Site Environmental Management Plan

Kareela Hutte Access Tracks

Thredbo Alpine Resort

Kosciuszko National Park, NSW

September 2024

Document Control

Version	Issue Date	Status	Author	Approved by
A	08/08/2024	Draft	J.Best	C.Chalk
0	23/09/2024	Final	J.Best	C.Chalk

Project Number: 24008MO

Kosciuszko Thredbo Pty Ltd

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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 Kareela Hutte Access Tracks (the Project).

The Project is 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 activities 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.
- Ensure Project personnel understand incident and emergency response procedures.

2 Reference Documentation

2.1 Summary of Applicable 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.*

2.2 Guidelines

- Guideline for the Preparation of Environmental Management Plans (DIPNR 2004)
- Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition (Landcom 2004)
- Interim Construction Noise Guidelines (DECC 2009)
- NSW EPA Waste Classification Guidelines (NSW EPA 2014)

2.3 Procedures & Policies

The following Kosciuszko Thredbo procedures and guidelines apply to the Project:

- Construction Site Incident and Emergency Procedures Thredbo Village, version 1.1
- Emergency Response Spill Procedure, version 1
- Standard Operating Procedure: Use and Maintenance of Wash Down Bay 2019
- Bushfire Danger Period Policy, version 2.

3 Project Description

3.1 Project Location

The Project site is located within the Thredbo Head Lease on the following Lots:

- 876/DP1243112 (Thredbo Head Lease)
- 852/DP1119757 (Kareela Hutte).

The site is located between the Mountain access road and Kareela Hutte restaurant on a pre-disturbed ski slope. Part of the construction corridor traverses the Cannonball Downhill MTB trail.

3.2 Construction Activities

Pre-construction activities involve site preparation works, including:

- establishment of site boundary/fencing
- marking out of track alignment
- erection of site signage and pedestrian/traffic controls
- installation of erosion and sediment controls as per CLM Civil plans
- clearing of grasses and shrubs.

Construction activities will include:

- earthworks including cut and fill
- construction of access tracks, including compaction and surfacing

Post-construction activities will comprise:

- rehabilitation in accordance with the Rehabilitation Guidelines
- demobilisation of plant and machinery
- site clean-up.

3.3 Construction Corridor and Disturbance Footprint

The construction corridor is identified on the Site Plan. Disturbance is to be kept to the minimum required to carry out the works.

4 Construction Management Details

4.1 Construction Timing

Construction is anticipated to be undertaken during the 2024/2025 year "summer construction period" (generally after the October long weekend and end no later than 30 April the following year), with finishing of rehabilitation and stabilisation works up until 30 May, or as otherwise approved.

It is proposed construction will take approximately two weeks to complete.

4.2 Site Access

During construction, the site access will be via the Mountain access road and secondary access tracks.

4.3 Vehicles, Machinery and Equipment

The Development will require (but not limited to) the following vehicles, machinery and equipment:

- Excavator (8-14 tonne)
- 4 x 4 tipper truck.

4.4 Adverse Weather Contingencies

Adverse weather events (e.g. high winds, thunderstorms, heavy rain, hail, snow, bushfire and high temperatures) have the potential to negatively impact upon construction activities. To ensure appropriate consideration of such events, the Project and Construction Manager will monitor weather conditions throughout the construction period. The Bureau of Meteorology (BoM) Thredbo AWS station provides daily weather observation data for the resort. The NSW Rural Fire Service website 'Fires Near Me' includes information on current bush fires and other incidents, as well as warnings for fires which may affect your location.

If adverse weather events are anticipated and/or occur during construction, contingencies will be implemented, and arrangements will be made to postpone construction activities.

The Construction Manager / Site Project Manager will be responsible for notifying construction staff of any impending adverse weather, and to implement appropriate controls onsite, such as:

- Erecting wind breaks or covering stockpiles to prevent materials being blown away
- Evaluate temporary sediment and erosion controls to ensure they are adequately installed to withstand adverse weather events
- Discontinue use of plant and machinery
- Secure materials and equipment
- Protect open excavations.

4.5 Stockpiles and Material Storage Areas

4.5.1 Site Compound

No site compound will be required. Amenities will be available for construction staff at Kareela Hutte or Valley Terminal.

4.5.2 Stockpile Sites

Temporary stockpiles will be required within the construction corridor to effectively manage excavated materials during construction. Soil will be separated so that it can be used during rehabilitation works. The main stockpile sites are identified in **Appendix A.**

All stockpiles will be managed in accordance with the environmental controls in **Section 6.2.1**.

4.5.3 Material Storage Areas

Construction materials will be transported to site as required from Thredbo's main stockpile sites at Friday Flat.

4.6 Work Hours

All work in connection with the Development must be carried out between the hours of 7.00am and 6.00pm, 7 days a week, or as otherwise approved.

5 Environmental Management

5.1 Roles and Responsibilities

The roles and responsibilities are outlined in **Table 1**.

Table 1: 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 Department of Planning and Environment (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. • Ensuring Project personnel and contractors are adequately trained and qualified to fulfil their roles.
Site Project Manager	• Implement and maintain the SEMP. • Ensure all Project personnel comply with the requirements of the SEMP. • Report any incidents, non-conformances to the Project Manager.
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. • Ensure all machinery, plant and equipment are in good working order and condition prior to use.
Construction Contractor	• Comply with SEMP and legislative requirements. • Construction contractor to develop and implement management plans in accordance with this SEMP, conditions of approval and contractual obligations.

5.2 Communication and Consultation

5.2.1 Training and Awareness

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.

5.2.2 Key Contacts

Key contacts for the Project are provided in **Table 2**. Prior to commencement of works, contact details (name and contact number) will be provided for Project personnel.

Table 2: Key Project Personnel Contact Details

Company / Agency	Role / Reason	Contact
Government Agency Contacts		
Department of Planning and Environment (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		

5.2.3 Consultation

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 5.1.**

5.2.4 Notification Protocols

A summary of the key notification protocols is provided in **Table 3.** Notification requirements will be updated as required.

Table 3: 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.	Site 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.	Site 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.***	KT Environmental Manager

5.3 Environmental Incident and Emergency Response

All Project personnel are required to follow KT's **Construction site Incident and Emergency Procedures Thredbo Village.** 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. 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 7.2**. Contact details for key Project personnel and emergency services are provided in **Table 2**.

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.

6 Environmental Controls

6.1 General

- 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.
- Provide approved plans and relevant documentation in the site office or other suitable location so that they are easily accessible by all construction staff.

6.1.1 Site Establishment

- Establishment of site boundary with temporary fencing, rope or flagging to clearly delineate the construction corridor and "no-go" areas.
- Erection of site signage and pedestrian/traffic controls.
- Installation of erosion and sediment controls.

6.1.2 Machinery and Storage

- All equipment, machinery and vehicles used during construction of the Project must be cleaned prior to entry into the Park and prior to site mobilisation to ensure they are free of mud and vegetative propagules.
- Equipment, machinery, and vehicles must be regularly maintained and manoeuvred to prevent the spread of exotic vegetation.
- Storage of equipment, machinery, vehicles and material is to be restricted to existing disturbed areas (i.e. at the stockpile, formed roads and within the construction corridors) and avoid undisturbed areas.
- All vehicles and machinery entering Thredbo must adhere to the **Standard Operating Procedure: Use and Maintenance of Wash Down Bay.**

6.2 Soil and Water Quality

Soil and Water Quality	
Objective	No impact on receiving waters arising from project activities. No land or water contamination as a result of project activities.
Mitigation Measures	**Timing**
Stockpile management in accordance with **Section 6.2.1**.	Construction
Vehicle and machinery movement should be restricted to existing access tracks and pre-disturbed areas.	Construction
Environmental site management to be in accordance with the CLM Civil Erosion and Sediment Control Plan (Drawing V-333, Sheets 4 and 5). Controls should be implemented prior to any construction work for the proposal and retained in place until exposed areas of soil or vegetation are stabilised and/or revegetated (ELA 2024). Sediment control measures are to have particular regard to the prevention of any sedimentation of watercourses or vegetation communities adjoining the study area (ELA 2024).	Prior to ground disturbance, during construction

6.2.1 Soil and Stockpile Management

- All stockpiles will be constructed and managed in accordance with *Soil Stockpile Guidelines for the Resort Areas of Kosciuszko National Park* (OEH 2017).
- Temporary stockpile sites within the construction corridor should adhere to the following criteria (Landcom 2004; OEH 2007):
  - not exceed 2 m in height, have a slope <50% (26°)
  - be at least 2 m from vegetation, concentrated water flows, roads, publicly accessible areas or hazardous areas
  - avoid impacts to native vegetation and be located on disturbed areas
  - located directly adjacent to the works
  - located on relatively flat ground, where possible
  - in areas with sufficient room to accommodate the volume of material being stockpiled
  - be contained by appropriate erosion and sediment controls.
- Any excess excavated material will be removed from site and transported to the designated soil stockpiles sites.

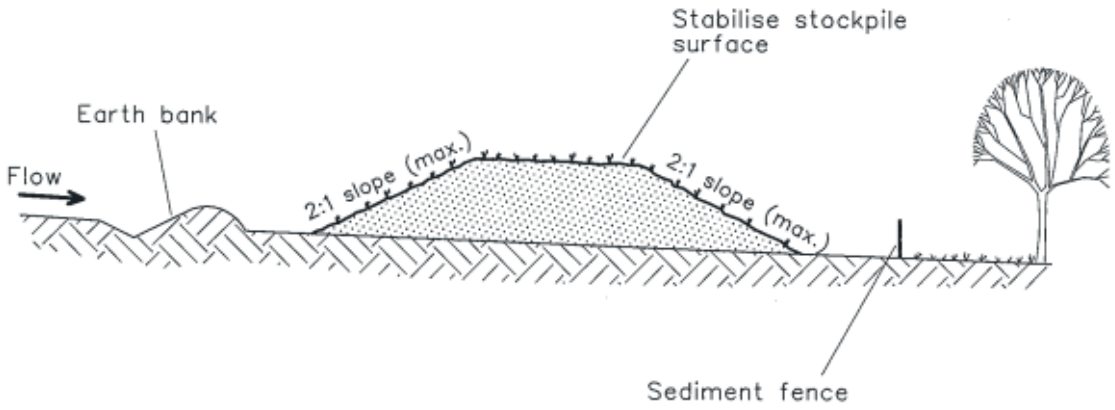

Figure 1: Stockpile Management (Source: Landcom 2004)

6.2.2 Excavation and Backfilling

- Ensure excavation depths and widths are the minimum necessary.
- Leave excavations open for the minimum practical time.
- Divert surface water away from excavation openings.
- Where excavations are to be left open overnight, provision shall be made so that any fauna entering the excavations can escape.
- Clean excavated material may be temporarily stockpiled on-site for reuse for backfilling, landscaping and rehabilitation works. Any unused material must be removed off-site and disposed of at an authorised site.
- Excavations are to be properly guarded and protected to prevent them from being dangerous.
- Imported fill material shall only be obtained from authorised locations.

6.2.3 Material Sourcing

Authorisation from NPWS is to be sought where imported gravel or fill material is required, unless the material is sourced from the following NPWS approved locations:

- McMahons Earthmoving quarry, located on Alpine Way, Crackenback NSW; or
- Kraft Earthmoving / Snowy Mountains Sand and Gravel quarry located on Kosciuszko Road, Jindabyne NSW.

6.3 Native Flora and Fauna

Flora and Fauna Management	
Objective	To ensure compliance with legislative requirements and protect existing native vegetation. Minimise impacts to native vegetation. No impact to native vegetation beyond the construction corridor. To minimise potential impacts to native fauna, their breeding places and habitat.
Mitigation Measures	**Timing**
All grass and shrubs clearing must only occur within approved construction corridor. The construction corridor is to be clearly identified with flagging tape to mark no-go/no clearing zones prior to construction.	Vegetation clearing
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.	Vegetation clearing
Clearing should remove habitats in stages to allow movement of fauna away from disturbed areas.	Vegetation clearing
All disturbance should be kept to the minimum required to achieve the proposal (ELA 2024).	Vegetation clearing and construction
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
All machinery to be used during the construction phase should be limited to the existing disturbed areas and access tracks.	Vegetation clearing and construction
Progressive rehabilitation is to be undertaken in accordance with the Rehabilitation and Monitoring Plan. All rehabilitation should be undertaken in accordance with the *Rehabilitation Guidelines for the Resort Areas of Kosciuszko National Park* (DECC 2007). Only weed-free straw or natural thatch/litter should be used in sediment control activities (ELA 2024).	Construction and post-construction

6.4 Exotic Species

Exotic Species Management	
Objective	To reduce the risk of introducing invasive/pest species.
Mitigation Measures	**Timing**
All relevant weed species that occur within the construction 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.	Prior to construction
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.	Vegetation clearing and construction
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 resort that contains weeds and is preparing to be redeployed in the construction corridor and associated stockpile and staging areas.	Vegetation clearing and construction

All vehicles and machinery entering Thredbo must adhere to the Standard Operating Procedure: Use and Maintenance of Wash Down Bay, March 2019 (KT055). The wash down bay is located at the Thredbo Waste Transfer Station for use by KT staff and contractors.	Vegetation clearing and construction
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.	Vegetation clearing and construction
All machinery to be regularly maintained and manoeuvred to prevent the spread of weeds and pathogens.	Vegetation clearing and construction

6.5 Air Quality

Air Quality Management	
Objective	To minimise potential impacts on sensitive receivers from dust and other air pollution from construction activities.
Mitigation Measures	**Timing**
Dust generation will be managed through typical dust suppression that will include covering stockpiled spoil, minimising ground disturbance and covering loads.	Vegetation clearing and construction
Plant and equipment to be maintained and operated in an efficient manner to reduce air pollution.	Vegetation clearing and construction
Vehicles are to adhere to speed limits to minimise dust general and potential spill of hauled materials.	Vegetation clearing and construction
All vehicles carrying spoil or rubble to/from site should be covered to prevent the escape of dust or other material. Covers are to be adequately secured.	Vegetation clearing and construction

6.6 Noise and Vibration

Noise and Vibration Management	
Objective	To ensure that noise and vibration from construction activities does not cause environmental nuisance in the locality.
Mitigation Measures	**Timing**
Awareness training and information will be provided to project personnel in relation to minimising noise pollution as much as practicable when in close proximity of sensitive receivers.	Site induction
Selection of the most appropriate plant and equipment to minimise noise generation.	Construction
Construction works will be undertaken during standard work hours.	
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.*	
Regular checks are to be undertaken to ensure all equipment and vehicles are in good working order and are operated correctly.	
All plant will be maintained in accordance with the manufacturer's requirements.	

6.7 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	**Timing**
Environmental spill kits containing suitable spill response materials shall be kept on site at all times. Spill kit materials shall be used in the event of a spill. Any oil spilt during the oil transfer or at other times shall be immediately contained and cleaned up.	Construction
In the event on an on-site spill, construction staff will follow KT's Construction Site Incident and Emergency Procedures Thredbo Village, version 1.1.	
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.	
Fuel and chemicals will be appropriately stored and handled in accordance with relevant Australian Standards and Codes of Practice.	
Appropriate controls will be implemented when refuelling Project vehicles and machinery.	

6.8 Traffic and Access

Traffic and Access Management	
Objective	Minimise impacts on existing road network. Minimise impacts to pedestrians and bike riders.
Mitigation Measures	**Timing**
Mountain bike trails Temporary closure of the Cannonball Downhill MTB trail (black) will be required between Snowgums top station area and the active construction site. Riders will be diverted onto the Kosciuszko Flow trail at the junction with Cannonball Downhill adjacent to Snowgums top station. 	Prior to construction and during construction
Traffic and construction vehicle access will be managed as per regular daily operation in the resort.	Construction
All Project vehicles and machinery to adhere to speed limits and signage.	Construction

6.9 Waste Management

6.9.1 Waste Storage and Disposal

Construction waste will be transported off-site to KT's waste transfer facility or another licenced waste facility.

Excess spoil from excavations will be taken off-site and placed within the resort's existing stockpile area located at the carpark adjacent to the Thredbo Waste Transfer Station for re-use within the resort.

6.9.1.1 Licenced Waste Facilities

There are two licenced waste facilities within proximity to Thredbo, including:

- Jindabyne Landfill, 6013 Kosciuszko Road, Jindabyne NSW
- Cooma Landfill, 8448 Monaro Highway, Cooma NSW.

6.10 Aboriginal Cultural Heritage

6.10.1 Unexpected Finds Procedure

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.

6.11 Bushfire Protection

The construction contractor would be responsible for determining relevant requirements for the site and ensuring staff are aware of bushfire avoidance, evacuation, and management measures e.g. prior to undertaking works the construction contractor should confirm that there is no current total fire ban or Kosciuszko National Park fire ban as this may place restrictions of activities such as use of plant or machinery in grass/bush settings.

The **Construction Site Incident and Emergency Procedure** outlines procedures for responding to fire and bushfire incidents or emergencies. This procedure is made available to all construction staff. In the event of a bushfire, Kosciuszko Thredbo (the head lessee) would implement the resort-wide Bushfire Evacuation Plan. The plan has been designed to assist management and emergency services to protect life and property in the event of a bush fire or other emergency.

7 Monitoring and Reporting

7.1 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.

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**. 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)
- Details of corrective actions.

The **Environmental Incident Report Form** 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 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.

8 Record Keeping and Review

8.1 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.
- Records of any environmental incidents, complaints, non-conformances and no-compliances.

8.2 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
- At the end of a Project to allow for improvements in subsequent Projects

9 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 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

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.

10 Appendices

Appendix A Plans

Kosciuszko Thredbo Pty Ltd
Proposed Access Track to
Kareela Hutte

CLM CiViL Project No. V-333

Locality Plan - Not to Scale

DRAWING LIST

Sheet No:	Description
1	Cover Sheet, Drawing List and Locality Plan
2	Site Plan and Access Track Long Section
3	Access Track Cross Sections
4	Erosion and Sediment Control plan
5	Erosion and Sediment Control Details

ENGINEERS AUSTRALIA
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NOT FOR CONSTRUCTION

Rev	Date	Description
A	1/8/24	First Issue
B	28/8/24	Secondary access track added
C	9/9/24	Access track relocated

Proposed Access Track to
Kareela Hutte

CLM CiViL
CLM CiViL Engineering
205 Bobundara Road
BERRIDALE NSW 2628
PH: 0427 886 623
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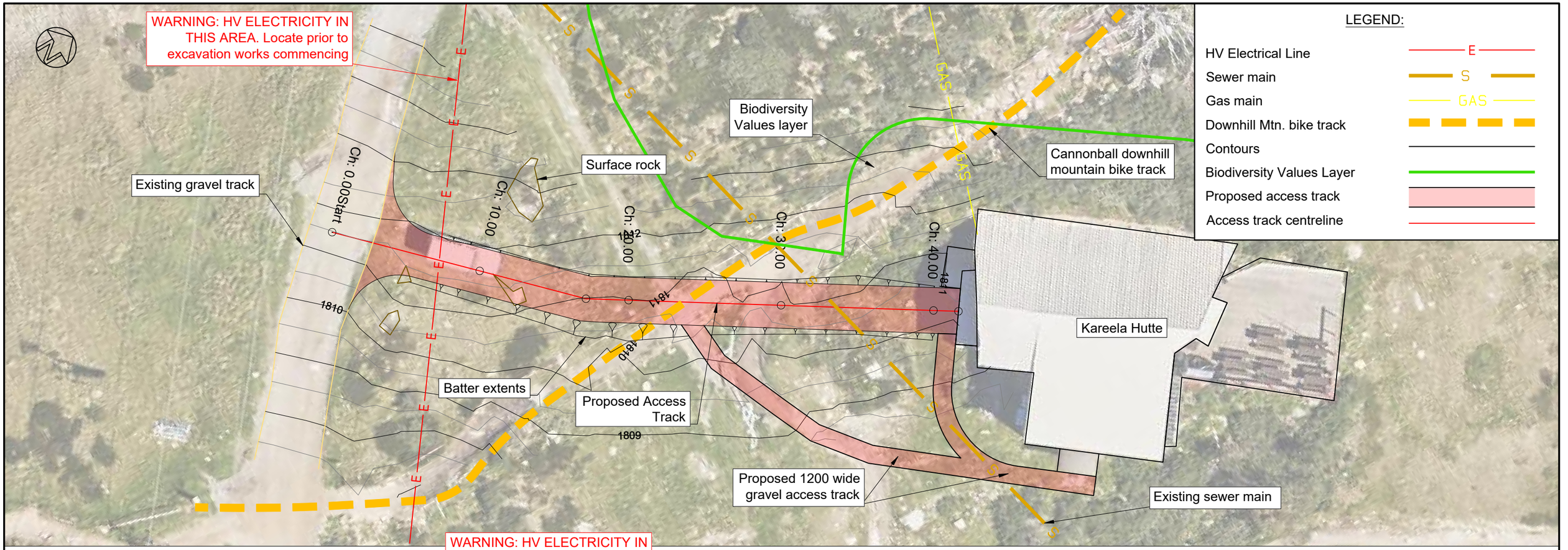
Client: Kosciuszko Thredbo Pty Ltd

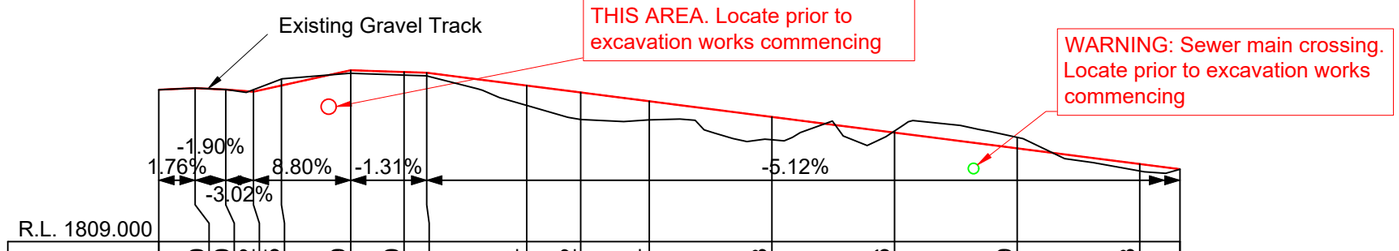
This Drawing: Cover Sheet, Drawing List and Locality Plan

Status: Client Review

Datum: GDA2020/AHD | Scale: | Size: A3

Project Number: V-333 | Sheet: 1 of 5 | Revision: C





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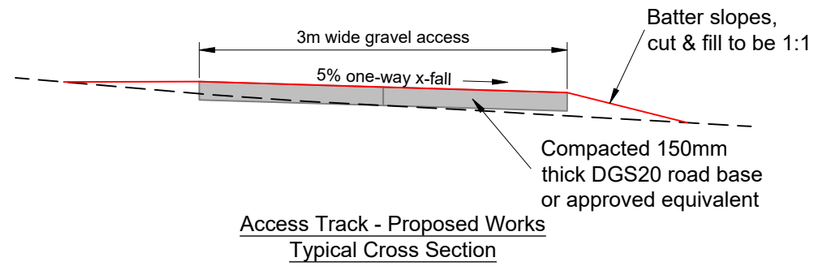
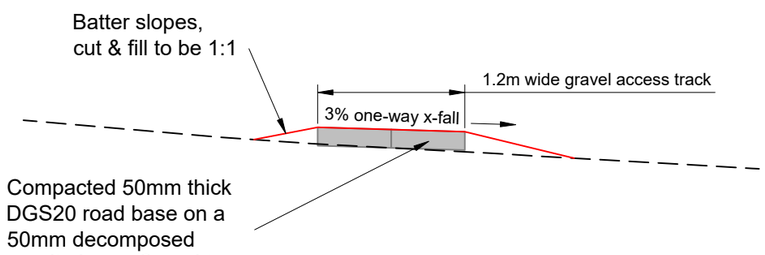
Fill																
Design Levels	1811.477	1811.503	1811.479	1811.445	1811.545	1811.794	1811.765	1811.753	1811.544	1811.432	1811.289	1811.033	1810.777	1810.521	1810.265	1810.181
Existing Levels	**1811.476**	1811.503	1811.479	1811.477	1811.650	1811.745	1811.715	1811.702	1811.220	**1810.990**	1810.985	1810.660	1810.803	1810.700	1810.152	**1810.180**
Chainage	0.000	1.481	2.729	3.859	5.000	7.825	10.000	10.924	15.000	17.201	20.000	25.000	30.000	35.000	40.000	41.639

Access Track Long Section
1:250H 1:100 V

NOT FOR CONSTRUCTION



Access Track - Proposed Works
Typical Cross Section



Gravel Access track - Proposed Works
Typical Cross Section

Rev	Date	Description
A	1/8/24	First Issue
B	28/8/24	Secondary access track added
C	9/9/24	Access track relocated

Proposed Access Track to
Kareela Hutte

CLM CiViL
CLM CiViL Engineering
205 Bobundara Road
BERRIDALE NSW 2628
PH: 0427 886 623
E: greg@clmcivil.com.au

Client: Kosciuszko Thredbo Pty Ltd

This Drawing: Site Plan and Access Track Long Section

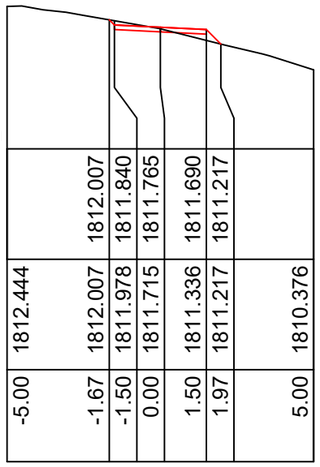
Status: Client Review

Datum	Scale	Size
GDA2020/AHD	Plan 1:250	A3

Project Number	Sheet	Revision
V-333	2 of 5	C

All cut/fill batters 1:1

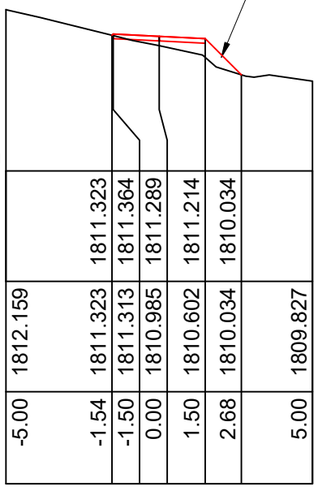
RL1807.8m



-5.00	-1.67	-1.50	0.00	1.50	1.97	5.00
1812.444	1812.007	1811.978	1811.715	1811.336	1811.217	1810.376
	1812.007	1811.840	1811.765	1811.690	1811.217	

Ch 10.00 m

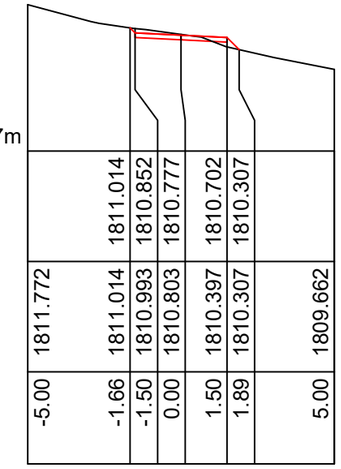
RL1806.9m



-5.00	-1.54	-1.50	0.00	1.50	2.68	5.00
1812.159	1811.323	1811.313	1810.985	1810.602	1810.034	1809.827
	1811.323	1811.364	1811.289	1811.214	1810.034	

Ch 20.00 m

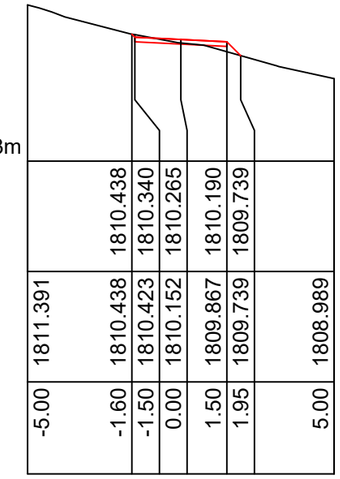
RL1807m



-5.00	-1.66	-1.50	0.00	1.50	1.89	5.00
1811.772	1811.014	1810.993	1810.803	1810.397	1810.307	1809.662
	1811.014	1810.852	1810.777	1810.702	1810.307	

Ch 30.00 m

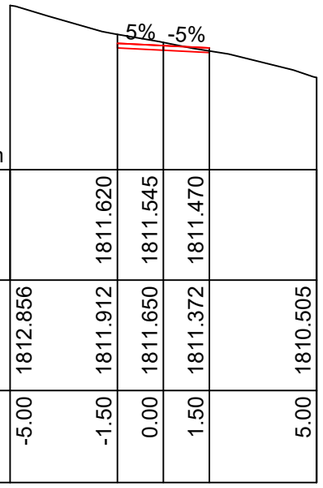
RL1806.3m



-5.00	-1.60	-1.50	0.00	1.50	1.95	5.00
1811.391	1810.438	1810.423	1810.152	1809.867	1809.739	1808.989
	1810.438	1810.340	1810.265	1810.190	1809.739	

Ch 40.00 m

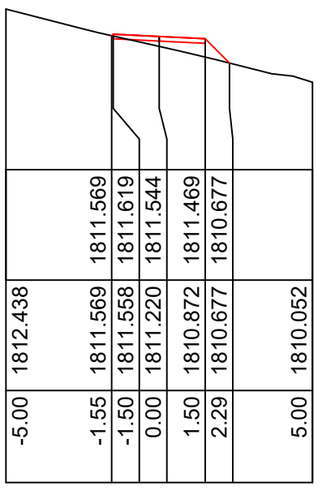
RL1807.5m



	-5.00	-1.50	0.00	1.50	5.00
DESIGN		1811.620	1811.545	1811.470	
EXISTING	1812.856	1811.912	1811.650	1811.372	1810.505
OFFSET	-5.00	-1.50	0.00	1.50	5.00

Ch 5.00 m

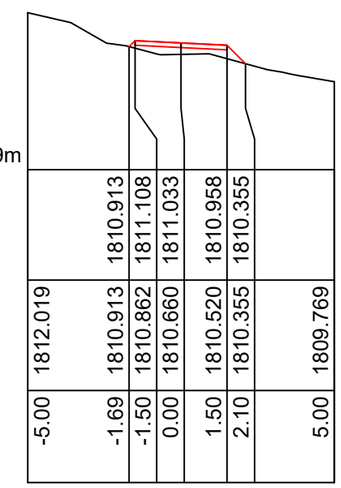
RL1807.2m



-5.00	-1.55	-1.50	0.00	1.50	2.29	5.00
1812.438	1811.569	1811.558	1811.220	1810.872	1810.677	1810.052
	1811.569	1811.619	1811.544	1811.469	1810.677	

Ch 15.00 m

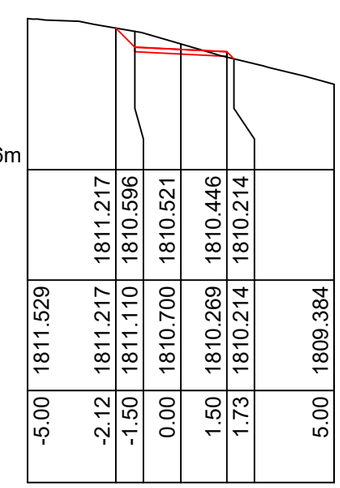
RL1806.9m



-5.00	-1.69	-1.50	0.00	1.50	2.10	5.00
1812.019	1810.913	1810.862	1810.660	1810.520	1810.355	1809.769
	1810.913	1811.108	1811.033	1810.958	1810.355	

Ch 25.00 m

RL1806.6m



-5.00	-2.12	-1.50	0.00	1.50	1.73	5.00
1811.529	1811.217	1811.110	1810.700	1810.269	1810.214	1809.384
	1811.217	1810.596	1810.521	1810.446	1810.214	

Ch 35.00 m

NOT FOR CONSTRUCTION

Rev	Date	Description
A	1/8/24	First Issue
B	28/8/24	Secondary access track added
C	9/9/24	Access track relocated

Proposed Access Track to
Kareela Hutte

CLM CiViL Engineering
205 Bobundara Road
BERRIDALE NSW 2628
PH: 0427 886 623
E: greg@clmcivil.com.au

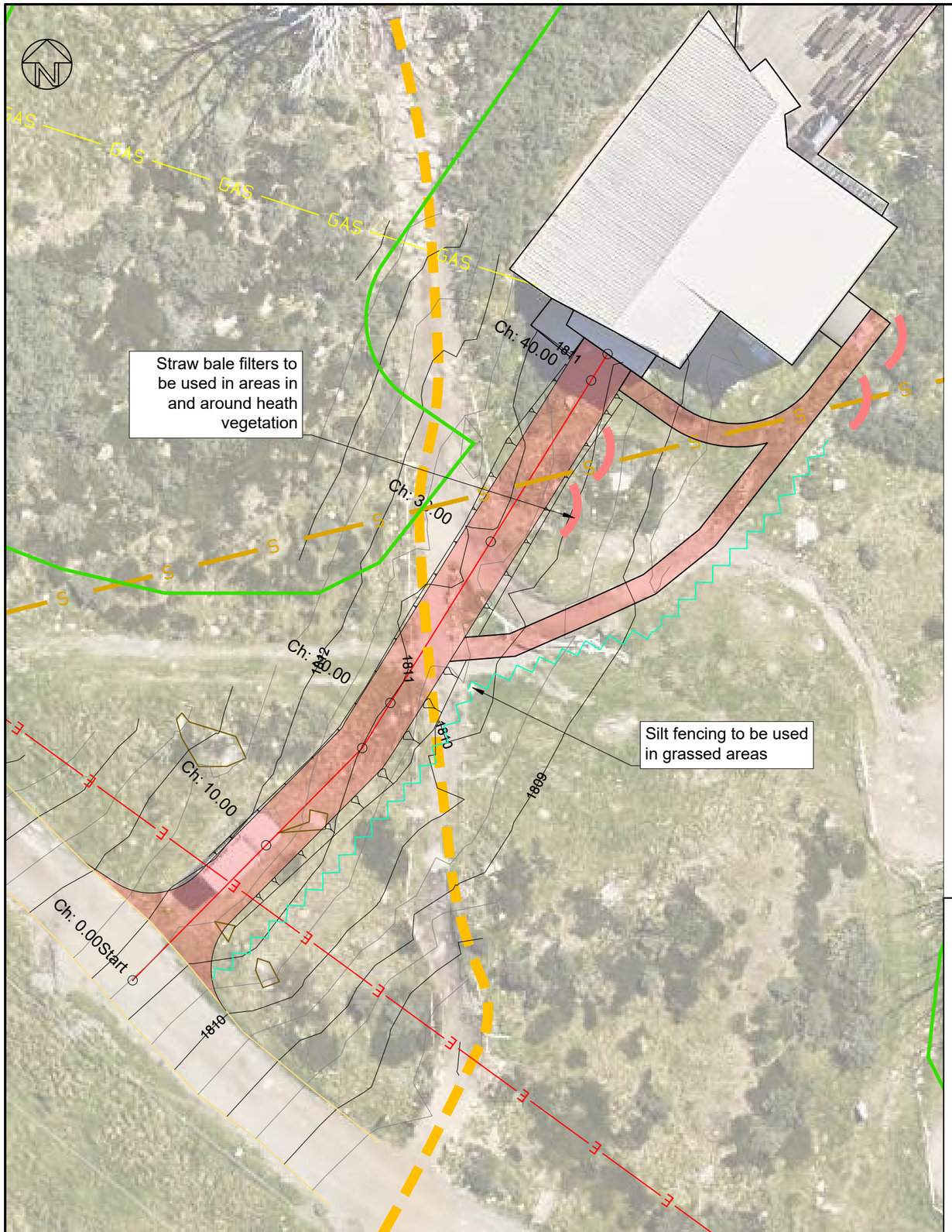
Client: Kosciuszko Thredbo Pty Ltd

This Drawing: Access Track Cross Sections

Status: Client Review

Datum: GDA2020/AHD | Scale: 1:200H 1:200V | Size: A3

Project Number: V-333 | Sheet: 3 of 5 | Revision: C



ENVIRONMENTAL SITE MANAGEMENT

1. Implement soil and water management procedures to avoid erosion, contamination and sedimentation of the site, surrounding areas and drainage systems in accordance with the details provided in this drawing set, the Office of Environment and Heritage publication, 'Erosion and Sediment Control on Unsealed Roads, A Field Guide for Erosion and Sediment Control Maintenance Practices' and the 'Site Environmental Management Plan' prepared by Kosciuszko Thredbo.

2. Sediment and erosion controls must be in place prior to the commencment of any earthworks. The location of the final position of sediment and erosion control measures shall be determined on-site.

3. It is the responsibility of the contractor to ensure that all measures are taken during the course of construction to prevent sediment erosion and pollution of the downstream system. All sediment control structures shall be inspected after each rainfall event for structural damage and all trapped sediment to be removed to a nominated site. A sediment fence is to be placed downslope of all stockpiles.

4. Retain all vegetation wherever possible. Topsoil from all areas that will be disturbed is to be stripped and stockpiled at the nominated site.

5. Disturbed areas are to be stablised as early as possible. All disturbed areas are to be stablised within 14 days of disturbance.

6. All existing vegetation is to be retained unless shown otherwise on the approved drawings.Trees retained are to be protected with high visibility fence plus the flagging of individual trees as necessary.

7. All silt fences and barriers are to be maintained in good order and regularly desilted during the construction period.

8. The head contractor is to inform all site staff and sub-contractors of their obligations under the erosion and sediment control plan.

LEGEND:

HV Electrical Line	E
Sewer main	S
Gas main	GAS
Downhill Mtn. bike track	
Contours	
Biodiversity Values Layer	
Proposed access track	
Access track centreline	
Straw bale filter	
Sediment fence	

NOT FOR CONSTRUCTION

Rev	Date	Description
A	1/8/24	First Issue
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Proposed Access Track to Kareela Hutte

CLM CiViL
CLM CiViL Engineering
205 Bobundara Road
BERRIDALE NSW 2628
PH: 0427 886 623
E: greg@clmcivil.com.au

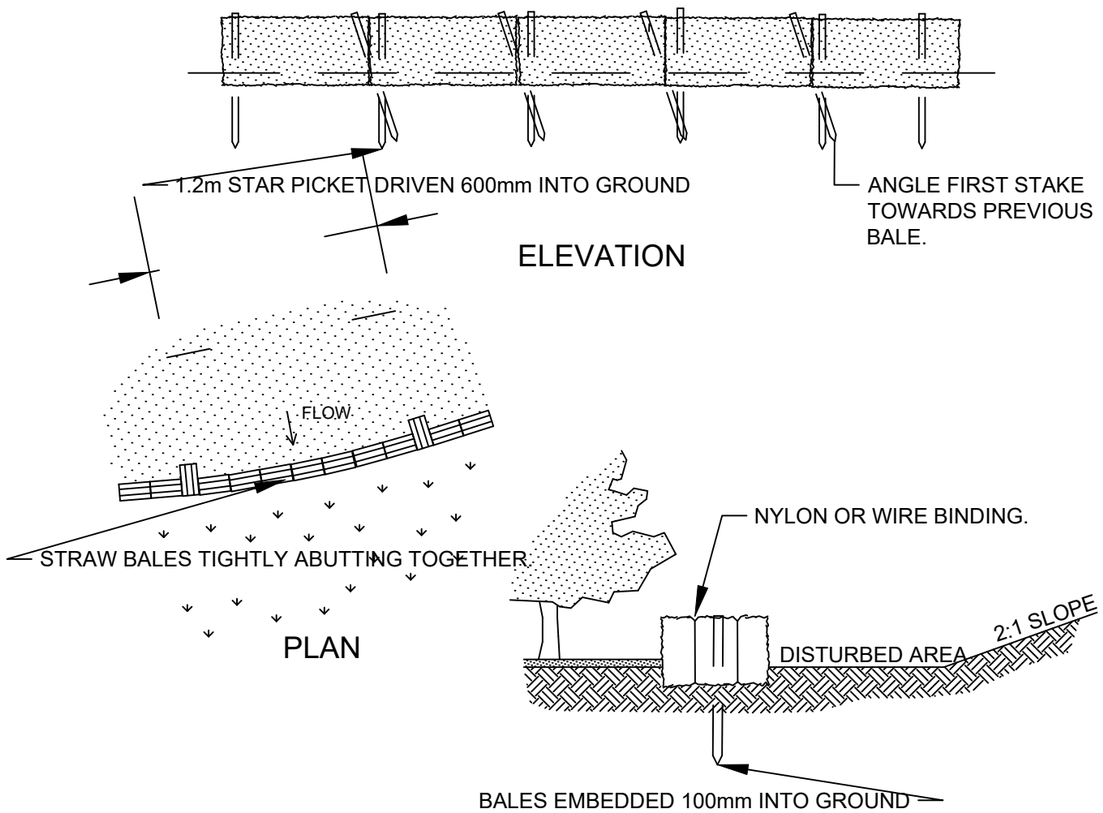
Client: Kosciuszko Thredbo Pty Ltd

This Drawing: Erosion and Sediment Control Plan

Status: Client Review

Datum	Scale	Size
GDA2020/AHD	1:500	A3

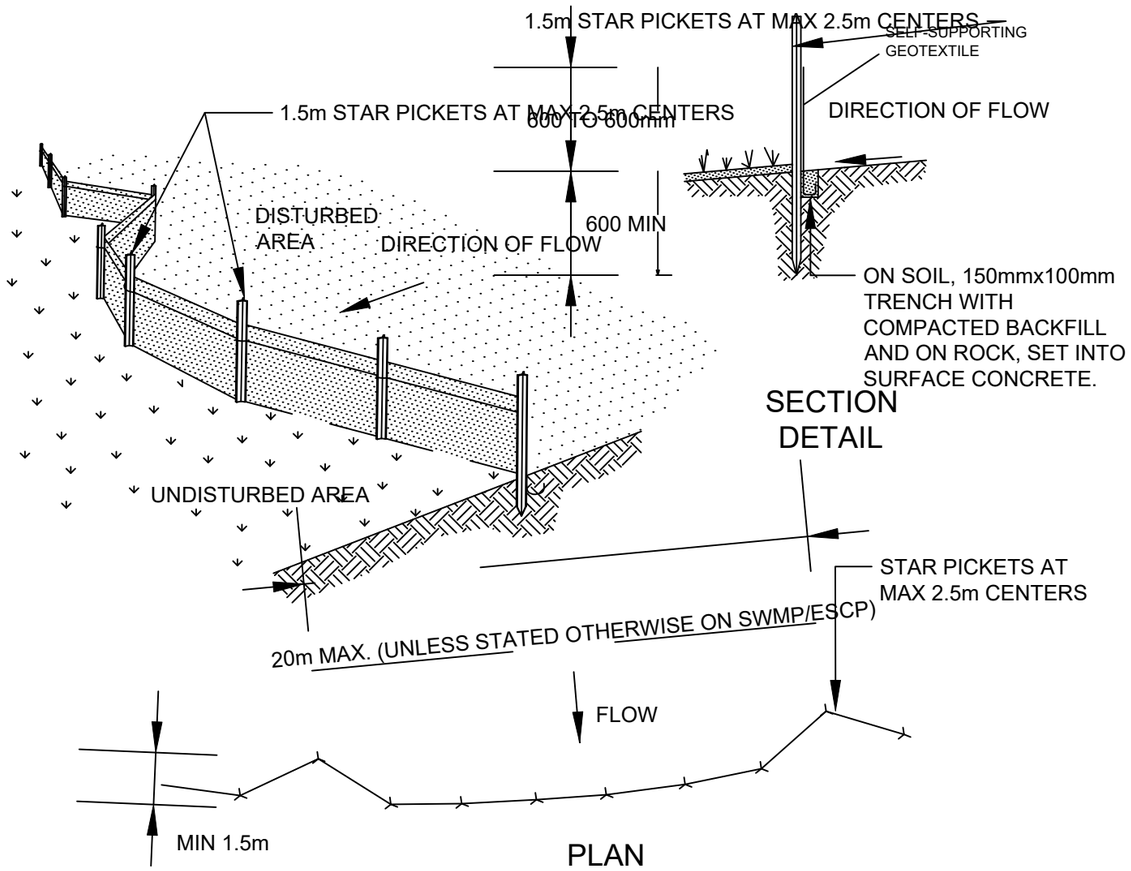
Project Number	Sheet	Revision
V-333	4 of 5	C



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. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

STRAW BALE FILTER (SD 6-7)



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING 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 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)

NOT FOR CONSTRUCTION

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Proposed Access Track to

Kareela Hutte

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CLM CiViL Engineering
205 Bobundara Road
BERRIDALE NSW 2628
PH: 0427 886 623
E: greg@clmcivil.com.au

Client: Kosciuszko Thredbo Pty Ltd

This Drawing: Erosion and Sediment Control Details

Status: Client Review

Datum: GDA2020/AHD | Scale: | Size: A3

Project Number: V-333 | Sheet: 5 of 5 | Revision: C

Appendix B Environmental Schedules

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.

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

……

……

……

……

Disposal

Detail disposal method/plans and location

……

……

……

Recommended follow up and preventative actions

Detail recommendations

……

……

……

Persons present at Incident

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

……

……

Declaration

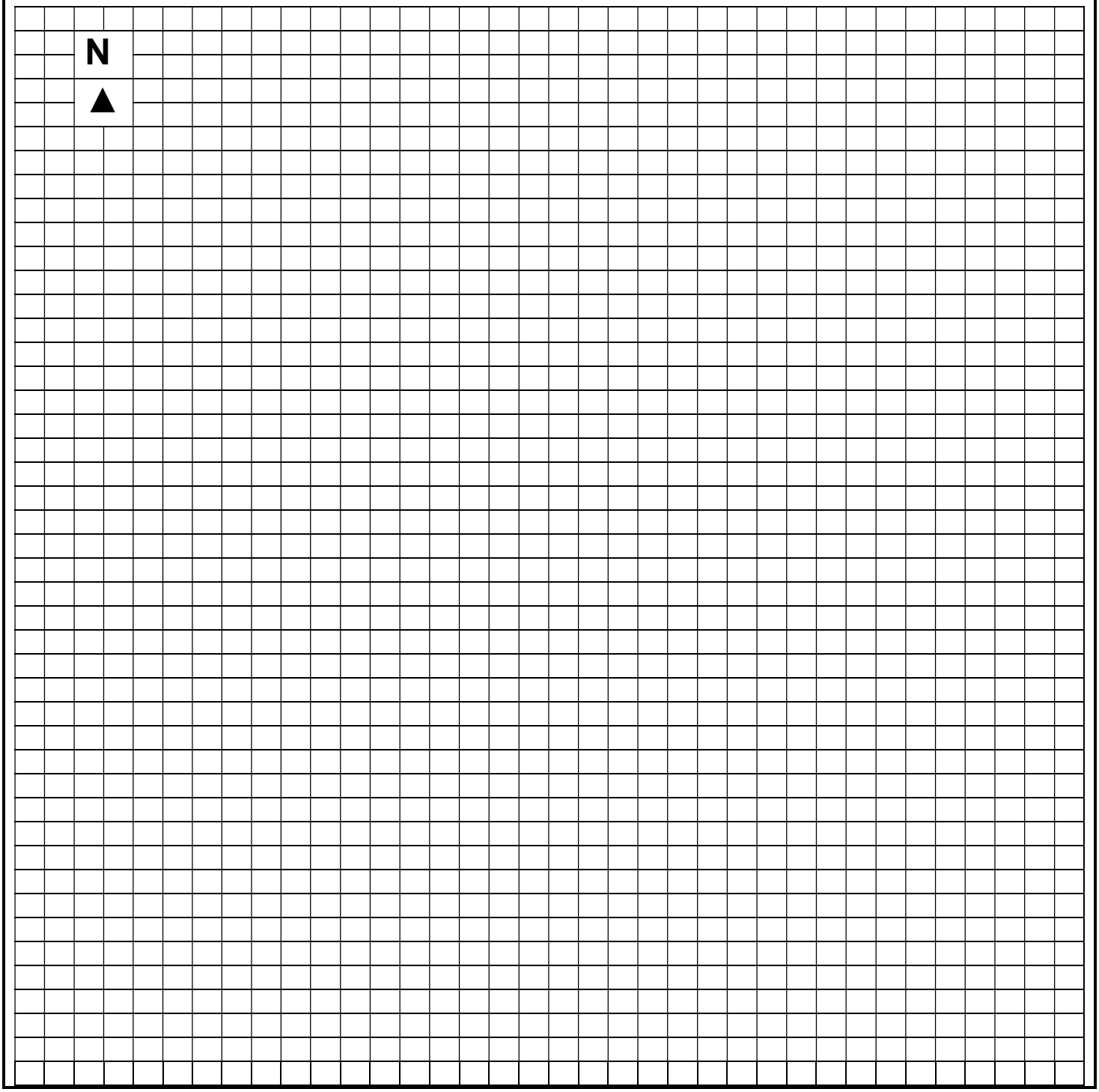
The information and answers given above are true in every detail and no information has been withheld.

Departmental Supervisors Name	
Departmental Supervisors signature	*Date*

Departmental Managers Name	
Departmental Managers signature	*Date*

Environmental Incident Reporting Form

Diagram: (do not scale)



Created By: Paul Corcoran
Created Date: 24 Mar 2009
Review Date: 24 Mar 2017
Reviewed Date: 7th January 2020, by E Diver