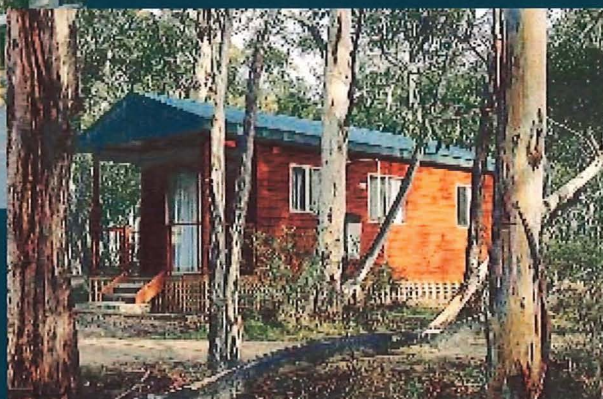
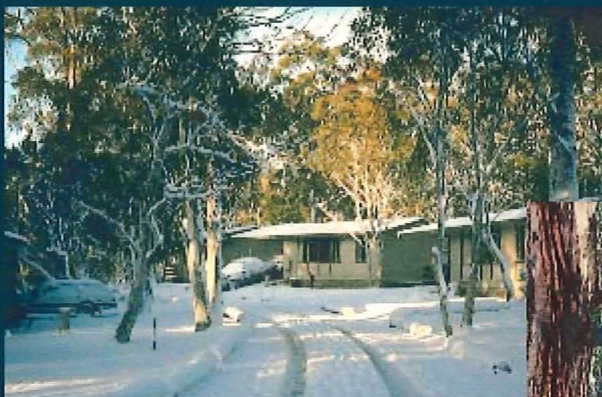


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**Proposed Upgrade of Facilities,
Kosciusko Mountain Retreat,
Sawpit Creek, Kosciuszko National Park**



Site Environmental Management Plan

prepared by



September 2004

planning • assessment • ems • auditing

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Document Verification



Job title

Proposed Upgrade of
 Facilities, Kosciusko Mountain
 Retreat, Sawpit Creek, Kosciuszko
 National Park

Document Title		SEMP					
File Name		\NGH\USR\ KMR\KMR SEMP final					
Revision	Date	Prepared by		Checked by		Approved by	
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1 INTRODUCTION

1.1 Background

This Site Environmental Management Plan (SEMP) has been prepared for the proposed upgrade of facilities at Kosciusko Mountain Retreat as detailed in the document:

Statement of Environmental Effects for the Proposed Upgrade of Facilities at Kosciusko Mountain Retreat, Sawpit Creek, Kosciuszko National Park.

The SEMP identifies objectives, targets and strategies for the management of potential environmental impacts that have been identified in relation to the proposed upgrade of facilities at Kosciusko Mountain Retreat.

1.2 Objective

The objective of this SEMP is to provide a platform;

- a) that identifies environmental objectives;
- b) that details environmental management guidelines and procedures, and ensures that Kosciusko Mountain Retreat and contractors are aware of these procedures, and of who is responsible for implementing and maintaining the required safeguards; and
- c) that provides guidelines for action to be undertaken in regard to incidents and emergencies.

1.3 Legislative/statutory requirements

The activity must comply with the following legislation/standards;

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment (Amendment) Act 1979*
- *National Park and Wildlife Act 1974*
- *Building Code of Australia*
- *NPWS Building Code*
- *Protection of the Environment (General) Regulation 1998*
- *Protection of the Environment Operations Act 1997*
- *Protection of the Environment Administration Act 1991*
- *Environmentally Hazardous Chemical Act 1985*
- *Rural Fires Act 1971*
- *Rivers and Foreshores Improvement Act 1948*
- *Water Management Act 2000*
- *Soil Conservation Act 1938.*

Details of how the project is affected by the relevant legislation can be found in the SEE for this project.

1.4 Summary of notable environmental features of the site

1.4.1 Soil and water

Soils at the site consist of granite derived sandy loam which may be vulnerable to erosion, however, the site has a gentle topography with slopes generally less than 5 degrees, reducing the likelihood of severe erosion occurring if construction is managed appropriately. Permeability is moderate to rapid and structure is medium to coarse. The soil erodibility (K factor) has been assessed as 0.024, which is low. Soils of the type found on the site generally respond well to sediment control measures such as the use of silt fences and hay bales.

The soil is moderately dispersible however, due to the small scale of the works, the use of sediment basins and flocculation is not considered necessary to manage the small amount of dispersible clay that may be lost as a result of the works. It is proposed that soil erosion would be managed using haybales and/or sediment fences, which would effectively reduce movement of sand and silt. Furthermore, following the works, disturbed soils would be stabilised using tacked straw mulch and aiming to achieve 60% grass cover within 6 months of completion of the works. This would reduce potential soil loss within natural levels.

1.4.2 Vegetation

No threatened species under federal or state biodiversity conservation legislation or the Kosciuszko National Park Schedule of Significant Natural Features has been found on the site, however a number of trees are present. These have been subject to a report by Alpine Tree Care, in which it was recommended that retention of trees should be treated as a priority during construction, and the works should also take note of the requirements of the root system. This would be achieved by fencing off the trees. If root zones are to be impacted upon, a temporary layer of wood chip on a base of geo-fabric could be used for protection.

Small amounts of exotic weeds are present on the site. These include:

<i>Cirsium vulgare</i>	black or spear thistle
<i>Gnaphalium calviceps</i>	silver cudweed
<i>Hypochaeris radicata</i>	cat's ear, flatweed
<i>Trifolium repens</i>	white clover
<i>Agrostis capillaris</i>	browntop bent
<i>Anthoxanthum odoratum</i>	sweet vernal grass

It is proposed that weeds will be controlled prior to the works with follow-up measures during rehabilitation, and during construction, measures will be taken to avoid spread of the weeds.

1.4.3 Fauna

No significant fauna has been noted on the site, however, the site does provide a diverse range of potential habitat including rocks and trees. These features should be protected wherever possible.

1.5 Environmental Objectives

The Environmental Management Objectives of this SEMP are as follows;

1.5.1 Community impacts

- Minimise the potential for negative community impacts through effective communication prior to and during the works.
- Ensure that all complaints and incidents are dealt with appropriately.

1.5.2 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.
- Ensure sediment does not enter nearby waterways.

1.5.3 Hydrology and water quality

- Minimise the risk of potential pollution of nearby waterways.

1.5.4 Hazardous Materials

- Ensure that materials with the potential to be hazardous to people or the environment are handled, stored and transported appropriately.
- Minimise risk of chemical spills.
- Ensure prompt and effective clean up of any accidental spills.

1.5.5 Waste management

- Minimise waste from the construction site and ensure that waste is appropriately disposed of.

1.5.6 Vegetation

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

1.5.7 Fauna

- Minimise impact on native fauna and habitat.
- Restore habitat values as quickly as possible following the works.

1.5.8 Fire

- Potential sources of ignition are controlled so that no fires occur on site.

1.5.9 Air Quality, Noise and Vibration

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

1.5.10 Visual and scenic

- Minimise visual impact of works during and following construction.

1.5.11 Cultural Heritage

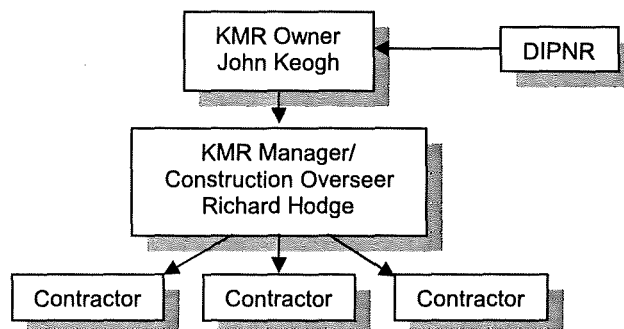
- Minimise impacts on places and artefacts of archaeological and Aboriginal cultural significance, consistent with obligations under section 90 of the NPW Act.

2 SITE ENVIRONMENTAL MANAGEMENT

2.1 Management Structure

The proposal is funded by Kosciusko Mountain Retreat, who will manage its construction, and operate the new facilities. The project will be managed by the owner of Kosciusko Mountain Retreat, John Keogh, whilst construction will be overseen by Richard Hodge, manager of Kosciusko Mountain Retreat. Contractors will be responsible for management of their works crew and implementation of this SEMP. The project organisational structure is illustrated in Figure 3.1.

Figure 3.1: Project Organisational Structure



2.2 Roles and Responsibilities

2.2.1 KMR Owner

- defines environmental responsibilities within the project;
- is responsible for the development and maintenance of this SEMP;
- supervises implementation of this SEMP;
- ensures environmental requirements are incorporated into contract documents; and
- arranges for review of the SEMP at appropriate stages.

2.2.2 KMR Manager/ Construction Overseer

- is familiar with contents of this SEMP;
- supervises implementation of training/induction;
- ensures records are kept;
- ensures the requirements of the SEMP are implemented; and
- ensures that all personnel including contractors/sub-contractors comply with the SEMP requirements relevant to their scope of work.

2.2.3 Contractors

- implement and maintain SEMP relevant to work being undertaken; and
- report on compliance as required.

2.3 Training

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

Site induction of supervisory staff would include:

- i) environmental awareness, including relevant company policy, the concept of due diligence, and other relevant codes of practice.

ii) environmental issues including:

- The SEMP,
- Relevant legislation/licences/approvals,
- Emergency preparedness/procedures,
- Incident reporting, and
- Site environmental procedures.

A training register will be kept (Attachment 4)

2.4 Communication

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

2.5 Incident Reporting

All complaints and incidents involving environmental impacts shall be reported to the Construction Overseer and recorded (refer to incident report form, Attachment 3).

2.6 Environmental Control Plans

Environmental control plans prepared for the work include:

- A Soil and Water Management Plan (Attachment 1)
- A Rehabilitation Plan (Attachment 2)

3 ENVIRONMENTAL SAFEGUARDS

Environmental safeguards to be employed during construction are detailed in the following tables.

3.1 Community Impact Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Minimise community impacts associated with the works.	Community understanding of the proposal achieved.	Incident report records.	
	All complaints and incidents appropriately dealt with.	Records of consultation.	
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
1. Consultation shall be undertaken with DIPNR and the DPW in regard to the nature of the proposal.	Prior to construction	KMR Management	
2. Records shall be kept of all incidents and complaints.	Continuous	Construction Overseer/Contractor	

3.2 Soils, Geology, Geomorphology, Hydrology And Water Quality

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Minimise the potential for soil erosion	No major concentration of runoff following rainfall event, evidenced by rilling or gully, particularly at drainage discharge points.	Areas surrounding construction sites.	
Minimise soil compaction	No noticeable dieback of vegetation caused by soil compaction bordering excavations.	Areas surrounding construction sites.	
Avoid pollution of water-courses by sediment-laden runoff or chemical pollutants	No visible discoloration or sedimentation in watercourses following rainfall events due to runoff from works sites.	Areas surrounding construction sites.	
	Appropriate spill kits present and accessible at all times.	With contractors.	
	High level of awareness among field staff of emergency procedures and the use of clean up equipment.	Contractors.	

Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
Prior to Construction			
1. Maintenance of sediment controls will be included in induction programs.	N/A	Construction Overseer/Contractors	
2. Rubbish disposal sites will be identified and suitably contained to prevent the escape of pollutants.	Continuous	Contractor	
3. Topsoil stockpile sites will be identified and protected from runoff with diversion drains and sediment traps/fencing.	Continuous	Contractor	
4. Suitable materials and equipment stockpile sites will be identified.			
During Construction			
5. Erosion control measures shall be constructed at all work sites where earthmoving activities will take place so that clean water is diverted away from the site and sediment enriched runoff is captured. Sediment control measures will be routinely inspected and replaced or upgraded if required.	Inspection of sediment control measures weekly during construction and after rainfall.	Contractor	
6. Soil stockpiles will be located on existing hard stand areas, on geotextile matting. The pile will be a low, flat mound which is protected from runoff and run-on of water with sediment barriers.	Continuous	Contractor	
7. Stockpiles of concrete aggregate will be stored on tarpaulins and cement shall be stored and handled in a manner which minimises the likelihood of spillage or the generation of dust.	Continuous	Contractor	
8. Site access will be restricted to hardened surfaces or defined access routes through disturbed areas where road access is impossible.	Continuous	Contractor	
9. The duration of works shall be minimised, and soils will not be left bare for long periods (temporary covers or mulch shall be used to protect soils if works are delayed).	Continuous	Contractor	
10. No works involving soil disturbance shall take place during rainfall periods, other than work necessary to ensure that excavations are not left open. Works will not be scheduled when heavy rainfall	Continuous	Contractor	

is forecast.			
11. Concrete will only be poured when sediment control measures are working effectively to avoid contamination of surface water.	<i>Continuous</i>	<i>Contractor</i>	
12. Vegetative sods/topsoil and subsoil excavated from trenches shall be treated as described in the Vegetation Management section of this SEMP.	<i>Continuous</i>	<i>Contractor</i>	
Post Construction			
13. Stockpiled soil will be used to reshape the landscape in accordance with the landscape and rehabilitation plans.	<i>Following completion of construction</i>	<i>Contractor</i>	
14. Revegetation will be undertaken, as described in the Vegetation Management section of this SEMP, where disturbance to soil has occurred. Revegetation will take place as soon as possible following the completion of works.	<i>Following completion of construction</i>	<i>Contractor</i>	

3.3 Transport, Storage and Handling Of Hazardous Materials

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Minimise risk of chemical spills.	No fuel or chemical spills occur.	On site, wherever hazardous materials are used.	
	Fuel and chemicals are handled in a manner which would not increase the likelihood of a spill occurring.		
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
During Construction			
1. Cement and additives shall be stored in a manner in which they are protected from the weather and stormwater.	Continuous	Contractor	
2. The use and storage of chemicals classified as a Dangerous	Continuous	Contractor	

Goods Class 6 Poison shall be strictly in accordance with the manufacturer's instruction and the relevant Materials Safety Data Sheets (MSDS).			
3. Vehicles and equipment shall be maintained in good working order and shall be inspected for oil/fuel leaks routinely.	<i>Continuous</i>	<i>Contractor</i>	
4. Care will be taken when refuelling or servicing plant to ensure containment of any spilled fuels or oils. These works shall be completed in accordance with appropriate procedures, which are to be included in the Contractor's EMP.	<i>Continuous</i>	<i>Contractor</i>	
5. Refuelling shall not occur in the vicinity of waterways or environmentally sensitive areas. Refuelling operations shall not be left unattended while in progress.	<i>Continuous</i>	<i>Contractor</i>	
6. Any oil/fuel/chemical spills or accidents on site that are likely to cause pollution, shall be reported through the management in accordance with the relevant legislation and the contractor's EMP.	<i>Continuous</i>	<i>Contractor</i>	
7. Any on-site spillage of fuels or chemicals shall be contained immediately and the incident shall be notified to the Project Manager. Removal and disposal of contaminated material shall be undertaken in consultation with the EPA/DPW, and the contractor's EMP.	<i>Continuous</i>	<i>Contractor</i>	
8. Contractors shall have an emergency/incident procedure that includes an oil spill response plan. Contractors shall be responsible for responding to any environmental emergency, including contacting appropriate authorities.	<i>At site induction</i>	<i>Construction Manager</i>	
9. Emergency procedures shall be displayed in a prominent position.	<i>Continuous</i>	<i>Construction Manager</i>	
10. Any contaminated material (empty drums, rag, contaminated soil, etc.) shall be removed from the site and disposed of in accordance with the appropriate regulations.	<i>Continuous</i>	<i>Contractor</i>	

3.4 Waste Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Remove all waste from the construction site and recycle waste where possible.	No waste remains at the construction sites.	At construction sites.	
	Waste is appropriately disposed of.	Waste disposal locations.	
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
Prior to Construction			
1. All workers shall be informed of the need to maintain a clean and secure site.	Site Induction	Construction Overseer/Contractors	
During Construction			
2. Waste which is unsuitable for re-use or recycling will be disposed of at a licensed landfill site. Non-putrescible waste will be disposed of at a designated tip.	Continuous	Contractor	
3. Littering or dumping of waste or disposal of surplus construction materials including concrete, or permitting such activities on any land on or around the site is not permitted. Rubbish will not be burnt or buried at the site.	Continuous	Contractor	
4. Construction litter will be contained within nominated sites. Secure rubbish bins would be provided at the site and emptied as required. Smaller objects that can be windblown will be disposed of in hoppers.	Continuous	Contractor	
5. All loads of rubbish or any other material being transported shall be securely covered to ensure no spillage.	Continuous	Contractor	
6. Concrete washings are to be undertaken outside the National Park or within designated disposal areas if practicable. Where this is not practical, concrete wash and excess concrete will be	Continuous	Contractor	

contained and stored in sealed drums for offsite disposal.			
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3.5 Vegetation Management (Including Weed, Pest And Hygiene Management)

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
<i>Minimise potential impacts to native vegetation.</i>	Impact on vegetation is restricted to that detailed in the SEE.	Areas adjacent to construction sites.	
<i>Revegetation achieved.</i>	Minimum 80% success rate of revegetation plantings two years after the completion of the works.	Revegetation areas.	
<i>Avoid the spread of weeds.</i>	No increase in distribution or abundance of weed populations in or around disturbed areas.	In the vicinity of disturbed areas/ construction areas.	
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
Prior to Construction			
1. All construction staff will be made aware of the need to preserve native vegetation and control weeds.	<i>Prior to construction</i>	<i>Construction Overseer/Contractor</i>	
2. All sites shall be clearly marked prior to construction commencing. Clearing and land disturbance shall be limited, where possible, to the footprint of the works.	<i>Prior to and during construction</i>	<i>Construction Overseer/Contractor</i>	
3. Trees that are adjacent to construction sites shall be protected using fencing that encloses the likely area of their root system.	<i>Prior to construction</i>	<i>Construction Overseer</i>	
4. If root zones are to be impacted upon, a temporary protection layer of wood chip on a base of geo-fabric will be used. The fabric is to be laid over the area of concern and topped with a 150mm thick layer of chip, this can be removed immediately following the disturbance.	<i>Prior to construction</i>	<i>Construction Overseer</i>	
5. Where weeds exist, they shall be sprayed with an approved	<i>2 weeks prior to</i>	<i>Contractor</i>	

herbicide three to six weeks before work begins to reduce risk of their spread. Spraying (if necessary) should be completed on a still day to reduce the possibility of spray drift onto native vegetation. A rate of 3 litres/hectare of Glyphosate and wetting agent is recommended.	<i>works commencing</i>		
6. All machinery is to be clean of dirt prior to mobilisation to the site to minimise potential for the transfer of weeds or disease.	<i>Prior to mobilisation</i>	<i>Contractor</i>	
During Construction			
7. Machinery and vehicular access will not occur outside the identified areas described in 1 above.	<i>Continuous</i>	<i>Contractor</i>	
8. Impact on vegetation outside of the areas described in the SEE for this project will be avoided.	<i>Continuous</i>	<i>Contractor</i>	
9. Hay bales used for sediment control shall be certified "weed free".	<i>Continuous</i>	<i>Contractor</i>	
10. Soil shall not be imported to the site, <i>or</i> exported from the site. Soil will be used as close as practicable to its site of origin to minimise the transfer of weeds across the site.	<i>Continuous</i>	<i>Contractor</i>	
11. Cleared native shrubs should be mulched and re-used for landscaping on-site. Mulch should be applied as close to its original location as possible. Weeds shall be separated from native species and they shall not be reused for mulch.	<i>Continuous</i>	<i>Contractor</i>	
Post Construction			
12. All revegetated areas shall be stabilised immediately after the completion of construction with certified weed free straw mulch with a low moisture content. It should be used at a rate of 5 kg per square metre. If strong winds are likely, the mulch should be tacked with a slow breaking, medium setting, water soluble bitumen emulsion. This should be spread at a rate of 20 litres per 100 square metres.	<i>Stabilisation to be carried out immediately following completion of works with revegetation carried out as plants become available.</i>	<i>Construction Overseer/ Contractor</i>	

13. For long term stabilisation, seeding with 100% Chewings Fescue spread at the rate of 120kg per hectare is recommended, however, native species may be used if preferred.	<i>Post construction</i>	<i>Construction Overseer/Contractor</i>	
14. Revegetation shall be carried out as detailed in the landscape and rehabilitation plans.	<i>Post construction</i>	<i>Construction Overseer/Contractor</i>	
15. Revegetated areas shall be watered directly after planting and daily for the following week unless there is rainfall. If the season remains dry, the site will need to be watered regularly.	<i>Post revegetation</i>	<i>Construction Overseer/Contractor</i>	
16. Follow up weed control will take place bi-annually following works. This will occur for a minimum of three years following construction.	<i>Bi-annually</i>	<i>Construction Overseer/Contractor</i>	
17. Mulch will be replaced when it breaks down, until there is sufficient groundcover to retain moisture, suppress weed growth and stabilise the soil.	<i>Review condition bi-annually</i>	<i>Construction Overseer/Contractor</i>	
18. The condition of rehabilitated areas shall be monitored seasonally (Summer, Autumn, Winter and Spring) until permanent vegetation cover is achieved. Where necessary, follow-up planting shall be carried out.	<i>Seasonally</i>	<i>Construction Overseer/Contractor</i>	

3.6 Fauna Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Minimise direct impacts to native fauna and habitat.	Works and impacts are tightly contained in sensitive areas.	<i>Work sites and surrounding areas.</i>	
	Field staff have a high level of awareness of key fauna habitat values.		
Avoid the spread of disease, weeds and vermin.	No weeds, vermin or diseases are introduced to the site as a result of the works.	<i>Work sites and surrounding areas.</i>	
Restore habitat values as quickly as possible following the works.	Priority is given to site rehabilitation/revegetation following completion of works.	<i>Rehabilitation areas.</i>	

Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
Prior to Construction			
1. Works will not impact on important habitat.	<i>Prior to construction</i>	<i>ngnvironmental</i>	
2. Field staff will be informed of the importance of maintaining habitat values and avoiding impact on fauna.	<i>Prior to construction</i>	<i>Construction overseer/contractor</i>	
During Construction			
3. Habitat values shall be protected through: - Limiting the extent and duration of the works; and - Effective weed control and hygiene.	<i>Continuous</i>	<i>Contractor</i>	
4. Excavations in native vegetation that are left open overnight shall be inspected early in the morning for trapped fauna. Any fauna found within the excavation shall be assisted out with minimal distress.	<i>Continuous</i>	<i>Contractor</i>	
5. Trenches will be backfilled as work progresses.	<i>Continuous</i>	<i>Contractor</i>	
6. Sub-surface rocks shall be redistributed as closely as possible to their original distribution.	<i>Continuous</i>	<i>Contractor</i>	
7. All trees to be cleared shall be checked for nests prior to felling. If any nests or roosting sites are located, a suitable relocation plan is to be implemented.	<i>Continuous</i>	<i>Contractor</i>	
8. When clearing trees in areas of woodland or forest, trees shall be felled or pushed <i>into</i> construction areas wherever practicable. If trees must be felled or pushed towards native vegetation outside the construction areas, they shall be removed, where removal can be achieved, with minimal disturbance to the existing vegetation.	<i>Continuous</i>	<i>Contractor</i>	
Post Construction			
9. No excavations will be left open.	<i>Post construction</i>	<i>Construction Overseer</i>	

10.Site rehabilitation will be carried out as detailed in the Vegetation Management section of this SEMP.	Bi-annually	Construction Overseer	
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3.7 Fire Hazard Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Does not increase the likelihood of a wildfire occurring.	Potential sources of ignition are controlled.	On site.	
	No fires occur on site.		
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
During Construction			
1. No fires will be permitted on site, including burning-off of materials.	Continuous	Contractor	
3. Cigarette butts are to be discarded appropriately, for example, in a bin containing sand and dedicated to 'butts only'.	Continuous	Contractor	
4. All equipment using internal combustion engines shall be inspected to ensure that the muffler and exhaust pipes are in good repair.	Continuous	Contractor	
5. No cutting, welding, grinding or other activities likely to generate fires shall be undertaken in the open on "total fire ban" days.	Continuous	Contractor	
6. Two general-purpose fire extinguishers and two fire extinguishers suitable for control of oil or petrol fires shall be available on site at all times and shall be in useable condition.	Continuous	Contractor	
7. A minimum of one person on site shall be familiar with or trained in the use of fire-fighting equipment.	Continuous	Contractor	
8. All flammable materials shall be kept in a locked area within the site.	Continuous	Contractor	

3.8 Air Quality, Noise & Vibration Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Ensure that works conform with the Environment Protection Authority's construction noise criteria.	No infringements.	At work site. Incident reports.	
Ensure that airborne emissions are limited.	No illegal emissions occur.	At work site. Incident reports.	
	No complaints about air-borne emissions are received.		
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
During Construction			
1. Excavation shall be avoided when soil moisture levels are low, and high levels of dust are likely to be generated. If necessary, site watering may be undertaken to reduce dust impacts on surrounding vegetation.	Continuous	Contractor	
2. Dry loads and stockpiles, such as cement, shall be covered.	Continuous	Contractor	
3. All equipment shall be regularly maintained, and operated appropriately to minimise atmospheric emissions.	Continuous	Contractor	
4. Burning of materials shall not occur.	N/A	Contractor	
5. Construction will be limited to the hours of 7.00 am to 7.00 pm Monday to Saturday.	Continuous	Contractor	
6. All plant shall have properly fitted mufflers and will be in good working order.	Continuous	Contractor	

3.9 Visual Amenity

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
Minimise visual impact of works during and following construction.	The duration of the works is minimised.	At work site. Incident reports.	
	High public awareness of the nature and purpose of the proposed works.		
Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
Prior to Construction			
1. Where practicable, the colour and materials used for the construction of the new buildings and structures is to be visually sympathetic to the site.	Planning stage	KMR Owner	
During Construction			
2. The duration of the works will be minimised.	Continuous	Contractor	
3. The site will be kept reasonably tidy, particularly with regard to stockpiling of materials and waste management.	Continuous	Contractor	

3.10 Cultural Heritage Management

Key Performance Indicators (KPIs)			
PARAMETER	THRESHOLD	MEASUREMENT LOCATION	AUDITOR'S COMMENT
To minimise impacts on places and artefacts of archaeological and Aboriginal cultural significance, consistent with obligations under section 90 of the NPW Act.	No impact on Aboriginal or non-indigenous heritage.	At construction sites. Incident reports.	

Management Plan			
MANAGEMENT PRACTICES	MONITORING	RESPONSIBILITY	CHECKED/COMMENTS
During Construction			
1. If any material suspected of being Aboriginal in origin is found during the proposed works, any ground disturbing activity at that locality that is likely to impact on artefacts must cease and an archaeologist will be notified. This will ensure that identified archaeological sites can be recorded.	Continuous	Contractor	
2. A representative of the ELAC shall be present during installation of equipment the Perisher and Spencers Creek Pluviometer sites.	During installation	Project Manager	

Attachment 1

Erosion and Sediment Control Plan

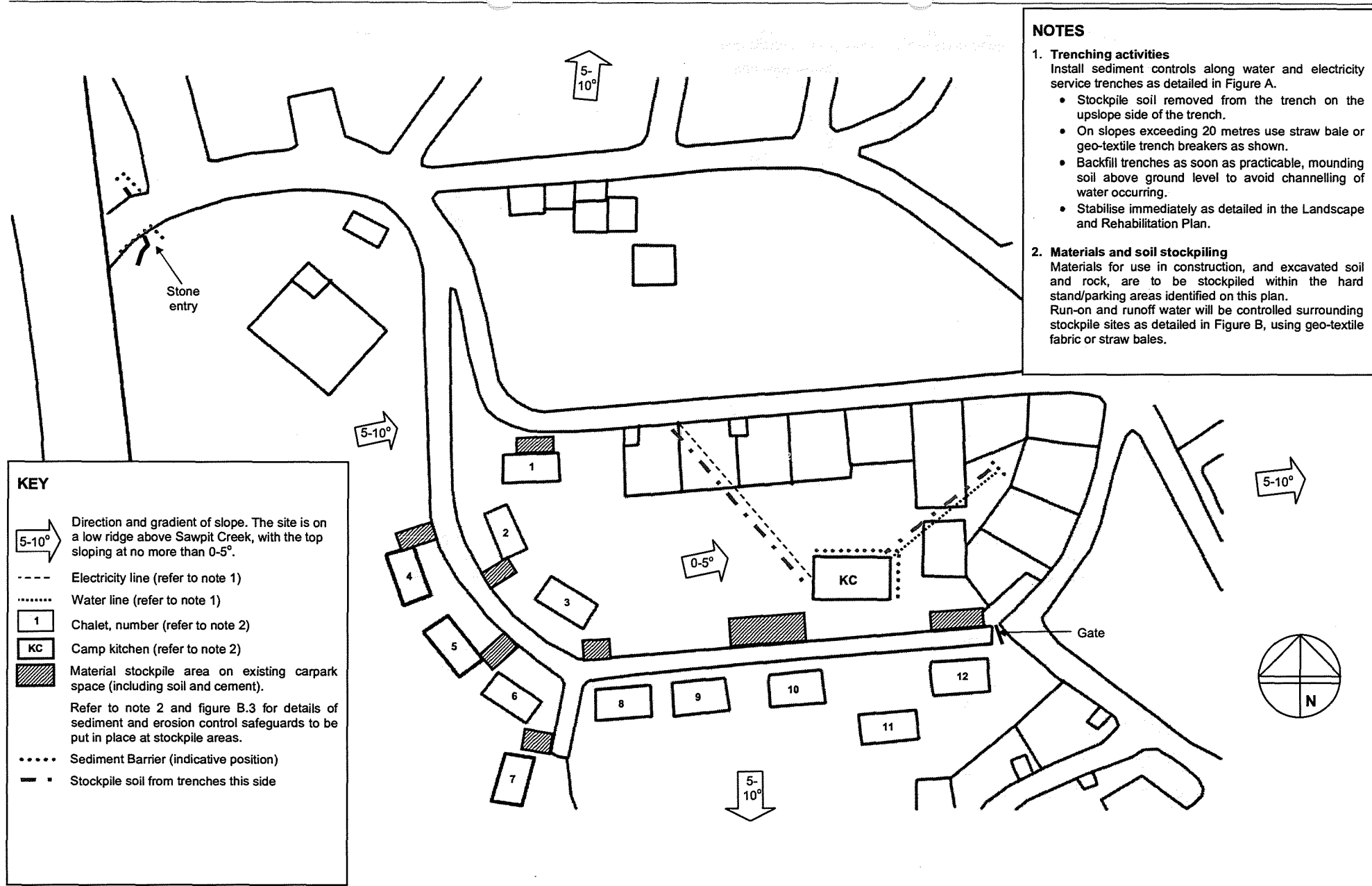


Figure A Sediment controls to be installed along water and electricity trench lines.

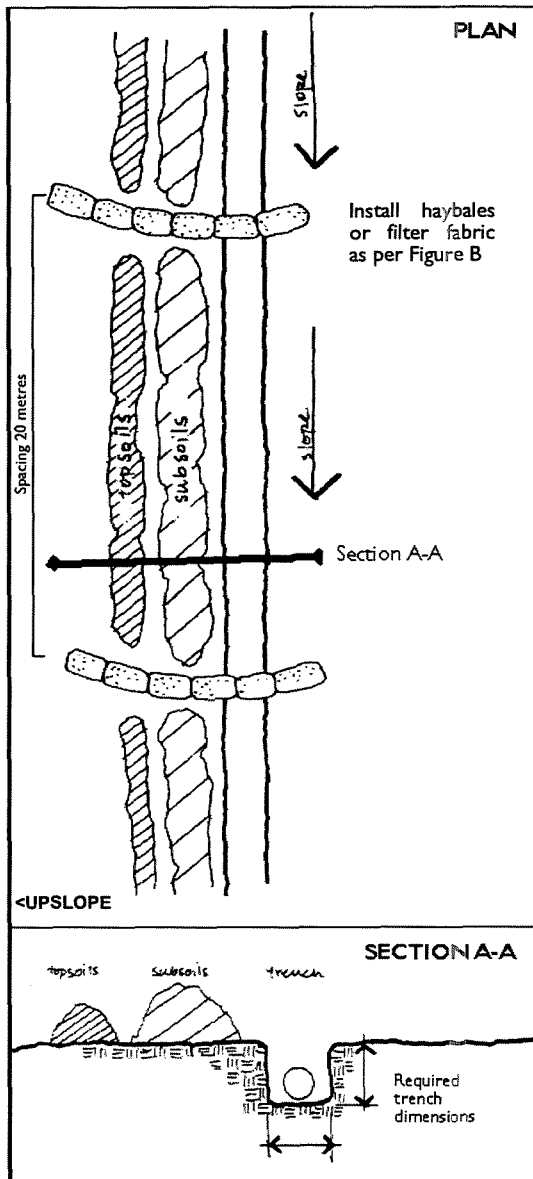
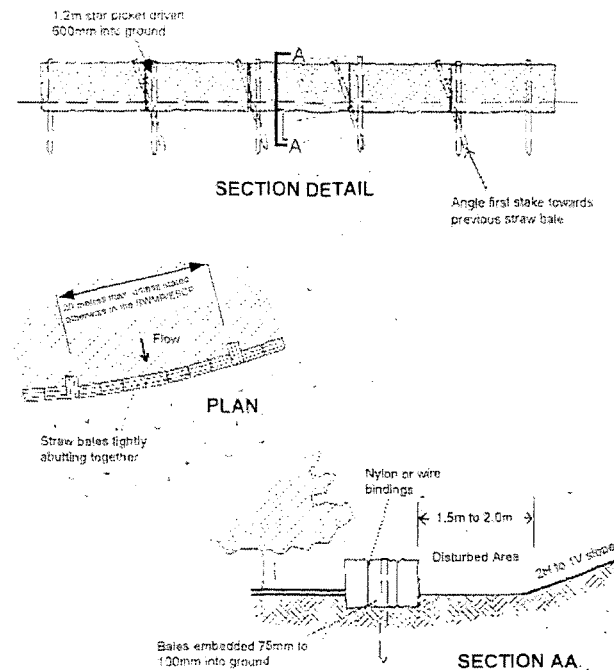


Figure B Sediment controls to be installed along water and electricity trench lines and surrounding soil stockpile areas

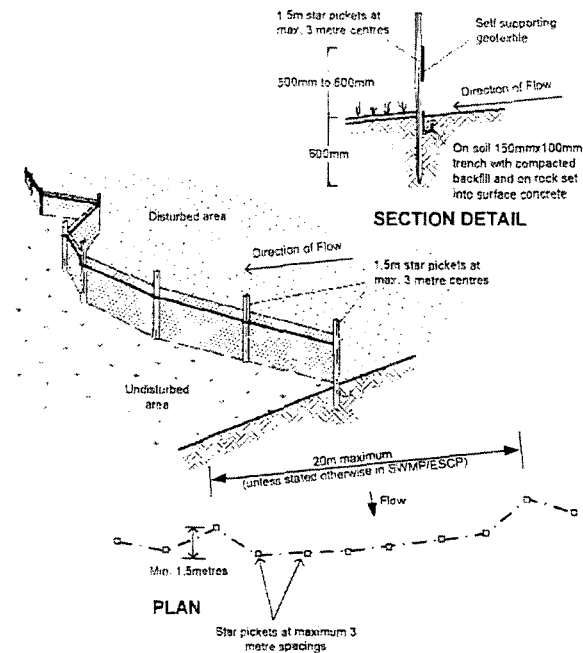
1. Straw Bale Filter



Construction Notes

- Construct straw bale filter as close as possible to parallel to contours of the site or at the toe of the slope.
- Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straw so placed to be inserted parallel with the ground.
- Maximum height of filter is one bale only.
- On soft materials embed each bale 75mm to 100mm and anchor with two 1.2metre star pickets. Angle first stake in each bale towards the previously laid bale. Drive stakes 500mm into the ground and flush with the top of bales.
- Where a straw bale filter is constructed downslope of a disturbed batter the bales should be located 1.5m to 2.0m from the toe of the batter.

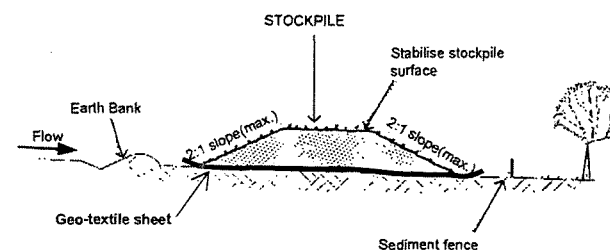
Figure B 2. Sediment Fence



Construction Notes

- Construct sediment fence as close as possible to parallel to contours of the site.
- Drive 1.5metre long star pickets into ground at 3 metres apart.
- Dig a 150mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
- Backfill the trench over the base of the fabric.
- Fix self supporting geotextile to upslope side of posts with wire ties or as recommended by geotextile manufacturer.
- Join sections of fabric at a support post with a 150mm overlap.

Figure B 3. Stockpiles



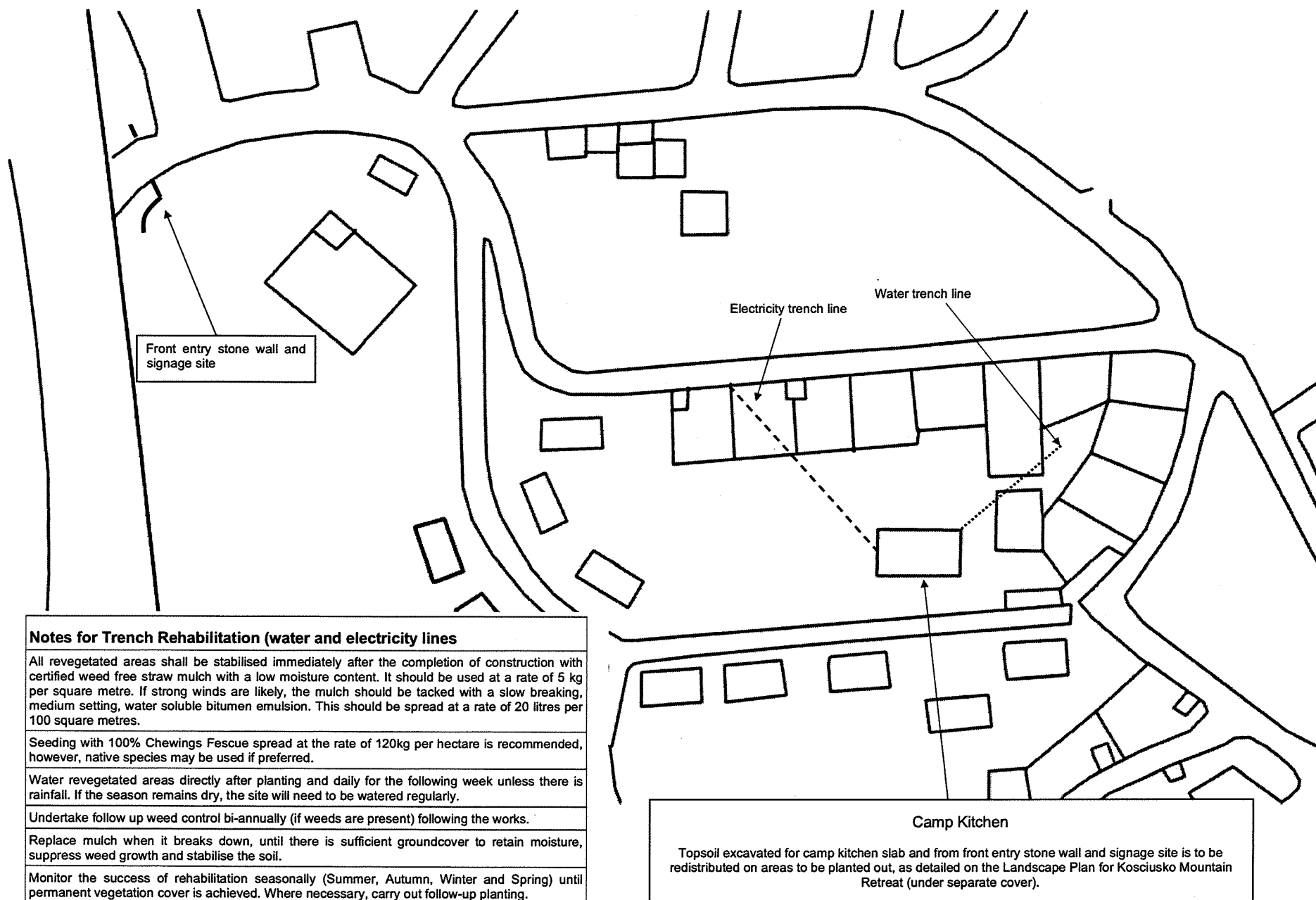
Construction Notes

- Locate stockpile at least 5 metres from existing vegetation, concentrated waterflows, roads and hazardous areas.
- Construct on the contour as a low flat elongated mound.
- Where there is sufficient area topsoil stockpiles shall be less than 2 metres in height.
- Rehabilitate the stockpile site in accordance with the SWMP/ESCP.
- Construct earth bank as per standard drawings on the upslope side of the stockpile to divert runoff around the stockpile and a sediment fence erected 1 to 2 metres downslope of the stockpile.

Attachment 2

Rehabilitation Plan

REHABILITATION PLAN – Kosciuszko Mountain Retreat, Upgrade of Facilities



Attachment 3

Record of Incident/Complaint

Incident Record, Kosciusko Mountain Retreat

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

Time and date of incident/complaint:

Reference number:

Name of representative who witnessed
incident/complaint:

Name and contact details of
complainant:

Nature of incident/complaint:

Action taken in response to incident/complaint:

Overseer's
signature: _____
(or appropriate delegate)

Date: _____

Attachment 4

Training Register

[illegible]

Name of person trained

Trainer

Induction

Other relevant training