Site Environmental Management Plan (SEMP)

Lower All Mountain MTB Trail Diversion

Thredbo Alpine Resort
Kosciuszko National Park, NSW

September 2022

Lower All Mountain MTB Trail Diversion

Site Environmental Management Plan (SEMP)

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Document Control

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2	12.09.2022	Updates to terminology as per NPWS comment	C.Chalk	P.Fleming

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1 Introduction

This Site Environmental Management Plan (SEMP) has been prepared for implementation by Kosciuszko Thredbo Pty Ltd (KT) (and its contractors) for the Lower All Mountain MTB Trail Diversion (the Project).

KT requires a SEMP to support the Development Application (DA) for the Project, situated in Thredbo Alpine Resort (Thredbo), approximately 35 kilometres (km) south-west of Jindabyne, New South Wales.

1.1 Purpose

This SEMP has been developed to outline how construction processes for the Project are to be managed in order to maintain and protect the environmental values of the Project site and surrounds.

1.2 Objective

The objectives of this SEMP are to:

- Provide mitigation measures to minimise the potential for environmental harm and/or environmental nuisance;
- Provide guidance for the development of detailed construction environmental management plans;
- Ensure all Project Personnel understand individual roles and responsibilities;
- Provide corrective actions to be implemented in the event of environmental harm and/or environmental nuisance; and
- Ensure Project personnel understand incident and emergency response procedures.

1.3 Environmental and Social Sustainability Policy

All activities undertaken by KT will be in accordance with the Company's *Environmental and Social Sustainability Policy 2021* (KT083).

1.4 Applicable Legislation

The Project will be carried out in accordance with the applicable legislative requirements outlined in the following Acts and subordinate legislation:

- *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)*;
- *Biodiversity Conservation Act 2016*;
- *Environmental Planning and Assessment Act 1979*;
- *Environmentally Hazardous Chemicals Act 1985*;
- *Heritage Act 1977*;
- *National Parks and Wildlife Act 1974*;
- *Protection of the Environment Operations Act 1997*;
- *Waste Avoidance and Resource Recovery Act 2001;*
- *Water Management Act 2000;* and
- *Work Health and Safety Act 2011.*

2 Project Description

The Project will comprise the construction of an intermediate mountain bike trail which forms part of the existing All Mountain trail.

The Trail commences off the existing All Mountain trail to the east of the Gunbarrel Chairlift top station and terminates approximately 0.5 km downhill when it links back onto the existing All Mountain trail.

The Trail will be a rolling contour trail with rollers, small jumps, drops and several berms. It will be similar to the Upper N4 style with an increased degree in difficulty for the features.

2.1 Project Location

The Project site is located within the Cruiser ski area (predominately within Valley View and Ballroom runs). Refer **Appendix B** for site plan.

2.2 Site Description

The Project site is predominately disturbed ski runs, with some areas of undisturbed native vegetation islands.

2.3 Construction Detail and Activities

A summary of the construction program and activities is provided in **Table 1**.

Table 1: Construction Detail and Activities

Aspect	Details
Site Access	During construction, the site access will be via the Mountain access road.
Construction Corridor	A 20 m wide corridor is required to provide flexibility for the trail builders to respond to any unforeseen construction constraints.

Construction Program and Activities	Pre-construction activities will comprise:
	• establishment of site boundary;
	• marking significant vegetation to be retained and no-go zones;
	• erection of site signage and traffic controls;
	• flagging exact trail alignment using pin flags to mark the edges of the trail for construction;
	• a survey for *Ranunculus anemoneus* (Anemone Buttercup) is to be undertaken during the trail alignment/flagging stage; and
	• mobilisation of machinery, equipment and construction materials to site.
	
	Construction activities will comprise the following:
	• vegetation clearing (50 m increments) within the trail corridor to expose bare earth
	  ○ excess cut vegetation to be spread into the surrounding heath and used for rehabilitation of exposed soil on the trail edges
	  ○ topsoil and vegetation sods are to be stockpiled close to the trail tread;
	• cut into the slope using a mini excavator and excavate the soil to achieve the appropriate depth of bench;
	• remove loose rocks, roots and compact the trail;
	• back slope the batter, ensuring outslope and appropriate drainage;
	• define the trail line using rocks, logs and other obstacles; and
	• re-instate the verge areas, topsoil and preserved vegetation sods.
	
	Post-construction activities will comprise:
	• rehabilitation in accordance with the Rehabilitation Management Plan;
	• demobilisation of plant and machinery; and
	• site clean-up.

Machinery, Plant and Equipment	Construction vehicles and plant will include (but not limited to): • Mini excavator; • Motorised wheelbarrows; • Quad bikes; • Dump trucks (to and from stockpile sites); • 4WD vehicles; • Side-by-side vehicles; and • Handtools (i.e. chainsaws and brush-cutters).
Stockpile Sites	Temporary stockpiles will be required along the trail alignment for the effective management of gravel, soil and vegetation. These stockpiles will be located within pre-disturbed areas, on relatively flat land, away from watercourses and avoid native vegetation. Excess materials from construction will be located within the main stockpile area within the resort (**Appendix B**). Access to these locations will be restricted to KT staff and contractors. Soil stockpiles will be managed in accordance with the *Soil Stockpile Guidelines for the Resort Areas of Kosciuszko National Park, version 1.0* (OEH 2017) (Soil Stockpile Guidelines) and SEMP (**Appendix C**).
Site Facilities and Compound	There will be no site compound within the construction corridor. Amenities will be available at the Merritts Mountain House.
Construction timing	Construction of the Project is anticipated to commence during the summer of 2022/23, and will take approximately 6 weeks to complete. The trail construction works must cease by 30 April, with rehabilitation and stabilisation works able to continue until 30 May. Construction must not commence when snow is located on the trail corridor and machinery must not be used to remove snow from areas containing native vegetation.
Working Hours	The working hours for construction will be stipulated in the conditions of consent.

2.4 Imported materials and stabilising agents

- NPWS requests that its authorisation is sought where it is proposed to utilise either of the following in construction or maintenance of the trail:
    - Imported gravel or fill material; or
    - soil stabilising or adhesive agents.
- KT staff (and its contractors) may obtain imported gravel or fill material from sources already assessed by NPWS as appropriate for use in KNP, being gravel or fill material from:
    - the McMahons Earthmoving quarry, located on Alpine Way, Crackenback NSW; or
    - the Kraft Earthmoving / Snowy Mountains Sand and Gravel quarry located on Kosciuszko Road, Jindabyne NSW.

3 Environmental Management

3.1 Environmental Management Structure and Responsibility

3.1.1 Project Team Structure

The Project team structure is provided in **Figure 1**.

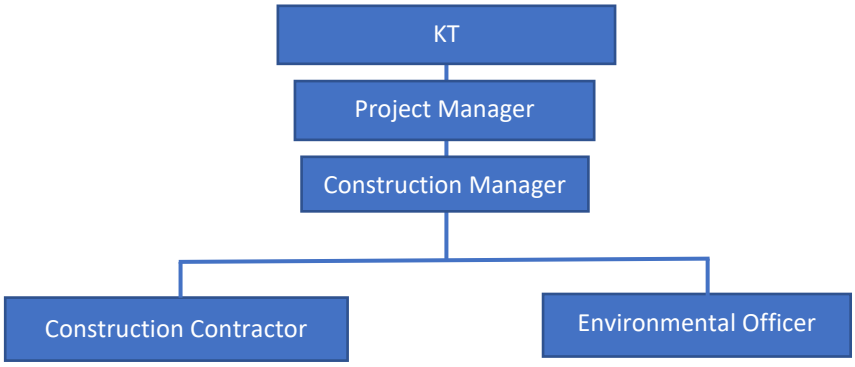


Figure 1: Project Team Structure

3.1.2 Roles and Responsibilities

The roles and responsibilities are outlined in **Table 2**.

Table 2: Roles and Responsibilities

Role	Responsibilities
Project Manager	• Ensure the SEMP is made available, communicated, maintained and understood by all Project staff; • Responsible for the overall management of the construction and operation of the Project; • Ensure the SEMP is updated with applicable conditions of approval following the provision of Development Consent from DPE; • Ensure that the requirements of the SEMP and sub-plans have been addressed in all contractor environmental management documentation; • Review of incidents, non-conformances and non-compliance; and • Ensuring Project personnel and contractors are adequately trained and qualified to fulfil their roles.
Construction Manager	• Implement and maintain the SEMP; • Ensure all Project personnel comply with the requirements of the SEMP; and • Report any incidents, non-conformances to the Project Manager.

Construction Contractor	• Comply with SEMP and legislative requirements; and • Construction contractor to develop and implement management plans in accordance with this SEMP, conditions of approval and contractual obligations.
Environmental Officer	• Oversee all works which are part of the Project on behalf of KT; • Ensure compliance with all environmental protection measures detailed in the SEMP, supporting management plans and conditions of approval; • Ensure all environmental controls are in place and adequately functioning during construction; and • Conduct construction inspections and complete reporting requirements e.g. progress reports, environmental incidents, non-compliance, corrective action and auditing.
All Personnel	• Comply with requirements of this SEMP; • Report any actual or potential environmental incidents to the Construction Manager immediately; • Identify and report non-conforming or potentially hazardous work practices, equipment, machinery or products; • Only perform tasks for which they are trained and competent; • Assist with environmental incident investigations and applying corrective actions; and • Ensure all machinery, plant and equipment are in good working order and condition prior to use.

3.2 Key Contacts

Key contacts for the Project are provided in **Table 3**. Prior to commencement of works, contact details (name and contact number) will be provided for Project personnel.

Table 3: Key Project Personnel Contact Details

Company / Agency	Role / Reason	Name	Contact
Key Project Personnel			
TBC	Project Manager	TBC	TBC
KT	Environmental Officer	Brent Bourke	TBC
TBC	Construction Manager	TBC	TBC
TBC	Construction Contractor	TBC	TBC
Government Agency Contacts			
DPE (Alpine Resorts Team)	Development approval and compliance	-	(02) 6456 1733
National Parks and Wildlife Service (NPWS)	Flora, fauna, archaeology	-	(02) 6450 5600
Environment Protection Agency (EPA)	Water, noise, air pollution and regulation	-	131 555
NSW Soil Conservation Service	Soil erosion and sediment control	-	02 9842 8300
Thredbo Village Services			
Thredbo Medical Centre	General medical attention	-	(02) 6457 6254
Fire and Rescue Thredbo, NSW	Incident / emergency	-	(02) 6457 6144
Emergency Contacts			
NSW Police	In case of fire, medical or police emergency	-	000
NSW Fire and Rescue		-	
NSW Ambulance		-	

3.3 Communication

KT is committed to ensuring effective communication and consultation is undertaken to inform the development of this SEMP and ensure it is implemented on-site as per the Project roles and responsibilities in **Section 3.1.** Where required, communication with key external stakeholders such as DPE and NPWS will be undertaken. A summary of the key consultation activities is provided in **Table 4**.

Table 4: Summary of Consultation Activities

Consultation Activity	Communication Method	Frequency
Internal	Site inductions	Prior to commencement of works
	Pre-start meetings and toolbox talks	Daily
	Reports to Project Manager identifying project progress, any environmental incidents, and review of any complaints or enquiries	Weekly
External	Face-to-face meetings, phone and email correspondence with relevant Government Departments / Agencies	As required
	In-writing notifications to Government Departments / Agencies and relevant parties	As required

3.3.1 Notification Protocols

A summary of the key notification protocols is provided in **Table 5.** Notification requirements will be updated as required.

Table 5: Regulatory Agency Notification Protocols

Party to Notify	What to Notify	When to Notify	Responsibility to Notify Regulatory Agency
DPE	Commencement of construction	DPE will be notified in writing at least 48 hours prior to the commencement of construction.	Project Manager
NPWS	Details of any material suspected of being a European or Aboriginal culturally significant site, relic or artefact.	Immediately upon discovery of any archaeological/culturally significant site or relic that are encountered. NSW Police to also be notified immediately upon discovery of human remains.	Project Manager
NSW Environmental Protection Agency	Details of pollution incident – who, what, when, where, how, any other supporting information and evidence (e.g. photos)	Immediately upon identification of pollution incident causing or threatening material harm to the environment, in accordance with ***KT's Construction site Incident and Emergency Procedures Thredbo Village 2021/2022***.	KT Environmental Manager

3.4 Competence and Training

All Project staff will be made aware of the site-specific environmental controls through a site induction, and pre-start meetings / toolbox talks prior to the commencement of construction.

The site induction will cover the following key aspects:

- Roles and responsibilities;
- Overview of environmental risks and specific locations of environmental and/or cultural heritage significance;
- The scope of legislative requirements and other licences and approvals;
- Communication and notification requirements e.g. procedures for notifying and reporting incidents and complaints;
- Environmental management and controls stipulated in this SEMP;
- Workplace health and safety issues;
- Emergency preparedness and response; and

- Procedures for notifying and reporting incidents and complaints.

3.5 Environmental Incident and Emergency Response

All Project personnel are required to follow KT's ***Construction site Incident and Emergency Procedures Thredbo Village 2021/2022***. The procedure will be available on-site and all Project staff will be trained on their implementation through the site induction. The procedure classifies examples of emergencies and incidents and provides specific procedures for response to such events, such as:

- Serious injuries requirement urgent medical help;
- There are threats to property or life;
- Criminal activity e.g. you have witnessed a serious crime or accident;
- Sewer or water service breaks;
- Bushfire, building fire, spot fire on-site;
- Electricity service faults;
- Leaking gas;
- Fires and explosions; and
- Release of pollution e.g. release of sediment into watercourse, chemical spill.

The procedure also outlines general site management principles, incident reporting and notification requirements and provides an emergency contacts list.

In the event of an environmental incident, emergency or near-miss, the following steps should be taken:

1) **STOP** works in the area and if safe to do so ensure the safety of personnel within the vicinity;
2) **NOTIFY** relevant persons e.g. emergency services or Construction Manager;
3) **ISOLATE** the risk or hazard e.g. turn off machinery/plant, implement immediate site controls, set up exclusion zone; and
4) **REPORT** and notify relevant persons (e.g. Project Manager, regulatory agencies).

Environmental incident and near-miss reporting requirements are detailed in **Section 7.1**. Contact details for key Project personnel and emergency services are provided in **Table 3**.

External contractors are required to prepare and implement an emergency and incident response procedure. The contractor will be responsible for responding to any environmental emergency caused by any action (or inaction) of the contractor's staff, including notification requirements to external parties such as EPA and Fire, Fire and Rescue NSW.

4 Risk Assessment

To ensure that potential environmental risks are identified and managed, an environmental risk review has been included in **Table 6**. A risk matrix (**Appendix A**) was used to consider the likelihood and consequence of impacts identified in the SEE (KT 2022).

Table 6: Environmental Risk Assessment

Aspect	Activity / Project Phase	Potential Impact	Inherent Risk			Controls	Residual Risk		
			Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
Clearing beyond the approved construction corridor	Vegetating clearing	Non-compliance with conditions of approval.	2	2	Low (4)	Flora and Fauna Management (**Section 5.3**)	2	2	Low (4)
Reduction in native vegetation and fauna habitat as a result of vegetation clearing activities	Vegetating clearing	Loss of native vegetation (0.1 ha), loss of known habitat for Broad-toothed Rat and potential habitat for Alpine She-oak Skink.	3	2	Mod (6)	Flora and Fauna Management (**Section 5.3**)	2	2	Low (4)
Injury/death to fauna as a result of vegetation clearing activities	Vegetation clearing	Loss in population of fauna	2	2	Low (4)	Flora and Fauna Management (**Section 5.3**)	1	2	Low (2)
Release of sediments and soils through disturbance of land	Vegetating clearing; earthworks; stockpiling	Loss of topsoil, reduction in water quality from the release of sediment laden water	2	3	Mod (6)	Soil and Water Management (**Section 5.2**)	2	2	Low (4)
Generation of dust through operation of vehicles and plant	Vegetating clearing; stockpiling; construction activities	The potential impacts on air quality from the works are considered to be low. No sensitive receptors within close proximity of site.	2	2	Low (4)	Air Quality Management (**Section 5.7**)	2	1	Low (2)
Leak or spill of fuel or oil from fuel storage, plant and vehicles	Vegetating clearing; Construction activities	Land and water contamination caused by the release of hydrocarbons.	2	3	Mod (6)	Soil and Water Management (**Section 5.2**)	2	2	Low (4)
Release of noise and/or vibrations through use of heavy/loud plant or equipment	Earthworks; construction activities	Noise and/or vibration nuisance caused through the use of heavy/loud plant or equipment is considered low. No sensitive receptors within close proximity of site.	2	2	Low (4)	Noise and Vibration Management (**Section 5.6**)	2	1	Low (2)
Transport and loading/unloading of goods and materials and equipment and plant operation	All Project phases	Potential noise impacts on sensitive land uses considered low. No sensitive receptors within close proximity of site.	2	2	Low (4)	Noise and Vibration Management (**Section 5.6**)	2	1	Low (2)
Introduction and/or proliferation of weed/pest species from vehicles, plant and materials	All Project phases	Loss of biodiversity.	2	2	Low (4)	Biosecurity Management (**Section 5.4**)	2	1	Low (2)

Excavation works	Vegetation clearing; earthworks	Potential damage or destruction of unknown Aboriginal or European cultural heritage items or sites; loss of cultural heritage values.	2	2	Low (4)	Cultural Heritage Management (**Section 5.9**)	2	1	Low (2)
Storage and disposal of waste	All project phases	Increase in pest numbers; impacts to road users and/or the environmental from vehicles with uncovered waste loads.	2	2	Low (4)	Waste Management (**Section 5.5**)	2	1	Low (2)
Construction vehicles and plants utilising existing road/trail network	All project phases	Inconvenience to existing transport networks/potential traffic impacts from the works are considered to be low.	2	1	Low (2)	Traffic and Transport Management (**Section 5.10**)	1	1	Very low (1)
Rehabilitation of disturbed areas (not part of the final alignment or parks)	During construction; post-construction	Failure of rehabilitation and stabilisation works resulting in increased erosion.	2	3	Mod (6)	Flora and Fauna Management (**Section 5.3**)	2	2	Low (4)

5 Mitigation and Management Measures

To mitigate and manage potential Project impacts identified in the risk review (**Table 6**), the following environmental management activities and controls will be implemented.

A SEMP checklist is provided in **Appendix D** which specifies the timing/frequency for implementation of controls, responsibilities and verification/sign-off. The checklist comprises general environmental management controls and will be updated following the provision of development consent and conditions of approval to ensure all site-specific requirements are met. The checklist should be completed prior to, during and post construction.

5.1 General

The following measures will be implemented:

- Ensure works are conducted by suitably qualified and trained personnel;
- Ensure all site environmental management controls relevant to that stage of work are implemented in accordance with the approved plans and conditions of consent (refer **Appendix D** for controls checklist);
- Provide approved plans and relevant documentation in the site office or other suitable location so that they are easily assessible by all construction staff; and
- Prior to commencement of works, the construction corridor will be temporarily fenced, roped or flagged to clearly delineate the construction area and no-go zones.

5.2 Soil, Water Quality and Stockpile Sites

	Soil, Water Quality and Stockpile Sites Management
Objective	• Minimise potential impacts to receiving water sources; and • Reduce the potential for erosion and sediment moving offsite.
Mitigation Measures	*General protocols* • Where required, implement erosion and sediment controls in **Appendix C**; • Erosion and sediment controls (ESCs) must be regularly checked and maintained, particularly immediately following precipitation events; • All straw bales used for sediment and erosion control or rehabilitation must be weed free; • Construction works should not be undertaken in periods of significant rainfall; • Progressive rehabilitation of disturbed areas should be undertaken in accordance with the *Rehabilitation Guidelines for the Resort Areas of Kosciuszko National Park* (DECC 2007) (Rehabilitation Guidelines); *Stockpile sites* • All stockpiles will be managed in accordance with the Soil Stockpile Guidelines; • Proposed stockpile sites, including materials storage areas, parking and waste management receptors (e.g. skip bins) and storage of soils and sods must not impact on native vegetation. Materials removed during construction must be stockpiled within the designated stockpile areas or areas of cleared vegetation only. • Temporary stockpile sites within the construction corridor will adhere to the following criteria: – Avoid impacts to native vegetation and be located on disturbed areas – Located directly adjacent to the works – Located on relatively flat ground, where possible – Not within 40 m of any watercourse – In areas with sufficient room to accommodate the volume of material being stockpiled – Be surrounded by sediment control fencing and protected from run-off.

	On-ground machinery requirements • On-ground machinery used in vegetation removal and trail construction must adhere to the following: – the tread width of on-ground machinery used in trail construction must not exceed 1500 mm – disturbance/works must be entirely contained within the 3 m disturbance corridor.
Performance Criteria	No significant sediment deposition observed leaving the site.
Corrective Actions	If sediment is observed leaving the site, identify the source and amend the ESCs on-site to ensure appropriate controls are in place. If required, additional ESCs to be installed.

5.3 Flora and Fauna

Flora and Fauna Management	
Objective	• Minimise potential impacts to native flora; • Minimise potential impacts to native fauna, their breeding places and habitat; • Minimise the introduction or proliferation of invasive species; and • Rehabilitate the site as soon as possible following completion of works to restore the habitat.
Mitigation Measures	*Vegetation clearing and rock removal* • Identify with flagging tape the trail alignment where it encroaches upon relatively undisturbed native vegetation, prior to construction (ELA 2022); • Prior to clearing, vegetation should be inspected for fauna and habitat e.g. tree hollows; • The trail alignment should avoid the need to fell large or mature trees (e.g. > 200 mm in diameter); • Mature trees and rocks required to be removed are to be clearly marked; • Removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed (ELA 2022); • The construction works will be confined to the approved construction corridor; • Clearing should remove habitats in stages to allow movement of fauna away from disturbed areas; • Clearing should be undertaken in 50 m sections at a time to reduce the amount of soil exposed • All excess native vegetation to be dispersed on exposed soil along the trail edge, placed on batters and embankments for erosion control or carefully spread further into bushland to avoid smothering of understory vegetation communities; • To the extent reasonably practicable, live tree roots are to be protected (and not removed) within the timbered areas of the trail corridor. This could occur through rock armouring, grade reversals or other construction methods. • To the extent reasonably practicable, trail alignment must be adjusted to avoid the removal of mature trees, large boulders and rock outcrops. Mature trees and rocks required to be removed must be clearly marked. • Any trees required to be removed must not be felled in a manner which damages surrounding vegetation. All vegetation (trees and understory) removed must either be cut into smaller pieces to be used for rehabilitation, discreetly dispersed amongst adjoining native vegetation without damaging existing native vegetation or removed from site completely if it contains any exotic vegetation species. • All clearing must occur solely within approved development corridors and to be clearly identified with flagging tape to mark no-go/no clearing zones prior to construction. • All vegetation must be checked for fauna habitats and fauna by the Environmental Officer immediately prior to felling/removal. Vegetation with active nests must not be removed until the young have left the nest. If fauna is present, then the NPWS must be contacted to assist with mitigation actions. • Staff and contractors undertaking vegetation clearance for the development must be able to accurately identify *Podocarpus lawrencei* (Mountain Plum Pine) and *Ranunculus anemoneus* (Anemone Buttercup). These species must be avoided when creating the trail corridor, and protected from trampling by foot, equipment, or the

	placement of construction material. Refer to Species Polygon figure in **Appendix B** for Anemone Buttercup sightings by NPWS officers during the site visit. • A survey for *Ranunculus anemoneus* (Anemone Buttercup) is to be undertaken during the trail alignment/flagging stage and if identified, realign the trail within the 20m buffer or transplant the affected individuals of the species. If individuals are located, seek NPWS advice on transplanting prior to the disturbance of any individuals of this species. • All rocks removed during the works must be placed in the surrounding landscape without damaging existing native vegetation, used in the trail construction (e.g., rock armouring) or removed from site completely. *Fauna management* • Maintain a clean and tidy work area to ensure animals are not attracted to the site, including provision of covered bins during proposed works; • Restrict work to daylight hours to reduce impacts of light spill, and seasonal timing of construction to reduce impacts of noise (ELA 2022); • If any active wombat burrows are detected in close proximity to the trail alignment during the construction phase, then the trail should be realigned to avoid the burrow (ELA 2022); • Vegetation with active nests must not be removed until the young have left the nest. If fauna is present, contact NPWS to assist with mitigation actions. *Rehabilitation* • Rehabilitation of all disturbed areas (excluding the trail tread) is to be undertaken in accordance with the Rehabilitation Guidelines and *Detailed Rehabilitation and Monitoring Plan: Lower All Mountain Trail Diversion* (KT 2022).
Performance Criteria	No death or injury to fauna as a result of on-site activities. No disturbance outside the approval disturbance area.
Corrective Actions	• Review and implement suitable strategies to dissuade fauna from coming to site; and • Contact NPWS / LAOKO if injured fauna is identified as a result of site activities.

5.4 Biosecurity

Biosecurity Management	
Objective	Reduce the risk of introducing invasive pest species
Mitigation Measures	*Exotic species management* • All relevant weed species that occur within the proposed trail corridor and associated staging and stockpile sites must be treated prior to works commencing to ensure these weeds are not spread further at the site or within KNP. In addition, ongoing weed management is essential to ensure relevant weed coverage does not increase in area or number, especially immediately surrounding the trails where weed seed could be easily spread through tyre movement on the trails. Routine assessment of the site must be conducted, including following completion of construction, with relevant weeds identified to be treated or removed. • If an area of vegetation proposed for removal includes any relevant weed species then the vegetation must be removed completely from site, not spread out within the existing vegetation or used in rehabilitation and stabilisation works. *Machinery, equipment and materials* • To minimise weed vectors and other biosecurity issues, all machinery and equipment used during construction must be cleaned prior to entry into KNP and prior to site mobilisation to ensure the machinery is free of mud, vegetative propagules, and pathogens. This includes machinery that may have been working in an area of the Thredbo Alpine Resort that contains weeds and is preparing to be redeployed in the trail construction corridor and associated stockpile and staging areas. • Any and all machinery and equipment must be stored on existing disturbed areas (i.e. at the stockpile and staging areas proposed on the ski slopes) and should not be stored on native vegetation. • All vehicles and machinery entering Thredbo must adhere to the ***Standard Operating Procedure: Use and Maintenance of Wash Down Bay, March 2019 (KT055)***.
Performance Criteria	No introduction of invasive species as a result of construction activities.
Corrective Actions	Review existing biosecurity procedures (e.g. clean down procedure) and implement additional controls if required.

5.5 Waste

	Waste Management
Objective	• Minimise construction waste as much as practicable; and • Reduce the impact of waste on-site and beyond the site boundary.
Mitigation Measures	• All waste management receptors must be able to be covered to ensure waste cannot blow away or be disturbed by scavenging fauna or must be emptied or removed from site each day. • All waste will be managed and disposed of in accordance with the KT's waste management procedures; • Where possible, construction materials will be salvaged for reuse to divert waste from landfill; • All waste will be separated into waste streams and contained within appropriate receptacles and/or disposed of in accordance with the EPA guidelines; • All receptacles will be in good condition; and • All waste transportation vehicles will be covered appropriately to ensure waste cannot spill, leak or escape onto the road or wash into stormwater drains.
Performance Criteria	No litter or waste material to be released from site in an uncontrolled manner.
Corrective Actions	• Investigate cause of inappropriate waste disposal/management; • Review on-site waste handling facilities and implement corrective actions e.g. change in receptacle size and/or waste management signage; • If required, implement administrative controls e.g. additional waste management training for staff.

5.6 Noise and Vibration

	Noise and Vibration Management
Objective	Minimise potential noise and vibration nuisance in the surrounding environment.
Mitigation Measures	• Project staff will take reasonable and practicable management measures to avoid and mitigate environmental nuisance from noise associated with the works; • Works will be undertaken during standard work hours as stipulated in the conditions of approval; and • Appropriate noise management strategies will be implemented for construction works and operation of plant in accordance with the Australian Standard AS 2436-2010 *Guide to noise and vibration control on construction, demolition and maintenance sites* and the *Interim Construction Noise Guideline* (DECC 2009) e.g. ensure plant is regularly maintained, and repair or replace equipment that becomes noisy, turn off plant that is not being used.
Performance Criteria	No construction related noise and vibration complaints received.
Corrective Actions	If complaints are received, the following steps will be taken: • Investigate specific cause of complaint; • Review site activities/processes and identify the source of the noise emissions; • Implement immediate corrective actions e.g. swap out noisy equipment; and • If required, implement administrative controls e.g. additional staff training or change work hours to minimise noise.

5.7 Air Quality

	Air Quality Management
Objective	Minimise potential impacts to the existing air quality in the surrounding environment.
Mitigation Measures	• Construction staff will take reasonable and practicable measure to prevent dirt and dust from affecting the amenity or the surrounding environment during construction e.g. minimise the area of soil disturbance; • Plant and equipment to be maintained and operated in an efficient manner to reduce air pollution;

	• All vehicles carrying spoil or rubble to/from site should be covered to prevent the escape of dust or other material; and • When there is a risk of works creating dust nuisance, the Project site is to be watered.
Performance Criteria	No complaints received in relation to air pollution.
Corrective Actions	If complaints are received, the following steps will be taken: • Investigate specific cause of complaint; • Review site activities/processes and identify the source of air emissions; • Implement immediate corrective actions on-site e.g. water site, replace equipment deemed to be poorly maintained; and • If required, implement administrative controls e.g. additional staff training, alter construction methods or timing for undertaking dust generating activities.

5.8 Fuels, Chemicals and Hazardous Substances

Fuels, Chemicals and Hazardous Substances Management	
Objective	Eliminate the potential for release of fuels, chemicals and hazardous substances to the environment
Mitigation Measures	• In the event on an on-site spill, construction staff will follow KT's ***Construction Site Incident and Emergency Procedures Thredbo Village, 2021/2022***; • A copy of KT's ***Thredbo Spill Kit Map (June 2019)*** will be available on-site and all Project staff will be made aware of their locations in the site induction; • Hazardous substances, toxic materials or dangerous goods must not be stored or processed on-site at any time without prior approval from the DPE Secretary or nominee; • Hazardous chemicals will be appropriately labelled in accordance with the *Code of Practice: Labelling of Workplace Hazardous Chemicals, August 2019* (NSW Government 2019); • Hazardous chemicals will be managed in accordance with the *Code of Practice: Managing risks of hazardous chemicals in the workplace, August 2019* (NSW Government 2019); and • Appropriate controls will be implemented when refuelling Project vehicles and machinery e.g. with appropriate spill kit.
Performance Criteria	No fuel, chemical or hazardous substance spills.
Corrective Actions	Corrective actions will be taken in accordance with the ***Construction Site Incident and Emergency Procedures Thredbo Village, 2021/2022,*** including: immediate spill response, implementation of any necessary control measures as directed by authorities. Where required, an investigation will be undertaken to determine the root cause.

5.9 Cultural Heritage

Cultural Heritage Management (Indigenous and Non-indigenous)	
Objective	Minimise potential impacts on places and objects of cultural heritage significance
Mitigation Measures	• All Project personnel will be made aware of their obligations in relation to the management of cultural heritage via the site induction; • Project staff will take all reasonable and practicable measures to avoid harm to cultural heritage; and • Where unexpected items of potential archaeological, built or Aboriginal cultural heritage significance are discovered, Project personnel will follow the below procedure: - **STOP:** Stop work and leave the site or item where it is. - **NOTIFY:** Notify the Project Manager and NPWS to arrange for representatives to inspect the site. If human remains are found, the NSW Police must also be notified. - **MANAGE:** Management may involve securing the find by erecting a no-go zone. - **REPORT:** The Project Manager will complete any reporting requirements, as directed by NPWS.
Performance Criteria	No loss of cultural heritage values.

Corrective Actions	If a suspected item/artefact of Aboriginal, built or archaeological cultural heritage significance is encountered, follow procedure above – Stop, notify, manage and report. All Project personnel to be made aware of any additional management requirements e.g. no-go zones.

5.10 Traffic and Transport

Traffic and Transport Management	
Objective	Minimise potential impacts on existing road network
Mitigation Measures	• Traffic and construction vehicle access will be managed as per regular daily operation in the resort; • All construction vehicles to enter/exit site via dedicated access; • Bike riders and pedestrian using trails within the construction corridor will be managed through the use of signage, and exclusion from the construction corridor.
Performance Criteria	• No impacts to existing road network or users; and • No complaints in relation to traffic or vehicle operators.
Corrective Actions	If complaints are received, traffic management procedures will be reviewed and amended (if necessary).

6 Monitoring and Review

6.1 Environmental Monitoring

The Environmental Officer will conduct monitoring during all Project phases (pre-construction, during construction and post-construction) to ensure compliance with this SEMP, associated management plans and conditions of approval (refer **Appendix D** for SEMP checklist).

The Environmental Officer will also undertake weekly inspections utilising the **Weekly Inspection Report** (**Appendix E**).

6.2 SEMP Review

This SEMP is a live document and will undergo reviews and amendments as necessary. Reviews will generally be undertaken –

- If there is a change in the scope of the Project;
- Prior to commencement of construction to ensure any relevant conditions of consent and/or other approval, licence or permit requirements are incorporated;
- If there is a need to improve environmental controls to protect environmental values;
- If there is an increase or introduction of a new environmental risk or impacts; and
- At the end of a Project to allow for improvements in subsequent Projects.

The Environmental Officer will be responsible for reviewing the SEMP and the Project Manager is responsible for approving these changes.

7 Reporting

7.1 Weekly Environmental Reporting

The Environmental Officer will provide copies of the **Weekly Inspection Report** (**Appendix E**) to the Project Manager on a weekly basis. All records will be stored within KT's files and distributed to relevant persons / regulatory authorities as required.

The Environmental Officer will report on the effectiveness of drainage, erosion and sediment controls using the **Erosion and Sediment Control Inspection Report** (**Appendix E**). The report forms part of the weekly environmental inspections and will be provided to the Project Manager with weekly internal reporting requirements.

7.2 Environmental Incident Reporting

All incidents and near misses will be managed in accordance with KT's ***Construction site Incident and Emergency Procedures Thredbo Village 2021/2022***. The document provides procedures for responding to incidents and emergences, reporting and notification requirements and emergency contacts.

The following information should be recorded:

- Time and date of the incident / near miss;
- A description of the incident / near miss;
- A sequence of events that led to the incident / near miss occurring;
- Person/s involved in the incident / near miss (including witnesses);
- Written statements from person/s involved (as applicable); and
- Details of corrective actions.

The **Environmental Incident Report Form (KT068)** (**Appendix E**) should be completed for all environmental incidents. All parts of the form must be completed in accordance with KT's incident procedure and following the instructions within the form. The form must be signed by the person making the report and the Project Manager/person in charge of the site/activity.

7.3 Complaints Management

Should complaints be received from the public in relation to the Project they will be recorded using the **Complaints Form** (**Appendix E**). The Project Manager will be responsible for investigating, recording and closing out any complaints received. All records will be stored within KT's files and distributed to relevant persons / regulatory authorities as required.

7.4 Non-conformance

A non-conformance is the failure to comply with the requirements of this SEMP and supporting management plans. Non-conformances identified via site inspection or during day to day activities will be documented on the **Environmental Weekly Inspection Form** (**Appendix E**) and closed out in subsequent inspections. The Environmental Officer is responsible for investigation and managing corrective and preventative actions in the event of non-conformance or a situation likely to cause environmental harm.

7.5 Corrective Actions

Corrective actions should be prioritised on the following hierarchy of controls:

1. **Elimination** – can activities and processes be eliminated to reduce the risk of reoccurrence?
2. **Substitution** – can activities be substituted with another activity of lesser risk?
3. **Isolation** – can you isolate the hazard from any person exposed to it?
4. **Engineering controls** – can you reduce the risk of reoccurrence through engineering changes?

5. **Administrative controls** – can a change in work practices, additional training or additional checks reduce the risk?
6. **Personal Protective Equipment (PPE)** – can PPE be worn to protect personnel from harm?

The Construction Manager will be responsible for managing the implementation of corrective actions on-site.

7.6 Document Control

All Project related documentation will be maintained within KT's Project file. Documents stored within the file include (but not limited to) the following:

- Copies of relevant planning approvals and documents, licences and permits;
- All completed induction forms and visitor sign-on register;
- Records of routine environmental inspections; and
- Records of any environmental incidents, complaints, non-conformances and no-compliances.

8 References

Department of Environment and Climate Change (DECC) 2007, Rehabilitation Guidelines for the Resort Areas of Kosciuszko National Park, NSW Government.

Department of Environment and Climate Change (DECC) 2009, Interim Construction Noise Guideline, July 2009, https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/09265cng.pdf?la=en&hash=EF4576FD79DBB25D5AC22DFA1A883A2BADA1F77B

Department of Infrastructure, Planning and Natural Resources (DIPNR) 2004*, Guideline for the Preparation of Environmental Management Plans*, https://www.planning.nsw.gov.au/~/media/Files/DPE/Guidelines/guideline-for-the-preparation-of-environmental-management-plans-2004.ashx?la=en

Department of Planning & Environment (DPE) (2017) *What to include with your development application*, version January 2017, https://www.planning.nsw.gov.au/Policy-and-Legislation/~/media/65E2BA89886F426991525FF25707A9A9.ashx

Eco Logical Australia Pty Ltd (ELA) 2022, Proposed Lower All Mountain Trail Diversion, Thredbo Alpine Resort. Prepared for Kosciuszko Thredbo Pty Ltd.

Kosciuszko Thredbo Pty Ltd (KT) 2022, Statement of Environmental Effects for Cruiser Beginner Mountain Bike Trail and Parks.

Office of Environment and Heritage (OEH) 2017, *Soil Stockpile Guidelines for the Resort Areas of Kosciuszko National Park, version 1.0, October 2017*, NSW National Parks and Wildlife Service.

9 Appendices

Appendix A Risk Matrix

Likelihood and consequence is defined as follows:

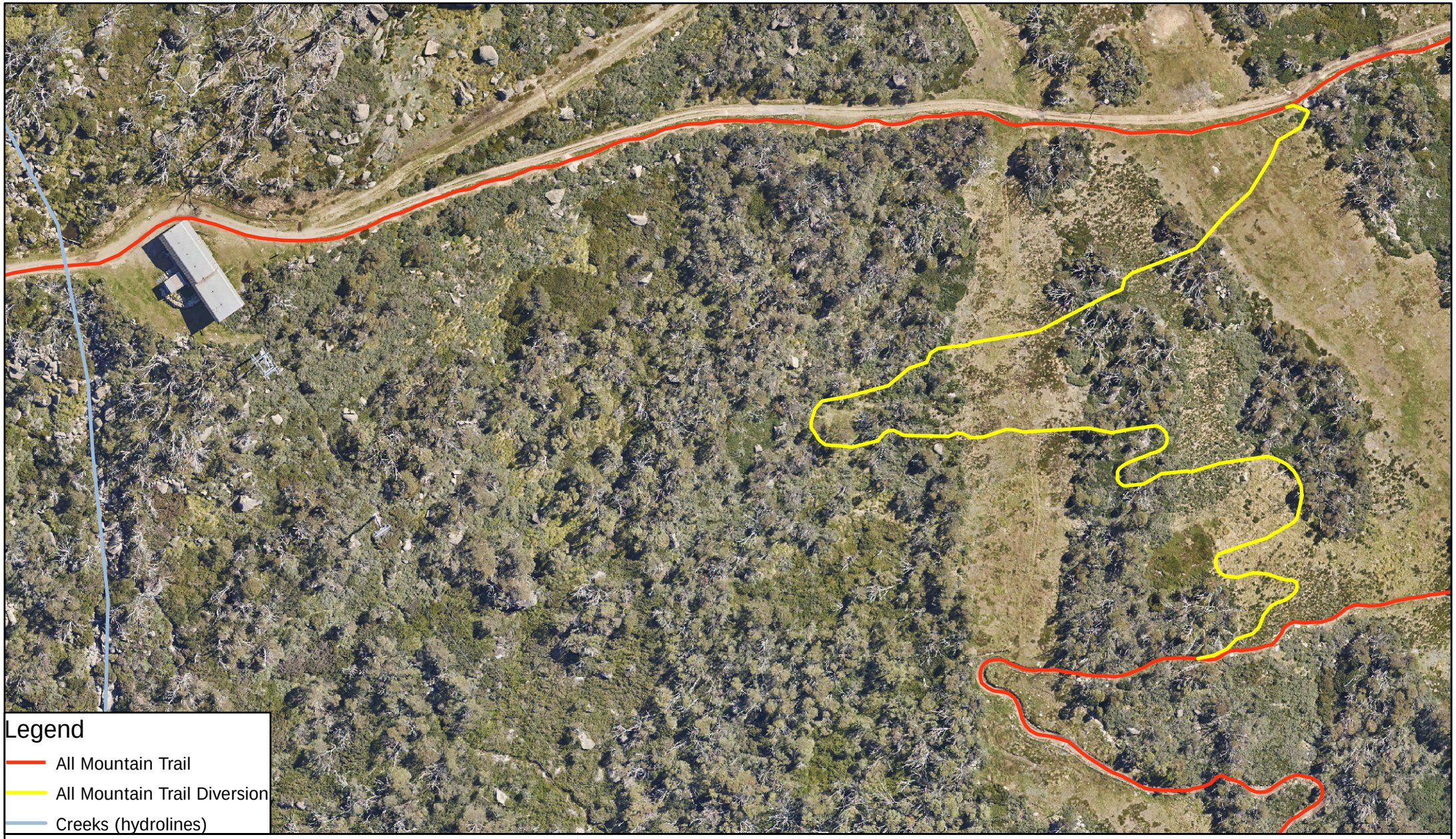
- **Likelihood**: the chance that something might happen; and
- **Consequence:** the outcome of an event which may have the potential to change the existing environmental values.

Likelihood	Consequence				
	Extreme (5)	**Major (4)**	**Moderate (3)**	**Minor (2)**	**Insignificant (1)**
Almost certain (5)	Extreme (25)	Extreme (20)	Extreme (15)	High (10)	Moderate (5)
Likely (4)	Extreme (20)	Extreme (16)	High (12)	Moderate (8)	Low (4)
Possible (3)	Extreme (15)	High (12)	Moderate (9)	Moderate (6)	Low (3)
Unlikely (2)	High (10)	Moderate (8)	Moderate (6)	Low (4)	Low (2)
Rare (1)	Moderate (5)	Low (4)	Low (3)	Low (2)	Very low (1)

Likelihood Rating		Definitions
Rare	**1**	Unlikely to occur during a lifetime or very unlikely to occur
Unlikely	**2**	Could occur but considered unlikely
Possible	**3**	Might occur at some time
Likely	**4**	Will probably occur
Almost certain	**5**	Is expected to occur in most circumstances

Consequence Rating		Definitions
Insignificant	**1**	Very low environmental impact confined to a small area within the Project area. Prompt (typically within a shift) clean-up.
Minor	**2**	Low environmental impact confined within the Project area. Short-term (typically within a week) clean-up.
Moderate	**3**	Reversible offsite environmental impact, requiring short-term clean-up (weeks). On-site medium term (weeks) clean-up.
Major	**4**	Major, offsite, environmental impact requiring medium-term clean-up (months). On-site impact requiring significant clean-up effort (months).
Extreme	**5**	Prolonged or severe, offsite or regional environmental impact requiring long-term clean-up (years) with irreversible residual damage. Extensive, Project area impact requiring long-term clean-up and recovery (years).

Appendix B Figures and Maps



Scale: 1:1,434

0 10 20 40 60 80 Meters

Map Projection: Universal Transverse Mercator
Horizontal Datum: GDA 2020
Grid: GDA 2020 MGA Zone 55

N

THREDBO

PROJECT LOCATION

Project: Lower All Mountain Trail Diversion

Revision: 1

Date: 01/07/2022

Produced By: BB

Figure 7: Species polygons

Figure B1: Main stockpile location within Thredbo's Waste Transfer Station

Appendix C Erosion and Sediment Controls

Appropriate drainage, erosion and sediment controls will be required to manage soil and surface water during the construction of the development. A summary of proposed controls and associated requirements are outlined in **Table C1**.

Table C1: Construction Erosion and Sediment Controls

Activity	Control	Purpose	Timing	Location	Installation
Excavations / trail construction; stockpiling	Sediment fence	To prevent sediment run-off	Install prior to, or in conjunction with earthworks. Retain in place until exposed areas of soil are stabilised.	Downslope side of any excavations; wetter areas; surrounding soil stockpiles	Refer to control installation notes below.
	Straw bale filter fencing	To prevent sediment run-off	Install prior to, or in conjunction with earthworks. Retain in place until exposed areas of soil are stabilised.	Drier areas of excavation, across or at the toe of slope	Refer to control installation notes below.
Cross-slope excavations during trail construction	Straw bales	Divert water around and away from excavation works	Install prior to, or in conjunction with earthworks. Retain in place until exposed areas of soil are stabilised.	To be installed on the uphill side of excavations running cross-slope (where required)	Refer to control installation notes below.

Control Installation Notes

Sediment Fence

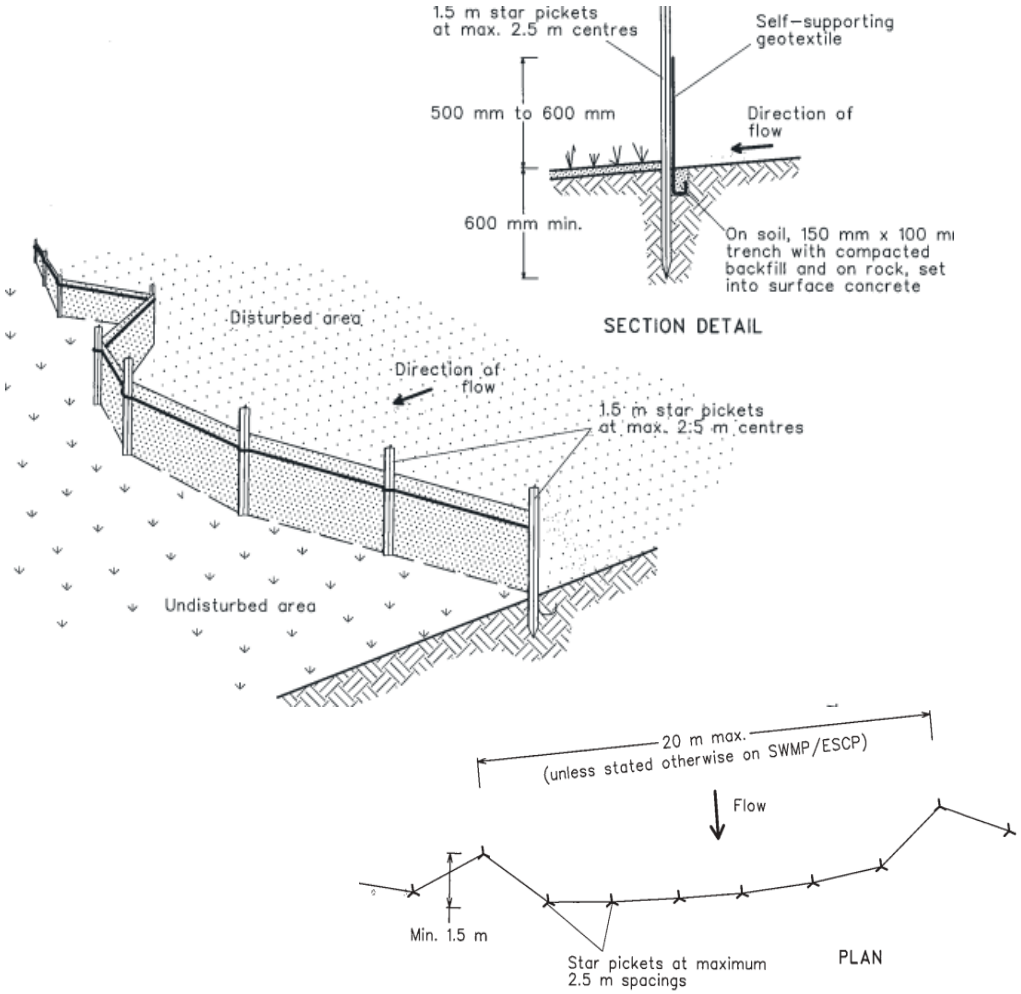
Construction notes:

1) Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns to limit the catchment area of any one section. **The catchment area should be small enough to limit water flow if concentrated at one point to 50 L/s in the design storm event, usually the 10-year event.*

2) Dig a 150 mm deep trench along upslope line of fence for the bottom of the fabric to be entrenched.

3) Install 1.5 m long star pickets into ground at 2.5 m intervals (max) on the downslope edge of the trench. **Fit star pickets with safety caps.*

4) Fix geotextile to the upslope side of the posts ensuring it goes to the base of the trench.



Standard Sediment Fence Installation (Source: Landcom 2004)

Cross Drainage and Sediment Barriers

The recommended spacing for cross drainage and sediment barriers is provided below:

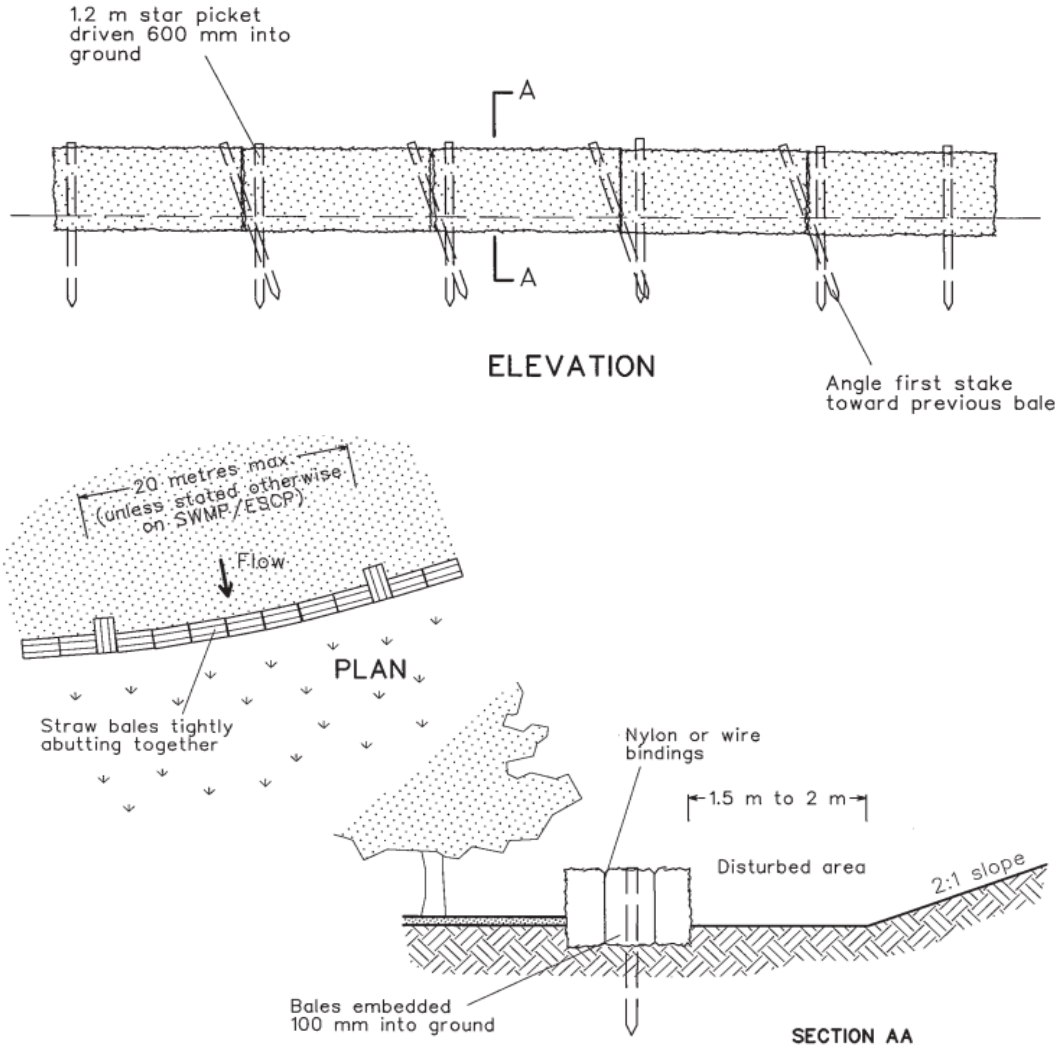
Slope Grade (%)	Cross Drain / Sediment Barrier (m)
5-10	15-20
10-15	10-15
15-25	8-10
>25	5-8

Source: NPWS 2007; Parr-Smith and Polley (1998)
Note: To calculate the grade of a slope: (rise/run) x 100 = slope grade

Straw Bale Filter

Construction notes:

1) Construct the straw bale filter as close as possible to being parallel to the contours of the site.
2) Place bales lengthwise in a row with ends tightly abutting (1 bale = max height of filter). Fill gaps between bales with straw and wrap with geofabric where necessary.
3) Embed each bale in the ground 75-100 mm and anchor with two 1.2 m stakes/star picket. Angle the first stake in each bale towards the previously laid bale. Stakes should be driven 600 mm into ground, sitting flush with top of bale (if possible). **If using star pickets which protrude above bales, fit with safety caps.*
4) Where a straw bale filter is constructed downslope from a disturbed batter, ensure the bales are placed 1-2 m downslope from the toe.

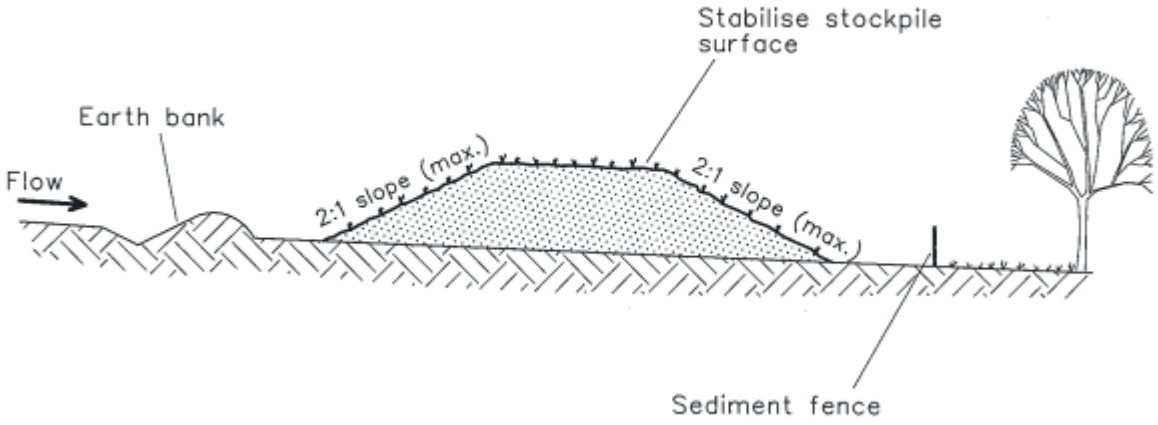


Standard Straw Bale Filter Installation (Source: Landcom 2004)

Soil Stockpile Management

Construction notes:

1) Stockpiles should be located at least 2 m (preferably 5 m) from existing vegetation and waterbodies, concentrated water flows, roads and hazard areas. Recommended location within weed free, disturbed area if possible.
2) Construct stockpiles as low, flat mounds (<2 m high) with a slope <50% (26°).
3) Install appropriate sediment controls (e.g. sediment barriers 1-2 m downslope) around stockpiles.
    - It is recommended to cover stockpiles (e.g. with anchored geofabric) during strong wind or high rainfall events.
    - Straw bales used for sediment and erosion control must be certified weed free.



Stockpile Management (Source: Landcom 2004)

Appendix D Environmental Management Activities and Controls Checklist

Environmental Management Activities and Controls Checklist						
Project Name:			**Location:**			
Environmental Management Control	**Responsibility**	**Timing / Frequency**	**Date of Completion**	**Sign Off**	**Reference**	**Comment /Observations**
General						
All approvals, licences and permits have been obtained for the Project and available on-site	Project Manager	Pre-construction				
Site inductions have been provided to all Project personnel on-site	Project Manager	Pre-construction				
All Project personnel have undergone relevant training / hold relevant permits and qualifications to perform their role	Project Manager	Pre-construction				
Construction site boundary and no-go zones have been clearly delineated	Construction Manager	Pre-construction				
Site access to be restricted to authorised personnel	Construction Manager	During construction				
All plant, materials and equipment to be located in existing disturbed corridors	Construction Manager	During construction				
All plant and equipment to be removed off-site post-construction	Construction Manager	Upon completion				
Maintain incident and complaints register	Project Manager	During construction				
Maintain copies of inspection and monitoring reports	Environmental Officer	During construction				
Drainage, Erosion and Sediment Control						
Drainage, erosion and sediment controls designed and installed in accordance with this plan	Construction Manager	Pre- construction; during construction			**Appendix C** of SEMP	
Drainage, erosion and sediment controls to be inspected each day and prior to, and immediately following a significant rainfall event to ensure controls are in good working condition.	Construction Manager	During construction (daily / following significant rainfall event)			**Appendix C** of SEMP	
Stockpiles						
Stockpiles are managed appropriately e.g. erosion and sediment controls installed around stockpiles, stockpiles shall not encroach within the dripline of trees, stabilise stockpiles to prevent weed infestation	Construction Manager	During construction			**Appendix C** of SEMP	

All exposed areas shall be progressively stabilised/rehabilitated	Construction Manager	During and post-construction			**Section 5.3** of SEMP	
Flora and Fauna						
Ensure equipment and construction materials are stored on previously disturbed areas to avoid impacts to native vegetation.	Construction Manager	All Project phases			**Section 5.3** of SEMP	
A survey for *Ranunculus anemoneus* (Anemone Buttercup) is to be undertaken during the trail alignment/flagging stage	Environmental Officer	Pre-construction, during trail alignment/flagging stage			**Section 5.3** of SEMP	
Reasonable and practicable native fauna management measures have been undertaken to avoid environmental harm and nuisance to native fauna, known habitats and breeding places	Construction Manager / Environmental Officer	Pre-construction, during construction			**Section 5.3** of SEMP	
Maintain a clean and tidy work area to ensure animals are not attracted to the site, including provision of covered bins during proposed works	Construction Manager	During construction			**Section 5.3** of SEMP	
Biosecurity						
All weed species that occur within the construction corridor and could spread through disturbance or seed dispersion are treated to ensure no further spread	Environmental Officer	Pre-construction, during construction			**Section 5.4** of SEMP	
Machinery and personnel to arrive at and depart from the site in a clean condition, free of mud and vegetative propagules	Construction Manager	Pre-construction, during construction			**Section 5.4** of SEMP	
Machinery to be regularly maintained and manoeuvred to prevent the spread of weeds and pathogens	Construction Manager	Pre-construction, during construction			**Section 5.4** of SEMP	
Follow up weed control to be carried out if deemed necessary	Environmental Officer	As required			**Section 5.4** of SEMP	
Rehabilitation						
All disturbed areas not part of the final alignment/parks are to be progressively stabilised and/or revegetated in accordance with the *Detailed Rehabilitation and Monitoring Plan: Lower All Mountain Trail Diversion* (KT 2022) (and in consultation with the Environmental Officer) so that no areas remain exposed if works are completed in that area	Construction Manager	During construction			**Section 5.3** of SEMP	
Disturbance areas are to be rehabilitated immediately following the completion of work	Construction Manager	Post-construction			**Section 5.3** of SEMP	

Waste						
Site is free from litter and waste is contained within dedicated areas / appropriate receptacles e.g. building waste shall be separated from litter bins	Construction Manager	During construction			**Section 5.5** of SEMP	
Where possible, waste avoidance and resource recovery strategies for construction waste have been implemented	Construction Manager	During construction			**Section 5.5** of SEMP	
All waste that cannot be recycled shall be disposed of appropriately at a licenced landfill site	Construction Manager	During construction, upon completion			**Section 5.5** of SEMP	
No burning or burying of waste on-site	Construction Manager	During construction, upon completion			**Section 5.5** of SEMP	
The site shall be left in a tidy state with no evidence of waste left on-site	Construction Manager	Post-construction			**Section 5.5** of SEMP	
Noise and Vibration						
Works conducted during hours stipulated in conditions of consent	Construction Manager	During construction			**Section 5.6** of SEMP	
Machinery and equipment fitted with appropriate noise control devices	Construction Manager	During construction			**Section 5.6** of SEMP	
Machinery and equipment maintained and serviced in accordance with the manufacturer's specification	Construction Manager	During construction			**Section 5.6** of SEMP	
All justifiable noise complaints have been investigated, managed and reported	Environmental Officer	During construction			**Sections 5.6** and **7.3** SEMP	
Air Quality						
Areas of exposed soil restricted as much as practicable	Construction Manager	During construction			**Section 5.7** of SEMP	
Trucks carrying spoil/rubble/waste covered to reduce dust nuisance	Construction Manager	During construction			**Section 5.7** of SEMP	
All justifiable air quality-related complaints have been investigated, managed and reported	Environmental Officer	During construction			**Section 5.7** of SEMP	
Fuels, Chemicals and Hazardous Substances						
Emergency procedure developed and available on-site at all times	Project Manager	Pre-construction, during construction			**Section 5.8** of SEMP	
Spill response material is adequate for the type and quality of hazardous materials used / stored on-site	Construction Manager	Pre-construction, during construction			**Section 5.8** of SEMP	
Fuel and chemical storage in accordance with the relevant Australian Standards	Construction Manager	Pre-construction, during construction			**Section 5.8** of SEMP	
All construction plant and machinery shall be properly maintained and inspected to avoid spills / leaks	Construction Manager	Daily during construction			**Section 5.8** of SEMP	
Appropriate controls implemented when refuelling Project vehicles and machinery	Construction Manager	During construction			**Section 5.8** of SEMP	

Cultural Heritage						
All Project personnel and contractors shall be made aware of the requirement to notify and cease works if cultural heritage (Aboriginal or archaeological) items are discovered during ground disturbance.	Project Manager	Site induction			**Section 5.9** of SEMP	
In the event of an unexpected discovery of Aboriginal or Historic Cultural Heritage items, works shall cease and NPWS notified.	All personnel	Earthworks; during construction			**Section 5.9** of SEMP	
Traffic and Access						
All Project vehicles and machinery to adhere to speed limits and signage and stay within construction corridor	All personnel	All Project phases			**Section 5.10** of SEMP	
Appropriate traffic controls implemented to direct pedestrians and MTB users (where required) e.g. exclusion from the construction corridor.	Construction Manager	Prior to construction			**Section 5.10** of SEMP	

Appendix E Environmental Schedules

This Appendix includes the following environmental schedules:

- Weekly Inspection Report;
- ESC Inspection Report;
- Complaints Form template; and
- Environmental Incident Report Form.

THREDBO ENVIRONMENTAL SERVICES

SEMP WEEKLY INSPECTION REPORT

Sheet _____of_____

Project: _____ Inspection Date: _____

Inspected by: _____

Weather:	**Morning** Clear/Overcast/ Fine/Rain/Snow	**Afternoon** 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)			
Para-web Fence			
Site Signage			
Paint Washout facility			
Vehicle Wash-down			
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: _____

THREDBO ENVIRONMENTAL SERVICES

INSPECTION REPORT FOR TEMPORARY EROSION/SEDIMENTATION CONTROLS

Sheet _____of_____

Project: _____ Inspection Date: _____

Inspected by: _____ Inspect the site weekly or immediately after rain.

1. Are temporary drains effective in diverting all runoff from exposed areas to silt traps or other sediment structures before leaving site? If No, state location and action required:	Yes/No
2. Have new areas been disturbed which need temporary controls? If Yes, state where:	Yes/No
3. Are there any disturbed areas where work is sufficiently advanced for revegetation to be undertaken? If Yes, state where:	Yes/No
4. Is any dirty runoff water bypassing or overflowing existing silt traps/sediment control structures? Do existing traps need to be increased in capacity? Are any additional traps needed? If Yes, state location, action needed and priority:	Yes/No Yes/No Yes/No
5. Do any silt traps/sediment control structures need maintenance or repair to operate effectively? If Yes, state location, action needed and priority	Yes/No
6. Are any silt/sediment control structures more than 60% full or otherwise in need of cleaning out? If Yes, state location	Yes/No
7. Are actions taken after last inspection adequate and effective? If NO, list outstanding actions:	Yes/No
Signature:_____ _____Date:_____	

THREDBO ENVIRONMENTAL SERVICES

Record of complaint

Sheet _____of_____

Project: _____ Date / Time: _____

Received by: _____ Reference Number: _____

Complainant details:	Witness details:

Nature of complaint:

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..... Complainant sign:

Action taken:

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Kosciuszko Thredbo Pty Ltd

Environmental Incident Reporting Form

Confidential document after first entry

The purpose of this form is to report any incident that may have resulted in Environmental harm on Kosciuszko Thredbo Pty Ltd premises. Remember to be succinct, stick to the facts and do not make assumptions. Only record information you know to be correct.

The only persons authorised to contact external agencies eg EPA in relation to environmental incidents are the Kosciuszko Thredbo General Manager and Environmental Services Manager or their approved delegates.

Return completed form to the Environmental Services Manager as soon as practicle, on completion of the Environmental incident. It is important to capture photos at the time of the incident as part of this investigation.

Date of Incident:	**Time of incident:**
Reported by:	**Department:**

Location of Incident

EXACT location of the incident (include landmarks and features, nearest cross street etc to make it easier to identify later)		
Site:	Building:	Room:

Description of incident

Provide description and extent of incident: ……... ……... ……... ……... ……...
Have relevant photos been taken and attached? Yes □ No □
If 'No', provide sketch and attach to the rear of this document.
What was the estimated duration of the incident?

Type of incident

□ Spill (including fuel,oil,waste material or other polluting substance)	□ Erosion and sedimentation incident	□ Contaminated water discharge
□ Noise emission/complaint	□ Unauthorised/accidental damage to heritage item	□ Unauthorised/accidental vegetation removal or harm
□ Air Emission	□ Wildlife habitat/nesting area disturbed	□ Other (specify)

Environmental Incident Reporting Form

Level of incident

Level	Example
□ Minor	eg. No material has escaped the site or caused material harm to the environment – it is easy to clean up without additional assistance.
□ Major	eg. Material has escaped the site causing pollution downhill/downstream areas, which will require clean up involving other agencies and/or additional resources not available to local site management. Damage has occurred or is likely to occur to the environment.

Hazardous Material Spilt

□ Petroleum based products/ Hydrocarbons	□ Chemicals domestic or industrial grade
□ Biological waste / Clinical and related waste	□ PCB insulating liquids
□ CFC containing equipment	□ Paints or paint products
□ Radioactive waste	□ Other (specify)
Detail type/ingredient spilt: (UN, MSDS details)	
Detail concentration of material spilt:	
Detail quantity of material spilt:	

Type of Spill

□ Spilt onto ground	□ Spilt into stormwater drain
□ Spilt into waterway	□ Poured down sink
□ Poured down sewer	□ Released into atmosphere
□ Caused odour	□ Caused fire/explosion
□ Caused infectious contamination	□ Other (specify)

Immediate Actions

Was spill contained? Yes □ No □
Detail immediate actions/controls measures taken to rectify or contain the incident …… …… …… …… …… …… …… ……

Environmental Incident Reporting Form

Corrective Actions

Detail corrective clean up action taken

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Disposal

Detail disposal method/plans and location

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Recommended follow up and preventative actions

Detail recommendations

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Persons present at Incident

Were there any witnesses to the accident? Yes ☐ No ☐ If 'Yes', please provide names

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Spill Kit stock used – for restock purposes

Name Spill Kit(s) used: e.g. *'Waste Transfer Station 80Litre Spill Kit'*

……

……

Environmental Incident Reporting Form

Spill Kit Product	Quantity used
Enviropeat Oil Absorbent Material – 25L bag	
1.2m Absorbent sock	
3m Absorbent sock	
Absorbent pads	
Chemical resistant disposable gloves	
Disposable face masks	
Roll of plastic bin bags	
Cable ties	

Declaration

The information and answers given above are true in every detail and no information has been withheld.

Departmental Supervisors Name:	
Departmental Supervisors signature:	*Date:*

Departmental Managers Name:	
Departmental Managers signature:	*Date:*

Spill Kit Replenished

Staff Members Name and Role:	
Staff Members signature:	*Date:*

Created By: Paul Corcoran on 24 Mar 2009
Review Date: 16 Jan 2019