Preliminary DRAFT

Pollution Incident Response Management Plan

Newnes Kaolin Sand Mine and Kaolin Quarry
Sandham Road, Newnes Junction
(Off the Bells Line of Road)

DRAFT ONLY

FINAL version to be TESTED & OPERATIONAL prior to commencement of construction activities on site in late 2016 or 2017

Prepared by:

RPS AUSTRALIA EAST PTY LTD

PO Box 428
Hamilton, NSW
2303

T: +61 4940 4200
F: +61 4961 6794
E: tony.proust@rpsgroup.com.au

Client Manager: Tony Proust
Report Number: PR105716
Version / Date: Amended draft April 2015

Prepared for:

NEWNES KAOLIN P/L

Ron Goldbery
3 Karingal Court
Marsfield
NSW 2122

T: (02) 98691627
M: 0410-692404
E: rongoldbery@optusnet.com.au
W: www.sydneyconstructionmaterials.com

IMPORTANT NOTE

We have prepared this report for the sole purposes of NEWNES Kaolin P/L ("**Client**") for the specific purpose of only for which it is supplied ("**Purpose**"). This report is strictly limited to the purpose and the facts and matters stated in it and does not apply directly or indirectly and will not be used for any other application, purpose, use or matter.

In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the Client or as a result of a specific request or enquiry were complete, accurate and up-to-date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with respect to the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

This report is presented without the assumption of a duty of care to any other person (other than the Client) ("**Third Party**"). The report may not contain sufficient information for the purposes of a Third Party or for other uses. Without the prior written consent of RPS Australia East Pty Ltd:

(a) this report may not be relied on by a Third Party; and

(b) RPS Australia East Pty Ltd will not be liable to a Third Party for any loss, damage, liability or claim arising out of or incidental to a Third Party publishing, using or relying on the facts, content, opinions or subject matter contained in this report.

If a Third Party uses or relies on the facts, content, opinions or subject matter contained in this report with or without the consent of RPS Australia East Pty Ltd, RPS Australia East Pty Ltd disclaims all risk and the Third Party assumes all risk and releases and indemnifies and agrees to keep indemnified RPS Australia East Pty Ltd from any loss, damage, claim or liability arising directly or indirectly from the use of or reliance on this report.

In this note, a reference to loss and damage includes past and prospective economic loss, loss of profits, damage to property, injury to any person (including death) costs and expenses incurred in taking measures to prevent, mitigate or rectify any harm, loss of opportunity, legal costs, compensation, interest and any other direct, indirect, consequential or financial or other loss.

Document Status

Version	Purpose of Document	Orig	Review	Review Date
Prelim draft		TP	RG	April 2015

Approval for Issue

Name	Signature	Date

Contents

Tables

Appendices

1.0 Introduction

1.1 Background

Newnes Kaolin Pty Ltd, trading as Sydney Construction Materials (SCM) has approval to construct a sand and kaolin extraction operation at Newnes Junction near Lithgow. This Environmental Management Strategy (EMS) consists of several sections dealing with a number of general strategies to ensure that the proposed mine does not negatively impact on the surrounding environment, water, vegetation and habitat values within the adjoining Blue Mountains World Heritage Area (BMWHA) and other surrounding areas. This document is in several sections with each section dealing with separate environmental issues as required by the Conditions of Consent for DA 329-7-2003 issued by the Minister for Planning.

The EMS is not considered a stand-alone document and should be implemented in conjunction with other reports associated with the proposed development.

Site description

The site of the development is approximately 25 hectares in area located approximately 6kms east of Lithgow, north of the railway and the Bells Line of Road.

The description of the land over which the development will be undertaken is described as:

- Lot 7005 DP 1020664
- Lot 24 DP 751631
- Lot 1 DP 108485

The site is bounded by Clarence Colliery to the northwest, the Blue Mountains National Park to the east, the former Rocla quarry to the south and Sandham Road, including the village of Newnes Junction and the main railway line to the south and southwest and the existing rail loop to the west.

The village of Newnes Junction, which includes approximately 6 dwellings, is located approximately 100 metres southwest of the proposed quarry.

The site falls from the south west at approximate RL 1070 AHD to the north east at approximate RL 990 AHD. Refer to locality plan in **Appendix 1**.

1.1.1 Description of proposed development

The purpose of the mine or quarry is for the extraction of friable sandstone for processing into building materials, specialty sands and kaolin. The mine design is based on maintaining substantial buffers to the Newnes Junction residents and National Park, reducing disturbance to the marginal Newnes Plateau Shrub Swamp vegetation to the southwest of the site, and having sufficient area for the required infrastructure. The pit depth is variable as it is located on the side of a hill and ranges from 80 m on its western wall to only a few metres in the east. The maximum pit dimensions are 750 m in length north-south by 460 m in width. The final wall slope has a 2 m wide berm every 3 m in vertical height providing regular terraces for planting of vegetation as part of the progressive rehabilitation and eventual screening of walls.

With total estimated reserves of over 20Mt, the pit life is expected to exceed 21 years. Approximately 1.1Mt per annum will be extracted on average with a maximum expected of 1.4Mtpa. Areas adjacent to the quarry have been extensively quarried/mined for construction sands and coal.

The site development will take place in three stages: site preparation and construction; quarry development and operations; and final rehabilitation. The main activities of each are described below.

1.1.2 Site preparation and construction

This primary stage includes construction of an acoustic barrier along the south-western boundary of the site to mitigate any noise created within the site from impacting on the township of Newnes Junction. This stage includes construction of infrastructure such as access roads, office and parking facilities, a stockpiling conveyor and hopper, maintenance facilities, a flat pad for the setup of the surface mining machine and flow controls for dirty and clean water including detention ponds and a water treatment plant.

The site preparation for surface miner use involves establishing an area of sufficient width and length to allow the surface miner to operate efficiently. Wirtgen (the manufacturers of the surface mining machine) recommend for standard applications in soft material that the minimum cutting length be 300 m. The surface miner working bench will be established by ripping and dozing with a small dozer and removal of material by scrapers. The excavated friable sandstone will be required for test work in commissioning the process plant; incorporated in site infrastructure activities or stockpiled, and railed from site for processing. Topsoil stripped will be placed adjacent to the acoustic barrier to allow a visual screen of native trees to be established to further shield the barrier and quarry operation from the residents.

1.1.3 Quarry development and operation

The quarrying method involves extracting the material in horizontal layers from the upper most quarry bench to its base over the full width and length of each successive bench. This method meets the requirements of the surface mining machine, which prefers to operate over large, relatively flat areas for maximum efficiency. As the excavation expands, final slope batters and berms are formed into terraces and progressively rehabilitated. Also, residences will be increasingly shielded from the development by the final pit walls. The working benches will have a slight grade to direct surface run-off away from the pit crest to the northwest area of the excavation. Quarrying below 1002 RL will involve maintaining a minimum 2 m high wall on the western side to prevent outflow of water into the National Park and significantly increase the void's water storage capacity. The pit base is planned to be approximately 990 RL.

An important characteristic of the quarry development will be the early and progressive rehabilitation of the open cut berms or terraces. As the bench height is only 3 m, the wall will form a series of small terraces relative to typical quarry operations. Vegetation growth will hence shield the walls with the intention of screening the open cut void and reducing the visual impact ("terrace landscaping"). Rehabilitation will involve:

- surface preparation of the area by light ripping;
- placement of topsoil on an area 2m wide around the edge of the pit; and
- planting of locally occurring native shrubs and trees on the topsoiled bench.

The site topography will allow for continued access to all benches.

The mine will progress from the higher areas (approximately 1070 RL in the north-west parts of the site) and progress downwards and to the east in stages spread over a period of approximately 20 years. The final depth of the mine will be at 990 RL and will be approximately 25 hectares in size.

1.1.4 Final rehabilitation

The final quarry void will contain a large number of small benches forming a terraced, vegetated landscape. The base of the pit will be graded to be free-draining with all disturbed areas to be top-soiled and re-vegetated. A small free draining wetland will result in the area occupied by the final retention pond.

The quarry design enables all water flows at the completion of quarrying to be contained within the quarry void for a period. When the final rehabilitation is complete, and vegetation well established and the landform stable, it will be possible to place a channel from the near quarry floor to the small creek channel in the north to re-establish flows directly to the water course. Previously, no direct flows other than those discharged by the water treatment plant would have taken place. Also on completion of quarrying, all buildings, infrastructure and stockpiles will be removed from the pit and processing areas leaving them to be shaped and re-vegetated.

1.1.5 Development consents and associated documents

The development was approved under the NSW Environmental Planning & Assessment Act 1979 (EP&A) in DA 329-7-2003 which was approved by the Minister for Planning on 14th March 2006 (Development Consent).

The original Environmental Impact Statement, dated May 2003, was prepared by SCM, and submitted to DIPNR in May 2004. Supplementary Information was prepared and lodged in April 2005.

The Commonwealth Government consent for the project under the Environment Protection & Biodiversity Conservation Act (EPBC 2002/620) was approved on 22nd August 2006.

1.1.6 Physical commencement of project

The project was physically commenced on the 13th March 2011 with the clearing of approximately 1000m2 of future stockpile area and future site office and construction of a small stormwater detention basin. There has been no additional work undertaken on site since then.

1.1.7 Project website

The project website is as follows;

www.sydneyconstructionmaterials.com

The project website will be regularly updated to include latest news, minutes of the CCC and other related information including a current copy of this PIRMP.

2.0 Legislative Requirements

The specific requirements for Pollution Incident Response Management plans are set out in Part 5.7A of the **Protection of the Environment Operations (POEO) Act 1997** and the Protection of the Environmental Operations (POEO) (general) Regulation 2009. In summary, this provision requires the following:

- All holders of environment protection licenses must prepare a pollution incident response management plan (section 153A, POEO Act)
- The plan must include the information detailed in the POEO Act (section 153C) and be in the form required by the POEO (G) Regulation (clause 98B)
- Licensees must keep the plan at the premises to which the environment protection license relates, or in the case of trackable waste transporters and mobile plant, where the relevant activity takes place (section 153D, POEO Act)
- Licensees must test the plan in accordance with the POEO (G) Regulation (clause 98E)
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the plan (section 153 F, POEO Act)

2.1 Definition of 'pollution incident'

The definition of a pollution incident is:

> *Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occured, is occuring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.*

A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

a. *Harm to the environment is material if:*

   i. It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

   ii. It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations) and,

b. *Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment*

Industry is now required to report pollution incidents immediately to the EPA, NSW Health, Fire and Rescue NSW, Work Cover NSW and the local council. 'Immediately' has its ordinary dictionary meaning of promptly and without delay. These strengthened provisions will ensure that pollution incidents are reported directly to the relevant response agencies so they will have direct access to the information they need to manage and deal with the incident in a faster time.

There are new associated offences, for individuals and corporations, for not preparing a plan, not keeping with the plan at the premises to which it relates, not testing the plan in accordance with the regulations and not implementing the plan in the case of an incident.

2.2 New regulation

An amendment to the POEO(G) Regulation has been made (by the Protection of the Environment Operations (general) Amendment (Pollution Incident Response Management Plans)Regulations 2012) with the object of specifying additional matters that need to be included in the plans.

2.3 Obligations and transitional period for complying with the requirements

These provisions commenced on 29th February 2012, with all new licensees needing to have a plan in place prior to commencement operations.

Licensees will now be required to report pollution incidents 'immediately' instead of 'as soon as practicable' (section 148 POEO Act). This means that licensees need to report pollution incidents without delay.

Licensees must notify all of the Appropriate Regulatory Authorities about the incidents. These include:

- Environmental Protection Authority (EPA)
- Ministry of Health
- Work Cover Authority
- Lithgow City Council
- Fire and Rescue

3.0 General requirements for preparing pollution incident response management plans

3.1 Form of plans [section 153D & clause 98B (1)]

Extraction Project Pollution Incident Response Procedure					
Incident No:		**Time:**		**Date:**	
Duration of Incident:					
Nature of Incident:					
Temperature:	°C	**Wind Direction & Speed:**	KM/PH		
Rainfall Since 9am:	mm	**Fire Danger Rating:**			
The location of where the incident occurred:					
The nature, the estimated quantity or volume and the concentration of any pollutants involved (if known):					
The circumstances in which the incident occurred:					
The corrective action taken or proposed to be taken:					
Has Council been notified?	☐YES ☐NO				
Has Environment Protection Authority (EPA) been notified?	☐YES ☐NO				
Has NSW Ministry of Health (via Public Health Units) been notified?	☐YES ☐NO				
Has WorkCover NSW been notified?	☐YES ☐NO				
Has local Fire and Rescue NSW been notified?	☐YES ☐NO				

3.2 Relationship with other emergency plans [clause 98B (2)]

3.2.1 Details to be included in plans

Description and likelihood of hazards [clause 98C (1) (a) and (b)]

A summary of the potential hazards to the environment and community and the controls in place are outlines in **Table 1** below.

Table 1 Summary of Potential Hazards

Potential Hazards	Likelihood	Controls
Bushfire caused by activities/events off site	Possible	▪ Bushfire Management Plan ▪ Site manager ▪ Staff training & site inductions
Breach of environmental license conditions	Possible	▪ Environmental officer ▪ Site manager ▪ Staff training & site inductions ▪ Water and dust monitoring ▪ Audits and inspections ▪ Environmental management system ▪ Surface filtration ponds – surface water managed by 6400m2 retention pond ▪ Rehabilitation of disturbed land
Breach of development consent conditions	Possible	▪ Environmental management system ▪ Environmental officer ▪ Site manager ▪ Internal audits completed ▪ Compliance register
Failure of sediment controls	Possible	▪ Site Manager ▪ Staff training & site inductions ▪ Environmental management system ▪ Site erosion & sediment control plan ▪ Environmental officer
Material falling from overhead conveyors	Possible	▪ Site manager ▪ OH & S operating procedures ▪ Environmental officer ▪ Environmental management system ▪ Staff training & site inductions
Spill hazardous materials (including hydrocarbons – diesel fuel for machinery on site)	Possible	▪ Trained and competent personnel ▪ Site manager ▪ Environmental management system ▪ Inspection program in place ▪ Fit for purpose equipment and spill kits on site
Soil contamination including hydrocarbons leaching	Possible	▪ Pit top hard stand areas designed to reduce possibility of soil contamination

Potential Hazards	Likelihood	Controls
Bushfire caused by on site activities	Remote	▪ Bushfire management plan ▪ Site manager ▪ Staff training & site inductions
Noise impacts on neighbours are greater than predicted	Remote	▪ Environmental officer ▪ Site manager ▪ Environmental management system ▪ Noise monitoring system in place ▪ Management representatives attend community meetings
Airborne dust impacts on neighbours are greater than predicted	Remote	▪ Environmental management system ▪ Environmental officer ▪ Site manager ▪ Dust monitoring program ▪ Dust suppression processes in the mine ▪ Management representatives attend community meetings ▪ Sealed access road to mine site
Failure of on-site stormwater retention pond system	remote	▪ Site manager ▪ Environmental officer ▪ Environmental management system
Uncontrolled surface water/sediment discharge into adjoining National Park and/or tributaries of Wollangambe River	Remote	▪ Environmental officer ▪ Site manager ▪ Surface water management system ▪ Surface water monitoring ▪ Audits and inspections
Traffic / machinery accident on site	Remote	▪ Site manager ▪ Signage ▪ Staff training & site inductions

3.2.2 Pre-emptive actions to be taken [clause 98C (1) (c)]

On site management plan will be prepared including:

- Spill containment kits
- Personal protective equipment
- Bushfire evacuation plan **– **need draft evacuation plan by 2016/2017 or prior to start of on-site operations****
- Surface water management cut-off valves
- Fire containment water tanks

3.2.3 Inventory of pollutants [clause 98C (1) (d) & (e)]

Likely on-site pollutants to include:

- Fuel for mine/quarry machinery – most likely diesel fuel - but could include small amount of petrol
- Lubricants for mine/quarry machinery
- Gas cylinders

- Sediment contaminated surface water in detention ponds
- Portable chemical toilet

3.2.4 Safety equipment [clause 98C (1) (f)]

Table 2 outlines the safety equipment kept on site.

Table 2 Safety Equipment

Product name	Location of where equipment is kept
Reliable phone communications – landline on site	On site
Reliable location for mobile phone reception	On Sandham road at top of hill
Fire depot	Store containers
Fire extinguisher	Admin offices, store containers, crusher station, rail loading bin
Fire hydrant	Store containers
Fire station	Store containers
First aid room plus kit	Admin offices
Floating boom	Store containers
PPE	Admin offices, store containers
Spill kit	Admin offices, store containers, crusher station, rail loading bin

3.2.5 Contact details [clause 98C (1) (g) & (h)]

Primary contact details:

- Newnes Kaolin General Manager – Ron Goldbery – 02-98691627 – mobile - 0410-692404
- Newnes Kaolin Environmental Manager – Tony Proust – 02-49404200 – mob 0425-285782
- Newnes Kaolin – Site manager – TBA
- Newnes Kaolin complaints hotline – 0487-436340 **– NOT YET OPERATIONAL** – will commence operating when site works begin – estimated in late 2016 or 2017 - TBA

3.2.6 Communicating with neighbours and the local community [clause 98C (1) (i)]

The Newnes Kaolin Community Consultative Committee (NKCCC) has been meeting twice a year since later 2010

Contact details as follows;

- Independent Chair person – Sue Graves – 02-63531777 – mob 0427-101827
- Community representative – David Connell – mob 0410-714842
- Clarence Fire Shed – Henry Kirwin – 63552935
- Craig Conner – 0427-669399
  - Dave Terry – 02-63552736
  - John Cornford – 02-63552828
- Lithgow City Council – CCC representative – Skye Ellacott – 02-63549999
- Clarence Colliery – environmental officer – Jesse Purcival – 02-63538039 – mob 0400-130339

- Clarence Colliery control room – emergencies – 02-63538010
- Clarence Colliery – switch – 63538020

The project website – www.sydneyconstructionmaterials.com – will be regularly updated to include latest news, minutes of the CCC and other related information including a current copy of this PIRMP

3.2.7 Minimising harm to persons on the premises [clause 98C (1) (j)]

All staff and contractors are to be inducted before completing any work on site. The induction covers procedures for minimising the chance of a pollution incident occurring, managing a pollution incident and actions following a pollution incident.

Minimising the impact to persons at Newnes Mine during a pollution incident is the highest priority.

In the event that a pollution incident requires the evacuation of the site, actions will be completed in accordance with the site Evacuation Procedure. All staff are informed on the location of muster locations through site inductions, signage and on-going training. As part of the preparation of the PIRMP, the key aspects of the plan will be provided to staff and contractors.

Emergency reporting will be recorded on the Emergency Call Record, shown below

Date of call	Reason for call	Response	Outcome

3.2.8 Maps [clause 98C (1) (k)]

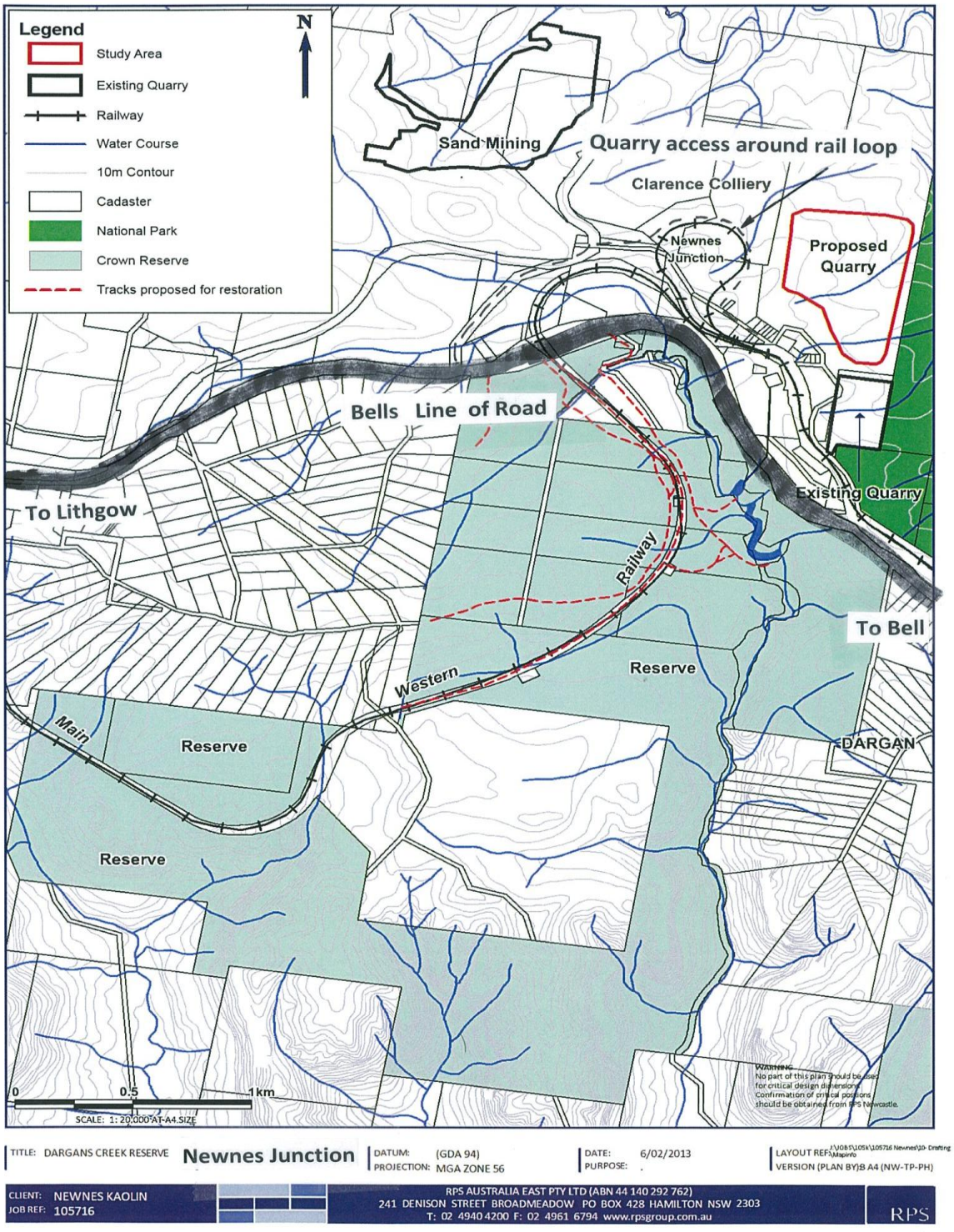

Figure 1 Location plan – access to site via the Clarence Colliery road off the Bells Line of Road – turn right before colliery entrance and follow road around rail loop passing under conveyor to Sandham Road

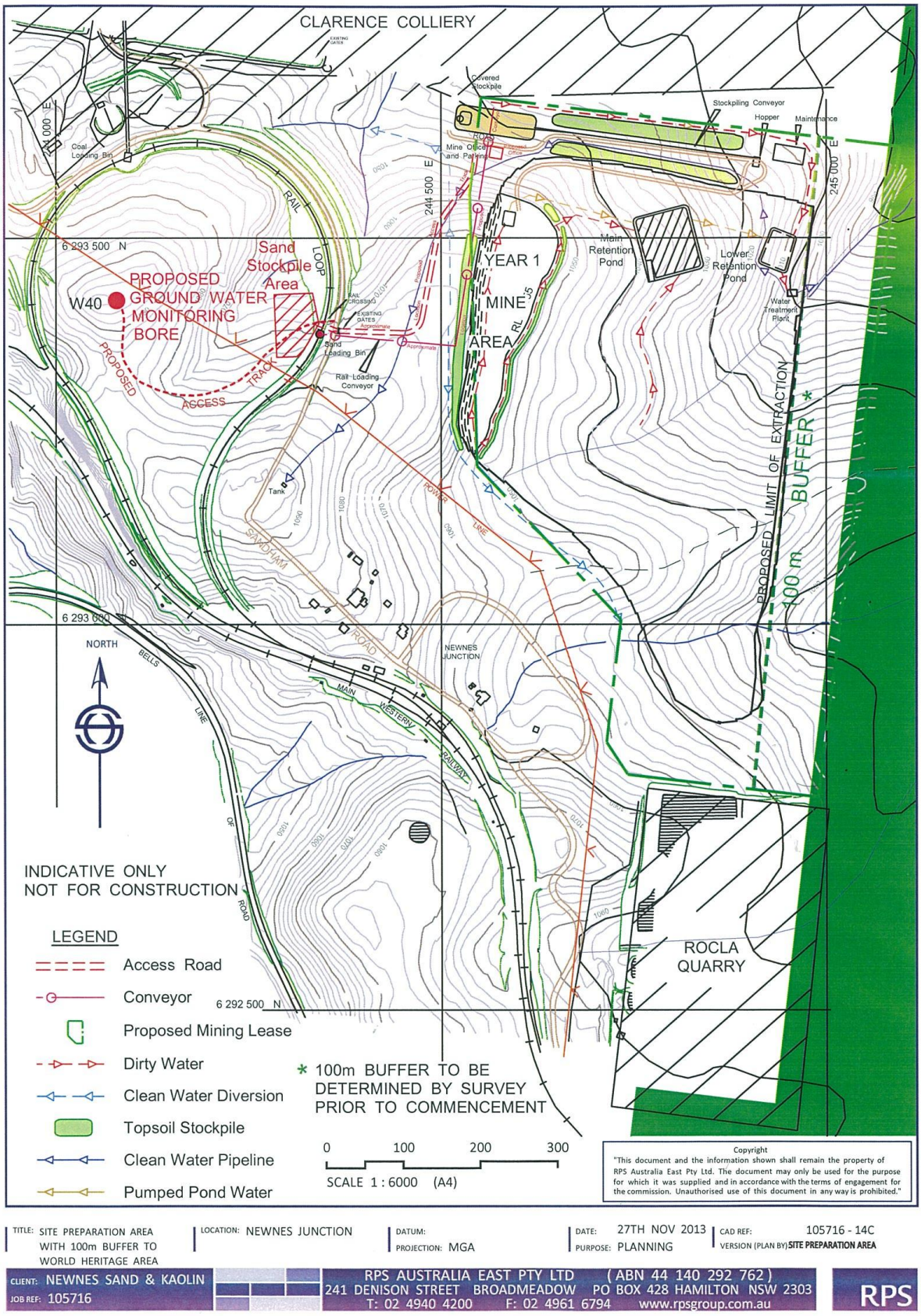

Figure 2 Site plan

3.2.9 Actions to be taken during or immediately after a pollution incident [clause 98C (1)(l)]

The annual environmental risk assessment identifies the potential hazards to the environment and community at Newnes Mine. For each potential pollution risk, there are a number of controls outlined. Some general controls which are in place to reduce the likelihood or a pollution incident occurring include:

- Site environmental and safety management plans
- Regular inspections and maintenance
- Environmental monitoring
- Correct storage and waste management
- Training and awareness

If an evacuation is required, this shall be completed in accordance with the Newnes Junction Friable Sandstone Mine Emergency Management System. In the event that a pollution incident requires the evacuation of the site, actions will be completed in accordance with the site procedure for full or partial evacuation of mine.

Licensees are required to report a pollution incident which causes or threatens to cause material harm to the environment 'immediately' to the appropriate authorities, listed in 2.3 of this document.

In the event of a pollution incident which causes or threatens to cause material harm to the environment, the person who has identified the incident should immediately contact the **Competent Person (CP)** in the control room.

(1) The person reporting the pollution incident should provide the following key details

- Their full name and contact details
- Location of the pollution incident/emergency
- Nature of the pollution incident/emergency; and
- Details of any assistance required

(2) The CP will notify the Mine manager and or the environment and community coordinator of the pollution incident

(3) If the pollution incident is identified to cause or threatens to cause material harm to the environment the Appropriate Regulatory Authorities listed in section 2.3 will be notified 'immediately' and the PIRMP will be implemented

(4) The Newnes Junction and Kaolin Extraction Project incident Response Procedure as shown in **Appendix xx** lists the actions to be taken following pollution incident.

Some general controls for managing a pollution incident include:

- Visually assess the situation. Undertake emergency response if required
- Contact the appropriate regulatory authorities in accordance with the PIRMP
- If safe and possible to do so, undertake immediate measures that prevent further impacts from the pollution incident
- Take direction from the Appropriate Regulatory Authorities as required; and
- If required, seek assistance from specialist consultants/contractors

3.2.10 Staff training [clause 98C (1) (m)]

The requirements of the PIRMP will be outlined in the site induction for all new employees and contractors. A toolbox talk outlining the key components on the PIRMP will be presented to all Newnes Mine staff and contractors. The objective of training will be to ensure all staff and contractors are aware of the key steps to manage a pollution incident. If a pollution incident occurs, refresher training will be delivered to staff and contractors.

3.3 Transporters of trackable waste

3.3.1 Contact details [clause 98C (2) (a) & (b)]

The following table, **Table 3** outlines the contact details for the appropriate regulatory authorities for reporting pollution incidents within the Newnes Junction and Kaolin Extraction Project.

Table 3 Regulatory Authorities Contact Details

Regulatory Authority	Key Contact	Contact Details
Environment Protection Authority		131 555
NSW Ministry of Health	DR Vicky Sheppeard (population health unit – Parramatta – Medical Officer)	(02) 9840 3603
Work Cover		131 050
Lithgow Council	Peta Lette – Environment Manager	02-63549954
Fire and Rescue, and Police		000

3.3.2 Communicating with the community [clause 98C (2) (c)]

Newnes Junction and Kaolin Extraction project has the following processes for contacting the community:

- In the event that the appropriate regulatory authorities have been notified of a pollution incident within the mine, the authorities may be consulted to determine if the community is to be notified of the pollution incident. Newnes Mine will discuss with the appropriate regulatory authorities regarding the most relevant communication strategy (eg direct contact, media release, or through the mining website).
- Contact details for the residents in the surrounding community are held at the mine and this will allow direct consultation with members of the community as required.

3.3.3 Actions to be taken [clause 98C (2) (d)]

In the event of a pollution incident the procedures and requirements outlined in this PIRMP must be followed at all times

3.3.4 Staff training [clause 98C (2) (e)]

New staff members at the site must be fully inducted. This must cover the purpose, requirements and responsibilities in the PIRMP.

All staff must receive sufficient training to enable them to carry out their duties in a safe and competent manner including;

- staff must be capable of using the fire-fighting equipment
- staff must be capable of identifying waste product which is unexpected and must be managed appropriately
- staff must be capable of identifying potential pollution incidents

- staff must be familiar with the requirements and procedures contained within this PIRMP

4.0 Making plans available [clause 98D]

A current copy of the PIRMP will be displayed in a prominent position in the site office as well as be made available on the Sydney Construction Materials website www.sydneyconstructionmaterials.com.au.

5.0 Testing Plans [clause 98C (1) (n), (o) & (p), 98C (2) (f) & (g), 98E (1) & 98E (2)]

Date of testing	Routine of testing	Incident dates	Copies of updated PIRMP	Updated copy on project website

6.0 Implementing Plans

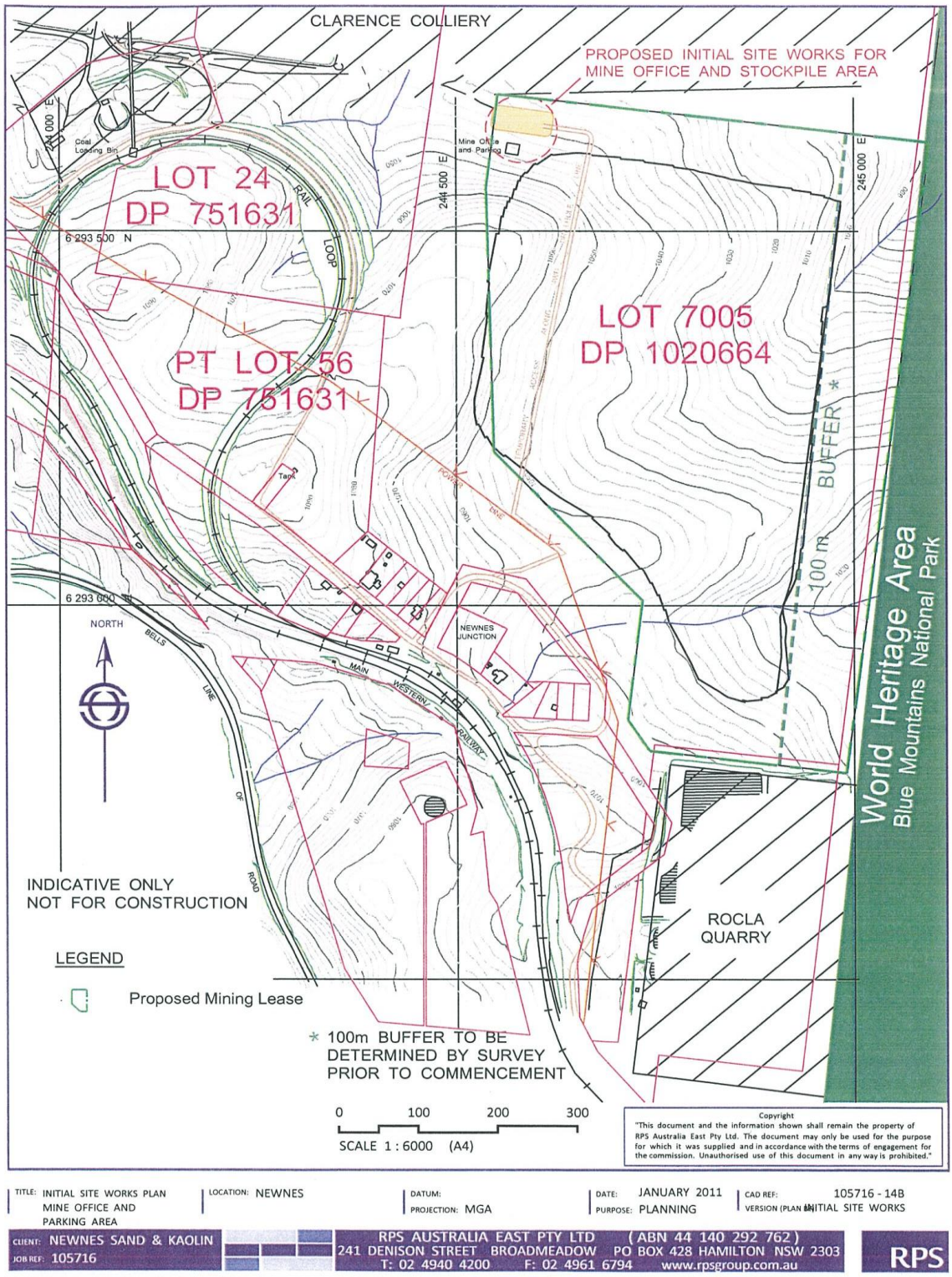

Figure 3 Cadastral Plan

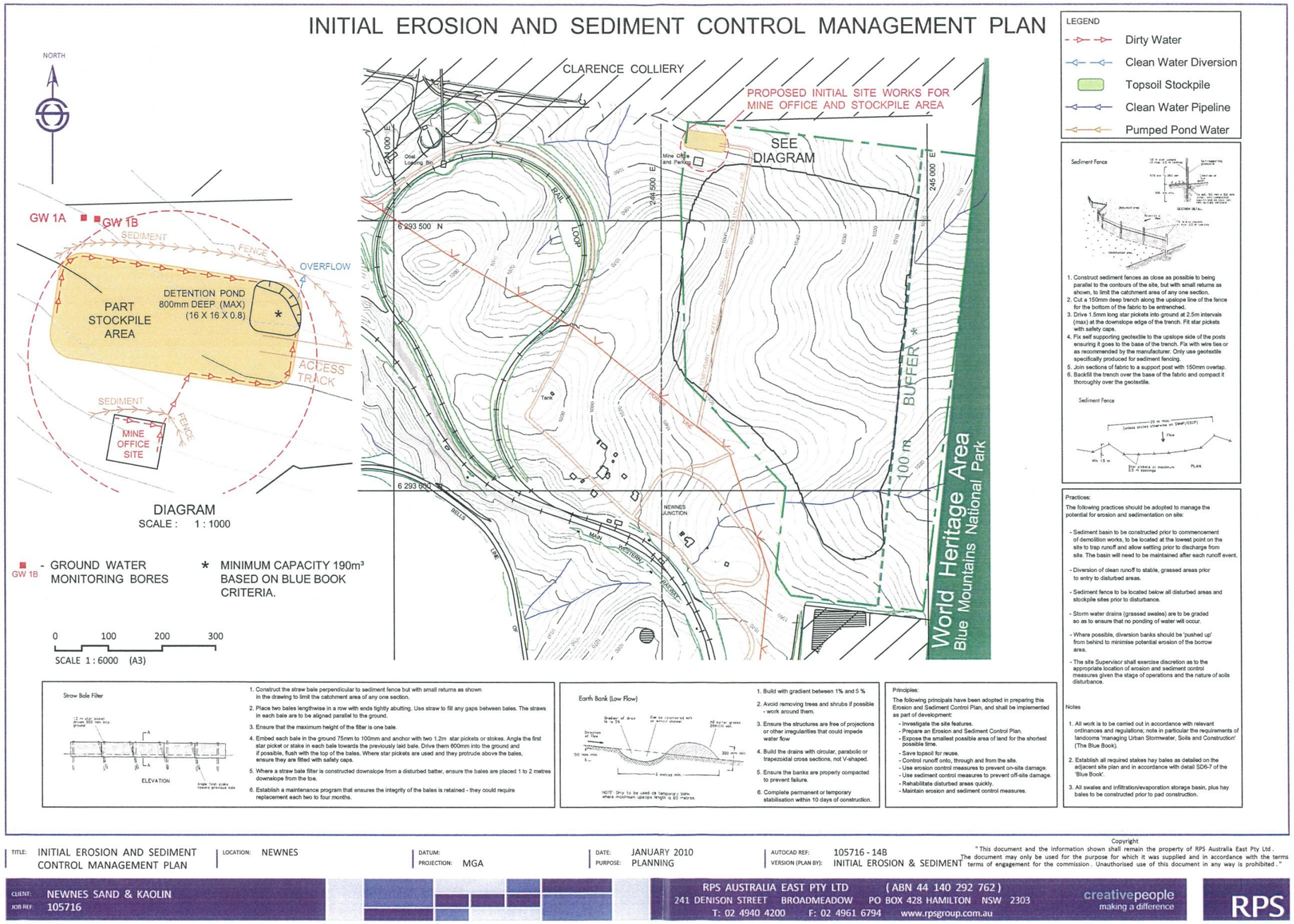

Figure 4 Erosion & Sediment Control Plan