to follow safety procedures at all times. Your workplace procedures are written to make sure you follow the law.

Many workplaces have a Standard Operating Procedure (SOP) or Safe Work Method Statement (SWMS) for each job that is regularly done. This kind of document will tell you:

- How to plan the job
- The training needed to do the job
- The equipment and PPE needed
- How to do the job
- How to clean up after the job



### WORKBOOK ACTIVITY

Find your workplace procedure for prescribed burning. If you are working with a partner organisation, you may need to follow their procedures. Read through as a group.

OR

If your workplace does not have a procedure, you need to find one you can change to suit your workplace. Try contacting one of the departments in your state that manages:

- Fire and emergency services
- Parks and wildlife
- Bush fire service or brigade



### DISCUSSION ACTIVITY

With your work team, discuss the controls you will apply to reduce the risk of injury from each of the hazards above.