

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 Office of Environment and Heritage (OEH) website at www.environment.nsw.gov.au/PRREMS

Published by

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ISBN 9781 1 74232 001 4

OEH 2012/0868

November 2012 (first published November 2008)

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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 River 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. Perisher Blue Pty Ltd provide and operate the main resort infrastructure including the Skitube, some accommodation, retail, forty lifts and associated ski slopes. The municipal services are provided by the NSW National Parks and Wildlife Service. There are 88 independent 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, conservation groups and businesses came together to protect their environment. With oversight by NPWS, a collaborative effort was made to create an Environmental Management System (EMS) for the Perisher Range Resorts, also known as the PRREMS.

The 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 resort operations in one of Australia's most sensitive and unique 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

- NSW Nature Conservation Council
- NSW Department of Planning (DoP)
- NSW National Parks and Wildlife Service (NPWS)
- NSW Roads and Maritime Services (RMS)
- 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 all lodges in Perisher Range Resorts to help 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
- The PRREMS **Objectives and Targets**
- 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. With regular



involvement in PRREMS, your environmental performance may also help you decide strategic business directions for your lodge.

The original manual was produced in a folder format to make it easier to store energy bills and other information needed to report against the EMS objectives and targets. This revised version is only available electronically. However it has been developed in a Pdf format so you can print off the revised pages and store them in your 2008 folder if you would prefer a hard copy. There are spreadsheets provided in the reporting directory 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 Earthcheck on-line report each year. See the 'PRREMS Reporting' section for your reporting requirements.

The following tables provide a good summary of what the PRREMS is all about.

The first table - **Summary of EMS Requirements** provides a list of all the potential environmental risks associated with operating a lodge in PRR and the actions (EMS requirements) required to help reduce the risk.

The second table - **PRREMS Objectives, Performance Indicators and Targets** is a good summary of how we are trying to achieve our vision of exemplary environmental management. The details of the EMS requirements, objectives and targets are also referred to in each of the manual chapters.

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.
		Introduction of weed species and/or disturbance to nearby vegetation communities from land clearance	Do not clear any native vegetation in or around your lease area without approval from Dept of Planning or NPWS.
			Familiarise your lodge with the Perisher Rehabilitation Plan.
			If your lodge is located in a "High Priority" area on the Perisher Rehabilitation Plan (PRP) then develop a rehab plan for your lease area.
		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.	
	Harm to native animals from inappropriate pest control	Reduce the opportunities for small mammals to enter your lodge.	
		Educate staff and guests about appropriate pest control i.e. The use of Elliot Traps.	
		Environmental Risks	EMS Requirements
SOIL & WATER		Degradation of water quality from pollution	Educate staff, guests and contractors about preventing water pollution.
			If your lodge stores chemicals or fuel ensure that your lodge has a spill kit which has adequate supplies of materials to use in the event of a pollution incident.
			If your lodge stores chemicals or fuel then familiarise your staff and members with the PRREMS Lodge Environment Incident Procedure.
			If your lodge stores chemicals or fuel then 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 unused chemicals are appropriately disposed of.
			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.
		Degradation of water quality from inappropriate stormwater management	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 lease area.		

Environmental Risks		EMS Requirements
SOIL & WATER	Degradation of water quality from construction activities	Obtain the appropriate approvals for construction activities.
		Educate staff and guests about reducing erosion and managing sediment during construction activities.
	Contamination from inappropriate storage of chemicals	Ensure chemical storage areas are large enough to contain a spill and all unused chemicals are appropriately disposed of.
	Contamination from hydrocarbon fuel storage tanks	Ensure all fuel tanks are appropriately constructed and managed.
Decommission including validation testing for any fuel tanks that are no longer being used.		
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/flue management	Ensure your chimney and flue 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.	
	Develop a vehicle servicing program for lodge owned/ leased vehicles.	
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 (<200 Litres/ Visitor night).
	Resource depletion from ineffective waste management	Provide appropriate facilities in your lodge for recycling.
		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.
		Consider your energy types and use renewable energy alternatives wherever possible.

Environmental Risks		EMS Requirements	
CULTURAL HERITAGE & AMENITY	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 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.	
Minimise noise by using vehicles efficiently and within normal daily business hours.			
Environmental Risks		EMS Requirements	
SUSTAINABLE TOURISM	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.	
Poor environmental performance from not undertaking regular reviews and audits to identify deficiencies	Maintain a 'legal and other requirements' register and ensure it is regularly reviewed.		
	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 annually.		
Environmental impacts from lack of environmental awareness	Maintain records required for the PRREMS including records of communications on environmental issues relating to your lodge.		
	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.		
Poor environmental performance due to lack of staff training	Display the PRREMS Environmental Policy to staff, members and guests.		
	Develop and deliver a staff environmental training program and maintain records of all training undertaken.		

PRREMS Objectives, Performance Indicators and Targets

	Objectives	Key Performance Indicators	Target
FLORA & FAUNA	1 To Protect flora, fauna and ecological communities, prevent loss of biodiversity and restore native vegetation and ecosystem functions to previously disturbed areas.	Percentage of lodges who are only using native species for their landscaping.	1 To have lodges only using local native plants for landscaping.
		Percentage of lodges in the high conservation zones of the Perisher Rehabilitation Plan with a lease rehab plan.	2 All lodges located in the high priority areas of the Perisher Rehabilitation Plan to have a rehab plan for their lease.
		Number of lodges using illegal baits, snap traps or poisons as pest control.	3 No lodges using baits, snares, snap traps or rat poison as pest control without NPWS approval.
		Percentage of lodges undertaking weed control.	4 To have more than 60% of lodges undertaking weed control.
SOIL & WATER	2 To prevent and manage leaks, spills and unlicensed discharges of potentially harmful substances to the environment.	Percentage of hydrocarbon storage containers appropriately constructed and managed.	5 To have all hydrocarbon storage containers compliant and managed appropriately.
		Number of uncommissioned fuel storage tanks still in Perisher.	6 To have all redundant hydrocarbon fuel storage tanks decommissioned and sites validated.
		Number of pollution incidents.	7 To have zero pollution incidents.
		Percentage of incidents reported to NPWS.	8 To have all significant incidents reported to NPWS.
		Percentage of incidents that were managed in a timely manner.	9 To have all incidents managed in a timely manner.
		Percentage of lodges who store chemicals or fuels that have a well equipped spill kit.	10 For all lodges who store chemicals or fuel to have well equipped spill kits.
		Percentage of lodges that store chemicals or fuel clearly displaying the PRREMS Lodge Incident procedure.	11 To have all lodges that store chemicals or fuel clearly displaying the PRREMS lodge Incident procedure.
		Percentage of grease traps working effectively.	12 To have all grease traps working effectively.
AIR QUALITY	3 To improve local air quality and reduce or offset carbon dioxide (CO ₂) emissions.	Amount of CO ₂ emissions (kg).	13 To reduce the amount of CO ₂ equivalent emitted per visitor night.
		Percentage of lodges using an open fireplace as their primary source of heating.	14 To have less than 10% of lodges using open fireplaces as their primary source of heating.
		Percentage of lodges using ODS appliances.	15 To have less than 20% of lodges using ODS appliances.

		Objectives	Key Performance Indicators	Target	
NATURAL RESOURCES	4	To minimise waste, maximise resource recovery and prevent environmental harm from waste disposal.	Amount of waste produced.	16 To reduce the amount of waste produced.	
			Percentage of lodges recycling.	17 To have all lodges recycling.	
			Percentage of total waste recycled.	18 To recycle more than 50% of total waste.	
	5	To improve the efficiency of energy consumption and increase the use of renewable energy.	Amount of energy used (joules) per visitor night.	19 To reduce energy used per visitor night by 5% annually.	
			Percentage of renewable energy used and/or 'Greenpower' purchased.	20 To have more than 5% of the total energy used to come from renewable sources.	
	6	To protect the environmental health and aquatic ecosystems of alpine streams from resort activities.	Amount of water used (L) per visitor night.	21 To have less than 200 L of water used per visitor night.	
			Percentage of lodges implementing water saving measures.	22 To have more than 90% of lodges implementing water saving measures.	
			Percentage of lodges undertaking an annual lease inspection for erosion problems.	23 To have all lodges regularly inspecting their lease for erosion problems.	
			Percentage of lodges with an erosion problem who are undertaking works or planning to rectify the problem.	24 To have those lodges with erosion issues taking actions to prevent and manage the erosion.	
	HERITAGE & AMENITY	7	To conserve and promote the cultural heritage values of the alpine resort areas.	Percentage of lodges educating guests and staff about Perisher Range Resorts cultural heritage values.	25 To have 75% of lodges educating guests and staff about Perisher Range Resorts cultural heritage values.
		8	To conserve and enhance the existing amenity of the alpine resorts.	Percentage of lodge leases not free of excess materials, equipment etc.	26 To have all lodge lease areas free of excess building material, equipment, garbage, weeds and other items that negatively affect scenic values.
	SUSTAINABLE TOURISM	9	To ensure that the recreational opportunities and facilities of the alpine resorts are provided and managed sustainably.	Percentage of staff EMS awareness trained.	27 To have all staff EMS awareness trained.
Percentage of lodges reporting against the PRREMS.				28 To have all organisations with a fully implemented EMS for their operations within Perisher Range Resorts.	
Percentage of lodges annually reviewing their environmental risks.				29 To have all lodge committees annually reviewing and discussing their environmental risks.	

Reporting

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

What is required of your lodge?

As it goes with any business plan, regular evaluations will identify areas that need improvement to boost performance and an EMS is no different. 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 of the questions in the on-line report 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 all of these reporting requirements as any missing data will prohibit you from sending in your report.

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: <http://npws.earthcheck.org>

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 (email: perisher.ems@environment.nsw.gov.au) to organise alternative means for submitting your report.

Whilst the cut off date to submit your report is the 14th April you are encouraged 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. You are also able to complete and save any one section of the report at a time, allowing you to work on it year-round before finalising and submitting it in April.

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. Ideally you will reduce your lodge's environmental impacts by reducing a guest's individual environmental impacts.

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 able to generate your Lodge's Environmental Performance Report. An all lodges summary report will be compiled after close off of submissions. This report will give 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 with unidentifiable information and your exemplary environmental initiatives.

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 are 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 is run annually and the award recipients are determined by the PRREMS operational committee.

Chapter 1

Flora and Fauna



Weeds

*Protecting
Native Plants
& Animals*

Pests

Chapter 1

Flora and Fauna

Objective → *Target*

To protect flora, fauna and ecological communities, prevent loss of biodiversity and restore native vegetation and ecosystem functions to previously disturbed areas.

- ✓ *To have lodges only using local native plants for landscaping.*
- ✓ *All lodges located in high priority areas of the 'Perisher Rehabilitation Plan' to have a rehab plan for their lease area.*
- ✓ *No lodges using baits, snares, snap traps, or rat poison as pest control without NPWS approval.*
- ✓ *To have more than 60% of lodges undertaking weed control.*

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.

Development can directly harm the environment through vegetation clearance, erosion, sedimentation and contamination as well as indirectly or more gradually by the introduction of invasive plants and animals, pathogens, road kills, resource depletion, and increases in atmospheric CO₂ levels associated with climate change. Ecosystem functions and services such as the water purification processes occurring in sphagnum bogs can also be significantly impaired by disturbances from resort infrastructure. Rehabilitation projects help reduce the impacts by creating vegetation corridors for the movement of fauna, reducing pests and stabilising ground surfaces to reduce erosion and protect water quality.

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 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 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.

Environmental Risk — *Introduction of weed species and/or disturbance to nearby vegetation communities from land clearance.*

EMS Requirement — *Do not clear any native vegetation in or around your lease without approval from Department of Planning or NPWS.*

Prior to undertaking any work on your lease that will result in loss of vegetation contact the NPWS for advice regarding Environmental Impact Assessment, appropriate species for replanting requirements, or offsetting opportunities.

EMS Requirement — *Familiarise your lodge with the Perisher Rehabilitation Plan.*

The 'Perisher Rehabilitation Plan' has been developed by overlapping maps of the key natural ecological values of the area with areas of disturbance and municipal and ski slope infrastructure. The Plan delineates lodges into one of 3 categories based on risk assessment depending on where the lodge is located within the landscape including proximity to intact vegetation, populations of endangered species, endangered ecological communities, water courses and disturbances.

- **Low:** Situated in an area already highly modified with little or no native vegetation present
- **Medium:** Situated in area surrounded by intact native vegetation community
- **High:** Located in an area with surrounding intact native vegetation and where threatened species are in close proximity or have been identified within the lease area.

EMS Requirement — *If your lodge is located in a "High Priority" area on the Perisher Rehabilitation Plan then develop a rehabilitation plan for your lease area.*

If your lodge is in an area surrounded by intact native vegetation and threatened species are in close proximity, your lodge is in a "high priority" area and should develop a rehabilitation plan for your lease area. If your lease is in good repair this may be as simple as ensuring that weeds are monitored and controlled. However some leases may require landscaping or planting to replace introduced grasses with natives or to improve vegetation connectivity. There may also be some disturbed areas on your lease resulting in erosion that may benefit from improved ground cover. NPWS will support and assist any lodge who wishes to develop and undertake a landscaping plan. Lodges located in the medium and low priority areas should also consider any disturbances on their lease areas that could be improved through the development and implementation of a rehabilitation plan.

FACT

- 175 weeds species have been identified in Kosciuszko National Park – 105 of these are known to occur in and around the resort areas.
- Australian alpine areas have one of the world's highest proportions of endemic flora and represent only a small percentage (0.02%) of vegetation on the Australian mainland.
- With climate change predictions leading to increased temperature, a reduction in the snow duration and a rise in the snow line, conditions are likely to become more suited to increased dispersal of existing pest species or the establishment of new species.
- 11% (176 hectares) of the 1598 hectares of the Perisher management area has a higher level of weed infestation than surrounding natural areas.
- Of the 176 hectares, 61% (107 hectares) were recently mapped by NPWS as severely disturbed or highly disturbed to the point where natural regeneration is unlikely, such as the front valley ski slope.
- Areas mapped as medium, low and scattered often occurred in proximity to lodges where past disturbance would have likely involved the removal of vegetation, but now is in a state of recovery thanks to weed management projects.

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)
☒ Dealbata (Off Bloomfield Street), Dalgety NSW 2628
☎ (02) 6456 5043
- 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 to reduce the risk of injuries to animals
- not feeding or handling wildlife
- dealing with injured wildlife
- using secure waste and recycling facilities to prevent small mammals and birds from accessing rubbish and not putting food scraps on the ground.

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 and occur no more frequently than necessary.

- using waste facilities appropriately to prevent littering local conservation areas.

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.
- You may find more information in the recently updated 'Field Guide to Wildlife of the Australian Snow-Country' which you can obtain in the Jindabyne Visitor Centre

Pests



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 i.e. Use of Elliott Traps.*

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. Resources are available to assist your lodge members differentiate between native small mammals (including bush rats) and introduced house mice and rats.
- only use your lodge's Elliott Trap to capture small rodents - do not use baits traps or snares. If your lodge does not have an Elliot trap then loan one from the NPWS Perisher Office. Be sure to check your Elliott Trap so you can release the native animals that may be caught.
- contact the NPWS if you have a major pest problem at your lodge.

A flyer on 'Small Mammal Trapping in Ski Resorts' and identification information on small native mammals have been included in the Supporting documents folder.

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/pests to NPWS including cats, foxes, deer, horses, pigs and dogs
- not providing nesting opportunities for introduced birds such as starlings.

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 National 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. You can obtain one from NPWS 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 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.



Supporting documents – Flora and Fauna

The following documents are available in the 'supporting documents' directory of the PRREMS USB stick:

- 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 (flyer)
- Small mammals making their home in the ski resorts of Kosciuszko National Park (poster)
- Fact Sheet on Perisher Range Resorts Rehabilitation Plan.

Chapter 2

Soil and Water



***Preventing Water
Pollution***

***Soil and
Groundwater
Contamination***

Chapter 2

Soil and Water

Objective → Targets

To prevent and manage leaks, spills and unlicensed discharges of potentially harmful substances to the environment.

- ✓ *To have all hydrocarbon storage containers compliant and managed appropriately.*
- ✓ *To have all redundant hydrocarbon fuel storage tanks decommissioned and site(s) validated.*
- ✓ *To have zero pollution incidents.*
- ✓ *To have all significant incidents reported to NPWS.*
- ✓ *To have all incidents managed in a timely manner.*
- ✓ *For all lodges who store chemicals or fuel to have well equipped spill kits.*
- ✓ *To have lodges who store chemicals or fuel clearly displaying the PRREMS Lodge Incident Procedure.*
- ✓ *To have all 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 car parks, 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)
- if you employ a cleaner for your lodge request they use 'eco-friendly', biodegradable products
- not pouring chemicals/oils etc down drains
- implementing conditions of approvals for construction activities, in particular sediment control
- 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 — *If your lodge stores chemicals or fuel then ensure that you have a spill kit which has adequate supplies of materials to use in the event of a pollution incident.*

Spill Kits are used to contain, control, and clean up pollution incidents. A pollution incident is any spill or release of contaminants that can harm or cause serious injury to people and/or the environment. Contaminants can be in the form of liquid, gas or solids and can cause harm in two ways: the potency of the contaminant or the amount of contaminant released. The most common incidents for lodges and accommodation services is spills of cleaning chemicals, paints, or fuel leaks.

For the purpose of managing incidents and preventing pollution, NPWS would like any

lodge that stores a 'significant' amount (10 litres or more) of potential contaminants in one location to have an adequate spill kit. The following is a guide to what could be considered a significant amount:

- bulk container(s) of petrol or vehicle-related fluids
- bulk container(s) of paint and paint-stripping chemicals
- more than 10 litres of household cleaning supplies in one location
- other contaminants in bulk container(s) or totalling 10 litres or more in one location
- if there is any combination of the above stored in one location totalling 10 litres or more.

This list has no legal standing and you must always exercise caution with chemical and fuel storage. 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.

EMS Requirement — *If your lodge stores chemicals or fuel then familiarise your staff and members with the PRREMS lodge environment incident procedure.*

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

- spills during refuelling of fuel storage tanks or leaking 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.

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. The incident procedure is included in the appendices. A copy should be displayed in your lodge.

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

When an incident occurs in your lodge, you must notify the proper authorities in a timely manner depending on the severity of the situation. If the spill is hazardous or difficult

to contain, contact NPWS and EPA immediately and/or call the fire brigade and police if necessary. You should refer to the Material Safety and Data Sheet (MSDS) Hazard Folders for identifying appropriate Personal Protection Equipment (PPE) and treatment for harmed persons. For a spill that is contained but threatens or harms the environment or has the potential to impact on the Perisher Sewerage Treatment Plant (STP), you must contact the NPWS and the EPA as soon as possible. If the spill appears unarmful, is contained and you are in the process of cleaning up, contact NPWS by faxing the PRREMS Environmental Incident Reporting Form to the EMS Officer. This information will be used to identify ways to reduce incidents occurring in the future.

You should place a list of emergency contact numbers near the chemical and fuel storage areas along with the PRREMS Incident Procedure.

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

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 float 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 organise for grease traps to be pumped out and appropriately disposed of at the end of the ski season. However if a grease trap is not operating correctly or not large enough for the size or function of the premises then the waste may end 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 supporting documents directory on the USB drive. Staff in the NPWS Perisher office may be contacted if you require advice or assistance with your grease trap. There is now a grease trap policy developed by NPWS in accordance with industry standards which all lodges must comply with. It provides guidance on size of grease traps and other requirements.

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

- greenliving.lifetips.com – A guide to using natural products instead of chemicals that can potentially harm the environment.
- 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.naturalenviro.com/Article.php?ArticleSKU=Grease-Trap-101 - Grease Trap 101
- 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.

Soil & Ground Water Contamination



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

EMS Requirement — *Ensure chemical storage areas are large enough to contain a spill and all unused chemicals are appropriately disposed of.*

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 also be stored in a well signed lockable area with appropriate ventilation to manage fumes. The incident procedure should be displayed nearby along with access to the lodge's spill kit.

You should use the table provided in the in the "Record Keeping" directory on the USB drive 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.

Contact NPWS Perisher Office (02) 6457 4444 if you require advice on disposal of chemical containers. They are not to be disposed of in the Perisher Range garbage collection service.

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 hydrocarbon 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
- consider integrity testing all hydrocarbon fuel storage tanks every 3 years if they are more than 10 years old
- 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 and Operations Act, Underground Petroleum Storage Systems (UPSS) Regulation 2008*. The guidelines for implementing the UPSS Regulations are available at www.environment.nsw.gov.au/clm/upss.htm. To help lodges understand how the regulation relates to them a hydrocarbon underground storage fact sheet has been developed for the PRREMS. It is available in the supporting information folder of the PRREMS USB drive. Further information can also be obtained by ringing the pollution hotline: 1315 55.

Note that if any part of a tank sits below the ground level then it is classified as underground.

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. Decommissioning includes obtaining a validation report from the qualified contractors to demonstrate that the site is free of contaminants. 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 should provide you with the

validation reports on completion. You will be required to provide copies of these to the NSW NPWS. Abandoned tanks also have the potential to cause a health and safety risk.

FACTS

- If any part of a tank sits below ground level then it is classified as underground. This is the case even if only 5% is buried.
- Only underground 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 and Operations Act (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.
- You will need to talk to the Department of Planning if you wish to remove your fuel tank.
- You can decommission your fuel tank by leaving it in situ and filling it with an inert substance such as foam, concrete or sand. However this has to be undertaken by an accredited operator and you will still require validation testing to be undertaken.



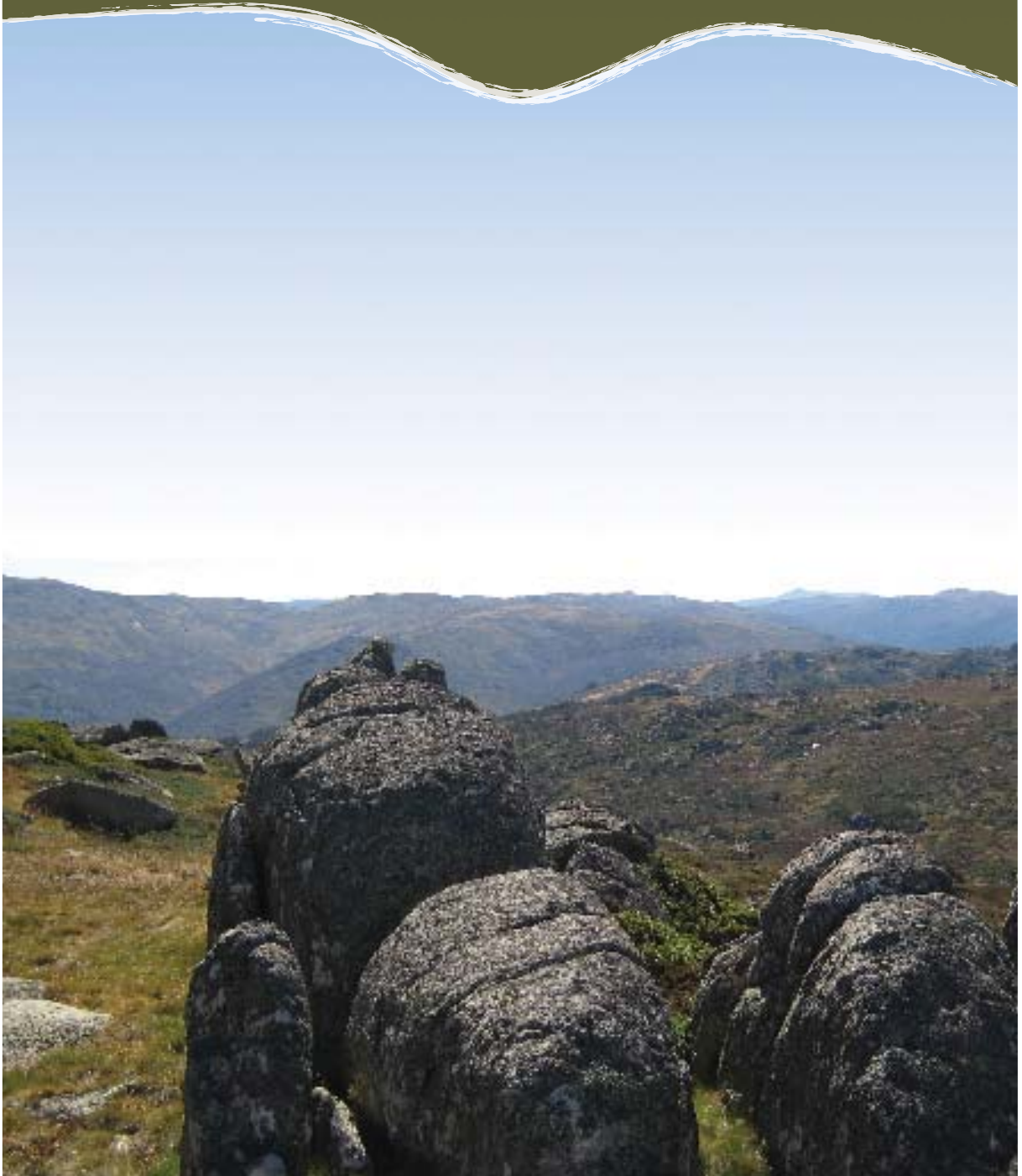
Supporting documents – Soil and Water

The following documents are available in the 'supporting documents' directory on the PRREMS USB stick:

- 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 and reduce or offset carbon dioxide (CO₂) emissions.

Targets

- ✓ *To reduce the amount (kg) of carbon dioxide (CO₂) equivalent emitted per visitor night.*
- ✓ *To have less than 10% of lodges using open fireplaces as their primary source of heating.*
- ✓ *To have less than 20% of lodges using ODS appliances.*

There are many substances 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 further than Perisher. 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 and oceans.

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 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 providing 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.

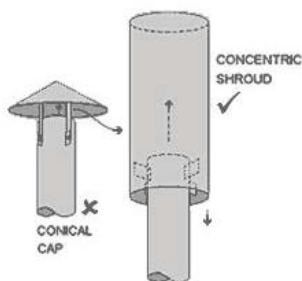
YOU ALSO NEED TO CONSIDER

- 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.*

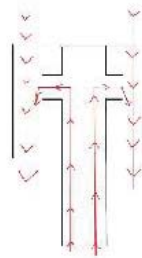
- Inspect your chimney and flue before, after and during the winter season to check for the build up of soot and clean as necessary.
- Ensure your chimney is at least 1 metre taller than surrounding buildings within three metres.
- The top of your chimney should be designed so that smoke travels vertically, giving it a better chance of being dispersed. A concentric shroud, venturi cowl or parallel rain excluder are the best types of chimney stacks. However, regardless of how good your chimney stack or flue is, it is best that you never use a China Man's Cap over the spout.



Concentric Shroud Chimney Cover allows for rain to enter the outer pipe where it catches and drips off the outer bottom edges. Rain is less likely to enter the flue/chimney while smoke continues in a vertical path upwards instead of radiating outwards into smoke plumes.



The ChinaMan Cap prevents the flow of smoke from travelling upwards into the upper airstreams to be flushed out. The cap makes the smoke radiate outwards which creates large plumes of smoke. Poor circulation does not flush smoke out of the area and may create problems of visibility and health for yourself and neighbours.



The Venturi Cowl Chimney Cover utilises the physics' concept to create a constant upwards draught of smoke through the chimney which then exits and flows vertically into the upper airstreams to be flushed out. The diagram on the left illustrates the flow of wind that creates the constant draught. The picture on the right shows the look of an actual Venturi Cowl, notice the top allows for smoke to escape vertically unlike the ChinaMan Cap.

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 while other items, such as fire extinguishers and aerosols use propellants. Some refrigerants and propellants use Ozone Depleting Substances (ODS) which deplete the ozone atmosphere and in turn negatively effects the climate and environment. ODS can also be found in dry cleaning systems, solvents for cleaning, electronic equipment, industrial foams, fumigants and chloroform.

The Montreal Protocol (1989) is an international treaty designed to protect the ozone layer. It established a system for recording and limiting use of ODS appliances worldwide and aimed to reduce the use of ODS by 50% by 1999. In response, the Australian Commonwealth Government created the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 to control the manufacturing, exporting and importing of ODS in the country. The regulations were enacted in 1995. You may find ODS in any pre-1995 refrigeration or air-conditioning appliances, pre-1994 vehicle air-conditioners, yellow-handled fire extinguishers which contain halon (most of which should have been handed into the fire brigade), or any international appliance that has not been registered with Australian Quarantine.

There are a number of alternative substances that do not deplete the ozone i.e. propane, isobutane or R-441A as refrigerants. You may find more information online or in the reference section.

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

- CFCs and HCFCs can remain in the atmosphere for up to 640 years and have global warming potentials (potency to increase incoming solar radiation as compared to carbon dioxide) ranging from 330 to 14,000. One ODS refrigerator with the smallest emission of CFC can equate to a tonne (100 kg) of carbon dioxide emissions and that's why the world is phasing out ODS appliances.
<http://www.atmosphere.mpg.de/enid/20a.html>
- In Australia, greenhouse gas emissions from all sources amount to 24.3 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.
www.climatechange.gov.au

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.

Consider using alternative fuels including:

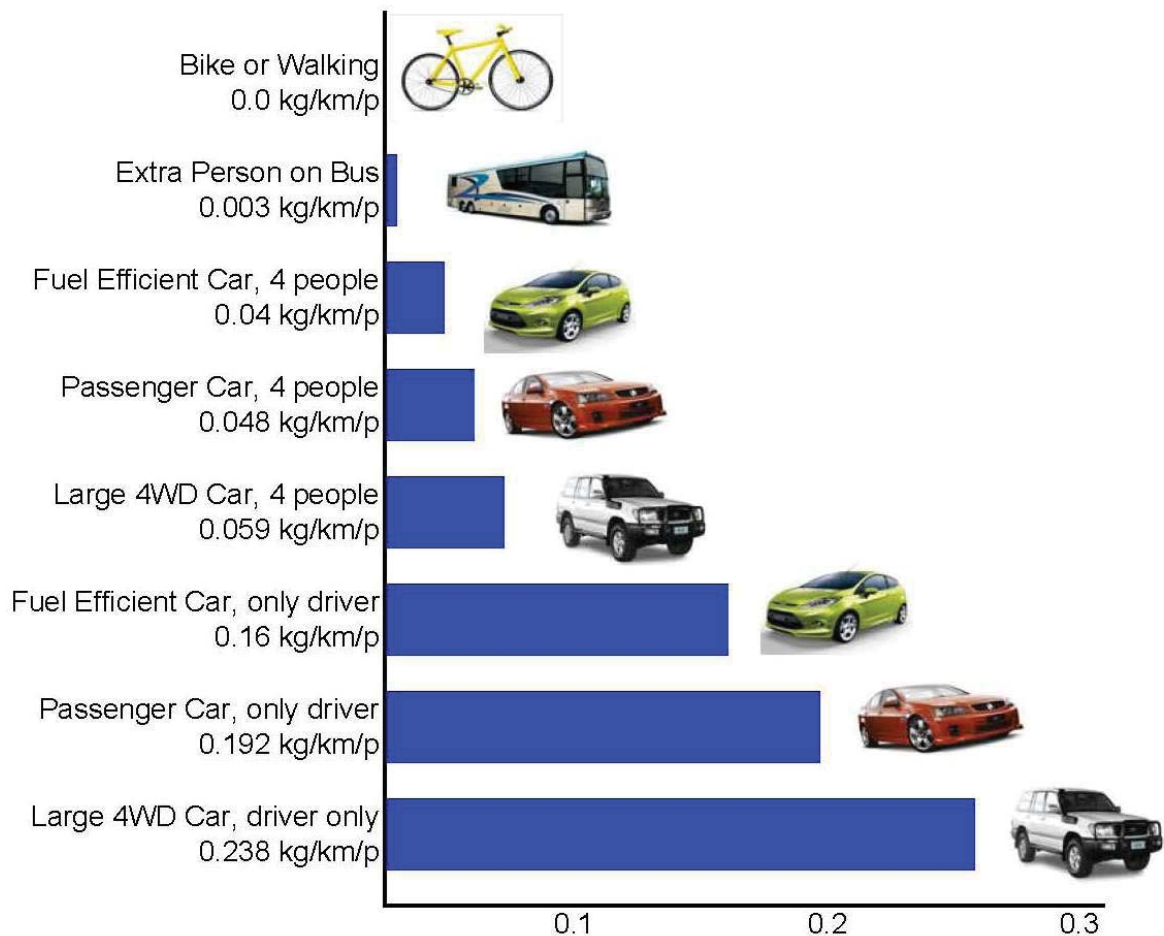
- ethanol
- biodiesel
- LPG.

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

Vehicles which are not regularly maintained have the potential to use more petrol to over-compensate poor efficiencies and will generate more carbon dioxide emissions.

FACTS

- Road transport accounts for 13.5% of Australia's greenhouse gas emissions. Note that this is just road and does not include train, water or air transport which would substantially increase this percentage. <http://www.climatechange.gov.au/publications/projections/australias-emissions-projections/transport-emissions.aspx>
- Transportation accounts for 34% of the greenhouse gases emitted by the average Australian household.
- The average vehicle running on petrol will produce 2.3 kg of carbon dioxide for every litre consumed. After a year, that can amount to 4.5 tonnes give-or-take. <http://www.environment.gov.au/settlements/transport/fuelguide/environment.html>
- A LPG vehicle will emit 60% less greenhouse gases than an equivalent diesel engine.



(Kilograms of Greenhouse Gas per Kilometre per Person)

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.
- www.greenvehicleguide.gov.au

USEFUL WEBSITES

- www.myfootprint.org
- www.carbonfootprint.com
- www.greenvehicleguide.com.au – Best fuel economy and reduced CO₂ emission.
- www.greenfleet.com.au – Donations to help buy, plant and care for trees.

Chapter 4

Natural Resources



*Water
Conservation*

*Waste
Management*

*Energy
Conservation*

Chapter 4

Natural Resources

Objective →

To protect the environmental health and aquatic ecosystems of alpine streams from resort activities.

Water Targets

- ✓ *To have less than 200 litres of water used per visitor night.*
- ✓ *To have more than 90% of lodges implementing water saving measures.*
- ✓ *To have all lodges regularly inspecting their lease for erosion problems.*
- ✓ *To have those lodges with erosion issues taking actions to prevent and manage the erosion.*

Objective →

To improve the efficiency of energy consumption and increase the use of renewable energy.

Energy Targets

- ✓ *To reduce the amount of energy used per visitor night by 5% annually.*
- ✓ *To have more than 5% of the total energy used to come from renewable sources (e.g. Greenpower and Tru Energy).*

Objective →

To minimise waste, maximise resource recovery and prevent environmental harm from waste disposal.

Waste Targets

- ✓ *To reduce the amount of waste produced.*
- ✓ *To have all lodges recycling.*
- ✓ *To recycle more than 50% of total waste.*

Energy Conservation



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.

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 or even more efficient LED lighting.
- Purchase only energy efficient appliances.
- Use energy from renewable sources (e.g. install solar or subscribe to GreenPower/Tru Energy).
- 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
- encourage use of powerboards with one switch for all appliances, 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

Borrow the Energy Saver Kit from the NPWS Perisher Office to help you undertake an audit.

EMS Requirement — *Consider your energy types and use renewable energy alternatives wherever possible.*

Ask your electricity provider where your energy comes from.

Consider purchasing Tru Energy or green power through your energy provider.

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.
- In NSW, 89% of electricity needs are met by locally mined thermal coal. Thermal coal (brown coal) is the lowest grade of coal and the highest emitting of all coal types. (NSW Minerals Council Ltd).
- 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.
- LEDs emit more light per watt than incandescent light bulbs: a 6-watt LED will provide as much lighting as a 40 watt incandescent and lasts 50 times longer. By replacing all incandescent light bulbs for LEDs, you can reduce your building's carbon footprint by 85%. Despite the expensive initial costs, LEDs will last at least 3 times longer than fluorescent lamps and significantly reduce ongoing maintenance costs. And unlike fluorescent lamps or incandescent light bulbs, their efficiency is not affected by the size or shape of the bulb or tube.
- 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.

USEFUL WEBSITES

- www.energysmart.com.au – Energy Smart for the purchasing of solar panels.
- www.helphouse.com.au/whitegoods.html – Whitegoods Profiler.
- www.keepwintercool.com.au – 10 simple ways to fight global warming.
- www.resourcesmart.vic.gov.au – Be Resource Smart.
- www.sa.gov.au/energy – Energy Division (SA).

Water Conservation



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 from the Perisher Range catchment.

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. (Some material is available in the additional information directory to help you develop your signs including the resorts waterwise logo.)

EMS Requirement — *Monitor your water consumption and conduct a water audit if you are not meeting the EMS target (< 200 litres per visitor night).*

If you have met all the EMS requirements 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.

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.thinkwater.act.gov.au – Water calculator and greywater tips.
- www.greywaterreuse.com.au – greywater and rain harvesting technology.
- www.sawater.com.au – SA Water home water audit (simple user-friendly home water audit checklist that may help you conduct your water audit).

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 lease area.*

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 that 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 reducing erosion and managing sediments.*

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.

Waste Management



Large amounts of electricity and natural resources (i.e. metals, wood, petroleum) go into manufacturing everyday household products, items for recreation, and packaging materials. It is important to try to minimise the amount of natural resources acquired for manufacturing goods as well as using these materials efficiently and reducing the amount of waste. The latter ends up being buried in landfills unless strategic, efficient recycling and/or reuse programs are implemented. There are also direct health impacts on the local environment from inappropriate waste disposal which can pollute waterways and soils, impact on sensitive vegetation communities and interfere with native fauna.

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

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

The Municipal Services unit of NPWS provides a winter waste collection system for lodges in Perisher Valley and Smiggins Hole. Depending on the Lodge's size, waste is collected either daily or twice weekly, although during busy periods additional collections are available upon request. Guthega lodges and all lodges operating outside of the snow season are required to transport their waste to bins at the waste transfer station in Perisher Valley or in the Guthega carpark.

Each lodge should provide the appropriate facilities to guests and staff to utilise the 4 streams of waste and recycling:

- garbage
- bottles, cans and plastics
- paper and cardboard
- cooking oil (call for collection).

NPWS does not collect solid waste such as furniture, ski gear, white goods and building wastes. This waste should be taken directly to the Jindabyne Landfill by the lessees.

Waste must be stored for collection in a secure waste receptacle to prevent instances of wildlife intrusion and impacts on visual amenity. Lodges may use a waste box, a waste hut, a waste room, a NPWS issued wheelie bin (as an interim measure), or a bin

on a trailer (as agreed with NPWS).

Within the secured receptacle, waste must be stored as follows:



Waste Stream	Acceptable Storage	Unacceptable Storage
Garbage	<ul style="list-style-type: none"> Heavy duty black or green garbage bags 	<ul style="list-style-type: none"> Smaller bags (eg supermarket) Loose waste will not be collected
Bottles, Cans & Plastics	<ul style="list-style-type: none"> NPWS issued clear plastic bags 	<ul style="list-style-type: none"> Loose recyclables will not be collected
Paper & Cardboard	<ul style="list-style-type: none"> NPWS issued white woven bags NPWS issued clear plastic bags Flattened and stored within another box or tied together 	<ul style="list-style-type: none"> Loose paper and cardboard Unsecured flattened boxes
Cooking Oil	<ul style="list-style-type: none"> Stored and sealed in original container 	<ul style="list-style-type: none"> If not in original container, oil will not be collected (eg juice bottle or ice cream container).

If your lodge does not have adequate storage or you have any questions please contact the NPWS Perisher Office (02) 6457 4444 or perisher@environment.nsw.gov.au

The NPWS Waste Collection Brochure is provided in the supporting documents directory for more information along with the NPWS Waste Collection “One Pager” that you may display for staff use.

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

The best way to reduce waste generation is to monitor how much waste leaves the system and prioritising areas where you can improve. There is a table provided in the RECORD KEEPING directory to help you track the amount of waste your lodge generates and how much material is recycled, you may also produce a tally sheet of your own that suits the circumstances of your lodge.

EMS Requirement — *Refuse, Reduce, Reuse and Recycle.*

Most people are only aware of how products serve them daily or momentarily, however each and every product has a life cycle that should be considered. Every product requires a substantial amount of natural resources (wood, metals, petroleum, minerals, etc) and energy (coal, petroleum, renewable, etc) to be made, packaged, stored and translocated before it even reaches the hands of the consumer. After the product is used, it will be disposed of. This is where the Waste Hierarchy comes in. By refusing, reducing, and reusing products we are limiting how many natural resources are required to make new products that serve the same purpose of existing products. By recycling products, we remove the need to extract more natural resources from the earth, we reduce energy consumption by 90% by not having to process and

manufacture raw materials, and we reduce how much waste is sent to landfills. Your lodge should consider alternative waste management strategies that are even more desirable than just recycling and waste disposal.

The Waste Hierarchy classifies waste management strategies according to their desirability:

- **Refuse** - Refuse using products that cannot be reused/recycled and Rethink a design that will be waste-free (e.g. use computers/tablets instead of paper documents, reading magazines/newspapers/books online or using bio-degradable products where available, i.e. packaging and take-away containers)
- **Reduce** - Reduce the amount of individual products used or accessory products (e.g. print double-sided or buy in bulk to reduce packaging waste)
- **Reuse** - Reuse products multiple times before sending them to recycling facilities or landfills (e.g. reusing the same water bottle, using scrap paper instead of throwing it away or collaborating with person(s) to use your old cooking oil for bio-diesel)
- **Recycle** - Recycle products only after they have been exhausted of all other strategies (although recycling is less energy intensive than manufacturing new products, it still uses 100% more energy than reducing or reusing products)
- **Disposal** - The very last option. You may be more environmentally friendly with this option by purchasing bio-degradable products that will not leach chemicals into waterways or soils near landfills and in the case that this waste does not reach a proper waste facility it will break down naturally and will not harm native wildlife.

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 office (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, 4100 kWh 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 7.5 kg 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
- 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.

USEFUL WEBSITES

- www.recyclingnearyou.com.au – A Planet Ark initiative that allows you to search for various recycling opportunities in your area.



Supporting Documents – Natural Resources

The following documents are available in the 'supporting documents' directory on the PRREMS USB stick:

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

Chapter 5

Cultural Heritage and Amenity



*European
Heritage*

*Aboriginal
Heritage*

Amenity

Chapter 5

Cultural Heritage and Amenity

Objectives

To conserve and promote the cultural heritage values of the alpine resort areas.

To conserve and enhance the existing amenity of the alpine resorts.

Targets

- ✓ *To have 75% of lodges educating guests and staff about Perisher Range Resorts cultural heritage values.*
- ✓ *To have all lodge lease areas free of excess building material, equipment, garbage, weeds and other items that negatively affect scenic values.*

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.*

Perisher Range is the home of many places of local and regional cultural significance. It is important that your Lodge is aware of how it fits within the scheme of the development of the Perisher Range Resorts. It is worth protecting each club or lodge's sense of identity. This can be done by recording and maintaining information on:

- the founding members and the evolution of the club
- the siting of the building
- the development process and duration of construction
- any unique structures or building techniques
- any club activities or events throughout the preceding years.

The history of each lodge is unlike any other and each one in their own way have contributed to the social fabric of the PRR as it is today. "It is significant that the early commercial development of the resorts was undertaken by individuals whose interests lay in skiing as recreation and/or employment. In this respect the commercial aspect of the history of the resorts is perhaps subordinate to the need for increased recreational opportunities" - Ski Resorts Heritage Study 1998.

If you are not already aware of the heritage values of your lodge, you should undertake to gather this information and reference it for your own records and publications. Primary sources such as journals, oral stories, pictures or personal belongings provide great historical information and accounts for your lodge's education program as well as items for display. Blue prints for your lodge can be great for your understanding of the unique structure and/or appearance of your building within the landscape and the neighbourhood as well as identifying areas of the lodge that may need upgrading while maintaining the historical significance of the building. You may also like to contact the Perisher Historical Society (PHS) for further information and publications or NPWS to view a copy of the 1998 'Ski Resorts

Heritage Study for the Snowy Mountains Region' and John Davis' 'A History of the Early Development of Perisher-Smiggin', both include historical data, personal accounts and cultural heritage values for each lodge.

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 will take into consideration the proposed impacts on heritage values.

MORE INFORMATION

- In 1951, Harry Black founded the Y.M.C.A. Ski Club of Canberra after a 21 person trip was possible thanks to an old bus.
- The Snow Revellers Club Lodge started the first ski school in Perisher Valley with Graham Chalker of Cooma as the first ski instructor.
- Edelweiss Lodge was the first place in Perisher to be built by a licensed builder and not by voluntary club members (1957). The lodge was a showpiece in beauty and function and was regarded as a 'private lodge'. The founder and President, Ken (K.G.) Murray, was destined to carry out the major early development of Perisher Valley including lodges, T-Bars and Lifts.
- Commercial development began in Smiggins in 1959 when James Wallace (Holdings) Ltd, a building firm in Sydney, was granted exclusive rights to the area. He built Cresta Lodge, a ski club, Alpine Gate and 11 new T-Bars.
- The Perisher Historical Society has 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 along with the story of the organisation's launch in the supporting documents on your USB stick. You may find further information online at www.perisherhistoricalsociety.org.au. There are currently 87 members, 19 of which are club lodges.

Aboriginal Heritage



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

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

These mountains are a place of great spiritual significance to many Aboriginal people. For thousands of years, they came from all directions to take part in ceremonies and to learn of their ancestors' stories about the spirit world, living and using, maintaining and protecting everything in the landscape. Everything in the landscape is connected through a name, song, dance, ceremony and story. Storylines from various parts of Australia interconnect here so it is important to many Aboriginal groups, however they rarely visit the highest peaks as those are closest to the stars, where the spirits dance.

There are lots of artefacts and sites around the National Park that hold special significance to Aboriginal people either for spiritual reasons or for cultural and historical reasons. It is important that any finding of an artefact or site within the park is reported to NPWS. It is also important that no artefacts or sites are taken into possession, removed, defaced or destroyed because it takes away from the cultural values of the area and are protected under the NSW National Parks and Wildlife Act 1979.

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

In 2011, Australia celebrated its 150th Anniversary of Alpine Skiing. Kiandra is considered the worldwide birth place of down-hill skiing. It was here in the summer of 1860 that Norwegian miners at Kiandra's gold fields manufactured the first version of skis out of their native 2 metre long snow shoes to use with a round-ended pole for the coming winter. It was on this type of ski and on our mountains in 1908 that the land down-under hosted the world's first documented International Snow Shoe Carnival, sixteen years before the first Winter Olympics. America won the event, but Australia was a close second. By 1910, with better roads and accommodation people from around the world came to Australian slopes bringing with them improved skiing techniques and superior equipment.

Your lodge education program should consider issues, such as:

- NPWS provides a range of educational materials and interpretation services for visitors on the natural and cultural heritage values of Kosciuszko National Park. This information is available from the NPWS offices in Perisher, Jindabyne and the Sawpit Creek Education Centre.
- The genesis of Perisher Range Resorts and people/developers involved
- Information about Aboriginal and European history in the Park
- 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).
- 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.

Amenity



Perisher Range Resorts has a Master Plan that sets visual and noise guidelines and development controls to highlight the scenic quality and unique character of Kosciuszko National Park. Any degradation to the visual or aural amenity of the Perisher Resorts may have an environmental impact and/or a social impact on visitors.

Environmental Risk — *Degradation of the 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.*

Your lease agreement contains many clauses that relate to the visual amenity of your lease area. These include but are not limited to:

- proper out of site storage of equipment
- proper disposal of retired equipment or maintenance in a closed workshop
- vegetation management including weeds exotic grasses and restoration of disturbed areas
- litter and construction/building waste

In addition the Perisher Range Resorts Master Plan sets guidelines and development controls for visual and aural aesthetics. Any upgrades to your lodge will require consent from the Department of Planning.

EMS Requirement — *Minimise noise by using vehicles efficiently and within normal daily business hours.*

You can help maintain the aural amenity of the Perisher Range Resorts by ensuring that any machinery used complies with NSW Industrial Noise Policy (2000) and Environmental Criteria for Road Traffic Noise (1999).

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

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



Supporting documents – Cultural Heritage and Amenity

The following documents are available in the 'supporting documents' directory on the PRREMS USB stick:

- 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 the recreational opportunities and facilities of the alpine resorts are provided and managed sustainably.

Target

- ✓ *To have all staff EMS awareness trained.*
- ✓ *To have all organisations with a fully implemented EMS for their operations within Perisher Range Resorts.*
- ✓ *To have all lodge committees annually reviewing and discussing their environmental risks.*

Tourism is the biggest industry in the NSW Snowy Mountains. The economic and social benefits of tourism in the region have been well documented. 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
- Working with nearby lodge(s) in collecting freight to minimise oversnow transport
- 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 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.*

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 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 with your lodge committee/board members. 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. Managing your environmental risks will help you manage your lodge's liability in case of an incident.

EMS Requirement — *Maintain records required for the PPREMS including records of communications on environmental issues relating to your lodge.*

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.

NPWS has provided this PRREMS USB stick complete with a Lodge Environmental Manual, supporting documents, reference materials, contacts and useful spreadsheets to help you with your lodge's record keeping.

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:
 - 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.

NPWS also run Discovery walks, talks and tours which provide a fantastic insight into the unexpected delights of national parks. Developed and led by specialist Discovery rangers, these fun activities will teach you more about the local environment and about the history of the area. There are a wide range of Discovery activities, including:

- Spotlight walks, to uncover the hidden world of nocturnal wildlife
- Summer and Springtime wildflower walks, led by local experts who know all the best spots and
- Walks through ancient landscapes to discover more about our amazing geological environment

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. Copies can be obtained from NPWS or viewed on-line at www.environment.nsw.gov.au/alpineresorts.

FURTHER INFORMATION

- In addition to the information available regarding Kosciuszko National Park, 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.
- 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 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.

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 as part of their induction process and participate in your lodge education program throughout their employment. Contact the NPWS if you require further advice or assistance in developing and delivering this training.

Different staff may require more detailed training depending upon their position - within your lodge. These may include:

- **Weed Management** - weed identification, weed removal methods, and adequate knowledge of pesticide use and storage.
- **Chemical Storage** - knowing the proper location(s) for chemicals, keeping all containers air-tight and properly labelled, location and use of Spill Kit, replenishing the supplies of the Spill Kit after each use, and the locations of the PRREMS Incident Procedure and Emergency Contact Numbers.
- **Cleaning your Flue/Chimney** - to reduce residue buildup, fire hazards, and improper ventilation leading to inefficient fires or smoke not escaping the lodge.
- **Purchasing green products** - (e.g. cleaning solutions, recycled paper, rechargeable batteries, etc) and products in bulk to reduce the amount of waste generated from packaging and encourage products to be reused before being recycled.
- **Waste Disposal & Recycling** - staff need to know and follow the preferred methods of NPWS Municipal Service Waste Collection Service while providing and placing the appropriate recycling facilities around the lodge for guests and staff to use.
- **Vehicle Servicing** - regular servicing and maintenance of vehicles and skidoos, identifying problems with machinery by sound, smell or sight, servicing the vehicle in

an appropriate location with chemical entrapment containers, bunding and cloths (or Spill Kits).

- **Fuel Tank Filling Procedures** - proper method for filling and checking fuel tanks to avoid spills and to check for leaks, effective seals and bunding as well as accurate and consistent documentation of filling periods.
- **Incident Response** - adequate knowledge and competency to identify and then control/contain a spill, clean up thoroughly, communicate/report to manager, NPWS and other necessary contacts, refill Spill Kit of used items and prevent future spills.
- **Document Management** - Retaining all necessary documents from previous years and current ongoing processes as required for a business (Legal Register) and as part of Perisher Range Resorts (PRREMS documents).
- **Environmental Auditing** - Annually reviewing environmental risks and looking for other areas of concern for potential improvement in environmental performance. Staff should know where to keep and obtain records for reviewing.

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.
- Provide a joint training program with another lodge.
- 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. From a legal perspective, your lodge will need all documentation relating to training of staff (paid or non-paid), suppliers or subcontractors to fulfill workers' compensation requirements and avoid liabilities. Environmental Awareness and Incident Procedure training will minimise your risk of liability in case of an accident and proper documentation will prove that.



Supporting documents – Sustainable Tourism

The following documents are available in the 'supporting documents' directory on the PRREMS USB stick:

- PRREMS Lodge Legal Register
- PRREMS Environmental Policy.

Websites and contacts

PRREMS Websites:




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

NPWS Contacts:

National Parks and Wildlife Service (Environmental Services Unit)

Megan Bennett <i>Manager</i> 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
Mel Schroder <i>Environmental Monitoring Officer</i> PO Box 2228, Jindabyne NSW 2627	 (02) 6450 5611  (02) 6450 5630  mel.schroder@environment.nsw.gov.au

National Parks and Wildlife Service (Municipal Services Unit - Perisher)

NPWS Municipal Services Unit (MSU)	 (02) 6457 4444
Perisher Office (24 hour Emergency Line)	 1800 629 104
	 perisher@environment.nsw.gov.au

Pollution Incident:

Pollution Hotline (EPA)  13 15 55

Other Contacts:

Perisher Resorts Chamber of Commerce (PRCoC)

Belinda Shore

President

PO Box 28, Perisher Valley NSW 2624

☎ (02) 6457 5375

✉ stay@smiggins.com.au

Ski Lodges Organisation of Perisher, Smiggins and Guthega (SLOPES)

Frank Zipfinger

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Perisher Blue Pty Limited

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NSW Department of Planning (DoP)

Daniel James

PO Box 36, Jindabyne NSW 2627

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Injured Wildlife

Looking after our Kosciuszko Orphans
(LAOKO)

☎ (02) 6456 1313