DELLARA PTY LTD

Preliminary Environmental Assessment

for the

Orchard Hills Waste and Resource Management Facility

Incorporating a Non Putrescible Waste Recycling Facility, an Ancillary Waste Emplacement, Waste Transfer Station, Continued Shale/Clay Extraction and Site Rehabilitation

at

123-179 Patons Lane, Orchard Hills

Prepared in Conjunction with

R.W. Corkery & Co. Pty Limited
and
Design Collaborative Pty Ltd

May 2009

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COMMONLY USED ACRONYMS, SYMBOLS & UNITS

DA = **Development Application**

C & I = **Commercial and Industrial**

C & D = **Construction and Demolition**

DECC = **Department of Environment and Climate Change**

t = **tonnes (1 000kg)**

tpa = **tonnes per annum**

ha = **hectares (10 000m^2 / 2.54 acres)**

m^3 = **cubic metres**

ML = **megalitres (1 000m^3)**

km = kilometre

SUMMARY OF KEY STATISTICS

Proposed Orchard Hills Waste and Resource Management Facility

- Project Site = 60ha
- Project Life = 30 years
- Waste Emplacement Cells – cover approximately 40ha

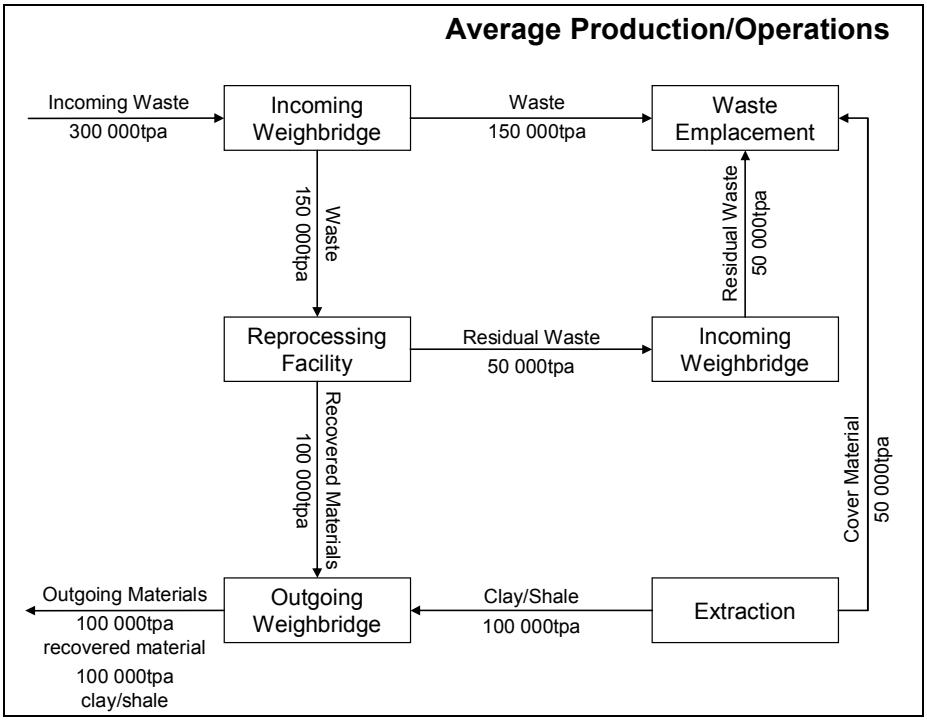
Employment

- Direct full-time employment opportunities for approximately 20 people.
- Direct part-time employment for approximately 10 contractors on site.
- Employment for estimated 10 to 15 truck drivers.
- Indirect employment through flow on benefits including purchase of consumables and spending of employee wages.

Expected Waste Receipt, Recycling and Emplacement Levels

- Maximum annual waste received to site = 600 000t[#]
- Average annual waste received to site = 300 000t
- Maximum annual emplacement of waste = 500 000t
- Average annual emplacement of waste = 200 000t
- Average annual waste recycled / reprocessed = 150 000t
- Average annual resources recovered = 100 000t

[#]Does not include on-site disposal of any waste currently within the existing perimeter bunds. A procedure would be developed to ensure waste recovered from the bunds is clearly recorded as separate to waste delivered to site.



Clay / Shale Production (transported from site)

- Average annual production = 100 000t*

  * In the event that less than 600 000t of waste is received, additional clay / shale may be transported from site. In total, no more than 700 000t of waste or clay / shale would be transported to or from the site per year.

Proposed Hours of Operation

Activity	Monday to Friday*	Saturday*	Sunday
Waste Receipt and Product/ Clay/Shale Transportation	6:00am to 5:00pm	6:00am to 4:00pm	-
Waste Re-processing	6:00am to 6:00pm	6:00am to 5:00pm	-
Waste Transfer Station	6:00am to 6:00pm	6:00am to 5:00pm	
Waste Emplacement Management	6:00am to 6:00pm	6:00am to 5:00pm	-
Extraction Activities	7:00am to 6:00pm	8:00am to 5:00pm	-
* Public Holidays Excluded			

Truck Movements – At Maximum Production / Operation

- 600 000tpa of waste (incoming) = 130 truck loads (260 movements) daily (Average load = 15t)
- 100 000tpa of clay/shale (outgoing) = 12 truck loads (24 movements) daily (Average load = 30t)
- 100 000tpa of recovered material (outgoing) = 7 loads (14 movements) daily (Average load 25t and 50% back-loading)
- 85th percentile truck loads on any one day = 175 (350 movements)

  = average 16 loads per hour

Truck Movements – At Average Production / Operation

- 300 000tpa of waste (incoming) = 65 truck loads (130 movements) daily (Average load = 15t)
- 100 000tpa of clay/shale (outgoing) = 12 truck loads (24 movements) daily (Average load = 30t)
- 100 000tpa of recovered material (outgoing) = 7 loads (14 movements) daily (Average load 25t and 50% back-loading)
- 85th percentile truck loads on any one day = 100 (200 movements)

  = average 9 loads per hour

1.0 INTRODUCTION

1.1 Scope

Dellara Pty Ltd ("the Proponent") proposes to establish and operate a waste and resource management facility within Lot 40, DP 738126 ("the Project Site"), the former Erskine Park Quarry, Patons Lane, Orchard Hills, Sydney (see **Figure 1.1**). The proposed facility would incorporate a waste recycling and recovery centre and ancillary waste emplacement capable of accepting general solid waste (non-putrescible) and special waste (selected asbestos and tyres).

This *Preliminary Environmental Assessment* has been prepared to provide the Department of Planning and other relevant government agencies with a preliminary description of the proposed waste and resource management facility and ancillary activities ("the Project"), identify the key environmental issues and provide the results of a preliminary assessment of those issues. The information provided in the preliminary assessment will ultimately be incorporated into a comprehensive *Environmental Assessment*, to be prepared in accordance with the provisions of Part 3A, Section 75 of the *Environmental Planning and Assessment Act 1979*.

1.2 Project Site Planning and Operational History

The following chronology provides a summary of the Project Site's planning and operational history to date.

- 23 November, 1981 – Penrith City Council granted Development Consent (DA No. 116/80) for clay/shale extraction on the site to the applicant Vacik Pty Ltd.
- 7 November, 1986 – Penrith City Council approved an application by Vacik Pty Ltd to modify DA No. 116/80 to allow quarry traffic to and from the site to access Luddenham Road via adjoining land to the north.
- 13 November 1989 – Penrith City Council refused an application by Vacik Pty Ltd to modify Development Consent DA No. 116/80 to progressively rehabilitate the site using non-putrescible industrial and building waste. The application was refused on the grounds that the proposal was not 'substantially the same development' as originally approved.
- 25 June, 1991 – Vacik Pty Ltd lodged an appeal in the NSW Land and Environment Court against the decision of Penrith City Council to refuse their application to modify consent DA No. 116/80 to progressively rehabilitate the site using non-putrescible industrial and building waste.
- 18 February, 1992 – Stein J. dismissed the appeal by Vacik Pty Ltd in the NSW Land and Environment Court on the grounds that the proposed modification was 'not substantially the same development' as originally approved in DA No. 116/80.

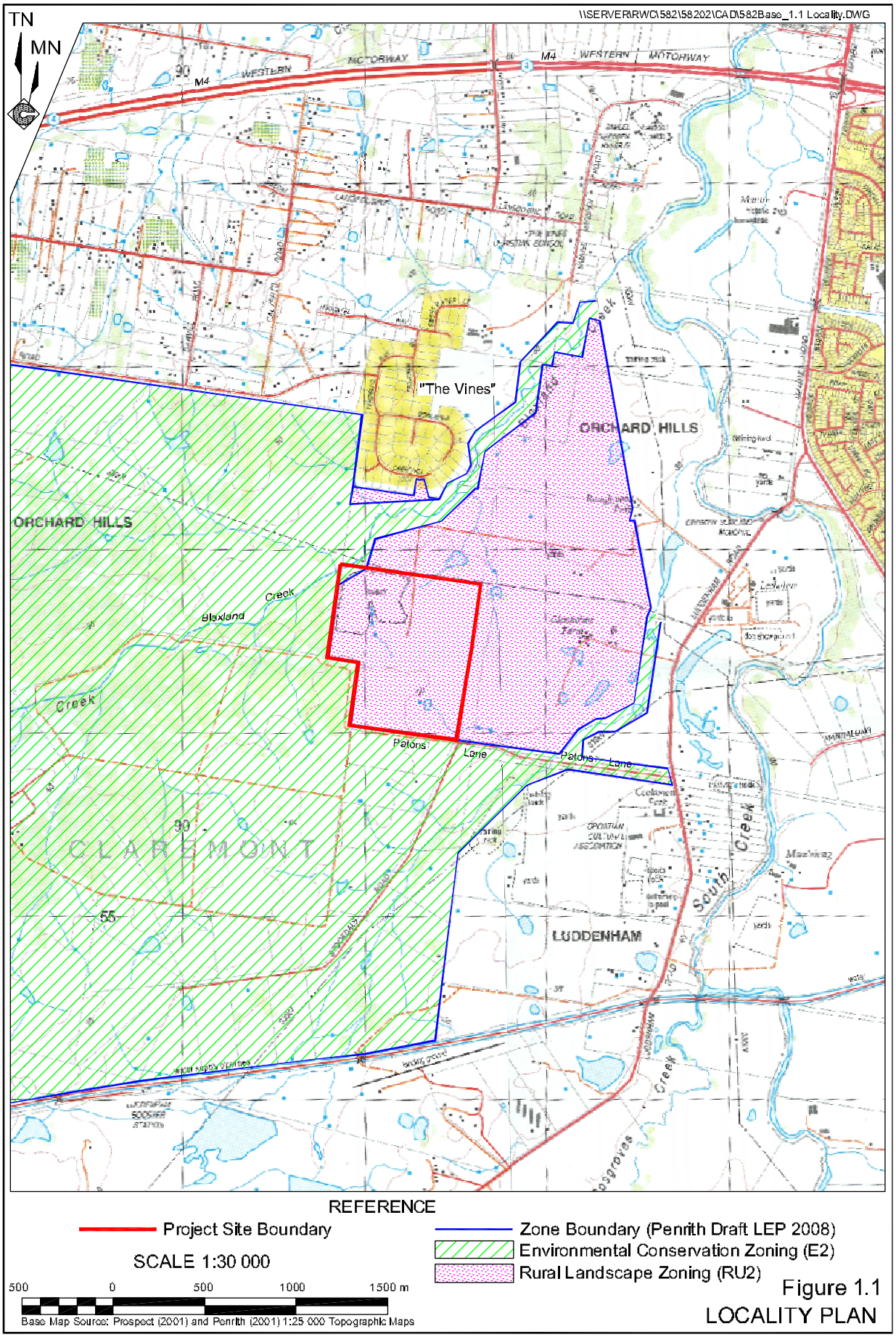


Figure 1.1
LOCALITY PLAN

- Vacik Pty Ltd sold the Project Site to Erskine Park Quarry (NSW) Pty Ltd who subsequently operated the quarry to supply brick manufacturing raw materials and construct perimeter bund walls. During this period, a range of unauthorised construction and demolition wastes were imported onto site and incorporated within the northern and northeastern bund walls – at a height exceeding the height permissible under Development Consent 116/80.
- 19 August 2008 – Dellara Pty Ltd purchased the Project Site.
- 11 November 2008 – The Proponent's proposal for a "Waste Recycling and Management Facility" on the site was declared by the Director-General of the NSW Department of Planning to be a Project to which Part 3A of the Environmental Planning and Assessment Act 1979 applies.

1.3 Project Need

In 2003, Resource NSW (now the Department of Environment and Climate Change (DECC) – Sustainability Programs Division) introduced the *NSW Waste Avoidance and Resource Recovery Strategy 2003* (the "Waste Strategy 2003"). The Waste Strategy 2003 was introduced as the principal document to guide State and Local Government agencies, industries and the broader community in waste prevention and avoidance, re-use and recycling.

The key outcomes identified for waste avoidance and recovery in Waste Strategy 2003 were:

- preventing and avoiding waste;
- increasing recovery and use of secondary materials;
- reducing toxicity in products and materials; and
- reducing litter and illegal dumping.

The Waste Strategy 2003 also set performance targets for the recycling of major waste streams in NSW by 2014. These included increasing the amount of municipal waste recycled from 25% to 66%; commercial and industrial (C&I) waste from 28% to 63%; and construction and demolition (C&D) waste from 65% to 76%.

The Waste Strategy 2003 has since been updated by the Waste and Avoidance Strategy 2007 (the "Waste Strategy 2007"), which continues to provide guidance and priorities for action to ensure that efficient resource use and impacts on the environment are considered. The Waste Strategy 2007 was produced in light of current national and international practice, emerging trends and challenges. The Waste Strategy 2007 focuses on solid wastes that, unless recovered and diverted to beneficial uses, would be disposed of to solid and inert waste facilities throughout NSW.

In addition to the Waste Strategy 2007, the NSW Government has adopted the *State Plan, A Direction for NSW* (the "State Plan"). The State Plan comprises five focus areas, including one titled "Environment for Living". Reducing waste, conserving resources and recycling contributes to the priorities listed in the Environment for Living chapter of the State Plan.

The most recent Performance Report for the Waste Strategy 2003 was published in 2006 (the "2006 Performance Report"). **Table 1.1** has been extracted from the 2006 Performance Report and provides a summary that compares the amount of waste generated and recycled in NSW between 2002-03 and 2004-05 for all waste streams.

In 2004-05, Sydney recycled 49% of its total waste, which represented an increase of 1% since 2002-03. Over the same period, Sydney increased its overall waste generation per capita by 3% (DECC, 2007).

In terms of the amount of materials recycled in Sydney, the 2006 Performance Report also provided the following comparison between 2002-03 and 2004-05 for the three main waste streams.

- Municipal waste recycling increased from 33% to 37%.
- Commercial and Industrial (C&I) waste recycling increased from 33% to 35%.
- Commercial and Demolition (C&D) waste recycling reduced from 68% to 66%.

The reduction in the amount of C&D waste recycled was attributed to better measures to appropriately dispose of asbestos waste and demolition waste that was contaminated with asbestos (DECC, 2007).

Table 1.1
NSW Waste Generation and Recycling

Area/Region	Total Generation (tonnes)	% Recycled (all waste streams)
2004-05		
NSW	13,118,000	46%
Sydney	8,901,500	49%
Hunter, Central Coast and Illawarra	2,268,000	50%
Regional and rural NSW	*1,948,500	*22%
2002-03		
NSW	11,804,000	45%
Sydney	8,513,500	48%
Hunter, Central Coast and Illawarra	1,968,500	47%
Regional and rural NSW	*1,322,000	*28%
* rural and regional data is limited: indicative figures only.		
Source: DECC (2007)		

The Waste Strategy 2007 identified a number of emerging drivers and challenges to meeting the 2014 performance targets, including the growing demand for infrastructure to facilitate the ever consolidating Metropolitan Region. Facilities will need to be in locations that optimise logistics including distance travelled, access issues and the relationship to the network of facilities. The Waste Strategy 2007 also identifies that recycling of C&I waste continues to be the biggest and hardest stream to tackle (DECC, 2007).

The need for this Project is therefore derived from environmental, social and economic benefits, which include:

- provision of the necessary infrastructure to achieve the 2014 recycling performance targets established in the Waste Strategy 2003 and retained in the Waste Strategy 2007, combined with the ever expanding amount of waste generation, particularly in Sydney;

- provision of important infrastructure to service the proposed Employment Lands and the Western Sydney Employment Hub identified in the NSW State Government's Metropolitan Strategy for Erskine Park and Eastern Creek;
- provision of waste recycling infrastructure that is ideally located in terms of accessibility between Sydney's planned northwest and southwest growth sectors;
- provision of a Waste Recycling Facility to support Penrith's growth as a Regional City to service the northwest sub-region as set out in the NSW Government's Metropolitan Strategy;
- commercially viable utilisation of an existing disturbed site to provide required waste recycling infrastructure, appropriate rehabilitation of the land form via residual waste emplacement and continued future extraction of the remaining clay/shale resources (subject to demand);
- provision of direct employment for approximately 20 full time people and further indirect employment;
- rehabilitation of a commercially unviable clay/shale quarry that would provide a final landform consistent with the surrounding rural landscape;
- sustainable re-use of an existing disturbed landform;
- reduction in greenhouse gas emissions through recycling of C&D and C&I waste;
- provision of a source of reusable building, construction and landscaping materials (in accordance with resource recovery exemptions, where applicable); and
- assistance in addressing the scarce commodity of landfill space currently approved and available in Sydney.

1.4 The Proponent

The Proponent for the Project is Dellara Pty Ltd which is an associate of Roderick Holdings. Roderick Holdings was established in 1977 and is involved in Project Management (civil works), Property Development and Property Investment in NSW. Dellara Pty Ltd is currently negotiating with an established and experienced waste management company to operate the proposed facility and be in partnership with the operation. It is envisaged that this partnership will be in place prior to the submission of the *Environmental Assessment*.

1.5 Approvals Required

It has been established the Proponent will require the following six approvals from NSW State Government agencies and Penrith City Council for the Project to proceed.

- Project Approval under Part 3A of the *Environmental Planning and Assessment Act 1979*. The approval authority is the Minister for Planning.

- An Environment Protection Licence for the waste emplacement area (and ongoing clay/shale extraction) and a separate licence for the waste resource recovery facility (other activities which trigger the schedule would also be addressed by these licences) under the *Protection of the Environment Operations Act 1997*. The issuing authority is the Department of Environment and Climate Change (Environment Protection Authority) (DECC (EPA)).
- Road Construction Permit issued under Section 138 of the *Roads Act 1993* for works on Patons Lane and Luddenham Road. The issuing authority is Penrith City Council. It is noted that a construction certificate has previously been issued by Penrith City Council for the roadworks on Patons Lane. The former landowner (Erskine Park Quarry (NSW) Pty Ltd) in fact commenced construction in accordance with the issued certificate with the construction of the site entrance from Luddenham Road.
- Controlled Activity Approval under the *Water Management Act 2000* for works within 40m of protected waters (Blaxland Creek). The issuing authority is the Department of Water and Energy.
- Water Access Licence under the *Water Management Act 2000* to access groundwater for operational use. The issuing authority is the Department of Water and Energy.
- Licence under Part 5 of the *Water Act 1912* to install groundwater monitoring bores. The issuing authority is the Department of Water and Energy.

Additionally, as the site adjoins Commonwealth land, the Project may also require approval from the Federal Minister for the Environment, Heritage and the Arts if the Project is determined as likely to have a significant impact on a matter protected by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Commonwealth Government, however, has a bilateral agreement with the NSW State Government, so any approvals that may be necessary under the EPBC Act may be dealt with by the NSW Minister of Planning as part of the Major Project Application.

1.6 The Study Team

This preliminary assessment has been prepared by Mr Rob Corkery, M.Appl.Sc., B.Sc (Hons), Principal of R.W. Corkery & Co Pty. Limited and Mr Scott Hollamby, B.EnvSc (Hons), Environmental Scientist with R.W. Corkery & Co Pty Limited in conjunction with:

- Mr Rick Miller, B.Econ, Dip Building Science, Director of Dellara Pty Ltd
- Mr Ben Haynes, B.AppSc (Env. Hlth)., Grad Dip(URP), Associate of Design Collaborative Pty Ltd; and
- Mr Anthony Dixon, M.E, M.ES, B.Eng (Hons), Principal Environmental Engineer of Aquaterra Consulting Pty Ltd.

The Proponent intends to commission a team of specialist consultants to undertake an assessment of the Project, specifically with respect to:

- Ecology;
- Noise;
- Air Quality;
- Soils;
- Traffic and Transportation;
- Groundwater; and
- Surface Water.

2.0 SITE AND LOCALITY DESCRIPTION

2.1 Status of the Existing Site

As discussed in Section 1.1, the Project Site was previously operated as the Erskine Park Clay / Shale Quarry, however, since the purchase of the Project Site by the Proponent in August 2008, the site has been in a state of care and maintenance. The principal features of the existing site are shown on **Figure 2.1** and include the following.

- A void in the northwestern corner (up to 24m below natural ground level) with a volume of approximately 975 000m^3.
- A number of clay and shale stockpiles.
- A southern water storage dam with a capacity of approximately 30ML.
- A smaller void in the southwestern corner (up to 4m below natural ground level) with a volume of approximately 120 000m^3.
- A series of perimeter amenity bunds (approximately 9m to 19m high) constructed with clay/shale recovered from the extraction area and previously imported VENM C&D materials.
- A range of demountable office buildings, ablution facilities and weighbridges.
- An equipment compound.
- Two sediment retention dams.
- A registered groundwater bore.

It is understood that the C&D wastes incorporated within sections of the bund walls constructed around the northern and eastern perimeter of the Project Site were imported without approval. It is the Proponent's intention to further investigate the classification, location and likely volume of the wastes contained within the bunds and, where appropriate, recover these wastes and either reprocess and recycle or appropriately dispose of them on site.