

Lodge Environment Manual



*A guide to managing environmental risk and
monitoring environmental performance*

Availability

Additional copies of this 'Lodge Environment Manual' can be viewed, downloaded or printed from the National Parks and Wildlife Service (NPWS) website at www.environment.nsw.gov.au/PRREMS

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Introduction

Kosciuszko National Park, is the largest national park in New South Wales, covering an area of 673, 542 hectares. The park is of considerable international and national significance and comprises spectacular natural environments including the country's highest peaks, fragile mountain ecosystems, the famous Snowy, Murray and Murrumbidgee Rivers and all of the NSW ski resorts.

The Perisher Range Resorts (PRR) include the ski areas and villages of Perisher Valley, Smiggin Holes, Guthega and Blue Cow. As well as the major ski field operator, Perisher Blue Pty Ltd, there are 88 club lodges, 6 hotels, 26 commercial lodges/apartments, numerous staff accommodation buildings and a range of retail and resort services.

The presence of concentrated tourism in a national park inevitably puts some level of stress on the environment. Tourists, tourism operators, service providers and land managers all contribute to changing the natural environment. In 2002 in recognition of the outstanding natural beauty of the area and the importance of conserving its unique environmental values, NPWS together with conservation groups and the businesses and organisations involved in the Perisher Range Resorts worked together to develop an Environmental Management System (EMS).

The EMS, referred to as the Perisher Range Resorts EMS (PRREMS) was developed using the International Standard for environmental management ISO 14001 which focuses on targeted, continuous improvement in environmental

management. It represents a systematic approach to managing the environmental impacts and risks associated with the operation of a resort in one of Australia's most sensitive environments. The PRREMS applies to all parties that operate in the Perisher Range Resorts and its goal is to ensure that all activities and developments are carried out in a controlled and sustainable manner.

The PRREMS establishes a system for coordination and cooperation among the Perisher range stakeholders to:

- collectively reduce impacts on the environment
- identify and manage environmental risks
- achieve and maintain compliance with legislation and other regulatory requirements
- set environmental objectives
- plan, document, measure and evaluate environmental performance.

The stakeholders of the PRREMS include:

- Country Energy
- Elgas
- Nature Conservation Council
- NSW Department of Planning (DoP)
- NSW National Parks and Wildlife Service (NPWS)
- NSW Roads and Traffic authority (RTA)
- Perisher Blue Pty Ltd (PB)
- Perisher Resorts Chamber of Commerce (PRCoC)
- SLOPES (representing club lodges)
- Telstra.

To demonstrate their commitment to the protection of the environment the PRREMS stakeholders have developed a 'Vision Statement' and the 'Perisher Range Resorts 'Environmental Policy'.

THE VISION STATEMENT

"The Perisher Range Resorts will be widely recognised for exemplary environmental management of the areas natural, cultural, aesthetic and social values in the national park setting, and for sustainable recreation development that respects, conserves, enhances and restores those values."

ABOUT THE MANUAL

This manual has been designed to be used by the lodges in Perisher Range Resorts to help you fulfil your obligations under the PRREMS. The term 'Lodge' refers to all accommodation premises including ski clubs/lodges, chalets, commercial lodges, apartments and hotels. The following six chapters have been compiled to help you think about what is valued in the

environment, how your activities may affect those values and what actions you can take to reduce your impact. You will find that you are already implementing some of the requirements of the PRREMS just by fulfilling your legal obligations and meeting customer requirements. By adopting the 'resource management suggestions' you may also save money.

THE MANUAL INCLUDES:

- '**Environmental Risks**' that relate to potential impacts from lodges on the environment
- Necessary tasks, that you need to undertake to satisfy the requirements of the PRREMS (noted as '**EMS Requirements**' in each chapter) and reduce any risk to the environment
- Space (marked as '**Lodge Notes**') for you to keep records if you choose
- Suggestions to help your lodge improve its environmental performance and
- Information on the **reporting requirements** of the PRREMS.

By completing the reporting and undertaking the activities as directed you will be able to plan, document, measure and evaluate your environmental performance.

The manual has been produced in a folder format to make it easier for you to store energy bills and other information needed to report against the EMS objectives and targets. There are also tables and space to record information for your own records. You are not required to submit

any part of this manual. However you do need to make sure you have collected the appropriate information to be able to complete the on-line report each year. See the 'PRREMS Reporting' section for your reporting requirements.

Summary of EMS Requirements

ENVIRONMENTAL RISKS		EMS REQUIREMENTS	
FLORA & FAUNA	Introduction of weed species from inappropriate landscaping/planting	Use only locally occurring native species for landscaping/ planting.	
	Spread of weed species from inappropriate weed control	Develop and implement an active weed management program.	
	Damage to native vegetation	Educate staff and guests about the importance of protecting native vegetation.	
	Harm to native animals	Educate staff and guests about the importance of not harming native animals.	
		Educate staff and guests about minimising vehicle and other noise.	
	Introduction and spread of pest species	Educate staff and guests about the importance of not encouraging pest species.	
SOIL & WATER	Degradation of water quality from pollution	Reduce the opportunities for small mammals to enter your lodge.	
		Educate staff and guests about appropriate pest control.	
		Educate staff, guests and contractors about preventing water pollution.	
		In the event of a pollution incident follow the PRREMS Lodge Environment Incident Procedure. Ensure the procedure is clearly on display within the lodge for quick reference.	
		Ensure that your lodge has a spill kit which has adequate supplies of materials to use in the event of a pollution incident.	
		Ensure that unused chemicals are appropriately disposed.	
SOIL & WATER	Degradation of water quality from inappropriate stormwater management	Develop a vehicle servicing program for lodge owned/ leased vehicles.	
		Ensure that your lodge grease trap is appropriate for its use and is well maintained.	
		Monitor the area surrounding your lodge for stormwater erosion and manage appropriately.	
		Ensure your lodge has systems in place to reduce the velocity and quantity of stormwater leaving your lodge.	
		Obtain the appropriate approvals for construction activities.	
		Educate staff and guests about managing sediment during construction activities.	
SOIL & WATER	Degradation of water quality from construction activities	Ensure chemical storage areas are appropriate and all unused chemicals are appropriately disposed.	
		Ensure all fuel tanks are appropriately constructed and managed.	
	Contamination from inappropriate storage of chemicals	Remove or decommission any fuel tanks that are no longer being used.	
	Contamination from liquid fuel storage tanks		

ENVIRONMENTAL RISKS		EMS REQUIREMENTS	
AIR QUALITY	Air pollution from inappropriate use of open fireplaces and wood heaters	Develop a replacement program for fireplaces/wood heaters that are not compliant with the Australian Standard (AS4013).	
		Consider replacing open fireplaces and wood heaters with thermostatically controlled gas or electric heaters.	
		Educate staff and guests about efficient fireplace use.	
	Air pollution from poor chimney/fue management	Ensure your chimney and fue are appropriately managed.	
	Reduced air quality from use of ozone depleting substances (ODS)	Develop a replacement program for appliances that use ODS.	
Monitor your use of Ozone Depleting Substances.			
Air pollution from vehicle emissions	Educate staff and guests about using sustainable transport.		
ENVIRONMENTAL RISKS		EMS REQUIREMENTS	
NATURAL RESOURCES	Decreased environmental flows from water consumption	Install water saving devices.	
		Educate staff and guests about saving water.	
		Monitor your water consumption and conduct a water audit if you are not meeting the EMS target.	
	Resource depletion from ineffective waste management	Provide appropriate facilities in your lodge for recycling.	
		Recycle the following products (at a minimum): <ul style="list-style-type: none">• Paper and cardboard• PET Bottles (e.g. soft drink)• HDPE Bottles (e.g. milk)• Aluminium and steel cans• Glass bottles and jars• Used cooking oil.	
		Monitor your waste produced and recycled.	
		Educate staff and guests about reducing, reusing and recycling waste.	
	Increased CO ² emissions and loss of non-renewable resources from energy consumption	Implement energy saving practices.	
		Educate staff and guests about saving energy.	
Monitor your energy consumption and conduct an energy audit if you are not meeting the EMS energy target.			
ENVIRONMENTAL RISKS		EMS REQUIREMENTS	
CULTURAL HERITAGE	Degradation of the heritage value of lodges within the Perisher Range Resorts	You should be aware of the heritage values of your lodge and the measures that need to be taken to protect its heritage.	
	Degradation of Aboriginal heritage items and sites	Report any findings of Aboriginal objects to NPWS immediately.	
		Educate staff and guests about the cultural heritage values of the PRR.	
Degradation of the visual amenity of the Perisher Range Resorts	For any maintenance or upgrades to your lodge ensure that the impact on visual amenity is taken into consideration and that your lodge blends in with the natural environment.		

SUSTAINABLE TOURISM	ENVIRONMENTAL RISKS	EMS REQUIREMENTS
	Tourism in the Perisher Range Resorts is not undertaken on a sustainable basis	Undertake environmental initiatives to improve your environmental performance.
		Nominate a person from your lodge as your PRREMS officer. This person should be responsible for ensuring that all of the requirements in the manual are met and that your lodge is submitting the required reports.
		Communicate information on the PRREMS (including your lodge's performance against the PRREMS objectives and targets) to members of your board, staff, guests and contractors.
		Notify SLOPES or PRCoC of any issues relating to the PRREMS which you feel should be discussed at the PRREMS Operational Committee (PRREMSOC) meetings.
		Maintain a 'legal and other requirements' register and ensure it is regularly reviewed.
	Poor environmental performance from not undertaking regular reviews and audits to identify deficiencies	Submit an annual report against the objectives and targets detailed in this manual and regularly review your lodge's environmental performance.
		Review environmental risks of your lodge activities at least annually.
		Maintain records required for the EMS including records of communications on environmental issues relating to your lodge. Undertake an internal audit of the PRREMS Lodge manual annually.
	Environmental impacts from lack of environmental awareness	Educate your visitors on the unique natural and cultural values of Kosciuszko National Park.
		Develop and deliver a lodge environmental education program for your members and visitors.
		Display the PRREMS Environmental Policy to staff, members and guests.
	Poor environmental performance due to lack of staff training	Develop and deliver a staff environmental training program and maintain records of all training undertaken.

Environmental Policy



'The Perisher Range Resorts are located within the Kosciuszko National Park, an area of outstanding natural beauty and environmental diversity. As resort managers, operators, natural area managers, and service providers, we recognise the potential for environmental impacts to occur as a result of our activities within and beyond the resorts. We also recognise the need for exemplary environmental management of these impacts to enhance the economic and social sustainability of our organisations and the region to which they contribute.

'Through the implementation of a tailored and effective Environmental Management System at the Perisher Range Resorts, we commit to conserving, enhancing, repairing and restoring the natural, cultural, aesthetic and social values of the area whilst recognising viable economic ventures that will provide appropriate high quality recreation.

'We commit to implementing best practice standards for ecologically sustainable tourism, natural area and threatened species management.

'We will promote the responsible development and sustainable use of the resorts for recreation, and the protection of the area's ecosystems, waterways and species. We commit to meeting or exceeding the requirements of all relevant environmental legislation and regulations. By controlling our own activities and influencing the activities of others, we commit to preventing or minimising adverse environmental effects through the:

- Establishment of environmental objectives consistent with this policy;
- Implementation of clear, effective and scientific planning, management and monitoring processes;
- Efficient use of natural resources, including water and energy, and by avoiding waste;
- Use of technologies, materials and systems in the design, construction, operation, maintenance and decommissioning of resort structures, which meet or exceed best practice environmental benchmarks;
- Use of independent auditing of performance; and
- Use of independent environmental accreditation systems for resorts.

'Openness and transparency are necessary to establishing and maintaining trust between our organisations, with resort users and the community and will enhance the reputations of our organisations and of the Perisher Range Resorts as a whole. We therefore commit to open and cooperative processes and participation in consultation programs and joint environmental initiatives.

'Communication and education are an integral part of our operational philosophy. As such, we will aim to increase the environmental awareness of all Park visitors, the community and staff, while actively seeking their ideas for enhancing our environmental performance.

We will continue to set ourselves ambitious goals for improvement in addressing significant environmental issues and will endeavour to become recognised as a leader in ecologically sustainable tourism in Australia.'

Reporting

The following pages summarise the EMS reporting requirements of your lodge.

What is required of your lodge?

One of the key components of an EMS is reporting on environmental performance. By regularly evaluating your performance you can identify areas that need improvement. Your lodge needs to submit an annual 'Environmental Performance Report'. This manual should assist you in capturing the information necessary to fill out the annual report. The questions in the report relate to the 'EMS Requirements' noted in each chapter of this manual. A template has been included at the end of this section so you know what to expect when it comes to submitting your report. Please ensure that someone in your lodge takes responsibility for fulfilling these reporting requirements.

WHEN?

The annual reporting period: **1st March to 28th February**

Due Date: You need to submit your lodge report before the 14th April

How to submit your report

Reports are to be submitted using the online reporting system, which can be accessed via the NPWS PRREMS webpage: <http://www.environment.nsw.gov.au/PRREMS>

Each lodge has been issued with a name and password. If you are unsure of the password or if you do not have access to the Internet please contact the NPWS EMS Officer to organise alternative means for submitting your report.

Whilst the cut off date to submit your report is the 14th April you are able to enter the information for your report at any time prior to the closing date. This means that you can submit your report early (at the end of winter) if you are not open over the summer period.

Visitor Nights

It is important that you include the number of "visitor nights" in your report as many of the PRREMS targets relate to reducing individual consumption of natural resources and waste production.

Visitor nights are calculated by adding up all the people who stayed at your lodge each night including staff. If someone stays for five nights then they should be counted 5 times. For example, If your lodge can accommodate 16 people and over four days your lodge had:

Thursday – 2 people, Friday – 12 people,
Saturday – 16 people, Sunday – 8 people

Then the number of visitor nights is
 $2+12+16+8=38$

NPWS Review of Reports

The information you submit in the report will be used to assess your performance against the objectives and targets. Each year, after you submit your data you will be sent a performance report demonstrating your performance against the objectives and targets. It will also give you an indication of the collective performance of all the lodges.

NPWS will review your performance and may contact you to discuss any areas of concern. The data you provide in these reports will be held on a confidential basis and will not be published except for group statistics and unidentifiable information.

Remember – Keep a copy of your EMS reports for your records.

Assistance

If you have any trouble logging onto the reporting website or are not sure how to complete the report, please contact the NPWS EMS Officer

phone: (02) 6450 5612 or

email:

perisher.ems@environment.nsw.gov.au.

PRREMS Incentives and Awards Program

The success of the PRREMS clearly depends on the commitment shown by lodges of the Perisher Range Resorts. To recognise those lodges which support the EMS and those that are committed to ensuring environmental protection an incentives and awards program has been developed.

Some of the awards that will be given out to individuals and lodges include:

- Environmental Initiative Award
– Presented to a lodge that has implemented a new environmental initiative that has resulted in an improved environmental outcome.
- Lodge Commitment Award – Presented to a lodge that has shown continual commitment to the implementation of the PRREMS.
- Achievement in Meeting or Exceeding a Target - Presented to a lodge that has excelled at achieving one or more of the environmental targets.

The incentives and awards program will be run annually and the award recipients will be determined by the PRREMS operational committee.

Chapter 1

Flora and Fauna



Weeds

***Protecting
Native Plants
& Animals***

Pests

Chapter 1

Flora and Fauna

Objective → **Target - Nil**

To achieve a high quality environment for native flora and fauna in the Perisher Range Resorts and to conserve the biodiversity of the area.

✓ *Your lodge is not required to meet any specific flora and fauna targets however it is important that you make sure your staff, members and visitors understand how they can help conserve the biodiversity of the area.*

The Perisher Range Resorts are nestled in amongst the Alpine, Sub Alpine, Heath and Bog vegetation communities of the Main Range. This unique and limited environment is home to many rare and threatened endemic plants and animals including the Mountain Pygmy-possum, Corroboree Frog and the Broad-toothed Rat. The biggest threat to the long term survival of some of these species and vegetation communities is human activity. This includes the direct impacts that may result from development such as erosion, loss of vegetation, contamination and sedimentation as well as the more gradual effects of weeds, pests, pathogens, road kills, resource depletion and climate change.

Weeds



Environmental Risk — *Introduction of weed species from inappropriate landscaping/planting.*

EMS Requirement — *Use only locally occurring native species for landscaping/planting.*

Prior to undertaking any landscaping or rehabilitation works in your lease area, you should contact the NPWS Environmental Liaison Officer for advice regarding appropriate species to plant. NPWS has species lists and rehabilitation guidelines that may assist you with your landscape plans.

Environmental Risk — *Spread of weed species from inappropriate weed control.*

EMS Requirement — *Develop and implement an active weed management program.*

Prior to undertaking any weed control activities, you should contact the NPWS Environmental Liaison Officer who will assist you to:

- Identify any weeds that exist in or near your lease area
- Develop a weed management program, which may involve:
 - ~ weed control techniques (physical removal or herbicide use)
 - ~ competitive planting with locally-occurring native species
 - ~ monitoring the success of the program.

FACT

- 175 weeds species have been identified in Kosciuszko National Park
– 105 of these are known to occur in and around the resort areas.

YOU ALSO NEED TO CONSIDER

- Weed management programs generally need to be coordinated across a wide area in order to be effective. It may be useful to have a joint program with your neighbours.
- Erosion and sedimentation controls may need to be implemented in conjunction with any weed eradication program.
- Ensure any person using herbicides in your lease area is aware of their obligations under the NSW *Pesticides Act 1999*.
- The following nurseries are under licence to collect seed and propagate plants for use in resort areas and often maintain surplus plant stock that is left over from larger projects. They can provide plant stock in small quantities and can arrange delivery:
- Dealbata (Cold Climate) Australian Plant Nursery (Contact – Bill Peterie)
 - 📍 5 Munje Street PAMBULA NSW 2549
 - ☎ (02) 64943283 or 0427 835 226
- Monaro Native Tree Nursery (Contact – Anne Platts)
 - 📍 "Khalassa" Gunnigrah Road BOMBALA NSW 2632
 - ☎ (02) 6458 4096
 - ✉ monarotrees@acr.net.au

Protecting Native Plants and Animals



Environmental Risk — *Damage to native vegetation.*

EMS Requirement — *Educate staff and guests about the importance of protecting native vegetation.*

Your lodge education program should consider issues, such as:

- observing signage regarding closed areas. These closures are necessary to allow for rehabilitation of disturbed sites and/or to protect important habitat such as the Mountain Pygmy Possum boulder fields.
- only using designated roads and car parking areas.

Environmental Risk — *Harm to native animals.*

EMS Requirement — *Educate staff and guests about the importance of not harming native animals.*

Your lodge education program should consider issues, such as:

- driving cautiously at night within the resort and also on the way to the skifields to reduce the risk of injuries to animals
- not feeding or handling wildlife
- not putting food scraps on the ground outside your lodge
- dealing with injured wildlife.

EMS Requirement — *Educate staff and guests about minimising vehicle and other noise.*

Noise from vehicles (especially oversnow vehicles) travelling to and from and parking at the lodge can disturb other guests. It can also interfere with the sleep, feeding and breeding cycles of local wildlife. Therefore the use of vehicles at night should be minimised where possible.

FACTS

- It is an offence against the NSW *National Parks and Wildlife Act 1974* to bring domesticated animals (i.e. dogs, cats, birds) into the national park. This rule also applies even if the animal remains in the owner's car.
- It is an offence under S12(1)(g) of the NSW *National Parks and Wildlife Regulation 2002* to feed any animal within a National Park. Feeding wildlife can have a detrimental effect on the health of the animal. It can cause obesity, nutritional deficiencies, viral or bacterial infections, and change behavioural, feeding and breeding patterns.
- Handling wildlife can lead to injury - to both you and the animal!
- Native animals are most active at dawn, dusk and night time. If you hit or encounter an injured animal, please call LAOKO on (02) 6456 1313. The LAOKO brochure is included at the back of this manual under contacts.
- It is illegal to keep wildlife without a licence, they must be passed onto a licenced carer or wildlife rescue organisation.

YOU ALSO NEED TO CONSIDER

- Food scraps and garbage bins can attract animals to your lodge and can change their feeding habits. Please make sure that your waste bins are covered and secured to prevent scavengers.

Pests



Environmental Risk — *Introduction and spread of pest species.*

EMS Requirement — *Educate staff and guests about the importance of not encouraging pest species.*

Your lodge education program should consider issues, such as:

- not feeding or handling wildlife
- not bringing domestic animals into the park
- reporting sightings of introduced wildlife to NPWS
- not providing nesting opportunities for introduced birds such as starlings.

Environmental Risk — *Harm to native animals from inappropriate pest control*

EMS Requirement — *Reduce the opportunities for small mammals to enter your lodge*

There are some simple steps you can take to reduce the risk of animals entering your lodge:

- Ensure your lodge is kept clean and that your garbage bins are suitably secure from animals
- Ensure all food is properly sealed in animal-proof containers (especially important when your lodge is vacant)
- Identify and fix any open spaces through which animals may be entering your lodge (be sure the animal is not nesting inside the lodge beforehand). This will also protect your lodge from nasty drafts
- Seal any electrical wires that appear to be the target of animals.

EMS Requirement — *Educate staff and guests about appropriate pest control*

Your lodge education program should consider issues, such as:

- 90% of small mammals that exist in Kosciuszko National Park are native and are therefore protected. Some species, including the Broad-toothed Rat and Mountain Pygmy-possum are threatened species
- not using baits, traps and snares in your lodge
- contact the NPWS Environmental Liaison Officer if there is a small mammal pest problem at your lodge.

A flyer on 'Small Mammal Trapping in Ski Resorts' has been included at the back of this chapter behind the lodge notes.



FACT

- It is an offence under S12 (1) (a) of the NSW *National Parks and Wildlife Regulation 2002* to set any trap, snare or poison within a park.

YOU ALSO NEED TO CONSIDER

- NPWS have posters that illustrate the most commonly occurring small mammals that make their home in the ski resorts of Kosciuszko National Park. These can be obtained from the NPWS Environmental Liaison Officer free of charge.
- You may not actually see any animals but find evidence, such as droppings (scats) or bite marks in wooden furniture, wires or food bags. If this is occurring contact the NPWS Environmental Liaison Officer who will advise you on how you can safely trap (using Elliott traps) any animals from your lodge.
- NPWS maintain records on native animals that have been removed from lodges. This information contributes to our understanding of co-habitation issues.
- Contact NPWS if you observe any pest species such as cats, dogs, foxes, rabbits, mice etc.

Lodge Notes



Use the table below to record **Flora and Fauna** issues.

[illegible]

Use the space below to record details of any **landscaping or rehabilitation** to be undertaken around your lodge (remember to include dates).



Use this table below to record **weed control** activities.



Weed species	Date of control	Control method (physical removal, herbicide application)	Herbicide application type (name and concentration)	Application method (spray, cut and dab)	Control success (Yes/No)

Use this table below to record **pest problems**.

Pest species (If able to identify)	Date of observation	Evidence observed (droppings, bites, live/dead)	Date NPWS contacted	Action taken



Appendices – Flora & Fauna

- Weed management priorities - Perisher Range
- Significant weeds of Kosciuszko ski resort areas (extract from- Rehabilitation Guidelines for the Resort Areas of Kosciuszko National Park)
- Small mammal trapping in ski resorts (f yer)
- Small mammals making their home in the ski resorts of Kosciuszko National Park (poster)

Chapter 2

Soil and Water



***Preventing
Water
Pollution***

***Stormwater
Management***

***Soil &
Groundwater
Contamination***

Chapter 2

Soil and Water

Objective

To identify and remediate all soil and groundwater contamination and to prevent future contamination.

Targets

- ✓ *To have all hydrocarbon storage containers appropriately constructed and managed (by bunding, monitoring, testing, protecting, upgrading, decommissioning or removing).*
- ✓ *To have all redundant fuel storage tanks removed or decommissioned by an appropriately qualified and competent contractor.*

Objective

To improve the quality of aquatic ecosystems through improvement of water quality and control of sedimentation and erosion.

Targets

- ✓ *To have zero pollution incidents.*
- ✓ *For all lodges to have a well equipped spill kit for use in the event of a pollution incident.*
- ✓ *To have 100% of all incidents reported to NPWS.*
- ✓ *To have 100% of lodges clearly displaying the PRREMS Lodge Incident Procedure.*
- ✓ *To have 100% of grease traps working effectively.*

Soil and water are essential for maintaining a healthy, functioning environment. The alpine humus soil of the Perisher Range absorbs rainwater and releases it slowly preventing floods and drought. It also cleans the water as it percolates and provides habitat for many organisms. In this harsh alpine environment the soils are shallow and subject to immense pressure from snow, ice and extreme temperatures. Additional pressure from human activity such as building and landscaping, runoff from carparks, contaminants from fuel spills and unsustainable development can all contribute to a decline in soil and water health.

Preventing Water Pollution



Environmental Risk — *Degradation of water quality from pollution.*

EMS Requirement — *Educate staff, guests and contractors about preventing water pollution.*

Your lodge education program should consider issues, such as:

- chemicals or detergents should not be used if washing equipment outdoors as they could end up in the stormwater drain
- efficient use of cleaning chemicals i.e. use alternative cleaning cloths/mops that do not use or limit the use of chemicals
- using biodegradable detergents and cleaning products with low nitrates and low/nil phosphorous levels (NP). (For example phosphate free dishwashing detergent “Squeek concentrate” available from - www.squeekyclean.com.au)
- if you employ a cleaner for your lodge request they use ‘ecofriendly’, biodegradable products
- not pouring chemicals/oils etc down drains
- implementing conditions of approvals for construction activities
- ensuring all lodge staff and members are aware of the incident response procedure, where it is located, how to follow the procedures and the location of any spill kits.

EMS Requirement — *In the event of a pollution incident follow the PRREMS Lodge Environment Incident Procedure. Ensure the procedure is clearly on display within the lodge for quick reference.*

There are numerous types of incidents which could occur at your lodge. These include:

- spills during refuelling of fuel storage tanks
- spills during pump out of grease trap waste
- herbicide spills during weed management
- paint or solvent spills during maintenance or renovation activities
- spills of chemicals used for cleaning purposes

- spills during refuelling of skidoos or other machinery
- spills from adhesives and solvents used for ski or board tuning/repair
- spills from burst hydraulic hoses from machinery operating at site.

You should use the table provided in the lodge notes at the back of this chapter to record any pollution incidents which could occur at your lodge.

The main steps which should be followed in the event of an incident include: controlling the source by stopping leaks, turning off valves, machines, taps etc, containing the spilt material to a small area; protecting nearby drains, streams etc; and the cleanup of the material. You should familiarise your staff and members with the incident procedure.

The incident procedure is included in the appendices at the back of this chapter. You have also been provided with a laminated copy which should be put up in your lodge in the most appropriate location i.e noticeboard. Ensure all staff and members are aware of the location of your incident response procedure in the event of a spill. If you would like additional laminated copies please contact the NPWS EMS officer.

If a spill or incident occurs at your lodge no matter how minor you need to complete the 'PRREMS Environmental Incident Reporting Form' and fax it to the NPWS EMS officer. This information will be used to identify ways to reduce incidents occurring in the future.

Remember that if a spill occurs at your lodge that threatens or harms the environment, or has the potential to impact on the operation of the Perisher Sewage Treatment Plant, you must contact NPWS and EPA as soon as possible. The Fire Brigade may also need to be called.

EMS Requirement — *Ensure that your lodge has a spill kit which has adequate supplies of materials to use in the event of a pollution incident.*

If you do not wish to purchase a commercial spill kit, you can put one together by purchasing a mop, broom, rags, drain covers and other suitable absorbent materials. Remember to replace kit items after use. You should regularly check your spill kit to ensure it has adequate supplies. There is space in the lodge notes for you to record this.

EMS Requirement — *Ensure that unused chemicals are appropriately disposed.*

Unused chemicals used for cleaning, construction or renovations to your lodge should not be disposed to the grass surrounding your lodge or down the drain. These chemicals may be harmful to vegetation or get into the groundwater affecting water quality.

Chemical containers should never be rinsed out as they could end up in the waterways of Kosciuszko National Park, either via stormwater drains (direct discharge) or the sewer. This may also affect the operation of the sewage treatment plant which may be unable to remove all chemicals from the wastewater before being discharged into the local waterways.

EMS Requirement — *Develop a vehicle servicing program for lodge owned/leased vehicles.*

Vehicles which are not regularly maintained have the potential to leak and drip oils which can contaminate stormwater.

EMS Requirement — *Ensure that your lodge grease trap is appropriate for its use and is well maintained.*

Out of sight out of mind is how many people view grease traps. However, these structures are an important part of club and commercial wastewater operations and there are responsibilities each lodge needs to undertake to maintain functioning grease traps. Grease traps work by slowing the flow of waste water in a drain allowing it to cool. In doing so grease and oil separate from the water and floats to the top of the grease trap. Whilst the water continues its journey down the drain pipe and into the sewer the accumulated grease remains in the grease trap. In the Perisher range resorts NPWS organises for grease traps to be pumped out and appropriately disposed of at least once a year. However some premises may need more frequent grease trap cleaning. If a grease trap is not operating correctly the waste ends up in our waterways causing an unhealthy environment for native flora and fauna. It can also block the sewerage system leading to back-ups and pollution. It is important that your lodge is familiar with how to maintain your grease trap to ensure it does not overflow and is operating correctly. A guide to grease trap maintenance is provided in the appendices at the back of this chapter.

FACTS

- Phosphorus and nitrogen compounds in cleaning chemicals can contribute to environmental problems such as algal blooms in waterways of Kosciuszko National Park.
- Biological water quality monitoring of four streams in the Perisher Range Resorts has been on-going since 1993.
- One litre of used motor oil can contaminate up to a million litres of water.

YOU ALSO NEED TO CONSIDER

- Always use a licensed plumber in your lodge for any alterations to your pipes, especially your grey water.
- Switch your lodge cleaning products to natural, biodegradable ones such as vinegar. You can budge the dirt without relying on chlorine or bleach. Baking soda is also very useful.
- The Perisher Sewerage Treatment Plant cannot extract the phosphorous and nitrogen compounds from the waste water. They are retained in the sludge which is then transported to an appropriate facility - this is becoming increasingly difficult with the amounts of phosphorous far in excess of the acceptable environmental levels. This can be reduced considerably if lodges choose low or Nil phosphorous cleaning products and washing detergents.

FURTHER INFORMATION

- Contact NPWS Municipal Services Unit at Perisher for advice on where to dispose of any unwanted chemicals or if you need to discuss any issues with your grease trap.

USEFUL WEBSITES

- www.greenlivingtips.com – A guide to using natural products instead of chemicals that can potentially harm the environment.
- www.greenconsumerguide.com – Product information on environmentally-friendly cleaning products.
- www.ecoshop.com.au – An eco friendly on-line shopping site, including cleaning products.
- www.ecodirectory.com.au – A guide to green living.
- www.lanfaxlabs.com.au – A widely endorsed and reputable private site that provides advice on salt and phosphorus levels in different detergents.
- www.squeekyclean.com.au - Phosphate free dishwashing detergent.
- www.oilrecycling.gov.au – Oil recycling facilities and drop off points.
- www.ecospill.com.au – Product information and purchase of portable fuel and oil spill kits.

Stormwater Management



Environmental Risk — *Degradation of water quality from inappropriate stormwater management.*

EMS Requirement — *Monitor the area surrounding your lodge for stormwater erosion and manage appropriately.*

Ensure that drains around your lodge are regularly inspected and maintained when necessary.

It is also important that you report any stormwater erosion outside of your lease area to NPWS.

EMS Requirement — *Ensure your lodge has systems in place to reduce the velocity and quantity of stormwater leaving your lodge.*

Contact the NPWS Municipal Services Unit, Perisher for advice regarding appropriate stormwater management.

YOU ALSO NEED TO CONSIDER

There are some other simple steps you can take to reduce the risk of stormwater erosion:

- ensure that water run off does not go onto loose soil
- do not use a hose to clean outside areas.

Environmental Risk — *Degradation of water quality from construction activities*

EMS Requirement — *Obtain the appropriate approvals for construction activities*

It is essential you contact the Department of Planning prior to undertaking any construction work, on or around your lodge, as you may be required to obtain development approval.

EMS Requirement — *Educate staff and guests about managing sediment during construction*

Your lodge education program should consider issues, such as:

- Implementing conditions of approval for construction activities
- Monitoring the effectiveness of sediment controls, such as sediment fences and hay bales, to ensure erosion and sedimentation are not occurring
- Parking vehicles in designated parking areas only, not on the side of the road or in a turning circle
- Not driving on vegetation or using oversnow vehicles during marginal snow conditions.

YOU ALSO NEED TO CONSIDER

- If your vehicle is parked on the side of the road it may force other vehicles to drive on vegetated areas which could lead to damage to vegetation or erosion.

FURTHER INFORMATION

- NPWS produce a brochure prior to each winter, which identifies designated oversnow routes within Perisher Range. Oversnow vehicles must only be driven on these authorised routes. This brochure can be obtained from the NPWS office in Perisher Valley.

Soil & Ground Water Contamination



Environmental Risk — *Contamination from inappropriate storage of chemicals.*

EMS Requirement — *Ensure chemical storage areas are appropriate and all unused chemicals are appropriately disposed.*

All chemicals used at your lodge should be stored in a secured location that can contain a spill if it occurred (i.e 110% of total volume of products stored). Hazardous chemicals should be stored in a lockable area with appropriate ventilation to manage fumes.

You should use the table provided in the lodge notes at the back of this chapter to record what chemicals are used and stored at your lodge.

Unused chemicals used for cleaning, construction or maintenance to your lodge should not be disposed to the grass surrounding your lodge or down the drain. These chemicals may be harmful to vegetation or affect water quality. Chemical containers should never be rinsed out as unwanted chemicals could end up in waterways or impact on the sewage treatment plant.

YOU ALSO NEED TO CONSIDER

- Remember safety first - always wear appropriate personal protective equipment (PPE) and follow the manufacturer's instructions when handling fuel/chemicals.

Environmental Risk — *Contamination from liquid fuel storage tanks.*

EMS Requirement — *Ensure all fuel tanks are appropriately constructed and managed.*

To ensure your fuel tank is properly managed you should:

- Obtain a copy of the procedures used by your fuel supplier during filling
- Obtain a copy of the emergency response procedures used by your fuel supplier to manage potential pollution incidents
- Ensure that your fuel supplier notifies your lodge of any spills, even minor that may occur during filling
- Inspect dispensing points at least annually to ensure contamination is not occurring
- Monitor fuel levels, at least monthly while in use, to detect leaks
- Integrity test your tank(s) every 3 years for tanks 10 years or older
- Bund above ground tanks to catch spillage from overfilling or leaks.

Leaking underground petroleum storage systems (UPSS) are a common and significant source of soil and groundwater contamination. In recognition of this a new regulation has been developed, the NSW *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008*. The draft guidelines for implementing the UPSS Regulations are available at www.environment.nsw.gov.au/clm/upss.htm. Further information can also be obtained by ringing the pollution hotline: 1315 55.

EMS Requirement — *Remove or decommission any fuel tanks that are no longer being used.*

It is important that any abandoned/disused fuel tanks are appropriately decommissioned or removed to ensure that any residual product in the tank and associated pipework does not leak into surrounding soils and groundwater. It is illegal to have an abandoned fuel tank in the ground that has not been properly decommissioned by a qualified and competent contractor. Even if the tank is empty, decommissioning or removal is still necessary. It is also illegal to not follow a proper process when removing your tank. You must lodge a Development Application (DA) with the Department of Planning and contact a suitably qualified and competent contractor or consultant before removing or decommissioning your tank. They will provide you with the appropriate documentation on completion. You may be required to provide this to the Department of Environment and Climate Change (DECC). Abandoned tanks also have the potential to cause a health and safety risk.

FACTS

- Only underground or semi buried tanks require integrity testing as visual monitoring of above ground tanks is sufficient to detect leaks.
- Small amounts of spillage can have an incremental impact leading to contamination of soils and waterways. This is why it is so important to have properly constructed bunding around above ground tanks and filler pipes and to regularly monitor and or test underground tanks for leaks.
- Under the NSW *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008* it is against the law to continually allow or ignore contamination resulting from a leaky or faulty UPSS.

YOU ALSO NEED TO CONSIDER

- If your fuel use does not seem normal, your tank may be leaking. If you suspect your tank may be leaking you should shut off your tank/s and inform NPWS immediately.
- If you suspect that land at your lodge or nearby is contaminated you should contact NPWS. It may be necessary for a specialist environmental consultant to collect soil or groundwater samples to confirm if contamination is present, and to assess if any clean-up actions are required.
- There are WorkCover requirements which need to be considered if you are removing or decommissioning tanks. For more information www.workcover.nsw.gov.au or telephone 131050 for assistance. If you want expert advice you can contact a member of the Australian Institute of Dangerous Goods Consultants via their website: www.aidgc.com.au.

Lodge Notes



Use the tables below to summarise any **potential incidents**, where your **spill kit is located**, the date it was last checked for adequate supplies and where the **incident response procedure is located**.

Potential incident	Date identified

Spill Kit location	Date checked

Location of Environmental Incident Procedure

Use the table below to record any **spills or other incidents** (no matter how minor) that occur at your lodge. It is important to recognise that thorough management and appropriate equipment may be all that stands between a trivial incident and an environmental disaster!

Date of incident	Pollution material and volume spilt	Location	Response (eg: Spill kit used)	Authorities contacted (NPWS, EPA, Fire Brigade) Include date contact made	Follow up actions

PRREMS 

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Use the table below to record when an **integrity test** has been undertaken on your lodge fuel tank/s.

Tank no.	Test date	Result (pass/fail)	If fail what action has been undertaken	Test date	Result (pass/fail)	If Fail what action has been undertaken	Test date	Result (pass/fail)	If Fail what action has been undertaken

Use the table below to record the **fuel levels** of your lodge **fuel tanks**

Tank no.	Date of record	Fuel level	Delivery	Volume used	Normal use - (Yes / No)

Use the table below to record what **chemicals** are used and stored at your lodge.

Product	Used at lodge (✓)	Stored at lodge (✓)	Storage location
Fuels			
Diesel			
Unleaded			
2-Stroke			
Bleach			
Chlorine			
Kerosene			
Lubricants			
Paints			
Pesticides			
Solvents			

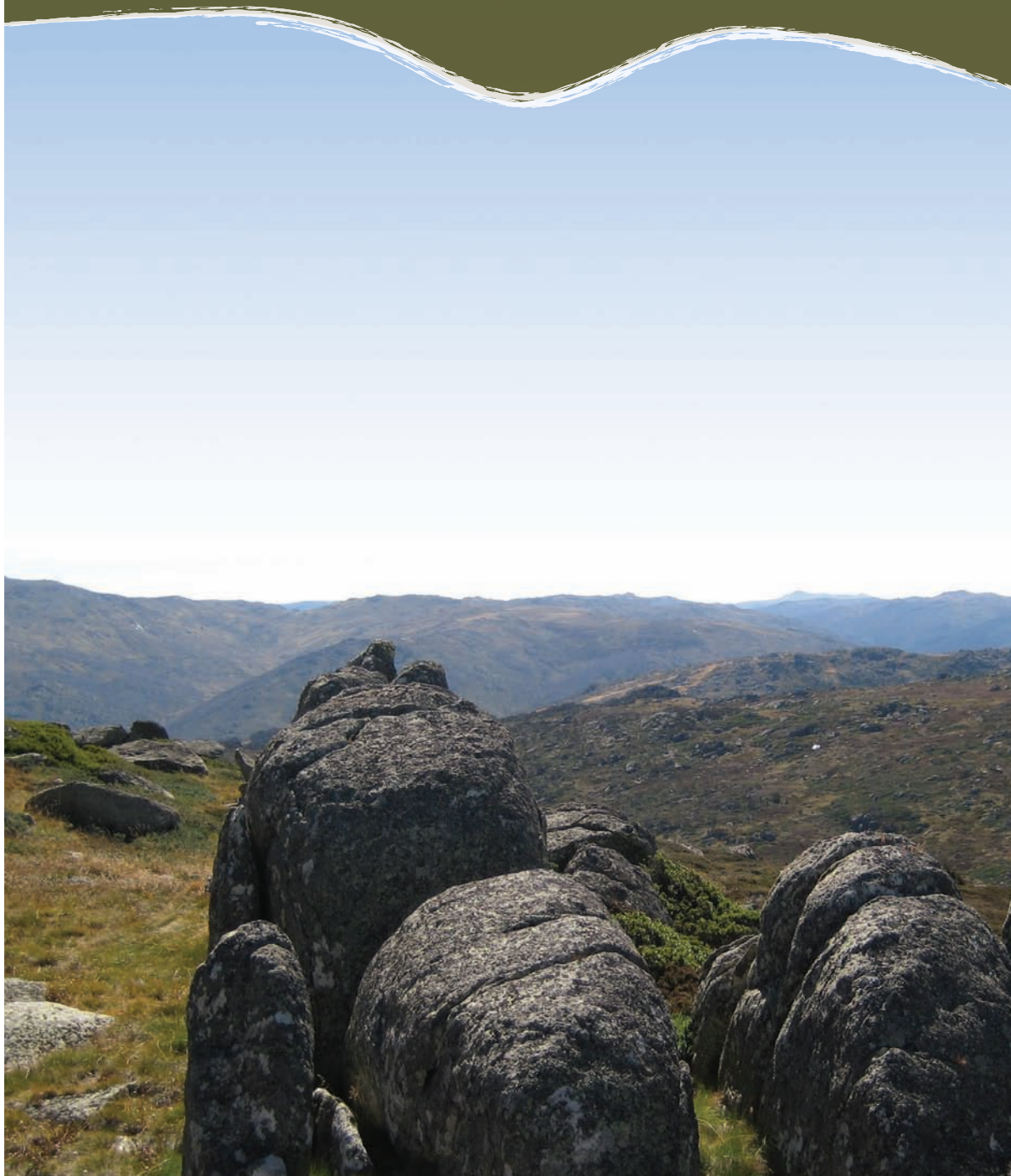


Appendices – Soil & Water

- PRREMS Lodge Environmental Incident Procedure
- PRREMS Environmental Incident Reporting Form
- Grease Trap Maintenance – A quick guide

Chapter 3

Air Quality



*Wood
Burning
Appliances*

*Ozone
Depleting
Substances*

*Sustainable
Transport*

Chapter 3

Air Quality

Objective

To improve local air quality, reduce greenhouse gas emissions and reduce the use of ozone depleting substances.

Targets

- ✓ *To reduce the amount (kg) of carbon dioxide (equivalent) emitted per visitor night.*
- ✓ *To have < 30% of lodges using open fireplaces as their primary source of heating.*

There are many substances in the air which may reduce air quality and impair the health of plants and animals (including humans). Visitors to the Perisher Resorts can have an impact on the local air quality through the burning of wood. However your impact on the earth's atmosphere extends much further. The use of coal generated electricity, the purchase of non eco friendly products and travelling to and from the snowfields all add to the increase in carbon dioxide (CO²) emissions. CO² is one of the main greenhouse gases that occurs naturally in the earth's atmosphere. These gases are essential to maintaining the temperature of the earth by preventing the loss of heat into space. However if there is too much build up of certain greenhouse gases they can also have the adverse effect of not releasing enough heat thus warming up the earth's surface.

Wood Burning Appliances



Environmental Risk — *Air pollution from inappropriate use of open fireplaces and wood heaters.*

EMS Requirement — *Develop a replacement program for fireplaces/ wood heaters that are not compliant with the Australian Standard (AS4013).*

If your wood heater was installed prior to 1992 it may not be compliant with Australian Standard AS 4013-1999 Domestic Solid Fuel Burning Appliances – Method for Determination of Flue Gas Emissions (check for a compliance plate or contact the manufacturer if you are unsure or cannot locate the plate). If your heater does not comply you should consider replacing it with a wood heater or fireplace that conforms to the standard or replacing it with electric or gas heating which can be more efficiently controlled.

EMS Requirement — *Consider replacing open fireplaces and wood heaters with thermostatically controlled gas or electric heaters.*

An open fireplace generates 1.7 times more greenhouse gases than an electric fan heater per unit of heat delivered.

EMS Requirement — *Educate staff and guests about efficient fireplace use*

Your lodge education program should consider issues, such as:

- storing firewood in a dry, ventilated area protected from the weather
- limiting use of open fireplaces
- using small logs and provide plenty of air
- preventing the fire from smouldering overnight.

FACTS

- Modern controlled combustion wood heaters are up to 80 per cent more efficient than older wood heaters and open fires (see www.homeheat.com.au for further information).
- Trees naturally help filter the air and act as sinks to excess carbon emissions.

YOU ALSO NEED TO CONSIDER

- Fallen trees, which are a source of firewood provide valuable habitat for native fauna, insects, lizards and other creatures. This is an additional environmental impact of wood burning fireplaces which should be considered when assessing alternatives.

Environmental Risk — *Air pollution from poor chimney/flue management.*

EMS Requirement — *Ensure your chimney and flue are appropriately managed.*

- Inspect your chimney and flue before, after and during the winter season to check for the build up of soot and clean as necessary.
- Ensure your chimney is at least 1 metre taller than surrounding buildings within three metres.
- The top of your chimney should be designed so that smoke travels vertically, giving it a better chance of being dispersed. A concentric shroud, venturi cowl or parallel rain excluder are the best types of chimney stacks.

FACTS

- An open fireplace can emit 15 grams of smoke particles for every kilogram of wood burnt, whereas a properly operated combustion wood heater will only produce around 1.5 grams of smoke for every kilogram of wood burnt.
- Dry firewood produces less air pollution than wet firewood.
- A poorly operated wood heater can produce twice as much smoke than it would if operated correctly.

YOU ALSO NEED TO CONSIDER

- Ash from your fireplace can be disposed of with your solid waste but make sure it is completely cold before putting it in the bin. It can also make a great fertiliser.
- Control the temperature of your lodge to minimise the use of your fireplace. See the 'Natural Resources' chapter.

Ozone Depleting Substances (ODS)



All cooling devices, such as air conditioners and refrigerators use a refrigerant. Some refrigerants use ozone-depleting substances, such as chlorofluorocarbons (CFC's) and hydrochlorofluorocarbons (HCFC's). International and national agreements are in place to phase out the use of these refrigerants.

Environmental Risk — *Reduced air quality from use of ozone depleting substances (ODS).*

EMS Requirement — *Develop a replacement program for appliances that use ODS.*

Once you have identified the equipment in your lodge that use ODS you should then consider phasing out this equipment.

EMS Requirement — *Monitor your use of ODS.*

When you get your refrigerators and air conditioning units serviced, you should ask the technician to record how much refrigerant is consumed; the type of refrigerant and whether the refrigerant could or should be replaced with a more environmentally friendly product.

FACT

- CFC's and HCFC's are very active greenhouse gases with the small amount used in a typical fridge equivalent to around a tonne of carbon dioxide, the most common greenhouse gas.
- In Australia, greenhouse gas emissions from all sources amount to 28 tonnes per person per year. The sustainable level of greenhouse gas emissions has been estimated at 3.5 tonnes per person per year that puts the Australian average at 8 times the sustainable level.

YOU ALSO NEED TO CONSIDER

- If your vehicle was manufactured before 1994 it will probably have a refrigerant in its air conditioning system which is harmful to the ozone layer. It is important to run your air conditioner weekly in winter to keep seals lubricated to reduce the risk of leaks.
- If you have a yellow hand held fire extinguisher (BCF) containing halon it needs to be handed in to the Fire Brigade at Perisher Valley. Halon is hazardous to the user as well as the environment.

Sustainable Transport



Transportation is one of the main sources of greenhouse gas emissions to the atmosphere. The PRREMS encourages all people who visit and work in the area to think about the type of transport they use. Where the option is available consider using a method of transport which has less impact on the environment.

Environmental Risk — *Air pollution from vehicle emissions.*

EMS Requirement — *Educate staff and guests about using sustainable transport.*

Alternative transport methods when travelling to and from the PRR could include:

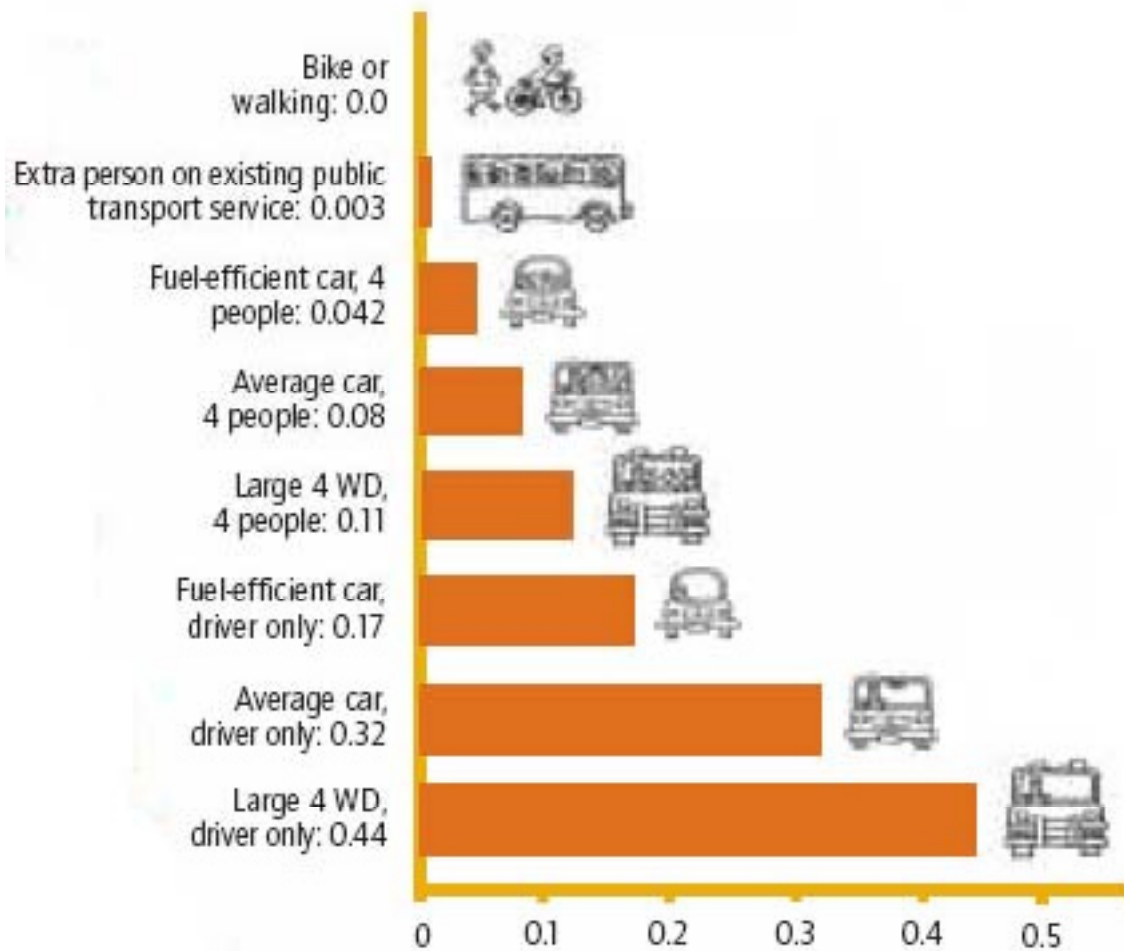
- Car pooling
- Skitube
- Public transport

Consider using alternative fuels including:

- Ethanol
- Biodiesel
- LPG

FACTS

- Over 15% of Australia's greenhouse gas emissions originate from transport activities.
- Transportation accounts for 34% of the greenhouse gases emitted by the average Australian household.
- An average car spews out 4.5 tonnes of greenhouse gas emissions a year.
- A LPG vehicle will emit 60% less greenhouse gases than an equivalent diesel engine.



(Kilograms of greenhouse gas per person per kilometre)

YOU ALSO NEED TO CONSIDER

- In considering greenhouse gas emissions from your vehicles you should not only consider the environmental impacts of lodge vehicles including oversnow transport but also staff and guest vehicles and vehicles used by contractors.
- A vehicle servicing program will ensure that all vehicles are operating as efficiently as possible, reducing vehicle emissions.
- Offsetting your carbon fuel usage by purchasing carbon credits at www.terrapass.com.
- Calculate your greenhouse gas emissions: www.elementree.com.au/calculator.asp

USEFUL WEBSITES

- www.wacollaboration.org.au
- www.myfootprint.org
- www.carbonfootprint.com
- www.powerhousemuseum.com/education/ecologic/bigfoot/mid
- www.greenvehicleguide.com.au – Best fuel economy and reduced CO² emission.
- www.greenfeet.com.au – Donations to help buy, plant and care for trees.
- www.greenhouse.gov.au – Calculate your greenhouse gas emissions from your fuel consumption.

Lodge Notes



Use the table below to record what type of **wood burning appliance/s** you have within your lodge.

Wood burning Appliance (Fire place or heater)	Model / Make	Age	Compliant with AS4013 (Yes/No)	Date of replacement

Use the table below to record your use of **Ozone Depleting Substances (ODS)**.

Unit using ODS (Refrigerator, cool room, Air conditioner)	ODS used	Date unit serviced	Amount of gas replaced	Date for unit replacement

Lodge Notes



Use the table below to record when you have **inspected and cleaned your chimney/flues.**

Date of inspection	Result (Good/needs a clean)	Date of cleaning	Date of inspection	Result (Good/needs a clean)	Date of cleaning

Use the table below to record your **use of wood.**

Year (March to Feb)	2009 / 2010 Winter 2009	2010 / 2011 Winter 2010	2011 / 2012 Winter 2011	2012 / 2013 Winter 2012
Amount of wood purchased				
Amount of wood used				

Chapter 4

Natural Resources



***Water
Conservation***

***Waste
Management***

***Energy
Conservation***

Chapter 4

Natural Resources

Objective

To reduce the consumption of renewable and non-renewable resources through water, waste, energy and materials management.

Targets

- ✓ *To reduce the amount of waste produced per visitor night.*
- ✓ *To have 90% of all lodges recycling.*
- ✓ *To recycle > 50% of total waste.*
- ✓ *To reduce the amount (joules) of energy used per visitor night by 5% annually.*
- ✓ *To have > 5% of the total energy used in the Resort to come from renewable sources (Greenpower).*

Objective

To improve the quality of aquatic ecosystems through maintenance of environmental flows.

Targets

- ✓ *To reduce the amount of water used to < 200 litres per visitor night.*
- ✓ *To have at least 60% of lodges implementing water saving measures.*

The water used in the resorts is borrowed from the mountain streams and rivers before being returned. The snowy mountains are the birthplace of several rivers which feed into the Murray Darling system and provide a water shed for the Snowy Hydro Scheme. These systems along with the finely balanced local ecosystem rely on the fresh, reliable water in the Perisher Range Resorts. Other resources used in the resorts also have implications for environmental health. The burning of fossil fuels such as coal (a non-renewable resource) to produce electricity has dramatically increased the amount of carbon dioxide in the earth's atmosphere. This additional carbon dioxide in our atmosphere traps heat from the sun which results in an increase in average temperatures. This is known as global warming.

Water Conservation



Environmental Risk — *Decreased environmental flows from water consumption.*

EMS Requirement — *Install water saving devices.*

These devices can include:

- dual flush or low volume toilets/urinals
- water efficient shower heads
- tap aerators or other water restricting devices
- water efficient dishwashers and washing machines
- spring-loaded taps that turn off automatically.

EMS Requirement — *Educate staff and guests about saving water.*

Your lodge education program should consider issues, such as:

- turning off taps while brushing teeth and shaving
- taking shorter showers
- selecting water efficient cycles on the dishwasher and washing machine and running full loads
- not using water on outside areas
- reporting water leaks (including dripping taps and toilets) to lodge managers.
- providing signs in areas where water is used reminding staff and guests to reduce water consumption where possible. (signs are available from the NPWS Liaison Officer).

EMS Requirement — *Monitor your water consumption and conduct a water audit if you are not meeting the EMS target.*

If you have met all the EMS requirements above but your water consumption exceeds the EMS target, you will need to conduct a water audit of your lodge. This will help you to identify where further water savings can be made.

You should conduct regular inspections of plumbing and water appliances (e.g. taps, showerheads, hot water system, washers and seals) to detect any water losses. You can also identify any water losses by taking meter readings when there is little or no water use at your lodge.

FACTS

- Remember – saving water will also save you money!
- Front loading washing machines are often more water efficient than top loading units.
- A standard showerhead may use up to 25 litres of water per minute. A water-efficient showerhead might use as little as seven litres per minute.
- An old-style single-flush toilet could use up to 12 litres of water per flush. A standard dual flush toilet uses only three litres on a half-flush.
- Aerators restrict the flow of water from your tap without reducing water pressure. Fitting an aerator to your taps can reduce the amount of water you use by more than 50%.
- Dripping taps can waste 30 – 200 litres of water per day. Running taps use about 16 litres of water per minute.
- Washing up in a domestic sink uses around 15 litres of water. Larger commercial sinks may require 40 litres. Water efficient domestic dishwashers may use as little as 15 litres on economy cycles.

YOU ALSO NEED TO CONSIDER

- Provide plugs for sinks (to allow sinks to be filled rather than keeping the tap running).
- If you are a commercial lodge or hotel promote towel reuse.
- Insulate your hot water pipes or install a water-recirculating pump to avoid wasting water while waiting for hot water to flow through to the pipes.
- Instead of leaving taps running to prevent pipe work freezing, contact NPWS Perisher Office to discuss how you can insulate; relocate, heat trace or drain pipe work to prevent freezing.
- If you want to keep your existing showerheads, but still save water, you can insert a flow control disc or washer for only a few dollars.

FURTHER INFORMATION

- NPWS have 'Waterwise Resort' promotional material, such as posters, stickers and bookmarks, to assist you with encouraging your staff and guests to save water. These can be obtained from the NPWS Environmental Liaison Officer free of charge.

USEFUL WEBSITES

- www.savewater.com.au – Water restrictions, water efficient products and water saving tips.
- www.waterrating.gov.au – Water efficient labelling and standards (WELS) scheme.
- www.sydneywater.com.au – Obtain your FREE Do-It-Yourself Water Saving Kit.
- www.greenplumbers.com.au – Tips on recycling grey water.
- www.sawater.com.au – SA Water home water audit (simple user-friendly home water audit checklist that may help you conduct your water audit).

Waste Management



Environmental Risk — *Resource depletion from ineffective waste management.*

EMS Requirement — *Provide appropriate facilities in your lodge for recycling.*

Recycle the following products (at a minimum):

- *Paper and cardboard*
- *PET Bottles (e.g. soft drink)*
- *HDPE Bottles (e.g. milk)*
- *Aluminium and steel cans*
- *Glass bottles and jars*
- *Used cooking oil*

All of the products listed above can be recycled using the waste management system in the Perisher Range Resorts. There are 4 hopper bins provided in groups strategically located throughout the resort carparks.

The Blue Bin — Paper & Cardboard

The Yellow Bin — Bottles, Cans & Plastics

The Green Bin — Kitchen waste & other non-recyclables

The Grey bin — Cooking oil

EMS Requirement — *Monitor your waste produced and recycled.*

Use the table in the lodge notes (at the back of this chapter) to keep a record of the amount of waste your lodge generates and how much material is recycled. There is also a sample template (Garbage Tally Sheet) that can be placed above your bins to get lodge members to record how many bags they take out to the hopper bins. You can produce a tally sheet of your own that suits the circumstances of your lodge. The latter may be a useful way for those lodges who don't use the oversnow rubbish removal service to keep track of how much waste the lodge is producing.

You will be required to report on the amount of garbage your lodge produces. The following are the various sizes for the different types of bags used by lodges.

- 'Hans Oversnow' garbage bags (transparent purple & yellow): 69 Litres
- Standard garbage bag (most leading brands): 56 Litres
- Flip top (tidy) kitchen bin tidy bags: 27 Litres
- Plastic shopping bag: 9 Litres
- Standard 6x4 car trailer (one layer approx. 12 standard bags) : 672 Litres
- Standard 6x4 car trailer (stacked & tied down 20 bags): 1120 Litres

For consistency when reporting, can you convert all bags and loads of recyclables to litres. For example if you had 10 shopping bags, 41 Hans Oversnow bags and 1 trailer load of recyclables this would equal: $(10 \times 9) + (41 \times 69) + 672 = 3591$ Litres.

Note that amount of putresible waste and recyclables are added together to get total waste.

EMS Requirement — *Educate staff and guests about reducing, reusing and recycling waste.*

Your lodge education program should consider issues, such as:

- purchasing of products that have minimal packaging or buy in bulk
- transport groceries in reusable bags, boxes or eskys – don't use plastic bags or foam boxes they are not recyclable and can become an environmental hazard
- sharing magazines or the daily newspapers
- reusing or recycling waste paper generated by your lodge of ce (if applicable)
- using old construction materials or off-cuts for firewood (as long as they are not painted or treated)
- recycling as much as you can
- using water out of the tap to drink instead of bottled water.

FACT

- Perisher Range Resorts water is very safe to drink. It is drawn from the clear mountain streams above the resort areas. It easily meets the Australian Drinking water standards, treated by the ultra violet method to kill any bugs and is continually monitored and tested.
- Buying in bulk can often be cheaper.
- Every tonne of recycled paper saves 13 trees, 2.5 barrels of oil, 4,100kWh of electricity, 4m³ of landfill space and 31,370 litres of water.
- Recycled aluminium requires 95% less energy to remanufacture compared to mining and processing bauxite ore to make new aluminium – so recycle your aluminium cans.

- Recycling a case of beer bottles saves 7.5kg of CO² or the equivalent of 17 full wheelie bins.
- According to 'Clean up Australia' our country uses 300,000 barrels of oil a year to make the PET bottles for bottled water and only 35% of those bottles are recycled.

YOU ALSO NEED TO CONSIDER

There are some other simple steps you can take to reduce, reuse and recycle:

- Purchase foodstuffs in bulk rather than single serves
- Provide reusable items (e.g. cutlery or crockery in the kitchen) instead of disposable items
- Develop a maintenance program to service or repair equipment so that it lasts longer
- Provide dispensers for shampoo or soap in the bathrooms
- Investigate options other than paper towels in bathrooms
- Recycle used chemical containers where possible. Remember to check whether your bulk containers can be returned to your suppliers for reuse
- Recycle old computer equipment by donating it to local charities
- Donate old mobile phones to Scope (formerly the Spastic Society of Victoria) or other cerebral palsy associations around Australia that recycle or refurbish for export to developing countries www.mobilephonerecycling.com.au
- Leave old printer cartridges at your local participating Australia Post or Harvey Norman outlet.

FURTHER INFORMATION

- NPWS have 'Bin Your Butts' and 'When in the Snow Bins are the Go' promotional material, such as stickers, posters and the 'Bin Your Butts' canisters, to assist you with encouraging your staff and guests to manage waste appropriately. There is also an A4 poster promoting recycling. These can be obtained from the NPWS Environmental Liaison Officer free of charge.

USEFUL WEBSITES

- www.greenpc.com.au – Refurbishes computer hardware and sells it to disadvantaged people at a low cost.
- www.recyclingnearyou.com.au – A Planet Ark initiative that allows you to search for various recycling opportunities in your area.

Energy Conservation



Environmental Risk — *Increased CO² emissions and loss of non renewable resources from energy consumption.*

EMS Requirement — *Implement energy saving practices.*

- Install energy efficient compact fluorescent light bulbs.
- Purchase only energy efficient appliances.
- Use energy from renewable sources (i.e. Subscribe to GreenPower).
- Use gas rather than electricity or oil.
- Use a timer system on lights.
- Use heavy, lined drapes at windows and install draught seals and weather stripping around doors and windows.
- Insulate your ceiling, walls and floors, install double glazed windows.
- Use an off-peak system or instant gas hot water system with temperature control pads and reduce the hot water heater thermostat to 60 degrees celsius.
- Consider installing solar hot water heaters.
- Ensure good air circulation around the coils at the back of the refrigerator.

EMS Requirement — *Educate staff and guests about saving energy.*

Your lodge education program should consider issues, such as:

- reducing room thermostat settings (18–20°C in winter)
- using heavier bedclothes rather than turning up the heat
- using cold water settings on washing machines
- switching off lights and appliances at the wall, when not in use or when lodge is vacant
- cleaning light covers
- cooking in the microwave where possible

EMS Requirement — *Monitor your energy consumption and conduct an energy audit if you are not meeting the EMS energy target.*

If you have met all the EMS requirements above but your energy consumption is still higher than the EMS target, you will need to conduct an energy audit of your lodge. This will help you to identify where further energy savings can be made. You can conduct an audit yourself by following the steps below. Remember that if you can't measure it, you can't manage it!

- Step 1** Identify the types of energy being used in your lodge.
- Step 2** Identify the quantity of each energy type being used.
- Step 3** Identify how much the energy is costing you.
- Step 4** Identify how you can improve the use of energy (quantity) or change the energy source (type).
- Step 5** Set targets and take action!

The SA Sustainable Energy website has a simple, user-friendly home energy audit checklist that may help you conduct your energy audit.

www.sustainable.energy.sa.gov.au

FACTS

- A small global temperature increase resulting from increased CO² emissions may cause increases in extreme weather conditions. This may ultimately affect food production, global weather systems, ocean currents, glacial melt and cause changes to ecosystems. This is known as climate change.
- Remember – saving energy will also save you money.
- CSIRO estimated that traditional coal-fired electricity created nearly one-third of Australia's greenhouse gas emissions in 2003.
- Fluorescent lamps cut greenhouse gas emissions and running costs by 75% while producing as much light. They come as circular or linear tubes, or as a plug-in compact fluorescent lamp. A compact fluorescent light globe will save around 1/3 tonne of CO² over its lifetime.
- Just a few outdoor lights left on every evening can double greenhouse gas emissions and lighting costs. Switch them off if they're not needed or install movement sensors or timers.
- By switching off your hot water system when your lodge is vacant you will save 1.4 kilograms of greenhouse gases per day.
- As much as 35% of heat loss from a house is through an uninsulated ceiling. Uninsulated walls account for a further 15 to 25% and uninsulated floors lose between 10 and 20% of heat.
- An extra 1°C difference in temperature between indoors and outdoors can add around 10% to heating costs and greenhouse gas emissions.
- You should not require air conditioning for cooling in the Perisher Range Resorts. In the warmer months, comfort can be achieved by simple shading and ventilation.
- Gas and microwave cooking generates 30 to 50% less greenhouse gas than traditional electric cooking.
- For maximum efficiency when cooking with electricity, use pots and pans with flat bases that match the size of the element.
- Washing your clothes in cold water can reduce greenhouse gas emissions by over 80%.
- Properly inflated tyres can save up to 10% on fuel costs.
- Fridges guzzle electricity. Older fridges are less efficient and use 3.5 times more electricity than newer fridges with 4-5 star energy ratings. Replacing your old fridges will save you money in the long run.
- Approximately 10% of all electricity consumption is lost to phantom power – that is the power used by appliances when not in use but have been left in 'standby mode. So turn off your appliance at the power point when you have finished using it.

YOU ALSO NEED TO CONSIDER

- Purchasing an energy meter (EFERGY) a wireless wonder available from Bunnings that shows you exactly how much electricity is used by lights and appliances.
- Solar powering the laundry by hanging the clothes to dry. Using an electric clothes dryer once a week produces 150 kilograms of greenhouse gas a year. If you can't give up the tumble dryer, investigate buying a natural gas-powered clothes dryer which will reduce greenhouse emissions by about a third.
- If replacing old fridges or electrical appliances make sure they are appropriately disposed of. They should not be disposed of in the Perisher Range Waste Management System. They need to be transported off the mountain. Many waste management facilities now recycle old household appliances.

FURTHER INFORMATION

- NPWS have 'Keep Winter Cool' and 'Waterwise' promotional material, such as stickers, bookmarks, information flyers and posters, to assist you with encouraging your staff and guests to reduce the consumption of resources. These can be obtained from the NPWS Environmental Liaison Officer free of charge.

USEFUL WEBSITES

- www.greenhouse.gov.au – 'Global Warming Cool It' booklet providing a home guide to reducing energy costs and greenhouse gases.
- www.energyrating.gov.au – Australia's leading guide to choosing an energy efficient appliance.
- www.countryenergy.com.au – Offering a range of GreenPower products under the banner of countrygreen©.
- www.keepwintercool.com.au – 10 simple ways to fight global warming.
- www.sustainable.energy.sa.gov.au – Home energy self-audit.

Lodge Notes



Use the table below to record when you have conducted a **water audit** and your results.

[illegible]

Garbage Tally Sheet



For all club members and guests: Please place a stroke in the appropriate box with the attached marker if you take any bags of garbage to the hopper bins.

Month	Week	GARBAGE (bags) Putresible waste	RECYCLED (bags)
MAY			
JUN			
JUL			
AUG			
SEP			
OCT			

Use the table below to record the amount of **waste** your lodge has produced. This should include recycled waste.

Reporting Period (1st March – 30th April)	2009 / 2010 Winter 2009	2010 / 2011 Winter 2010	2011 / 2012 Winter 2011	2012 / 2013 Winter 2012
Number of Visitor Nights				
Total Waste produced (litres)				
Waste recycled (litres)				

Number of bags x bag volume (Litres) = Total waste produced (Litres)

Use the following bag volumes:

- 'Hans Oversnow' garbage bags (transparent purple & yellow): 69 Litres
- Standard Garbage bag (most leading brands): 56 Litres
- Flip top (tidy) kitchen bin tidy bags: 27 Litres
- Plastic shopping bag: 9 Litres
- Standard 6x4 car trailer (one layer approx. 12 standard bags) : 672 Litres
- Standard 6x4 car trailer (stacked & tied down 20 bags): 1120 Litres.

Use the table below to record your **energy consumption**.

Reporting Period (1st Mar – 28th Feb)	2009 / 2010 Winter 2009	2010 / 2011 Winter 2010	2011 / 2012 Winter 2011	2012 / 2013 Winter 2012
Grid Electricity (KW)				
% GreenPower (KW)				
Heating Oil (litres)				
LPG (litres)				
Unleaded Petrol (litres)				
Diesel (litres)				
Kerosene (litres)				
2-stroke (litres)				
4-stroke (litres)				
Photovoltaic				
Solar panels				
Other				
Other				

All grid electricity produced in NSW is from the combustion of black coal. GreenPower comes from solar, hydro, gas and wind generated renewable sources that produce minimal CO² emissions in their production.



PRREMS

[illegible]



Appendices – Natural Resources

- Please Recycle (Flyer)
- Bin Your Butts (Flyer)
- Keep Winter Cool (Flyer)

Chapter 5

Cultural Heritage and Visual Amenity



*European
Heritage*

*Aboriginal
Heritage*

*Visual
Amenity*

Chapter 5

Cultural Heritage and Visual Amenity

Objectives

To conserve the cultural heritage values of the Perisher region and archaeological sites in the National Park through increased site assessment and visitor education.

To ensure that existing and future development does not compromise the visual amenity and sense of place of the surrounding National Park.

Targets - Nil

There are no specific targets for these objectives however it is important that you educate your members and visitors on the importance of protecting cultural heritage and maintaining visual amenity in the Perisher Range Resorts.

Cultural heritage is the environment, objects and places that we inherit from the past and pass on to future generations to use, learn from and be inspired by. Cultural heritage resides as much in intangible values as it does in physical form including stories, poems and music. Just as people shape landscapes, landscapes also shape people. The Perisher Range Resorts have been the scene of innumerable human experiences. Some of these have survived as legends or anecdotes, others are remembered within buildings or place names such as Perisher, Blue Cow and Smiggin Holes. The Perisher Resorts are also influenced by Aboriginal culture and historical land uses including grazing, scientific research and the building of the Snowy Hydro Scheme.

European Heritage



Environmental Risk — *Degradation of the heritage value of lodges within the Perisher Range Resorts.*

EMS Requirement — *You should be aware of the heritage values of your lodge and the measures that need to be taken to protect its heritage.*

If you are not already aware of the heritage values of your lodge you should undertake to gather this information and record it or reference its location in the lodge notes at the back of this chapter. You should also be aware that any renovations or changes to your lodge will require approval from the Department of Planning (DoP). In determining consent conditions the DoP take into consideration the proposed impacts on heritage values.

MORE INFORMATION

- If you would like to obtain more information on the heritage values of your lodge contact the NPWS Liaison Officer.
- The Perisher Historical Society has recently been established in recognition of the rich and colourful ski history of the Perisher Range Resorts. The society is collecting oral histories, old photographs, articles, skiing equipment and other snow related memorabilia. A membership form is provided at the back of this chapter if you are interested in joining the society.

Aboriginal Heritage



Environmental Risk — *Degradation of Aboriginal heritage items and sites.*

EMS Requirement — *Report any findings of Aboriginal objects to NPWS immediately.*

Under section 86 of the NSW *National Parks and Wildlife Act 1979* it is an offence for a person to take possession of or remove an Aboriginal object that is in a national park unless it is in accordance with a permit. It is also an offence under section 90 if a person knowingly destroys, defaces or damages or knowingly causes or permits the destruction of an Aboriginal object or Aboriginal place. This offence has a maximum penalty of 6 months imprisonment.

EMS Requirement — *Educate staff and guests about the cultural heritage values of the PRR.*

Your lodge education program should consider issues, such as:

- Information about Aboriginal and European heritage items and sites, including stories of Aboriginal 'country'
- Responsibilities for reporting the discovery of new items or sites.

MORE INFORMATION

- The *Kosciuszko National Park Plan of Management (2006)* provides valuable information regarding cultural heritage values of the park (www.environment.nsw.gov.au/resources/nature/knppom.pdf).
- A copy of the publication 'Interpretation and Aboriginal Heritage Snowy Mountains Region, Kosciuszko National Park 2000 - 2007' can be found in the appendices at the back of this chapter.
- The book 'The Aboriginal People of the Monaro': A documentary history compiled by Mike Young can be purchased at the Snowy Region Visitor Centre in Jindabyne.

Visual Amenity



Environmental Risk — *Degradation of the visual amenity of the Perisher Range Resorts.*

EMS Requirement — *For any maintenance or upgrades to your lodge ensure that the impact on visual amenity is taken into consideration and that your lodge blends in with the natural environment.*

FACTS

The Perisher Range Resorts Master Plan sets visual guidelines and development controls for any new development including:

- The height of lodges should fit within the local tree canopy, and lodges should not break the skyline when viewed from the valley floor
- Lodges should blend with the natural environment when viewed from a distance
- Natural materials such as timber and stone should predominate
- Vegetation used for landscaping should only be endemic native species.

YOU ALSO NEED TO CONSIDER

- Remember - You must have development consent from the Department of Planning (DoP) before making any changes to your lodge.

Lodge Notes



Use the space below to record whether your lodge is **located in an area of Aboriginal significance** or has **European heritage values** and any resulting restrictions or requirements.



Appendices – Cultural Heritage & Visual Amenity

- Perisher Historical Society Inc.
 - Launch Letter July 2008
 - How it Began
 - Membership application form
- Interpretation and Aboriginal Heritage: Snowy Mountains Region Kosciuszko National Park 2000-2007.

Chapter 6

Sustainable Tourism



*Sustainable
Tourism*

*Environmental
Education*

*Staff
Training*

Chapter 6

Sustainable Tourism

Objective

To ensure that all persons working within and visitors to the National Park are well educated about the region's natural and cultural environment.

Target

- ✓ To have > 90% of staff EMS awareness trained.

Objective

To ensure that the recreational opportunities and facilities of the Perisher Range Resorts are provided sustainably and to a world-class standard through the effective implementation of the PRREMS and cooperation amongst all stakeholders.

Target

- ✓ To have 100% of organisations with fully implemented EMSs for their operations within Perisher Range Resorts.

Tourism is one of the most significant industries in the NSW Snowy Mountains. The economic benefits of tourism in the region have been well documented. It is important to understand that every industry has an impact on the environment and change is often cumulative, gradual and irreversible. The challenge is to ensure that the industry is managed to prevent the loss of the natural and cultural values of the area. Sustainable tourism is about committing to having a minimal impact on the natural environment and local culture while helping to generate income and employment. It is about finding a balance between limits and usage through monitoring, planning, adapting and educating to ensure that a thriving, healthy tourism industry will be around for the long term.

Sustainable Tourism



Environmental Risk — *Tourism in the Perisher Range Resorts is not undertaken on a sustainable basis.*

EMS Requirement — *Undertake environmental initiatives to improve your environmental performance.*

Implementing new environmental initiatives is a great way of improving your environmental performance and ensuring continual environmental improvement.

You should canvas ideas from your staff, members, and guests. There may also be the opportunity to work together with other members of the PRREMS, including other lodges, NPWS, Perisher Blue or other commercial enterprises in the Perisher Range Resorts to develop joint environmental initiatives. Conducting activities in conjunction with another lodge may help you save time and/or money, and you could be surprised at what you might learn from each other.

Some examples of joint environmental initiatives:

- Teaming up with a neighbouring lodge to fix up erosion issues in a common parking area or access road
- Teaming up with a neighbouring lodge to write an environmental education leaflet or newsletter
- Working with NPWS to remove weeds from the area surrounding your lodge
- Conducting joint training sessions
- Replacing appliances, fittings or services in bulk as part of a package deal with other lodges
- Participating in annual clean up days.

EMS Requirement — *Nominate a person from your lodge as your PRREMS officer. This person should be responsible for ensuring that all of the requirements in this manual are met and that your lodge is submitting the required reports.*

You need to make sure that the NPWS EMS officer is aware of who your lodge EMS officer is and their contact details.

EMS Requirement — *Communicate information on the PRREMS (including your lodge's performance against the PRREMS objectives and targets) to members of your board, staff, guests and contractors.*

The successful implementation of your EMS will depend on the commitment of all your staff, members and guests. Therefore it is important that information on the PRREMS is widely distributed so that there is an awareness of the system and its requirements.

EMS Requirement — *Notify SLOPES or PRCoC of any issues relating to the PRREMS which you feel should be discussed at the PRREMS Operational Committee (PRREMSOC) meetings.*

The Perisher Range Resorts EMS Operational Committee meets biannually to help guide the operation and management of the Perisher Range Resorts Environmental Management System. The Committee meetings are an opportunity to discuss achievements, plan future strategies and tackle any problems. The interests of your lodge will be represented on the committee through the PRCoC for commercial lodges and SLOPES for club lodges. If there are any issues that you want raised at a committee meeting, you should contact your committee representative. Your committee representative can provide you with the minutes or feedback from each EMS committee meeting. In turn, you should make this information available to your staff and guests where relevant.

EMS Requirement — *Maintain a 'legal and other requirements' register and ensure it is regularly reviewed.*

A key requirement of an EMS is to have a legal register which records all relevant legislation that must be complied with. A legal register has been developed under the PRREMS for lodge operations. The register has been included in this manual. If you feel that there is something that you do at your lodge that isn't covered by the legislation listed please contact the NPWS EMS officer.

FACTS

There are many non-environmental benefits that can eventuate from a commitment to sustainability. These benefits include:

- competitive differentiation and advantage – customers view environmental performance as a significant factor in their choice between businesses
- development of positive employee attitudes – environmentally aware employees facilitate the achievement of environmental management objectives and maintain positive community relationships
- financial benefits – savings can be made from reduction in resource consumption.

Environmental Risk — *Poor environmental performance from not undertaking regular reviews and audits to identify deficiencies.*

EMS Requirement — *Submit an annual report against the objectives and targets detailed in this manual and regularly review your lodge's environmental performance.*

The front of this manual provides information on the reporting your lodge is required to complete to be a part of this EMS. It is important that you regularly review your environmental performance and implement changes to improve on your performance. You can achieve this by reviewing:

- performance reports provided by NPWS based upon data in your EMS reports
- information provided in this manual
- results of environmental audits – including energy and water use audits. You can find details of how to undertake these audits in the 'natural resources' chapter.

You should discuss any changes that you have identified with your lodge board to assign responsibility of these actions and to plan for the costs involved. You could consider making EMS a standing agenda item on your lodge's AGM agenda.

EMS Requirement — *Review environmental risks of your lodge activities at least annually.*

This manual identifies the environmental risks of operating a lodge within the PRR. It is important you review the risks annually as part of your management review. If you feel that your lodge has an impact on the environment in ways other than defined in this manual then you need to make sure that these are recorded. You should also inform NPWS so it can be considered by the PRREMSOC.

The lodge notes at the back of this chapter has space to record any additional environmental risks your lodge may have which are not already considered in this manual.

EMS Requirement — *Maintain records required for the EMS including records of communications on environmental issues relating to your lodge. Undertake an internal audit of the PRREMS Lodge manual annually.*

Throughout this manual you have been asked to document information on some of your environmental activities. It may be more convenient to store this information elsewhere. It does not matter how you choose to record and store the information. What is important is that it is stored somewhere and appropriately managed so that you can provide an annual report against each of the PRREMS objectives.

It is important that each lodge audit its use of this manual at least annually. Good record and document management will assist the person who is undertaking this review. You perhaps could ask another member of your lodge board to go through the manual to make sure that it is being implemented correctly and to identify any follow-up actions required.

The lodge notes at the back of this chapter has space to record details of any communications your lodge has on environmental issues.

YOU ALSO NEED TO CONSIDER

- By employing the strategies outlined in this manual you are taking positive steps towards achieving sustainable tourism. You may also encourage visitors to be more environmentally responsible when they return to their homes and work places.
- Subscribing to or joining a 'sustainable tourism program' is one way of promoting the provision of sustainable ski and summer tourism in Kosciuszko National Park. There are a number of benchmarking and certification programs for the tourism industry including:
 - Green Globe (see www.greenglobe.org).
 - Ecotourism Australia (see www.ecotourism.org.au).

Environmental Education



Environmental Risk — *Environmental impacts from lack of environmental awareness.*

EMS Requirement — *Educate your visitors on the unique natural and cultural values of Kosciuszko National Park.*

NPWS provides a range of educational material and interpretation services for visitors on the natural and cultural heritage values of Kosciuszko National Park. This information is available from NPWS Information Centres, located at Perisher Valley and Jindabyne and the Education Centre at Sawpit Creek. At the centres there are displays, films and publications. Environmental education and interpretation programs such as talks, information sessions and guided tours are also run by NPWS.

EMS Requirement — *Develop and deliver a lodge environmental education program for your members and visitors.*

In addition to providing general information on Kosciuszko National Park it is important to educate your members and guests about the environmental aspects that are relevant to your lodge operations, as per the 'EMS requirements' discussed throughout this manual. Your lodge should develop a lodge environmental education program. This program could simply involve extracting the information from this manual and advising your members and visitors of the EMS requirements or you may prefer to develop a specific program for your lodge.

Your lodge may have staff or a lodge captain who is willing to develop and deliver this education program. If not, you might find that one of your guests may be interested in promoting the environmental issues that are relevant to your lodge, during their stay. Some ideas for delivering this program are:

- running through a check list of environmental issues as part of weekly meetings
- giving a talk or presenting a slide show
- holding events such as a trivia nights with an environmental theme
- signs or instructions on lodge noticeboards or in rooms
- sending out information with membership newsletters
- lodge website.

EMS Requirement — *Display the PRREMS Environmental Policy to staff, members and guests.*

It is a requirement of the Perisher Range Resorts EMS that the EMS Environmental Policy is accessible to all staff and guests at your lodge.

You could display the PRREMS Environmental Policy in any of the following ways:

- lodge noticeboard or in a frame on the wall
- website
- send a copy to all current staff and members
- include in guest compendium in each room
- leave the *PRREMS Lodge Environment Manual* in a common room for all to read.

FACTS

Environmental education can have many positive impacts for your business and the environment such as:

- visitors changing their behaviour as they become more aware of their impacts
- adding value to your business with visitors recognising the unique experience of visiting ski fields within a national park setting
- visitors enjoying their holiday more as they appreciate the natural environment in which they are staying.

YOU ALSO NEED TO CONSIDER

- You may already have a preferred way to promote NPWS information to your guests. However you may wish to consider adopting one of the following ways:
 - ~ Lodge newsletter
 - ~ Lodge website with a link to the NPWS website
 - ~ Lodge compendium
 - ~ Posting information on your notice board
 - ~ Placing materials, in a common room
- NPWS distributes a biannual newsletter -“Resort Roundup” which has lots of interesting articles on operational issues in the resorts, natural and cultural heritage and articles submitted by lodges on environmental initiatives they have undertaken. You should ensure that copies of the newsletter are available in your lodge for your guests. Hard copies can be obtained from the NPWS Resorts Liaison Officer or viewed on-line at www.environment.nsw.gov.au/alpineresorts.

FURTHER INFORMATION

- In addition to the information available regarding Kosciuszko National Park, the resorts section of NPWS has also developed, in collaboration with the NSW Ski resorts and SLOPES, educational materials relevant to specific environmental issues in PRR including “waterwise”, “bin your butts”, Small mammal identification, “Keep winter cool” etc. Samples of some of these materials are included in this manual. Additional posters and stickers are available by contacting the NPWS Resort Liaison Officer.
- The Kosciuszko National Park Plan of Management 2006 (POM) is a great reference document and has information on the values of the park and the programs in place to protect these values. The POM can be purchased from the NPWS visitor centre in Jindabyne for \$25.00 each or can be downloaded from www.environment.nsw.gov.au/resources/nature/KNPPOM.pdf.

USEFUL WEBSITES

- www.treadlightlyaustralia.com.au – Tips on how to enjoy the outdoors while minimising your impacts on it
- www.conservationvolunteers.org.au – For green hands on holidays.
- www.ecotourism.org.au – Environmentally and socially sustainable tours and accommodation
- www.responsibletravel.com – Ideas on holidays that give the world a break
- www.thegreenpages.com.au – Greenpages directory.

Staff Training



All staff working at your lodge should be trained in the EMS requirements.

Environmental Risk — *Poor environmental performance due to lack of staff training.*

EMS Requirement — *Develop and deliver a staff environmental training program and maintain records of all training undertaken.*

Step 1 'Who' should be trained and 'What' should they be trained in?

All staff should receive general environmental awareness training and participate in your lodge education program. Contact the NPWS Resort liaison Officer if you require further advice or assistance in developing and delivering this training.

Different staff may require more detailed training depending upon their position, such as:

- weed management, including pesticide use
- management of chemical storage
- cleaning your fuel/chimney
- purchasing of cleaning products and other products in bulk
- waste disposal and recycling
- vehicle servicing
- fuel tank filling procedures
- incident response
- document management
- environmental auditing.

Step 2. How should they be trained?

You must ensure that competent persons conduct training. You may like to consider providing training by the following methods:

- Training courses developed and conducted by experienced staff. This may be as simple as running through a checklist of environmental issues.
- Send staff to externally organised training courses developed and conducted by consultants.

Step 3. When should they be trained?

Training should begin as soon as staff start and should be ongoing as aspects of your lodge management may change.

Ensure you keep records of all staff training. Remember to include non-paid staff, suppliers and subcontractors where relevant. The lodge notes at the back of this chapter have space to record details of your staff training.

Lodge Notes



Use the table below to record your ideas for **environmental initiatives** and to record the outcomes.

Environmental initiative	Potential partners (if any)	Environmental outcomes	Date undertaken	Outcomes

Use the table below to record your **environmental risk review**.

[illegible]

Use the space below to record any **environmental risks** of your lodge operations not considered in this manual.

Use this table below to record your **communications** regarding environmental matters.

[illegible]

Use this table below to record your staff numbers.

Period	Number of staff
Summer 2008/2009	
Winter 2009	
Summer 2009/2010	
Winter 2010	
Summer 2010/2011	
Winter 2011	
Summer 2011/2012	
Winter 2012	
Summer 2012/2013	
Winter 2013	
Summer 2013/2014	
Winter 2014	
Summer 2014/2015	
Winter 2015	
Summer 2015/2016	
Winter 2016	
Summer 2016/2017	
Winter 2017	
Summer 2017/2018	
Winter 2018	

Use the table below to record your **staff training**.

[illegible]

- Remember to include non-paid staff, suppliers and subcontractors where relevant.



Appendices – Sustainable Tourism

- Resort Campaign Material (f yer)
- PRREMS Lodge Legal Register

Reference Material

PRREMS Websites:

- www.environment.nsw.gov.au/alpineresorts – NSW Department of Environment and Climate Change
- www.environment.nsw.gov.au/PRREMS – Perisher Range Resorts Environmental Management System (PRREMS)

Other Useful Websites:

At work

- www.abgr.com.au/new/default.asp – Australian Building Greenhouse Rating.
- www.corporate-responsibility.com.au – Corporate Responsibility Index.
- www.ecobuy.org.au – Eco Purchasing.
- www.ecooffice.com.au – Eco Office.
- www.environmentbusiness.com.au – Environment Business Australia.
- www.nabers.com.au/office.aspx – Office environment rating.
- www.officecare.info/youraudit.html – Auditing paper use.
- www.srd.org.au/gppg.htm – Greener Print Procurement Guide.
- www.srd.org.au/gppg.htm – Greener Print Procurement Guide.

Computer Recycling

- www.b2crecyclers.com.au – Business to Community Recyclers.
- www.computerangels.org.au – Computer Angels.
- www.dell.com.au/recycle/home – Dell Recycling (for any brand of PC).
- www.greenpc.com.au – Refurbishes computer hardware and sells it to disadvantaged people at a low cost.
- www.iss.net.au/pc_rec_sig – Australian Computer Society.

Directories

- www.ecodirectory.com.au – Ecodirectory.
- www.ecospecifier.org – A guide to eco and health preferable products, materials and technologies for the built environment construction sector.
- www.environment.gov.au – Department of the Environment, Water, Heritage and the Arts.
- www.greenconsumerguide.com – Product information on environmentally-friendly cleaning products.

- www.greenpagesaustralia.com.au – Green Pages Australia.
- www.greenplumbers.com.au – Green Plumbers and tips on recycling grey water.
- www.thegreendirectory.com.au – Green Directory.
- www.thegreenpages.com.au – Greenpages directory.

Environmental labelling

- www.14000.org – ISO 14000, international standard for environmental labelling.
- www.aela.org.au – Good Environmental Choice.
- www.energyrating.gov.au – Australia's leading guide to choosing an energy efficient appliance.
- www.energystar.gov.au – Energy star rating.
- www.fairtrade.com.au – Fairtrade.
- www.fsc.org – Forest Stewardship Council.
- www.greenglobe.org – Green Globe.
- www.greenhouse.gov.au/greenhousefriendly – Greenhouse Friendly product labelling.
- www.waterrating.gov.au – Water Rating.
- www.wsaa.asn.au/ratings/ratingsabout.htm – Water Conservation Rating.

Energy Providers (Green Power suppliers)

- www.actewagl.com.au
- www.agl.com.au
- www.countryenergy.com.au

Energy saving

- www.dtei.sa.gov.au/energy – Energy Division (SA).
- www.energysmart.com.au – Energy smart.
- www.greenhouse.gov.au – 'Global Warming Cool It' booklet providing a home guide to reducing energy costs and greenhouse gases.
- www.greenhousegases.gov.au – Greenhouse Gases.
- www.greenpower.gov.au/pages – Green Power.
- www.helphouse.com.au/whitegoods.html – Whitegoods Profiler.
- www.keepwintercool.com.au – 10 simple ways to fight global warming.

Food

- www.amcs.org.au – Sustainable Seafood Guide.
- www.ofa.org.au – Organic Federation of Australia.
- www.sustainabletable.org/home – Sustainable Table.

Footprint calculators

- www.carbonfootprint.com – Carbon Footprint.
- www.ecofoot.org – Ecological Footprint.
- www.elementree.com.au/calculator.asp – Emissions Calculator.
- www.epa.vic.gov.au/GreenhouseCalculator/calculator/loader.htm – Greenhouse Calculator
- www.greenhouse.gov.au – Calculate your greenhouse gas emissions from your fuel consumption.
- www.myfootprint.org
- www.safeclimate.net/calculator – Safe Climate Calculator.
- www.sustainable.energy.sa.gov.au – Home energy self-audit.
- www.wacollaboration.org.au – WA Collaboration for Sustainability.

For the kids

- www.abc.net.au/science/planetslayer – Planet Slayer.
- www.powerhousemuseum.com/education/ecologic/bigfoot/mid – Bigfoot.

Green Groups

- www.acfoline.org.au – Australian Conservation Foundation.
- www.cleanup.com.au – Clean Up Australia.
- www.cleanuptheworld.org – Clean Up the World.
- www.conservationvolunteers.org.au – Conservation Volunteers Australia - for green hands on holidays.
- www.foe.org.au – Friends of the Earth.
- www.greenpeace.org.au – Greenpeace.
- www.kab.org.au – Keep Australia Beautiful.
- www.nccnsw.org.au – Nature Conservation Council of NSW (representing volunteer green groups on the PRREMS committee).
- www.planetark.org – Planet Ark.
- www.tec.org.au – Total Environment Centre.
- www.wilderness.org.au – The Wilderness Society.
- www.wwf.org.au – WWF Australia.

Greenhouse gases

- www.abgr.com.au – Building Greenhouse Rating.
- www.energysmart.com.au – Energy smart.
- www.greenhouse.gov.au – Australian Greenhouse Office.
- www.greenhousegases.gov.au – Greenhouse Gases (VIC).

Home and Garden

- www.bokashi.com.au – Bokashi Composting Australia.
- www.eco-organics.com.au – Eco Organics.
- www.greenhouse.gov.au/yourhome – Your Home.
- www.greenpeace.org.au/goodwoodguide/index.html – Good Wood Guide.
- www.nabers.com.au – Building Environment Rating System.
- www.sgaonline.org.au – Sustainable Gardening.

Investment

- www.eia.org.au – Ethical Investment Association.
- www.industrysuper.com – Industry Super Funds.

New Homes/Lodges & building extensions

- www.5starhouse.vic.gov.au – 5 Star House (Victoria).
- www.basix.nsw.gov.au – BASIX (NSW).
- www.wers.net – Window Energy Rating Scheme.

Phone Recycling

- www.mobilemuster.com.au – Mobile Muster.
- www.mobilephonerecycling.com.au – Mobile Phone Recycling.

Procurement

- www.australia.coop – Australia Co-ops.
- www.biome.com.au – Biome Living Pty Ltd.
- www.buyrecycled.org.au – Buy Recycled Guide (NSW).
- www.ecobuy.org.au – Eco Purchasing.
- www.ecospecifier.org – Ecospecifier.
- www.ecospill.com.au – Product information and purchase of portable fuel and oil spill kits.
- www.eneloop.com.au – Rechargeable Batteries.
- www.fta.org.au – Fair Trade Association.
- www.geca.org.au – Good Environmental Choice.
- www.greenconsumerguide.com – Product information on environmentally-friendly cleaning products.
- www.greenlivingtips.com – A guide to using natural products instead of chemicals that can potentially harm the environment.
- www.homeheat.com.au – The Australian Home Heating Association Inc (AHHA).
- www.lanfaxlabs.com.au – A widely endorsed and reputable private site that provides advice on salt and phosphorus levels in different detergents.

- www.noplasticbags.org.au – Say No to Plastic Bags.
- www.oilrecycling.gov.au – Oil recycling facilities and drop off points.
- www.sustainability.vic.gov.au – Waste Wise Shopping Guide (VIC).
- www.squeekyclean.com.au – phosphate free dishwashing detergent.

Recycling

- www.mri.com.au – Industry Recycling.
- www.productstewardship.asn.au – Product Stewardship Association.
- www.recyclingnearyou.com.au – Recycling Near You – a Planet Ark initiative that allows you to search for various recycling opportunities in your area.

Sustainable Tourism Benchmarking & Certification Programs

- www.greenglobe.org – Sustainable tourism certification using internationally recognised benchmarks (Greenglobe lite).
- www.ecotourism.org.au – Eco certification program.

Transport

- www.carbonneutral.com.au – Carbon Neutral.
- www.fuelsaver.govt.nz – Fuel economy.
- www.greenfleet.com.au – Greenfleet donations to help buy, plant and care for trees.
- www.greenmotoring.com.au – Fleet Managers.
- www.greenvehicleguide.com.au – Best fuel economy and reduced CO2 emission.
- www.travelsmart.gov.au/employers – TravelSmart.

Travel

- www.ecotourism.org.au – Ecotourism Australia.
- www.ecotourism.org.au – Environmentally and socially sustainable tours and accommodation.
- www.responsibletravel.com – Ideas on holidays that give the world a break.
- www.Treadlightlyaustralia.com.au – Tips on how to enjoy the outdoors while minimising your impacts on it.

Waste Exchange

- www.wasteexchange.net.au – WastePro database

Water saving

- www.greenplumbers.com.au – Green Plumbers and tips on recycling grey water.
- www.savewater.com.au – Savewater! Alliance (VIC) – Water restrictions, water efficient products and water saving tips.

- www.sawater.com.au/SAWater/Environment/ – SA Water home water audit (simple user-friendly home water audit checklist that may help you conduct your water audit).
- www.sydneywater.com.au – Obtain your FREE Do-It-Yourself Water Saving Kit.
- www.sydneywater.com.au/SavingWater/InteractiveHouse – Saving Water (NSW) – Interactive House.
- www.sydneywater.com.au/SavingWater/InYourBusiness – Saving Water (NSW) – In Your Business.
- www.thinkwater.act.gov.au – Water Calculators.
- www.watercare.sa.gov.au – Water Care (SA).
- www.watercorporation.com.au/savingwater – Waterwise House.
- www.waterrating.gov.au – Water efficient labelling and standards (WELS) scheme.




Disclaimer:

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Contacts

Who to Contact for Information about the PRREMS




National Parks and Wildlife Service

Donna Alexander <i>Acting Manager</i> Environmental Services Unit (ESU) PO Box 2228, Jindabyne NSW 2627	 (02) 6450 5607  (02) 6450 5630  perisher.ems@environment.nsw.gov.au
Virginia Logan <i>Environmental Management Officer (EMS)</i> PO Box 2228, Jindabyne NSW 2627	 (02) 6450 5612  (02) 6450 5630  perisher.ems@environment.nsw.gov.au
Mark Nolan <i>Senior Environmental Health Officer</i> PO Box 2228, Jindabyne NSW 2627	 (02) 6450 5613  (02) 6450 5630  mark.nolan@environment.nsw.gov.au
Dave Woods <i>Environmental Liaison Officer</i> PO Box 2228, Jindabyne NSW 2627	 (02) 6450 5616  (02) 6450 5630  dave.woods@environment.nsw.gov.au
NPWS Municipal Services Unit (MSU) Perisher Office (24 hour Emergency Line)	 (02) 6457 4444  1800 629 104  perisher@environment.nsw.gov.au

Perisher Resorts Chamber of Commerce

Belinda Shore <i>President</i> PO Box 28, Perisher Valley NSW 2624	 (02) 6457 5375  stay@smiggins.com.au
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Perisher Blue Pty Limited

Richard Tuck <i>Health Safety and Environmental Manager</i> PO Box 42, Perisher Valley NSW 2624	 (02) 6459 4414  (02) 6457 5548  Richard.Tuck@perisher.com.au
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NSW Department of Planning

Daniel James PO Box 36, Jindabyne NSW 2627	 (02) 6456 1733  (02) 6456 1736  daniel.james@planning.nsw.gov.au
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Who to Contact in Case of an Emergency

General emergency (Ambulance, Fire, Police) ☎ 000
State your name, where you are and what has happened.

NPWS Municipal Services Unit (MSU),
Perisher Valley ☎ (02) 6457 4444
(24 hour Emergency Line) ☎ 1800 629 104
State your name, where you are and what has happened.

Poisons Information Centre ☎ 13 11 26

Pollution
NSW (DECC) Environment Protection and Regulation
Pollution Line (EPA) ☎ 13 15 55

Injured Wildlife
Looking after our Kosciuszko Orphans (LAOKO) ☎ (02) 6456 1313

Perisher Medical Centre ☎ (02) 6457 5266

Road Transport Authority (RTA) ☎ 13 17 00

Road closures and special events ☎ 13 27 01

Fire Brigade Perisher Valley ☎ (02) 6456 2476