

APPENDIX D

SITE ENVIRONMENTAL MANAGEMENT PLAN



Site Environmental Management Plan

Kosciuszko Flow Track Upgrades Thredbo Alpine Resort

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Soil and Water Management Plan

Record of Complaint

Weekly Inspection Report

1 INTRODUCTION

1.1 Background

This Site Environmental Management Plan (SEMP) has been prepared upgrade of the Kosciuszko Flow Trail, the Thredbo Alpine Resort.

The purpose of this updated plan is to provide detail of the management of the construction process in order to protect the existing environment in and adjacent to the proposed works.

1.1.1 Project Description

A detailed description of the development proposal is included within section 3 of the *Statement of Environment Effects* that this report forms an Appendix too.

1.2 Objective

The objectives of this SEM are to provide a platform:

- (a) That identifies environmental objectives;
- (b) That details environmental management guidelines and procedures, and ensures that Kosciuszko Thredbo Pty Ltd ('KT'), and the construction contractor are aware of these procedures, who is responsible for implementing and maintaining the required safeguards; and
- (c) That provides guidelines for incidents and emergencies.

1.3 Legislative/statutory requirements

The activity must comply with the following legislation/standards:

- Environmental Planning and Assessment Act 1979,
- Threatened Species Conservation Act 1995
- National Parks and Wildlife Act 1974,
- Building Code of Australia,
- Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)
- Protection of the Environmental Operation Act 1997,
- Water Management Act 2000,
- Environmentally Hazardous Chemical Act 1985,
- Soil Conservation Act 1938.

2 SITE ENVIRONMENTAL MANAGEMENT PLAN

2.1 Environmental Objectives

The Environmental Management Objectives of this SEM are as follows:

2.1.1 Soils, geology and geomorphology

- Minimise the potential for soil erosion of the proposed works so as not to impact on the surrounding landscape and hydrological features.

2.1.2 Hydrology and water quality

- Minimise the risk of potential pollution during and following excavation of Creeks.
- Minimise the potential for sediment transport from the site.

2.1.3 Flora

- Minimise potential impacts to native vegetation.
- Rehabilitate with appropriate indigenous and exotic species.

2.1.4 Fauna

- Minimise direct impacts to native fauna and habitat.
- Restore habitat values as quickly as possible following the works.

2.1.5 Social and economic impacts

- Ensure that works conform with the Environment Protection Authority's construction noise criteria.
- Obtain community and visitor understanding of the project to maximise tolerance associated with disruption.

2.1.6 Archaeology

- To minimise impacts on places and artefacts of archaeological and aboriginal cultural significance, consistent with obligations under section 90 of the NPW Act.

2.1.7 Resource impacts

- Minimise waste from the construction site and recycle waste where possible.
- Minimise risk of chemical spills.
- Ensure prompt and effective clean up of any accidental spills.

2.1.8 Visual and scenic

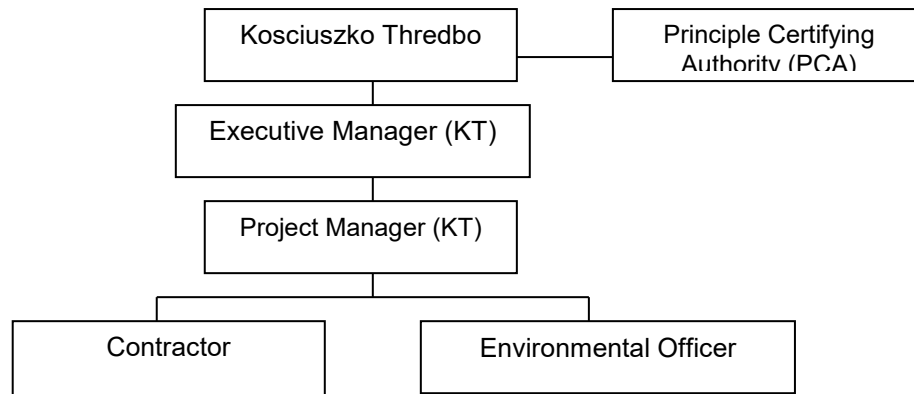
- Minimise visual impact of works during and following construction.

3 MANAGEMENT

3.1 Project Organisational Arrangement

The proposal is funded by Kosciuszko Thredbo Pty Ltd, who will manage its construction, and maintain its operation.

3.1.1 Project Team Structure



3.2 Roles and Responsibilities

The Roles and Responsibilities for each team member is outlined below in conjunction with the Inspection and Monitoring Plan, required under condition C.3.

3.2.1 Executive Manager

- Defines environmental responsibilities within the project,
- Develops, implements and maintains this SEMP,
- Supervises implementation of training/induction,
- Ensures records are kept,
- Ensures environmental requirements are incorporated into the contract document,
- Ensures the requirements of the SEMP are implemented, and
- Arranges audits/reviews of the SEMP at appropriate stages.

3.2.2 Project Manager

- Is familiar with contents of this SEMP,
- Ensuring that all personnel including contractors/sub-contractors comply with the SEMP requirements relevant to their scope of work.

3.2.3 Contractors

- Implement and maintain SEMP relevant to work being undertaken, and
- Report on compliance as required (Environmental safeguards Action Chart).

3.2.4 Environmental Officer

- Is familiar with the contents of this SEMP
- Is familiar with contractors Environmental Management Plan
- Observes and monitors contractors compliance on a daily basis,

- Reports on compliance with this SEMP and Contractors SEMP, and
- May participate in construction audits.

3.3 Training

All KT staff involved with works, and the contractor would be made aware of the relevant requirements of this SEMP. Training would be initiated by site induction. KT is responsible for the site training of all of their employees, and nominated representatives of the contractor. The contractor is responsible for site induction and training of their staff.

Site induction of KT supervisory staff would include:

- i) Environmental awareness, including relevant KT policy, the concept of due diligence, and other relevant codes of practice;
- ii) Environmental issues including:
 - The SEMP,
 - Relevant legislation/licence/approvals,
 - Emergency preparedness/procedures,
 - Incident reporting,
 - Community consultation, and
 - Site environmental procedures

3.4 Communication

The communication strategy would mirror the contractual responsibilities illustrated in section 3.2

3.4.1 Stakeholder Consultation

Key stakeholder consultation would occur with DPE and NPWS.

3.5 Environmental Control Plans

A Soil and Water Management plan has been prepared and provided in Attachment 2.

3.6 Construction

3.6.1 Demolition Works

All demolition work shall comply with *AS 2601 The demolition of structures*.

3.6.2 Noise, Vibration and Dust

Construction will take place during off-peak visitation periods unless agreed otherwise with DPE, NPWS and KT. The works will take place across the ski slopes away from any tourist accommodation.

All vehicles carrying spoil, rubble or vegetation debris to or from the site shall at all times be covered to prevent the escape of dust or other material, with covers to be adequately secured and roadways and footpaths to be kept clean.

3.6.3 Waste Management

All builders' waste and rubbish is to be contained within covered receptacles to prevent litter being blown about the site. All waste will be dealt with according to the Thredbo Village waste management strategy.

3.6.4 Traffic Management and Access

As KT is both the applicant and head lessee, KT will manage all traffic and access as they do on a daily basis with regard to any development within the village.

3.6.5 Pedestrian and bike rider management

As KT is both the applicant, constructor, head lessee and now manager of all mountain bike operations, bike riders and pedestrian using trails will be managed by use of signage, partial closure of trails and exclusion from the construction zone.

3.6.6 Emergency/Incident Procedures/Fuel and Chemical Spills

Any emergency/incident procedure will follow the document, Construction Site Incident and Emergency Procedures Thredbo Village, September 2006, that includes reference to spill procedures and emergency and incident responses, including "call the mountain/general manager and 000 for Fire Brigade response". The Thredbo brigade has HAZMAT response capabilities, and the village department has spill kits at every village facility (ie pump stations, golf course sheds etc) and a 240-litre bin spill kit available for response.

It would also be a requirement that the contractor has an emergency/incident procedure plan that includes an oil spill response plan. The contractors are responsible for responding to any environmental emergency, including contacting appropriate authorities (KT, NPWS etc). These procedures are detailed in the "Kosciuszko Thredbo Pty Ltd Safety Procedure" document.

3.6.7 Amenities

Toilet facilities are provided at Eagles Nest or at the Valley Terminal.

3.6.8 Wet/Adverse Weather Contingencies

Wet and Adverse Weather (inc high winds) will be monitored daily as is currently the situation with the resort operating at least one chairlift 365 days per year. This will rely on standard weather forecasting (ie. BOM) plus weather readings from the Thredbo Top Station weather station.

In the event of wet weather, defined when the ground is sufficiently soaked that safe or efficient construction is not possible, construction will be stopped until the weather clears and the ground is sufficiently dry to commence construction. Standard construction management practices for extreme weather events will be evoked prior to and during adverse weather (inc tie downs, covers, etc).

The Project Manager in consultation with the Environmental Officer and the Contractor will determine what constitutes wet weather, when construction will cease and under what conditions construction will commence.

Attachment 1

Soil and Water Management Plan

Soil and Water Management Plan

Erosion and Sedimentation Control

Appropriate environmental management controls will be required to manage soil and surface water during the construction of the development. Temporary controls will include either a straw bale filter, installed as illustrated Diagram A or a sediment fence in accordance with Diagram B below.

Diagram A: Standard Straw Bale Filter Installation

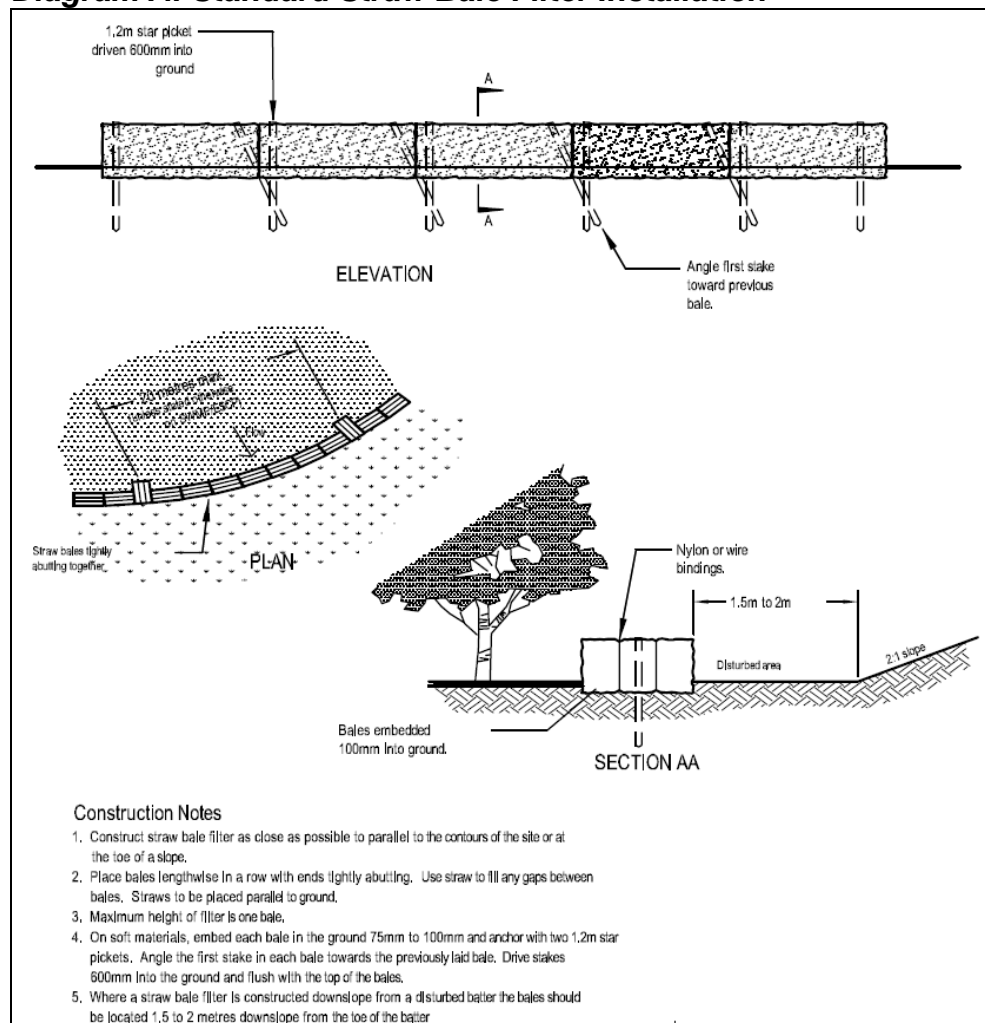
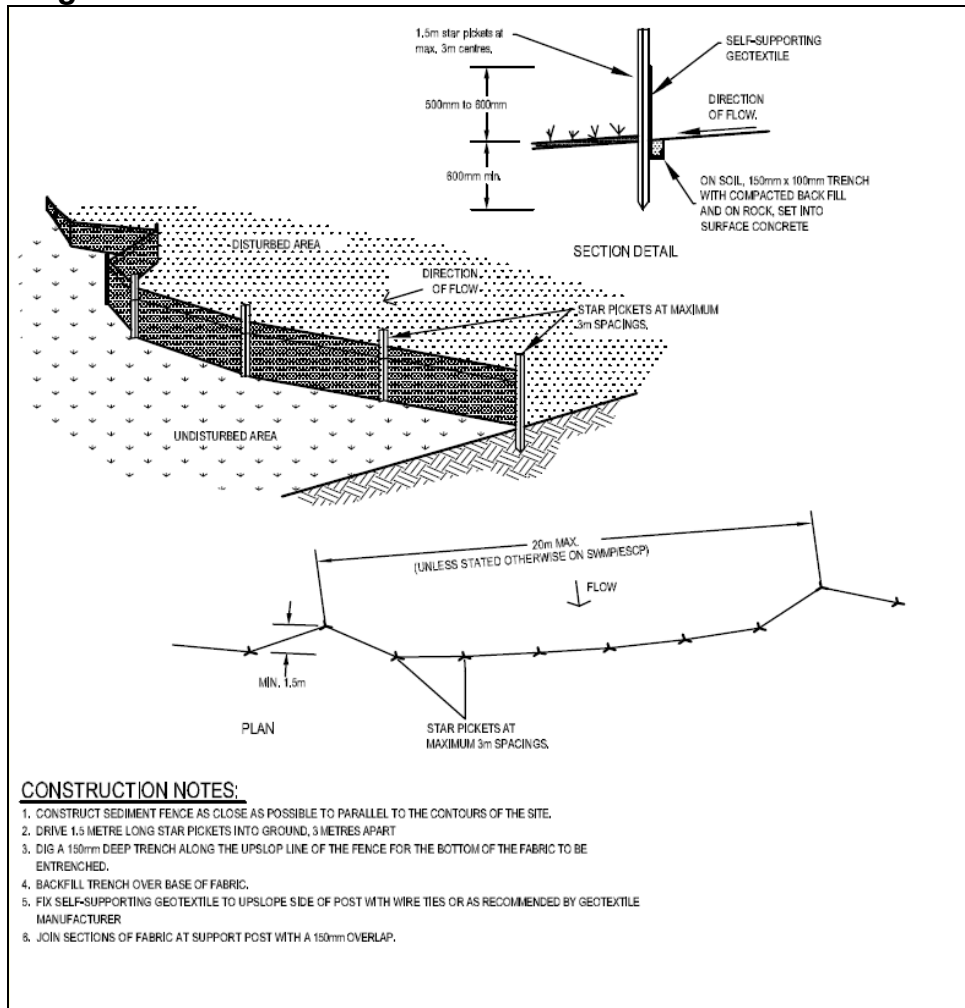


Diagram B: Standard Sediment Fence Installation



Due to the linear nature of the trail construction, and that the trail tread will not be rehabilitated (in other words will be left with a natural soil surface), erosion and sediment controls are not required along the length of the trail construction.

This is particularly relevant as the trails themselves will be designed and constructed to effectively manage water in a sustainable way, in accordance with IMBA Guidelines for sustainable trail construction.

Therefore erosion and sediment controls are only necessary in areas where stockpiles are located and/or areas where construction is occurring in and around watercourses.

Therefore the following suite of criteria is to be applied:

- Areas where soil is to be stockpiled is to be surrounded by sediment control fencing and protected from runoff water.
- Works will not take place during rainfall periods.
- To prevent sediment entering any watercourse, a sediment fence is to be located on downslope side of the footing excavations required for any platforms, structures or bridge upgrade works in accordance with Diagram B above.

Monitoring:

The nominated project Environmental Officer will be responsible for ensuring that all the erosion and sedimentation controls are installed in accordance with the above criteria and are regularly maintained and monitored.

Protection of Native Vegetation & Fauna

In accordance with the Fauna and Flora Assessment provided in Appendix C of the SEE, the following vegetation and habitat management strategies are required to be followed:

Vegetation and habitat management

1. All disturbance should be kept to the minimum required to achieve the proposal. In particular, excavation and any vegetation removal should be undertaken so as to minimize damage to surrounding vegetation and associated habitats.
2. As far as is possible, excavation and other activities should be undertaken from existing disturbed areas or within the proposed traverse footprint, so as to not extend the disturbance footprint beyond the proposed traverse.
3. Appropriate safeguards should be in place during the proposed works to limit the potential for invasive plants or pathogens, chemicals or any other pollutants to enter the environment in association with the action proposed.

Sediment control

4. Appropriate sediment control measures should be implemented prior to any construction work for the proposal and retained in place until exposed areas of soil or vegetation are stabilised and/or revegetated.

Rehabilitation

5. Rehabilitation activities should be consistent with the resort areas rehabilitation guidelines (NGH Environmental 2007).

Attachment 2

Record of Complaint

Record of Complaint, Kosciuszko Thredbo Pty Ltd

For the recording of a complaint or incident (both verbal and written complaints).

Time and Date complaint received:

Reference number:

Name of representative who witnessed complaint:

Name and contact details of complainant:

Nature of complaint:.....
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Action taken in response to complaint:.....
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Attachment 3

Weekly Inspection Report



ENVIRONMENTAL SERVICES WEEKLY INSPECTION REPORT

Sheet ____ of ____

Project: _____
SITE ENVIRONMENT MANAGEMENT PLAN

Inspection Date: _____

Inspected by: _____

Weather:	Morning		Afternoon	
	Clear/Overcast	Fine/Rain/Snow	Clear/Overcast	Fine/Rain/Snow
Operation	Condition	Plant/Labour	Comments	
Silt Fence				
Hay Bale retention ponds				
Hay Bale sediment protection				
Stormwater Pit protection				
Cyclone Fence (including gates)				
Paraweb Fence				
Site Signage				
Toilet Block				
Paint Washout facility				
Vehicle Washdown				
Waste Skips				
Tree Protection				
Verbal Discussion with Contractor:		Verbal discussion with others:		
Materials Received / Required:		Site Instructions Issued:		
Inspectors Report / Summary:		Action required:		
Signature: _____ Date: _____				