



Penrith Lakes

**89-151 Old Castlereagh Rd,
Castlereagh**

Statement of Support for Section 4.55(2) Modification Application to
DA 02, DA 03, and DA 04

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Executive Summary

This Statement of Support (SoS) has been prepared in support of a Section 4.55(2) Modification Application, made to the NSW Department of Planning and Environment (DP&E) under Part 4 of the *Environmental Planning and Assessment (EP&A) Act 1979*.

This Section 4.55(2) Application seeks consent to modify the existing consent DA 02, DA 03, and DA 04, relating to development at 89-151 Old Castlereagh Road, Castlereagh ('the site').

Penrith Lakes Development Corporation (PLDC) currently has approval to import eight (8) million tonnes of virgin excavated natural material (VENM) to the Penrith Lakes Scheme ('the scheme') at a maximum rate of three (3) million tonnes per year.

The proposed modification is for the importation of a further five (5) million tonnes of VENM, at the existing rate of three (3) million tonnes per year.

The s4.55(2) and this SoS have been prepared in accordance with the *EP&A Act 1979*, and the Environmental Planning and Assessment (EP&A) Regulation 2000.

The modification request seeks to modify Development Consents DA 02, DA 03, and DA 04, which were granted by The Minister for Planning between 1987 and 1998. These consents were taken to be approvals under Part 3A of the *EP&A Act 1979* under the then Environmental Planning and Assessment (EP&A) Regulation 2000 (Transitional Provisions, Section 8J). The transitional provisions deemed the scheme to be a State Significant Development (SSD).

With the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (Transitional Provisions Regulation) coming into force, modifications under the former Section 75W no longer apply. Under Schedule 2, Clause 3BA (6) of this regulation, modifications of a development that was previously a transitional part 3A project requires the consent authority to be satisfied that the development as proposed to be modified under 4.55(2) of the *EP&A Act 1979* is substantially the same development as last modified under S75W.

This SoS addresses the relevant heads of consideration listed under Section 4.15(1) of the *EP&A Act 1979*, and provides an assessment of the proposed development against the relevant Environmental Planning Instruments (EPIs) and other planning controls applicable to the site and to the proposal.

The key planning controls are included within State Environmental Planning Policy (Penrith Lakes Scheme) (Penrith Lakes SEPP).

The modifications proposed are appropriate for the locality, result in a development that is substantially the same as the approved development and will not have adverse environmental impact.

Based on the assessment undertaken, approval of the s4.55(2) Modification Application is sought.

1.0 Introduction

1.1 Overview

This SoS has been prepared in support of a s4.55(2) Modification Application to undertake modifications to approved development consents DA 02, DA 03, and DA 04 for the importation of VENM. The importation of the VENM fill material has been used to rehabilitate the site to the approved landforms for the Scheme area.

Consent currently exists for the importation of eight (8) million tonnes of VENM at a maximum of three (3) million tonnes per year. The existing eight (8) million tonne fill consent was based upon approved two (2) year plans from 1990, 2000, 2001, and 2013, which were current at the time of the s75W submission in October 2014. The four (4) approved two (2) year plans covered the Lot 4 area only, and were combined to produce the finished landform surface.

This application seeks approval for a modification under the provisions of s4.55(2) of the *EP&A Act 1979* for the importation of a further five (5) million tonnes of VENM. There is an increased demand for VENM import based on subsequent two (2) year plans approved by DP&E for Lot 4 Urban North (Issue A approved 20 October 2016; Refer Figure 4). The approved Lot 4 Urban North landform design requires additional fill in comparison to the previously approved landform that formed the basis of the 2014 application to import the eight (8) million tonnes of VENM.

The need for the five (5) million tonnes of VENM has been calculated based upon the fill volumes required to deliver the approved Urban North Two Year Plans (approved 20 October 2016). The engineering advice has identified that to implement these landforms will require:

- 400,000 tonnes preload to satisfy the Pells Sullivan Meynick specification (PSM); and
- 4,600,000 tonnes for the approved landform plans.

The hours of operation of fill import are:

- 6:00am to 9:00pm, Monday to Friday;
- 6:00am to 3:00pm, Saturdays; and
- No work Sundays.

The modification does not seek to alter the environmental management or operational conditions currently applying to the filling operation under DA Consents DA 02, DA 03, and DA 04 as previously modified.

The modification seeks to increase the fill volume and amend the existing condition in the following manner:

- DA 02 – Amend Condition 49C to read:
“49C – The importation of VENM of ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year”
- DA 03 – Amend Condition 41C to read:
“41C – The importation of VENM and ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year.”
- DA 04 – Amend Condition 48C to read:
“48C – The importation of VENM and ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year.”

The location relative to the scheme area of the three consents, DA2, DA3, and DA4 is shown in Figure 1 below.

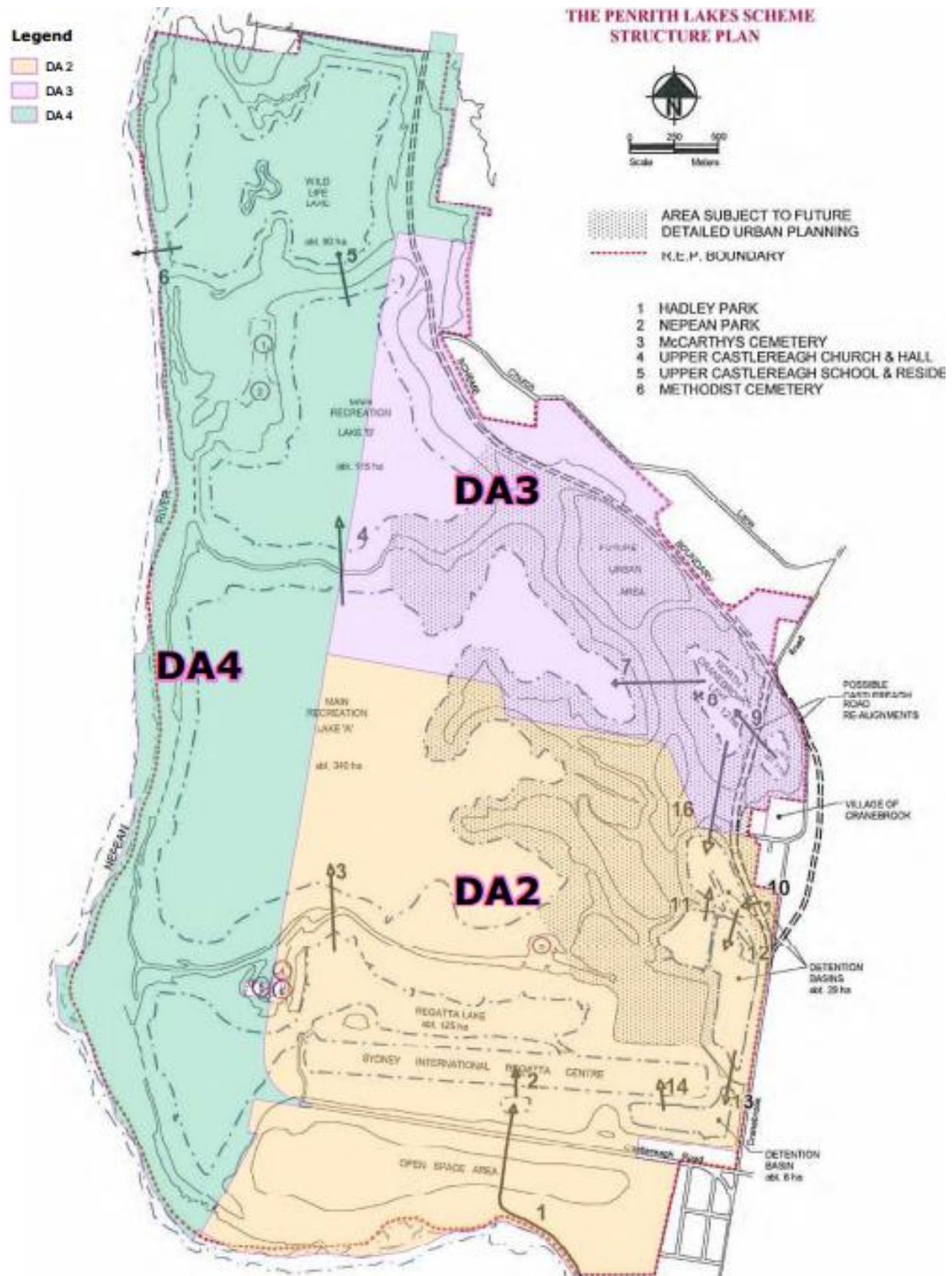


Figure 1: Identification of development consents within the scheme area

1.2 Scope and Format of the Statement of Support

This statement has been prepared in accordance with the requirements of Schedule 1, Part 1 of the EP&A Regulation 2000, and provides an assessment consistent with the heads of consideration under Section 4.15 of the *EP&A Act 1979*, which are relevant to the consent authority's assessment of the application.

Accordingly, the SEE is structured into sections as follows:

- Section 1 - provides an overview of the project and of this SoS;
- Section 2 - describes the site, locality and surrounding development;
- Section 3 - describes the proposed modifications;
- Section 4 - identifies the applicable statutory controls and policies, and provides an evaluation of the proposed development against the relevant controls;
- Sections 5 and 6 - provides an assessment of the proposal and its likely impacts on the environment, and in particular the potential impacts on adjoining properties and the surrounding area; and
- Section 7 - provides a conclusion on the proposal.

1.3 Supporting Plans and Documentation

This statement has been prepared with input from a number of technical and design documents which have been prepared to accompany this s4.55(2) Modification Application. These documents are included as Attachments to this statement and are identified in Table 1 below.

Document name	Prepared by
Environmental Assessment	ARUP 28 March 2018

Table 1: Plans and documents prepared to accompany this statement

2.0 Site Description and Context

2.1 Site Description

The Penrith Lakes Scheme is located north of the Penrith CBD and comprises an area of 1,935ha. The Scheme area occupies an expansive area of the floodplain of the Nepean River, which forms the western and southern boundary of the site.

Within the Scheme area, farming and gravel extraction have been activities extensively undertaken. From the 1950s, sand gravel extraction occurred on a large commercial scale. Quarrying operations ceased on the site in mid-2015.

Activity since the cessation of quarrying has been for the implementation of the approved landform plans for the scheme. The landforms are part of the rehabilitation of the site from the previous quarrying activities undertaken on the site.

The site is shown in Figure 2 below.



Figure 2: Aerial view of subject site (Source: Near Map)

The Scheme area includes the Sydney International Regatta Centre (SIRC) and Penrith White Water Rafting facility. These facilities are extensively used for sporting events and for recreational purposes by the community.

The scheme site is broadly bound by the Nepean River to the west and south, Castlereagh Road to the east, and Smith Road to the north.

Development to the north, east, and south east comprises a range of urban development, low density rural residential to the north and north east, low to medium density residential to the east, and light industrial to the south east. To the west of the site, on the opposite bank of the Nepean River, are the lower reaches of the Blue Mountains National Park.

2.2 Context and Locality

The site is situated at the foot of the Blue Mountains escarpment to the west, with the Nepean River traversing both the western and southern boundaries. To the north east, flat floodplain is sharply contrasted by the Castlereagh Escarpment. Cranebrook Village lies to the east, with further urban settlement to the south and southwest.

The location of the site in this context is shown in Figure 2.



Figure 3: Location plan (Source: Google Maps)

2.3 Surrounding Development and Land Uses

2.3.1 Residences

As noted, to the west of the site are the foothills of the Blue Mountains and the Blue Mountains National Park. The remaining boundaries of the site broadly adjoin residential and rural residential uses. There are extensive urban areas to the south and south west of the site, with a number of residential properties inside the southern boundary of the Scheme site. On the eastern boundary of the site is Cranebrook Village (Figure 2), which will likely be the most sensitive receiver for any off-site impacts of the proposed modifications.

2.3.2 Facilities

Located within the Scheme area are the SIRC Lakes, and the nearby Penrith White Water Rafting facility, which were both used as part of the Sydney Olympic Games. They are still used extensively by the public for similar events and recreational purposes.

2.3.3 Heritage

There are several heritage items within and nearby the Penrith Lakes Scheme. Items in the vicinity of the modification works include; Upper Castlereagh School and Residence, Upper Castlereagh Methodist Church and Hall, and the Methodist Cemetery.

2.4 Existing Development on the Site

The existing development consists of consent to import eight (8) million tonnes into Penrith Lakes at a maximum of three (3) million tonnes per year.

The rate and volume of fill was based upon approved, two (2) year landform plans, being the 1990, 2000, 2001, and 2013 plans.

On 20 October 2016, a further two (2) year landform plan for Lot 4 Urban North was approved by the DP&E. The approved landform plan is shown in Figure 4.

To complete the approved landform in the approved manner an aggregate total of 13 million tonnes of fill would be required. A total of eight (8) million tonnes of fill has been approved to be imported to the site. This leaves a shortfall of five (5) million tonnes from the current aggregate approved volume of fill.

A summary of the relevant consents for the site authorising quarrying and rehabilitation works is shown in Table 2 below.

Consent	Description
DA2 – 24 February 1987	Applies to the south eastern portion of the site
DA3 - 27 June 1997	Applies to the north eastern portion of the site
DA4- 9 September 1998	Applies to the western portion of the site

Table 2: Summary of base consents to be modified

A series of modifications have been undertaken to the three base consents as outlined in Table 3 below.

Modification	Modifications approved
DA2 Mod 4 – approved 5 February 2014 DA3 Mod 3 - approved 5 February 2014 DA4 Mod 8 - approved 5 February 2014	Amendments to area for VENM and VENM source, alteration of haulage routes, change to access location and noise monitoring requirements.
DA2 Mod 5 – approved 30 April 2015 DA3 Mod 4 - approved 30 April 2015 DA4 Mod 9 - approved 30 April 2015	Increasing VENM volume to be imported to eight (8) million tonnes, amendments to VENM sources.
DA4 Mod 10 - approved 6 November 2017	Extension of hours of operation and update of noise limitation conditions.

Table 3: Summary of relevant previous modifications.



Figure 4: Landform Plan approved 20 October 2016

3.0 Proposed Modifications

3.1 Description of Modification

This application seeks to modify development consents DA2, DA3, and DA4 to authorise the importation of an additional five (5) million tonnes of VENM to the site.

The additional VENM to be imported

A summary of the requested modifications to each of the base consents is provided below.

- DA 02 – Amend Condition 49C to read:
“49C – The importation of VENM of ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year”
- DA 03 – Amend Condition 41C to read:
“41C – The importation of VENM and ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year.”
- DA 04 – Amend Condition 48C to read:
“48C – The importation of VENM and ENM shall be limited to ~~8~~ 13 million tonnes at a maximum rate of 3 million tonnes per year.”

The modifications do not seek any other consequential modifications to any operational conditions relating to matters, including haulage routes, air quality, noise mitigation, and annual caps on the volume of material to be imported.

4.0 Section 4.55 Assessment

4.1 Section 4.55(2) of the EP&A Act 1979 – Modifications

Section 4.55(2) of the *Environmental Planning and Assessment Act (EP&A Act) 1979* states:

“A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
- (b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 4.8) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*
- (c) it has notified the application in accordance with:*
 - (i) the regulations, if the regulations so require, or*
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
- (d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.*

Subsections (1) and (1A) do not apply to such a modification.”

Clause 3BA (6) of the Transitional Provisions Regulation stipulates that for modifications under s4.55(2) the consent authority must be satisfied that the development is substantially the same development as last modified under s75W.

The modification as last modified authorised the importation of eight (8) million tonnes of VENM material to facilitate the implementation of the approved two (2) year landform plans.

The application as modified will increase the volume of material to be imported by five (5) million tonnes to a total aggregate of 13 million tonnes. The additional five (5) million tonnes of VENM has been identified as the volume of material required to be imported to facilitate achieving the approved landform for the site in the latest plan approved in October 2016.

All the operational conditions remain unchanged having regard to the haulage of material to the site, and environmental management controls such as air quality, noise monitoring, and hours of operation.

In this regard, it can be determined that the application as proposed to be modified will be substantially the same development as last modified under s75W as:

- The modifications to DA2, DA3, and DA4 facilitate the implementation of the approved two (2) year landform plans for the scheme area;
- There are no operational changes to the means of delivering VENM material to the site, access locations or hours of operation; and
- No changes are proposed to the existing environmental management conditions.

Accordingly, the proposed modifications satisfy s4.55(2) of the *EP&A Act 1979* and 3BA(6) of the Transitional Provisions Regulation as they result in a development that is substantially the same as the development originally approved.

4.2 Section 4.55(3)

In accordance with Section 4.55(3) of the *EP&A Act 1979*, when determining an application to modify a consent, Council *“must take into consideration such of the matters referred to in section 4.15 (1) as are of relevance to the development the subject of the application”*.

An assessment of the proposed modifications with regard to relevant matters referred to in Section 4.15 is outlined in Section 5 of this report.

5.0 Statutory Assessment

5.1 *Environmental Protection and Biodiversity Conservation (EPBC) Act 1999*

The *EPBC Act 1999* provides protection to matters of National Environmental Significance (NES). Matters of NES include:

- World heritage properties;
- National heritage places;
- Wetlands of international importance (listed under the Ramsar Convention);
- Listed threatened species and ecological communities;
- Migratory species protected under international agreements;
- Commonwealth marine areas; and
- A water resource, in relation to coal seam gas development and large coal mining development.

The proposed ongoing land filling at the scheme will not affect any matters of NES. On that basis, referral to the Commonwealth Department of Environment and Heritage is not required.

An assessment of the environmental impacts of the proposal is provided at Section 6, and within the Environmental Assessment provided at Attachment 1.

5.2 *Protection of the Environment Operations (PoEO) Act 1997*

The *POEO Act 1997* regulates emissions to air, water, and land. It offers an integrated system to regulate specific types of activities and installations that have the potential to cause environmental harm as a result of their operations. The Office of Environment and Heritage (OEH) is the regulatory authority that administers the *POEO Act 1997*, and has the power under the Act to issue clean up notices if it reasonably suspects that a pollution incident has occurred, or is occurring. Council also has certain authority under the *POEO Act 1997* in relation to pollution incidents.

Extractive industries are listed under Part 1, Schedule 1, as an activity for which the occupier of a premises at which the activity is carried on, requires an Environmental Protection Licence (EPL) from OEH authorising the activity to be carried on at that premises. PLDC currently holds an EPL (Licence Number 2956) authorising crushing, grinding, or separating works, extractive industries, and other land-based extraction.

This project will not require any additional approvals, licences or permits under the *POEO Act 1997*. The proposed VENM imported would meet the requirements of the Excavated Natural Material Order 2014 under Part 9, Clause 93, of the Protection of the Environment Operations (PoEO) (Waste) Regulation 2014.

5.3 *Roads Act 1993*

The *Roads Act 1993* outlines the functions of the roads authorities in the development, maintenance and operation of public roads, including additional works.

The proposed modification to the volume of VENM to be imported does not require any modification to any approved access arrangements to or from the site. The current approved locations will continue to be relied upon.

5.4 Section 4.15 of the EP&A Act 1979

Section 4.15 of the *EP&A Act 1979* sets out the statutory matters for consideration against which the proposed development is to be evaluated. The matters for consideration under Section 4.15 are as follows:

“(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

(a) the provisions of:

- (i) any environmental planning instrument, and*
- (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
- (iii) any development control plan, and*
- (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
- (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*
- (v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),*

that apply to the land to which the development application relates,

- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) the suitability of the site for the development,*
- (d) any submissions made in accordance with this Act or the regulations,*
- (e) the public interest.”*

The matters for consideration identified in S4.15(1)(a) of the *EP&A Act 1979* are addressed in the following section. Subsections (b) to (e) of S4.15(1) of the *EP&A Act 1979* are addressed in Section 6 of this SEE.

5.5 Overview of Statutory and Policy Controls

The EPIs and other statutory planning documents and policies which are relevant to the assessment of the proposed development pursuant to s4.15(1)(a) are identified below.

5.5.1 State Environmental Planning Policies

- State Environmental Planning Policy (Penrith Lakes Scheme) (Penrith Lakes SEPP); and
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55).

5.6 State Environmental Planning Policy (Penrith Lakes Scheme) (Penrith Lakes SEPP)

The Penrith Lakes SEPP aims to permit the implementation of the Penrith Lakes Scheme through development controls to protect heritage, identify land for future land uses, and ensure the ongoing operation of Olympic legacy infrastructure.

Activities within the Scheme require Council's approval under this SEPP, unless otherwise stated by the *EP&A Act 1979*. The modification of the current consents is a form of development for which the Minister is the consent authority.

Clause 8 provides specific matters to be considered for development implementing the Penrith Lakes Scheme.

The modification request to import a further five (5) million tonnes of VENM is consistent with the matters for consideration as:

- The fill facilitates the implementation of the approved landform plans for the scheme;
- The modification remains consistent with the structure plan;
- The modification does not affect the approved operational conditions or environmental protection conditions;
- The requirements of Schedule 2 of the SEPP have been included with this application; and
- Ongoing monitoring of air quality and truck movements will continue.

5.7 State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP55 requires that contamination be considered whenever development is considered.

Clause 7, Subclause 1 of SEPP 55 states:

- “7 Contamination and remediation to be considered in determining development application
 - (1) A consent authority must not consent to the carrying out of any development on land unless:
 - (a) it has considered whether the land is contaminated, and
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose”

The modification request is for the use of VENM. The fill material is uncontaminated and, accordingly, further assessment is not required.

6.0 Impacts of the Development

This section of the SoS identifies potential impacts which may occur as a result of the proposed development, and are relevant matters for the consideration of the DA under s4.15(1)(b) (c) and (e) of the *EP&A Act 1979*.

6.1 Amenity Impacts on Neighbouring Properties

6.1.1 Traffic and Access

The approved haulage routes and rate of 238 trucks per day will continue under the current operational requirements. The increase in fill volume will increase the duration of the filling activities. This, however, is a consequential outcome of the requirement to rehabilitate the site to the approved landform. The traffic impact assessment (refer to the Environmental Assessment prepared by ARUP at Attachment 1) notes that with the cessation of quarrying within the site, there has been an overall reduction in the total truck movements associated with the site.

The traffic impacts in conjunction with the ongoing implementation of the Construction Traffic Management Plan and the measures within ensure that the impacts are managed and there will be no significant adverse environmental impacts.

6.1.2 Noise and Vibration

Noise levels of truck movements delivering VENM to the site have been assessed and are the basis for the current noise control measures applying to the site operations (refer Attachment 1). The existing operations include mitigation measures included in the Traffic Noise Management Plan which is supported by periodic noise monitoring of site landfilling activities.

The assessment of the requested modification has assessed that the current operational characteristics would continue. That is a maximum of 238 trucks per day (equating to 476 truck movements) will occur, and that exiting entry locations would be retained. The current approved hours of operation would also remain unchanged.

The environmental assessment of the acoustic impacts has concluded that the additional volume of fill material would have a low to negligible impact subject to the continued implementation of the existing regime of noise management and mitigation measures.

6.1.3 Air Quality

The assessment of air quality (Attachment 1) identifies that the existing sensitive receivers include residential properties to the east and north east of the site. The truck haul routes also traverse past sensitive residential receivers.

In accordance with existing environmental requirements the PLDC is required to undertake ongoing air quality monitoring.

The assessment concludes that there will be a negligible impact upon air quality arising from vehicle emissions from vehicles travelling to the site. Similarly, emissions from vehicles operating within the site are also predicted to be minimal.

The land filling activities are potential dust generating activities which have the potential to impact upon sensitive receivers.

The assessment identifies that to manage potential impacts the following should continue to be implemented:

- The dust deposition gauges located within the site will continue to monitor dust levels on a monthly basis. The results will be incorporated within PLDC programme of environmental reporting and will be reported to the EPA as part of compliance reporting required as part of the EPL;
- Any increase in monitored concentrations of dust above the EPA criteria will be investigated, and further mitigation measures implemented to minimise dust generation and spread and bring the Scheme into compliance;
- The interior roads will be suitably maintained, including watering where necessary to minimise dust generation, on internal roads and work areas, with water sourced from the nearest stand pipe;
- All vehicles within the site have a maximum internal speed limit of 60km/hr; and
- Rehabilitation of lands will stabilise soil surfaces and prevent dust generation.

With the continued implementation of these measures the potential for adverse impacts on air quality is considered to be low.

6.2 Impacts upon the natural environment

6.2.1 Water Quality

The environmental assessment has identified a potential for the filling activities to result in sediment entering the adjacent water way (the Nepean River).

The assessment also identifies that the current consent and operations are subject to management measures which, if implemented and complied with, satisfactorily minimise the potential for sediment loss and resulting turbidity in the waterway.

The potential environmental impacts are satisfactorily addressed with the continued operation and implementation of the exiting environmental control measure.

6.2.2 Soils, Geology and Contamination

The current landfill activities are subject to conditions to ensure that land filling is undertaken in compliance with geotechnical and contamination management requirements.

These conditions include testing of material to be imported prior to it being transported from the source site to ensure that the introduction of contamination is unlikely.

These management and monitoring conditions would continue under the proposed modification.

6.2.3 Flora and Fauna

The site, as a result of the historic activities, particularly quarrying, has resulted in the site being a highly disturbed and modified landscape. As a consequence, the site contains limited native species, with vegetation being dominated by introduced grasses and shrubs.

The current consent operates in accordance with management measures contained in a Statement of Commitments relating to the creation of ecological corridors and the protection of native flora and fauna. These commitments would continue to be implemented under the modification requested.

As a consequence, no additional impacts upon flora and fauna are expected as a consequence of the additional fill proposed to be imported to the site.

6.2.4 Flooding

The landform approved under the latest two (2) year landform plan has been designed to achieve a finished landform level of 1m above the 1:100 year flood level.

6.2.5 Landscape and Visual quality

The landscape at the cessation of quarrying activities was of a highly modified, post quarrying landscape. The filling activities facilitate the rehabilitation of the site, and the revegetation of the filled areas with species suitable for the location. The land fill imported to the site allows for the approved two (2) year landform plans to be implemented in a manner contemplated by these plans. The final landform will re-establish a landform and revegetation that improves the long term visual quality of the locality.

6.3 Social Impacts and Economic Impacts

6.3.1 Indigenous Heritage

The oral histories and archaeological evidence support the conclusion that the scheme area would have been utilised for large gatherings.

As a consequence of historic market gardening and quarrying, the topsoil layer was extensively disturbed, compromising the integrity of archaeological discoveries.

The importation of the additional fill will not disturb any additional top soil areas.

Regardless, should any new or previously unknown Indigenous sites or relics be uncovered during the fill activities, existing protocols and conditions will be followed. This will involve any work affecting those sites or relics will immediately cease allowing the material to be assessed by Aboriginal stakeholders and the OEH. The ongoing provisions of the current Aboriginal Heritage Impact Permit (AHIP number 1131345) will continue to apply.

The current protections to Aboriginal heritage will continue.

6.3.2 Non-Indigenous Heritage

The scheme area comprises a number of conservation zones ranging from local to national significance, representative of the early colonial use and settlement of the area.

The location for the additional fill within Northern Lot 4 Urban Precinct does not contain any non-Indigenous heritage sites.

The proposed modification will not impact upon the curtilages around the items within the Scheme area, resulting in no impacts not already anticipated by the current approvals and management requirements. The transport of fill past the items will be consistent with the current impact levels on the heritage items.

6.4 The Suitability of the Site for the Development

The site has been assessed as suitable for the proposed development by the granting of the initial consents and subsequent modifications. The landfilling activities operate and will continue to operate in accordance with conditions and site management requirements to ensure that potential environmental and amenity impacts are managed and mitigated.

The importation of the additional fill material is a critical element in ensuring that the rehabilitation of the site post quarrying is achieved in a manner consistent with the approved landform plans.

The modification as requested does not alter the suitability of the site to continue to be rehabilitated through the importation of fill material.

6.5 The Public Interest

The proposed modifications presented by this application will result in a development that is substantially the same as the development that is currently occurring. The application is in the public interest of continuing to rehabilitate the site consistent with the approved landform plans. Approval of the modification as requested has the consequential benefit of providing a destination for the disposal of fill material generated by a range of infrastructure projects being undertaken within the Sydney Metropolitan region.

Given the above and the identification that potential environmental and amenity impacts can be managed and operational conditions continue to be complied with, it is considered that the proposed modification is in the public interest.

7.0 Conclusion

The proposed modifications will remain substantially the same development as last modified under the provisions of s75W of the *EP&A Act 1979*.

The modification will facilitate the increase in the aggregate total of VENM to be imported to site to increase from eight (8) million tonnes to 13 million tonnes. The volume of additional material to be imported is required to facilitate the delivery of the most recent two (2) year landform plan. The latest plan, Urban North Two Year Plans (approved 20 October 2016) identifies the approved landform to be delivered for the Scheme. The engineering calculations of the volume of material required for the approved landform is an additional five (5) million tonnes.

The modification seeks only to amend the conditions of consent relating to the additional aggregate volume of material. All other operational conditions relating to haulage routes and environmental protection will continue to operate with no changes.

With the continuation of these operational and management condition the importation of VENM can continue with appropriate protection of the environment. The modification to increase the fill volume delivers on the approved landforms associated with the rehabilitation of the site post the cessation of quarrying activities previously undertaken on the site.

Given the consistency of the modification to deliver the approved landform and the existing regime of management approval of the modification is warranted as the proposal does not result in adverse environmental, social, economic or amenity impacts on the locality.



Attachments

Attachment 1: ARUP Environmental Assessment

Penrith Lakes Development
Corporation

**Importation of VENM and ENM
Modification**

Environmental Assessment

253736

Issue 28 March 2018

This report takes into account the particular
instructions and requirements of our client.

It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party.

Job number 253736

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Executive Summary

Penrith Lakes Development Corporation Ltd (PLDC) currently has approval to import up to eight million tonnes of VENM (Virgin Excavated Natural Material) and ENM (Excavated Natural Material) to the Penrith Lakes Scheme (Scheme) over a two to three year period.

A Statement of Environmental Effects (SEE) was conducted in 2008, and approval was granted on the 4th of July 2009 to modify DA2, DA3 and DA4 for the importation of VENM.

A modification application was submitted to the then Department of Planning and Infrastructure (DP&I) (now Department of Planning and Environment, DP&E) in 2014 to allow increased importation of VENM and ENM up to eight million tonnes. The updated schedule of importation of VENM was approved by DP&E in April 2015. In 2017, a further modification application was submitted and approved to extend the operational hours during which time vehicles can access the site. The current approved operational hours are between 6am and 9pm, Monday to Friday, and between 6am and 3pm on Saturdays. This approval did not allow additional vehicles to access the site but provided more flexibility for when vehicles could use the site.

PLDC now propose to further modify DA2, DA3 and DA4 for the importation of an additional five million tonnes of VENM and ENM in mid-2018 to fulfil the landform requirements as set out in the two year plans for the Northern Lot 4 Urban Precinct area which was approved in 2016.

This environmental assessment therefore proposes the following modifications:

- Increasing the amount of VENM and ENM to be imported by an additional five million tonnes at a rate of up to three million tonnes per year (for a total of thirteen million tonnes); and
- Commencing the importation of the additional five million tonnes of VENM and ENM in early to mid-2018.

Availability of VENM/ENM in the Sydney Metropolitan Area would determine the rate of importation.

Overall, the proposed modification for VENM/ENM Importation will have low environmental impact overall. Existing management measures required as part of the original consents and modification approvals should remain in place to minimise environmental impacts.

1 Introduction

1.1 Project Outline

Penrith Lakes Development Corporation Ltd (PLDC) currently has approval to import up to eight million tonnes of VENM (Virgin Excavated Natural Material) and ENM (Excavated Natural Material) to the Penrith Lakes Scheme (Scheme). The importation of VENM and ENM is anticipated to reach eight million tonnes during May 2018.

A Statement of Environmental Effects (SEE) was conducted in 2008, and approval was granted on the 4th of July 2009 to modify DA2, DA3 and DA4 for the importation of VENM up to three million tonnes.

A modification application was submitted to the then Department of Planning and Infrastructure (DP&I) (now Department of Planning and Environment, (DP&E)) in 2014 to allow increased importation of VENM and ENM up to eight million tonnes. The updated schedule of importation of VENM was approved by DP&E in April 2015. In 2017, a further modification application was submitted and approved to extend the operational hours during which time vehicles can access the site. The current approved operational hours are between 6am and 9pm, Monday to Friday, and between 6am and 3pm on Saturdays. This approval did not allow additional vehicles to access the site but provided more flexibility for when vehicles could use the site.

PLDC now propose to further modify DA2, DA3 and DA4 for the importation of an additional five million tonnes of VENM and ENM commencing in mid-2018 to fulfil the landform requirements as set out in the two year plans for the Northern Lot 4 Urban Precinct, approved by the DP&E in October 2016.

Arup has been commissioned by PLDC to prepare an Environmental Assessment (EA) to assess the potential environmental impacts associated with the modification of the original consents modified in April 2015 for the importation of additional volumes of VENM and ENM to the Scheme.

This EA is to accompany the application to modify the existing consents to Development Application 2 (DA2), Development Application 3 (DA3), and Development Application 4 (DA4). The EA and modified Development Applications will be lodged by PLDC to the Minister of Planning for determination under s4.55 (2) of the *Environmental Planning and Assessment Act 1979*.

1.2 Report Structure

This report presents the Environmental Assessment for the proposed modification. The EA is structured as follows:

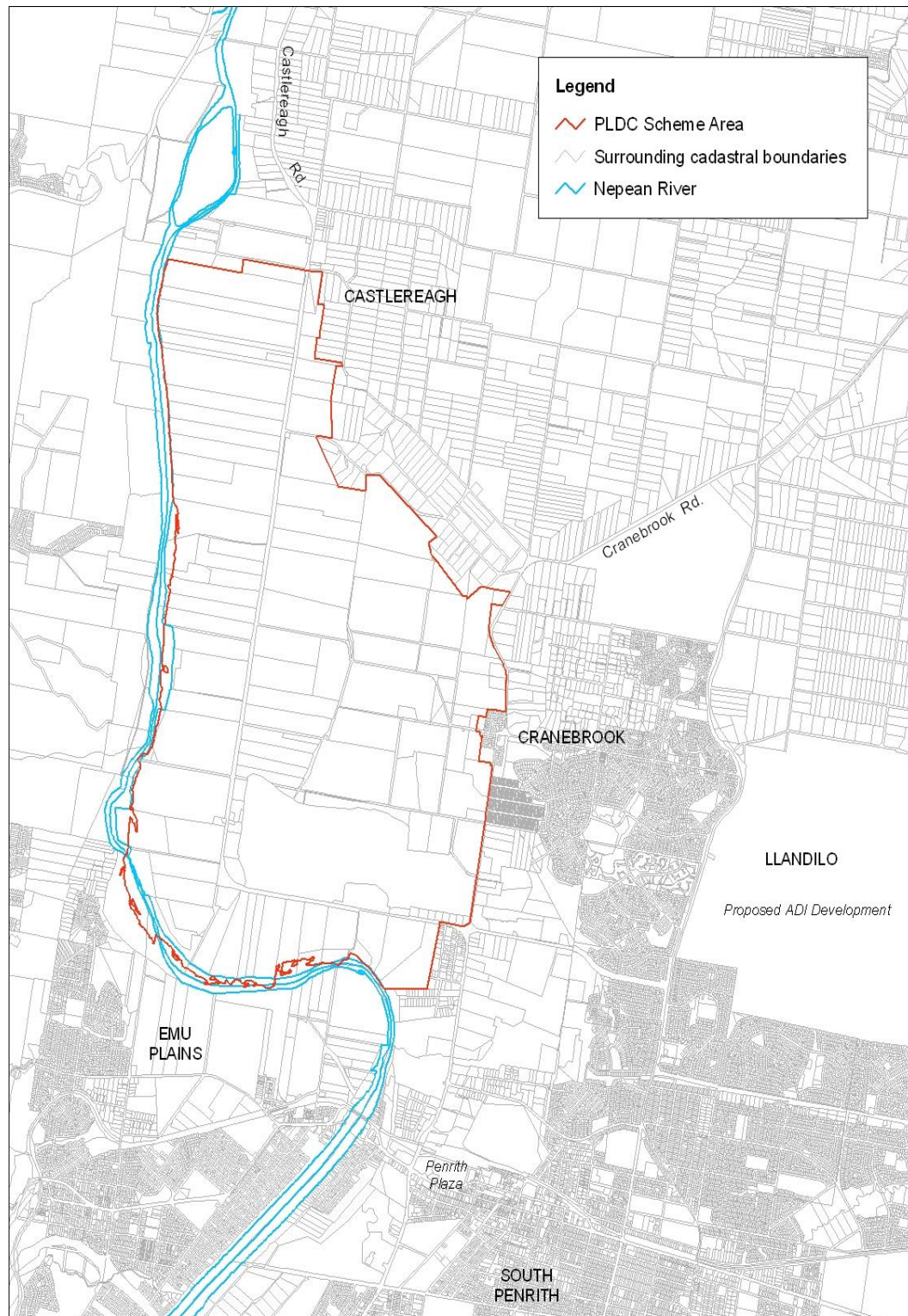
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|-----------|--|
| Section 1 | Background to the Scheme including existing environmental management measures and surrounding areas. |
| Section 2 | Legislative framework and planning context of the Scheme and this modification of proposal. |
| Section 3 | Background context to the modification of the approved development consent and the Scheme describing the modification in terms of differences to the approved development. |
| Section 4 | Agency Consultation. |
| Section 5 | Risk Assessment of the potential environmental impacts of the modification |
| Section 6 | Detailed assessment of key issues including a description of the baseline environmental conditions currently experienced on the site, the potential environmental effects likely to arise from the Project and description of environmental management measures to be implemented on site. |
| | Key issues discussed are: |
| | <ul style="list-style-type: none"> • Noise and Vibration • Air Quality |
| Section 7 | Statement of Commitments |
| Section 8 | Justification for the Project and Conclusions |

1.3 Background to PLDC and the Scheme

Extraction of sand and gravel from the Penrith-Castlereagh floodplain, on the Nepean River, began on a large scale in the 1950's, progressing for three decades in a 'piecemeal', haphazard fashion. At the request of Penrith City Council (Council), and in acknowledgement of a growing concern over the rehabilitation of the existing quarrying operations, the then State Planning Authority (now DP&E) undertook a Regional Environmental Study (RES) for the area. The aim of the study was to examine the feasibility of coordinating the extraction and rehabilitation activities of the separate companies and to create a regional water-orientated recreation resource in the former quarry areas. PLDC was the resultant body, commencing operation in 1980, to coordinate the 1,940 ha site. The Scheme boundary is illustrated in Figure 1.

PLDC is an unlisted public company which coordinates the extraction and rehabilitation operations of its three shareholder companies in accordance with the expectations of the NSW Government. The shareholders, Boral Resources (NSW) Pty Ltd, Hanson Australia Ltd (Heidelberg, and formerly Pioneer International Ltd) and Holcim Pty Ltd (formerly Readymix Holdings Pty Ltd), exercise joint control by means of their ownership in PLDC. Previously the shareholders processed the raw feed in their processing plants. Extraction and processing at the

Scheme was completed in September 2015. Importation of VENM and ENM on-site has been undertaken since July 2014.



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Figure 1 Extent and geographical location of the Penrith Lakes Scheme

1.4 Site Description

The Scheme is located on a 1,940 ha area of floodplain north of Penrith CBD (Figure 1). It is situated with the Blue Mountains escarpment to the west, and the Nepean River traversing both the western and southern boundaries. To the north east, flat floodplain is sharply contrasted by Castlereagh Escarpment. Cranebrook Village lies to the east, with further urban settlement to the south and southwest.

Within the Scheme, colonial settlement, farming and gravel extraction have been historical activities, although it wasn't until the 1950s that extraction occurred on a large commercial scale. Sand and gravel from extraction operations on the site have provided building materials for much of the residential and business developments in the Sydney Metropolitan Area over the past fifty years. Quarrying operations have now ceased at the site and the ongoing focus is on land rehabilitation.

Also of note are the Sydney International Regatta Centre (SIRC) Lakes, and the nearby Penrith White Water Rafting facility which were both used as part of the Sydney Olympic Games. They are still used extensively by the public for similar events and recreational purposes.

1.5 Surrounding Features

Residences: Except to the west, the boundaries of the site are dominated by low to medium density housing. There are extensive urban areas to the south and southwest of the site, with a number of residential properties inside the southern boundary of the Scheme site. On the eastern boundary of the site is Cranebrook Village (Figure 2).

Heritage: There are several heritage items within and nearby the Scheme. Items in the vicinity of the modification works include; Upper Castlereagh School & Residence, Upper Castlereagh Methodist Church and Hall and the Methodist Cemetery (Figure 2).

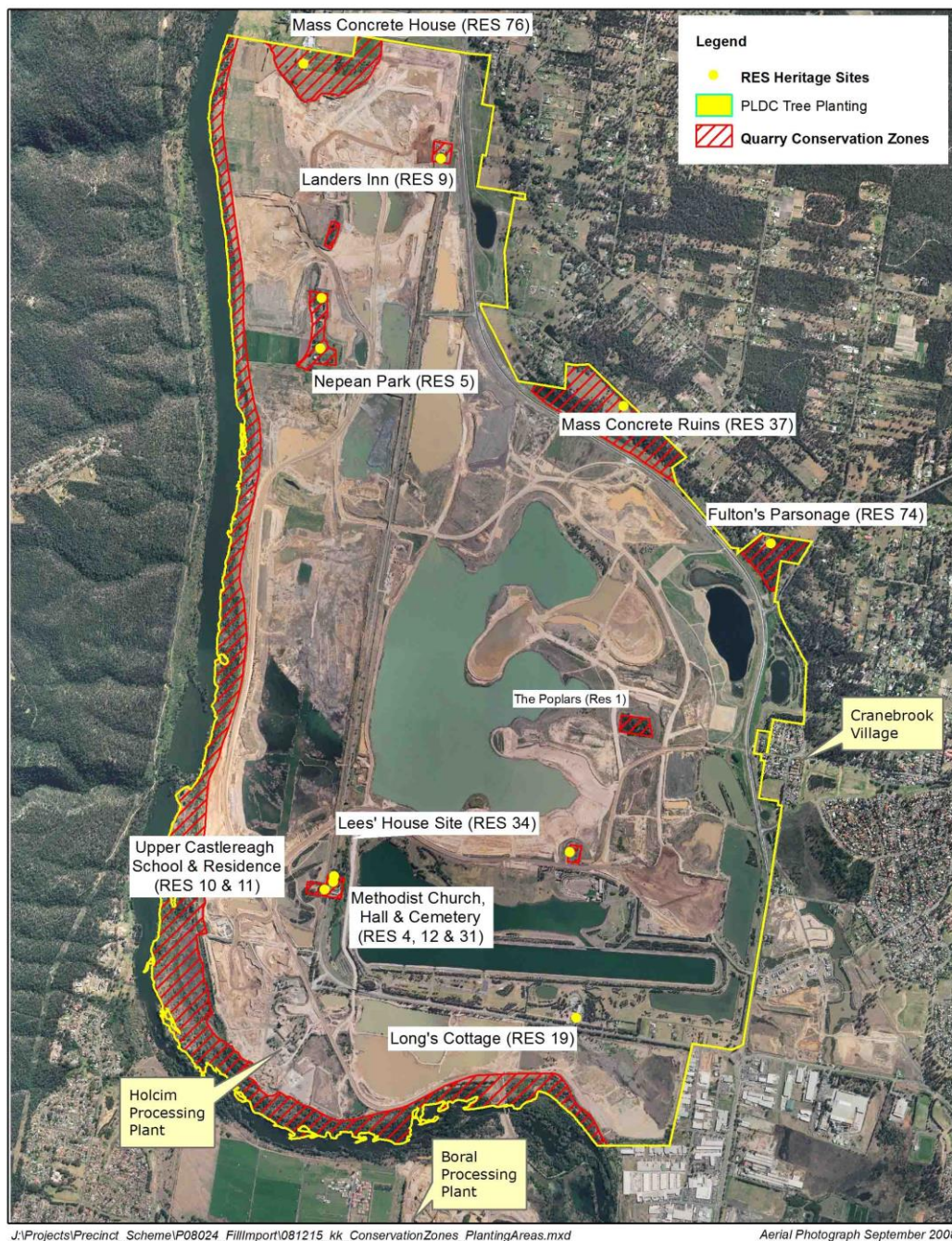


Figure 2 Surrounding Features Map

1.6 Environmental Management at PLDC

As per consent and licence conditions there is a broad range of other ongoing management procedures in place across the Scheme to prevent and mitigate any environmental impacts including, but not limited to:

- Water quality monitoring;
- Dust suppression and monitoring;
- Noise monitoring; and,

- Monitoring of fish stock, and management of European carp.

PLDC operations are governed by four principal operational approvals, being the consent conditions contained within DA 2, 3 and 4 Consents (refer to Section 2.4) and the Environment Protection Licence (EPL) No. 2956.

PLDC undertake monitoring and reporting in accordance with the requirements of these DA's and the Environment Protection Licence including an existing telephone complaints line. PLDC also prepares and submits an annual return to the Environment Protection Authority (EPA) detailing all monitoring results and any non-conformances. No noise complaints have been received for several years. Any dust non-conformances have generally been attributed to causes outside of PLDC's control such as vandalism and back burning by the Fire Brigade, however some instances of wind erosion of exposed landform areas have been identified during periods of high winds.

2 Legislative Framework

2.1 Commonwealth Legislation

2.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides protection to Matters of National Environmental Significance (MNES) which include:

- World heritage properties;
- National heritage places;
- Wetlands of international importance (listed under the Ramsar Convention)
- Listed threatened species and ecological communities;
- Migratory species protected under international agreements;
- Commonwealth marine areas;
- Great Barrier Reef Marine Park;
- Nuclear actions (including uranium mines); and
- A water resource, in relation to coal seam gas development and large coal mining development.

The continuation of imported VENM and ENM at the Scheme will not have a significant impact on MNES, and therefore referral to the Department of Environment and Energy is not required. Section 6 provides an assessment of environmental impacts associated with the proposed modification.

2.2 State Legislation (NSW)

2.2.1 Environmental Planning and Assessment Act 1979

The Proposed modification constitutes ‘development’ and therefore is to be considered under the *Environmental Planning & Assessment Act 1979* (the Act) and the *Environmental Planning & Assessment Regulation 2000* (the Regulation). The Act and Regulation set out the assessment framework under which development must be assessed.

The existing development consents DA2, DA3 and DA4 were granted by DP&E (then DUAP) in 1995 and 1998 respectively under Part 4 of the Act. The original consents permitted development for the progressive extraction and rehabilitation of land within the Scheme.

As a former transitional Part3A project, modification applications will now be assessed and determined in accordance with the provisions of s4.55(2) of the Act. The application must be demonstrated that the development as proposed to be modified will be substantially the same development as the development last modified under s75W in accordance with clause 38A to Schedule 2 of the

Environmental Planning and Assessment (savings, transitional and other provisions) Regulation 2017.

2.2.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) regulates emissions to air, water and land. It offers an integrated system to regulate specific types of activities and installations that have the potential to cause environmental harm as a result of their operations.

The EPA is the regulatory authority that administers the POEO Act, and has the power under the Act to issue clean up notices if it reasonably suspects that a pollution incident has occurred or is occurring. Council also has certain authority under the POEO Act in relation to pollution incidents.

PLDC currently holds an Environment Protection Licence (Number 2956) authorising extractive industries.

This proposed modification will not require any additional approvals, licences or permits under the POEO Act.

The proposed ENM imported would meet the requirements of the *Excavated Natural Material Exemption 2012* under Part 6, Clause 51 and 51A of the POEO (Waste) Regulation 2005.

2.3 NSW Planning Instruments

2.3.1 State Environmental Planning Policy (Penrith Lakes Scheme 1989)

The *State Environmental Planning Policy (Penrith Lakes Scheme) 1989* (Penrith Lakes SEPP) sets out aims and objectives. These are replicated for ease below:

- 1) *“The aims and objectives of this Policy are to permit the implementation of the Penrith lakes Scheme.”*
- 2) *“Without limiting the generality of subclause (1), the particular aims of this policy are:*
 - (a) To provide a development control process establishing environmental and technical matters which must be taken into account in implementing the Penrith Lakes Scheme in order to protect the environment;*
 - (b) To identify and protect items of environmental heritage;*
 - (c) To identify land which may be rezoned for urban purposes; and*
 - (d) To permit interim development in order to prevent the sterilisation of land to which this Policy applies during implementations of the Penrith lakes scheme.”*

Development within the Scheme require approval of either the minister for planning or Council (see Clause 6).

2.3.2 State Environmental Planning Policy No 55 – Remediation of Land

State Environmental Planning Policy No. 55 – remediation of Land (SEPP No. 55) requires contamination be considered whenever a planning authority considers a zoning/rezoning proposal or development application in NSW. Clause 7 of SEPP No. 55 is as follows:

(1) A consent authority must not consent to the carrying out of any development on land unless:

(a) it has considered whether the land is contaminated, and

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

2.4 Previous and Existing Development Applications and Environmental Assessment

Several development applications (DAs) have been approved to implement the Scheme. Under SREP 11 (now the Penrith Lakes SEPP), provision was made for the submission of sequential DAs, each accompanied by a Statement of Environmental Effects (SEE) for the progressive release of extraction areas.

Table 1 summarises the sequential list of DAs approved since 1981. Figure 3 depicts the areas associated with different development applications, together forming Scheme.

Table 1 Summary of Sequential DAs for Extraction and Rehabilitation

Date	DA No	Description
July 1982	DA1	For interim extraction while detailed planning studies of the scheme were completed
Feb 1987	DA2	For extraction in accordance with SREP11, in the central area of the scheme
Nov 1989	DA2 Modification (Rowing Lake)	To modify DA2 and extract additional funds to construct the rowing course
June 1995	DA3	For extraction in accordance with SREP 11 in the north east area of the scheme
September 1998	DA4	For extraction in accordance with SREP 11 within the scheme area to the west of Castlereagh road
April 2005	DA Pioneer Plant	For extraction in accordance with SREP 11 in the South East area of that scheme
October 2005	DA4 modifications (Camenzuli)	For extraction in accordance with SREP 11 in the north west area of the scheme
February 2006	DA2 modification (DC Prototype Trial)	For dynamic compaction prototype trial in the eastern section of the Precinct A
October 2006	DA2 modification	For dynamic compaction within Precinct A

June 2009	DA2, DA3 & DA4	For importation of VENM from 2009-2012
February 2014	DA2, DA3 & DA4	For importation of VENM from 2012-2015
April 2015	DA2, DA3 & DA4	For importation of VENM from 2015-2018
November 2017	DA2, DA3 & DA4	Extension of operation hours

2.4.1 Development Consents to be Modified

The Development Consents which require modification as part of the proposals are outlined below.

DA2

Scheme – DA2 was granted consent on 24 February 1987 by the Minister for Planning and Environment (now Minister for Planning and Infrastructure) (ref P92/00744/001), under Section 92 of the Act. DA2 permits continued extraction and rehabilitation on land included within the DA1 consent (Schedule 2 areas for rehabilitation), and prior to that within the pre-DA1 areas for extraction. There is no expiry date on the DA2 consent, and Condition No. 8 of DA2 modifies previous consent conditions to include conditions pertaining to the land as set out in the DA2 consent. These include:

- Extraction of approximately 786 ha of land (including 459 ha from previous development consents) containing approximately 39 million tonnes of raw feed and 20 million cubic metres of overburden;
- Transportation of extracted raw feed to shareholder processing plants (Boral, Cemex and Hanson) via internal haul routes;
- Rehabilitation to achieve landforms appropriate for the completed Scheme; and
- Importation of VENM to fill areas where extraction has occurred on the site, specifically for landform creation.

DA3

Scheme – DA3 was granted consent on 27 June 1995 by the Minister for Urban Affairs and Planning (now Minister for Planning and Infrastructure) (ref P92/00744/001), under Section 92 of the Act. DA3 was accompanied by an SEE prepared in accordance with SREP 11. The consent permits continued extraction operations including:

- Extraction of approximately 286 ha of land containing approximately 35 million tonnes of raw feed and 14 million tonnes of overburden;
- Transportation of extracted raw feed to shareholder processing plants (Boral, Cemex and Hanson) via internal haul routes;
- Rehabilitation of 407 ha to achieve landforms appropriate for the completed Scheme;
- Transportation of overburden via internal haul routes from subsequent stages (DA4) to meet a fill deficit of approximately 16 million tonnes; and

- Importation of VENM to fill areas where extraction has occurred on the site, specifically for landform creation.

DA4

Scheme –DA4 was granted consent on 9 September 1998 by the then Minister for Urban Affairs and Planning (now Minister for Planning and Infrastructure) (ref P97/00237 Pt4), under Section 92 of the Act. The consent for DA4 permits quarrying of sand and gravel in the Scheme area generally to the west of Castlereagh Road including:

- Extraction of approximately 737 ha of land containing approximately 63 million tonnes of raw feed;
- Transportation of extracted resources to shareholder processing plants (Boral, Cemex and Hanson) via internal haul routes;
- Rehabilitation of 407 ha to achieve landforms appropriate for the completed Scheme;
- Transportation of DA4 overburden surplus of approximately 30.4 million tonnes via internal haul roads to meet the fill deficit in DA3 (revised to 30.0 million); and,
- Importation of VENM to fill areas where extraction has occurred on the site, specifically for landform creation.

A copy of consent conditions for DA2, DA3 and DA4 is included Appendix A.

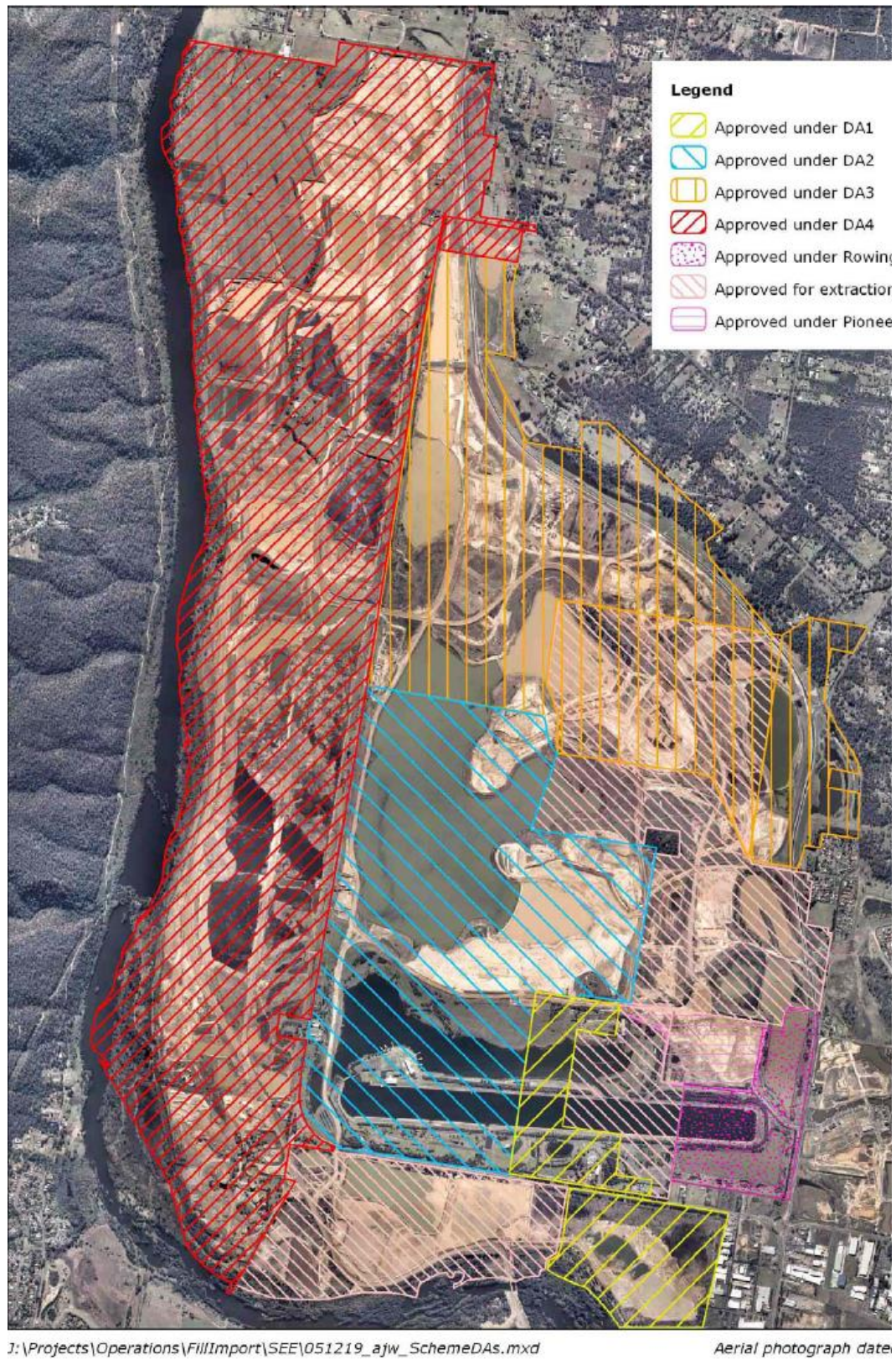


Figure 3 Areas associated with different development applications, together forming Penrith Lakes Scheme.

3 Project Modification for VENM/ENM Importation

3.1 Previously Approved Development

PLDC previously proposed to import up to one million tonnes of VENM to the Scheme each year for a period of three years from late 2012 until late 2015. The VENM was required to fill areas where extraction had occurred on the site, specifically for landform creation.

An Environmental Assessment (EA) was conducted in 2012 to assess the importation of VENM onto the site from the Sydney Metropolitan Area. Modification approval was granted in February 2014 to modify DA2, DA3 and DA4 under Section 75W of the Act.

The importation of fill was required as there was not enough remaining material within the Scheme, of adequate quality or characteristics, to utilise as fill. The option of gaining additional fill by increasing the depth of the Lakes was investigated, but this was considered likely to create unacceptable impacts on habitat function, leading to adverse impacts on water quality. The approved modification was assessed to have positive outcomes by limiting impacts mainly relating to external truck movements and associated noise. The requirement to import fill material did not result in a significant increase in the number or distance of internal truck movements, and existing approvals allow for as many vehicle movements on internal roads as operations require.

Coffey Geotechnics gave the opinion that VENM is suitable for use in the general landforms proposed, subject to compliance with technical specifications and quality assurance procedures. Therefore, the previous applications sought approval for the sourcing of VENM from numerous sources to be able to meet demand, subject to the conditions of consent.

The EA concluded that there were no issues of significant environmental impact. The majority of the issues that were assessed had negligible or low impacts. Traffic and Transport, Noise, Air quality, Water Quality and Heritage were assessed as having a low impact. In the 2012 EA, the Traffic and Transport and Noise assessments identified prescribed haulage routes for the trucks to follow in order to remain below the noise limits. All other environmental issues were prescribed management measures which ensured no significant environmental impact from the project.

An EA was conducted in 2014 to assess potential impacts associated with importing both VENM and EMN, and increasing the importation total from three million to eight million tonnes. Modification approval was granted in April 2015 to modify DA2, DA3 and DA4 under section 75W of the Act.

Table 2 is a summary from the 2014 EA including the environmental issues assessed, the potential impact and management measures to ensure no significant impact.

Table 2 Summary of 2014 EA Environmental Issues, Impacts and Measures

Environmental Issue	Impact	Management Measures
Soils, Geology and Contamination	Low	Soil testing, QA procedures for detecting contamination and contingency measures to remove soil from site where contamination is detected. The proposed imported fill material will be tested in accordance with PLDC's QA procedure to detect any contamination prior to deposition on site.
Traffic and Transport	Low	The road network adjacent to Gate 3 (Castlereagh Road north of Cranbrook Road intersection) would be upgraded to provide an auxiliary left turn treatment for northbound traffic turning into the site.
Noise	Low	Prescribed haul routes and proportions must be adhered to in order to remain below noise limits Traffic Noise Management Plan to be submitted
Vibration	Low	No additional management measures are required.
Air Quality	Low	Continuation of existing management measures as well as vehicle wash stations established at the new access points to the site. Continued monitoring of dust particle sizes and composition by the three dust deposition gauges located around the site, and the High Volume Dust Sampler (HVDS) will ensure compliance and success of measures.
Water Quality	Low	Continued routine monitoring to ensure compliance with ANZECC and RACC guidelines. Emergency spill procedures and equipment to be put in place.
Flora and Fauna	Negligible	No additional management measures are required.
Waste	Negligible	Continuation of existing management measures- the modification is not likely to generate any additional waste.
Heritage	Negligible	Minimum curtilages from heritage items to be maintained, as per CMP.
Landscape and Visual	Negligible	The modification will not result in any significant change of planned landform. No additional management measures are required.

3.2 Proposed Modifications for VENM and ENM Importation

Additional fill is required to fulfil the landform requirements as set out in the Lakes Two Year Plans for the Northern Lot 4 Urban Precinct, approved in 2016. This is required to meet the increased flood planning level and rising grade requirements for urban landforms, DA2, 3 & 4 rehabilitation and geotechnical pre-load requirements, as set out in the plan. The area of the Scheme site to which this modification relates is shown in Figure 4. The previous two year plans were for the entirety of Lot 4 and therefore covered a larger area.

This EA therefore proposes the following modifications to the existing development consents DA2, DA3 and DA4:

- Increasing the amount of VENM and ENM to be imported by an additional five million tonnes at a maximum rate of up to three million tonnes per year (for a total of thirteen million tonnes); and
- Commencing the importation of the additional five million tonnes of VENM and ENM in mid-2018 once the approved importation total of eight million tonnes has been reached.

The source and type of material to be imported (VENM and/or ENM) will depend on availability of sources. However, the proposed imported fill materials would be from various sites around Metropolitan Sydney and could be described as potentially clay shale or sandy clay depending on the site of the source. Availability of VENM/ENM in the Sydney Metropolitan Area would determine the rate of importation (up to a 'worst case' maximum of 3 million tonnes per year).

Before importation, the VENM and ENM is subject to testing and compliance with the Penrith Lakes Technical Specifications requirements and once at the site the VENM and ENM may undergo further testing for quality assurance. Further details of the Scheme testing requirements are shown in Table 6.



Figure 4 Approved Northern Lot 4 Urban Precinct

3.3 Comparison with the Approved Project

The table below (Table 3) provides a comparison between the existing approved VENM importation at the Scheme and the proposed modifications subject to this EA.

Table 3 Comparison of Approved and Proposed projects

Item	Approved Project	Proposed Modification	Difference
Source	Various source locations in Sydney Metropolitan Area	Various source locations in Sydney Metropolitan Area	None
Timing	Commencing early to mid-2015 once quarrying operations have ceased.	Commencing mid-2018 when the approved importation total of eight million tonnes has been reached	Importation will continue for an additional period of up to three years
Type of fill	VENM and ENM	VENM and ENM	None
Amount of fill	Eight million tonnes over five years – at a rate of two million per year	Additional five million tonnes– at a maximum rate of three million tonnes per year	Additional five million tonnes
Location of fill at site	Selected areas throughout DA2, DA3, DA4 required to fulfil the combined two year plans which relate to the entirety of Lot 4.	Selected areas throughout DA2, DA3, DA4, to produce the approved landform levels for the Northern Lot 4 Urban Precinct area.	The fill will be focussed on a specific area of the site (see Figure 4)
Haulage route	Prescribed haulage routes depending on source of fill	Prescribed haulage routes remain the same depending on source of fill	None
Access Points	Three access points proposed to be utilised, however upgrades required to one of the access points were never completed therefore truck entry to the site has been via Gate 1 and 2 in recent years.	Two access points proposed to be utilised.	None
Noise	Traffic haulage route to avoid exceedences of criteria	Traffic haulage route to avoid exceedences of criteria	None
All other environmental issues	Management measures in place	Management measures in place	None

3.4 Consideration of Alternatives

Under the Penrith Lakes SEPP, a discussion is required to determine any feasible alternatives to increasing the amount of imported material as well as the consequences of not carrying out the revised landform for the Northern Lot 4 Urban Precinct.

3.4.1 Alternatives

When the Scheme was initiated, the intent was to source fill internally for the creation of landforms. Further investigation found that this was not a feasible option. The only potential area from where appropriate fill could be sourced internally is the lake floors. However, to increase the depth of the lakes would result in unacceptable water quality impacts, and associated poor ecosystem health. Therefore, importation of VENM and ENM was determined to be the best option for land rehabilitation.

This proposed modification is concerned with continuing to obtain suitable fill for the purpose of land rehabilitation within a timeframe which ensures the continued use of heavy machinery currently present on site. As the importation of fill reaches the approved threshold (May 2018), it is timely for PLDC to continue the importation of fill as soon as possible. If this machinery can't continue operation, due to delays in approvals, and are removed from site, the cost of rehabilitation, as well as environmental impacts, would increase substantially.

3.4.2 'Do Nothing' Scenario

The 'do nothing' scenario is not an option for the Scheme. The rehabilitation and landform outcomes as prescribed in the existing development consents, and the approved Two Year Plans are required to be met.

4 Consultation

No consultation was undertaken for the EA for the proposed modification, however consultation and submission responses, provided as part of the modification application in 2014 for the increase of importation material from three million tonnes to eight million tonnes, have been taken into account in this assessment.

5 Risk Assessment

The EA as presented below provides an assessment of the changes to the Scheme, as they are described in Section 3.2 above. The assessment is based on the importation of an additional five million tonnes of VENM and ENM (up to a maximum rate of three million tonnes per year) into the Scheme over a period of two to three years to create landform required for the approved two year plan for the Northern Lot 4 Urban Precinct.

The Risk Assessment (Table 5) provides a summary of the potential environmental impact associated with the continuation of importation of VENM into the Scheme. The table will also assign a level of significance to each issue based on the extent and likelihood of:

- Potential impact with consideration of mitigation or management measures; and,
- Potential community or regulatory concern.

To aid in the assessment of the potential impacts and to ensure consistency between environmental assessment topics, significance criteria have been defined which follow the framework shown in Table 4. These have been used to guide the evaluation of potential environmental impacts unless otherwise stated.

Table 4 Significance Criteria

Significance	Impact Classification	Criteria
High	Impact a major problem	These effects are likely to be important considerations at a local scale but if adverse, are potential concerns to the continuation of the project. Mitigation measures and detailed design work are unlikely to remove all the effects upon the affected communities or interests. Residual effects would remain.
Moderate	Impact moderate but can be easily mitigated	These effects, if adverse, while important at a local scale, are not likely to be key decision making issues. Nevertheless, the cumulative effects of such issues may lead to an increase in the overall effects upon a particular area or on a particular resource. They represent issues where effects would be experienced but mitigation measures and detailed design work may ameliorate/enhance some of the consequences upon affected communities or interests. Some residual effects would still arise
Low	A small and acceptable impact	These effects may be raised as local issues, but are unlikely to be of importance in the decision making process. Nevertheless, they are of relevance in enhancing the subsequent design of the project and consideration of mitigation or compensation measures
Negligible	Minimal Change	No effects or those that are beneath levels of perception, within normal bounds of

Significance	Impact Classification	Criteria
		variation or within the margin of forecasting error

The environmental issues that are addressed in the risk assessment are under the following headings:

- Soils, Geology and Contamination
- Traffic and Access
- Noise and Vibration
- Air Quality
- Water Quality
- Flora and Fauna
- Waste
- Indigenous Heritage
- Non-Indigenous Heritage
- Landscape and Visual
- Flooding

No issues of high or moderate significance have been identified. Issues that were considered to have low environmental significance were taken forward for more detailed assessment. Where there was considered to be negligible environmental significance in relation to an issue, no further assessment has been provided and a brief summary of the proposed management measures is provided in Table 5.

Table 5 Environmental Risk Analysis

Issue	Potential Environmental Impact	Further Assessment
Traffic and Transport	<p>It is anticipated that the importation of VENM and ENM will occur at the same scale and frequency as recent years. Therefore, a continuation of approximately 240 trucks per day is anticipated to transport the material.</p> <p>As quarrying export ceased onsite in mid-2015, with an overall reduction in total truck movements associated with the Scheme site, continued importation operations at the existing levels is considered acceptable. Truck entry via two access points (Gates 1 and 2) and approved haulage routes will be retained. In addition, the Construction Traffic Management Plan and the measures set out within would remain in force.</p> <p>Negligible environmental significance</p>	See Appendix B
Noise and Vibration	<p>Continued movement of Heavy Duty Vehicles will impact predicted noise levels for 2018 set out in the EA undertaken in 2014. However, it is not considered that noise and vibration impacts would be any worse than the existing situation from 2015 to 2018 where importation occurs at the same scale and frequency. Existing management measures are recommended to be maintained to ensure EPL conditions relating to noise continue to be met.</p> <p>Low environmental significance</p>	More detail provided in Section 6.2
Air Quality	<p>Continued movement of Heavy Duty Vehicles will impact predicted pollutant concentrations for 2018 set out in the EA undertaken in 2014. However, it is not considered that air quality impacts would be any worse than the existing situation from 2015 to 2018 where importation occurs at the same scale and frequency.</p> <p>The use of imported material will be focussed on a specific area of the site which has the potential to generated increased dust emissions in this area. Under the current EPL for the Scheme, dust and particulate matter is monitored against the relevant criteria and mitigation measures are already in place throughout the Scheme in order to remain below the air quality criteria for the site.</p> <p>Low environmental significance</p>	More detail provided in Section 6.3

Issue	Potential Environmental Impact	Further Assessment
Water Quality	<p>As a result of the proposed modification there would be some potential for additional sediment to enter the waterway system with an increase in the complexity of transport and soil movement. Increased sediment in the system may lead to increased turbidity, TDS and TSS, as well as associated impacts on ecosystem health.</p> <p>However management measures, including those included in previous consent conditions would be put in place. If these measures are implemented and adhered to, effects of the modification would be negligible.</p> <p>Negligible environmental significance</p>	No further assessment
Soil, Geology and Contamination	<p>Controls have been put in place as part of the existing operations to ensure that the fill meets the geotechnical and contamination criteria for the site. Stringent testing of soil prior to transport from the source will ensure that it is unlikely that contaminants would be introduced to the Scheme site from the VENM and ENM. Where existing control measures continue to be implemented there will be no effect on soils and geology, and no risk of contamination.</p> <p>Negligible environmental significance</p>	No further assessment
Flora and Fauna	<p>The existing flora and fauna values of the site are greatly reduced from original pre settlement levels. The site contains few native species of flora and is largely dominated by introduced species, in particular grasses and shrubs.</p> <p>For the proposed modification, as VENM/ENM is required for the rehabilitation of the Scheme and revegetation will occur once the development is finished, the effects of the proposed modification contributes to a positive impact.</p> <p>It is important that any existing native flora and fauna are protected during the redevelopment process, in order to maintain the existing biological value of the site. The creation of ecological corridors and core conservation areas would enhance the viability of threatened communities surrounding the site, and help increase the genetic stability and diversity of populations.</p> <p>Negligible environmental significance</p>	<p>No Further Assessment.</p> <p>Management measures are included in the Statement of Commitments</p>
Waste	<p>The proposed modification to import VENM does not produce additional waste, thus the impact of the proposed modification with respect to waste management at the Scheme is considered to be negligible.</p> <p>Negligible environmental significance</p>	<p>No Further Assessment.</p> <p>Management measures are included in the Statement of Commitments</p>

Issue	Potential Environmental Impact	Further Assessment
Indigenous Heritage	<p>Oral histories of the area talk about the escarpment and the associated lagoons as forming an important meeting or gathering place for different clans of the Darug People. Evidence from archaeological studies carried out by PLDC in partnership with the Aboriginal community, supports the idea that large gatherings occurred in this area.</p> <p>Due to extensive market garden farming and quarrying prior to PLDC activities on site the topsoil layer has been significantly disturbed greatly compromising the integrity of archaeological discoveries.</p> <p>This proposal will not result in the disturbance of any additional top soils. However, if any new or unknown Indigenous sites or relics are uncovered during the proposed activities, work affecting those sites or relics will cease immediately and the material will be assessed by Aboriginal stakeholders and OEH, in accordance with current consent conditions (Aboriginal Heritage Impact Permit (AHIP number 1131345)).</p> <p>Negligible environmental significance</p>	<p>No Further Assessment.</p> <p>Management measures are included in the Statement of Commitments.</p>
Non-Indigenous Heritage	<p>Retained within the Penrith Lakes Scheme are a number of conservation zones which range from local to national significance. These sites are indicative of early colonial (1806 – 1900's) contact and non-Indigenous heritage. There are no non-indigenous heritage sites within the Northern Lot 4 Urban Precinct area where the additional imported fill will be used.</p> <p>Impacts on non-indigenous heritage items from vehicles transporting material to and around site are not predicted to change from existing levels. Management measures as well as the appropriate curtilages will remain in place, and heritage items within the scheme are not predicted to be adversely affected.</p> <p>Negligible environmental significance</p>	<p>No Further Assessment.</p> <p>Management measures are included in the Statement of Commitments</p>

Issue	Potential Environmental Impact	Further Assessment
Landscape and Visual	<p>The landscape of the site has been altered over time through extraction activities, filling of the areas, lake formation and the construction of roads and other infrastructure. Following extraction for mining purposes, the excavated areas are filled and revegetated with suitable species. The importation of material is required to achieve levels previously consented as part of the Deed requirements as well as the approved two year plans. It should be noted that the Northern Lot 4 Urban Precinct area landform design is one metre higher than Deed requirements to comply with future flood plans.</p> <p>The proposal will not result in significant change of the proposed and approved landform.</p> <p>Negligible environmental significance</p>	<p>No Further Assessment.</p> <p>Management measures are included in the Statement of Commitments.</p>
Flooding	<p>One of the reasons for requiring additional fill is to comply with the January 2017 SEPP amendment for Flood Planning Level which has been set at a 1:100 year flood level plus one metre. As a result, the Northern Lot 4 Urban Precinct design is 1 metre higher than deed requirements to provide beneficial results in regard to flooding.</p> <p>The proposed modification will enable PLDC to comply with the January 2017 SEPP amendment by allowing the landform to be rehabilitated to one metre above the 1:100 year flood level.</p> <p>Negligible environmental significance</p>	<p>No further assessment</p>

6 Environmental Assessment

6.1 Introduction

This chapter includes an assessment of key issues which have been identified by the risk assessment of environmental impacts of the proposed modification in Section 5. For each of the key environmental issues, the assessment will identify and address measures to be implemented to mitigate the impacts of the proposed modification.

The environmental issues are addressed under the following headings:

- Noise and Vibration; and
- Air Quality.

6.2 Noise and Vibration

6.2.1 Existing approval

PLDC currently has consent to import up to eight million tonnes of ENM and VENM via road haulage under modification approval relating to DA2, DA3 and DA4 (see Section 2.4 for details on each DA consent).

In addition to overall import tonnage, approval of the Section 75W modification application¹ in November 2017 granted an extension to operational hours from 6:00 am to 9:00 pm during the week.

The current break-down of approved truck movements is as follows:

- 6:00 am to 7:00 am Up to 40 truck movements/hour
- 7:00 am to 6:00 pm Up to 60 truck movements/hour
- 6:00 pm to 9:00 pm Up to 30 truck movements/hour

The approved modifications to DA2, DA3 and DA4 allowed a change in the importation total of VENM and ENM to the Scheme over 2015-2018. The noise and vibration impacts of these modifications were assessed against the relevant EPL conditions² and OEH guidance for noise and vibration. The assessment was carried out as part of the Environmental Assessment presented for that Section 75W modification application.

Noise levels for a typical VENM/ENM haul truck scenario (approximately 476 truck movements per day divided between the three site entries) were assessed for the extended hours of operation as part of the modification application. The assessment of the overall increase in noise impact of the VENM/ENM haul traffic was found to be acceptable based on the relevant noise criteria (generally <2dB increase in the noise level with the proposed VENM/ENM haulage). In addition, a further 'worst case' scenario was considered for all haul trucks using the worst-affected road segment (Old Castlereagh Road), which was identified to have infrastructure that is better suited to handle larger volumes of trucks than the other entrances.

To control the traffic noise impact of the VENM/ENM traffic, administrative measures were recommended to control this noise impact to acceptable levels. Additionally, a Traffic Noise Management Plan (TNMP)³ was agreed and periodic noise monitoring was carried out to show the noise levels resulting from the VENM/ENM importation activities remained within the significance criteria.

¹ Importation of VENM Modification, Section 75W Application Amendment: Environmental Assessment, Arup, December 2015

² Environment Protection Licence No. 2956, Section 55 Protection of the Environment Operations Act 1997, NSW Environment Protection Authority

³ Traffic Noise Management Plan, Importation of Virgin Excavated Natural Material and Excavated Natural Material, Arup, June 2015

6.2.2 Proposed Future Operations

This modification application seeks approval for the site to import a further five million tonnes of ENM and VENM. The following is noted with respect to the proposed approval:

- Similar to current operations, a maximum of 238 trucks per day (476 truck movements) will be used to transport the ENM / VENM;
- The existing approved site access points and haulage routes will remain unchanged; and
- There is no extension of hours of operation sought with this application.

It is noted that existing traffic flows and composition on the road network surrounding the Scheme site are expected to increase with time. Given that the proposed extension to ENM / VENM import is expected to remain the same, this represents less of a relative impact from the proposed importation. This is in line with the Noise and Vibration Assessment criterion of not increasing existing noise levels by more than 2 dB(A).

On this basis, it is recommended that the Traffic Noise Management Plan for the VENM/ENM haulage operation is followed, and traffic noise levels on Castlereagh Road, Cranebrook Road and Old Castlereagh Road are monitored as VENM/ENM haulage continues to quantify the forecasted traffic impacts noise due to the haulage operation.

The impact of the modification on noise and vibration is considered to be low/negligible

6.3 Air Quality

6.3.1 Existing Environment

6.3.1.1 Climate conditions

The Bureau of Meteorology has recorded meteorological data at the Penrith Lakes Automatic Weather Station (AWS) since 1995. The AWS is located approximately 250m to the north of the SIRC Warm Up Lake. An annual summary of wind direction and speed data from 1995 to 2017 is presented in Figure 5.

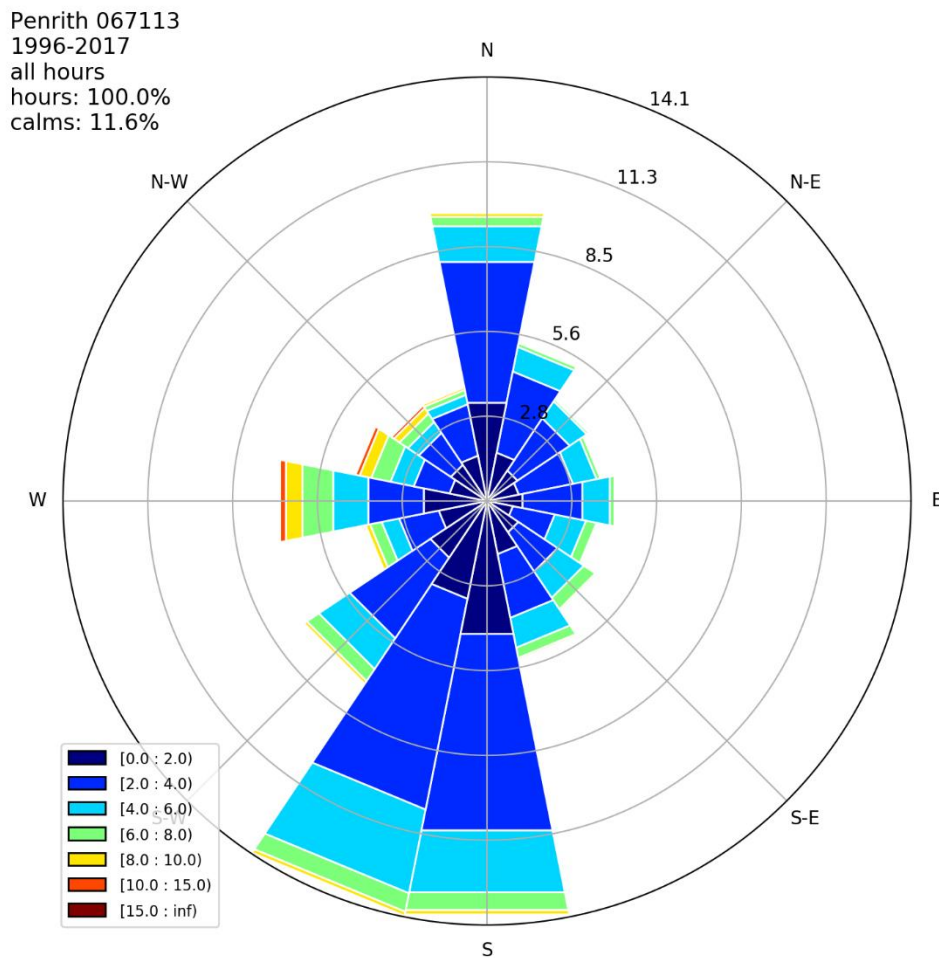


Figure 5 Wind Rose for Penrith Lakes

The predominant wind direction at the Scheme site is southerly which means that areas to the north of dust generating activities on site are likely to be most affected. Higher wind speed episodes, which have the potential to generate wind erosion from exposed landform, are typically associated with a westerly wind direction.

Mean temperature at the AWS ranges from 5.4°C in July to 31°C in January. Annual average rainfall at the AWS is recorded as 718.6mm for all years with the maximum mean monthly rainfall occurring in February (116.9mm) and the minimum in July (29.3 mm).

6.3.1.2 Sensitive Receivers

Existing sensitive receivers with respect to air quality include the residents to the immediate east of the site and residents to the north east of the Norther Lot 4 Urban Precinct area. The closest sensitive receiver to the site is Cranebrook Village (refer to Figure 2).

There are also sensitive receivers adjacent to the haul roads used by vehicles to transport material to the Scheme site.

6.3.1.3 Existing Air Quality

The existing air quality at the site is currently affected by:

- Dust generating activities such as ground disturbance during land rehabilitation, vehicle movements along the internal unsealed haul roads and wind erosion; and,
- Vehicle emissions from on-site traffic and the surrounding local road network.

Monitoring of dust and particulate matter at various locations around the Scheme site is required as part of the EPL. The air quality monitoring locations currently undertaken by PLDC are shown in Appendix C. The rehabilitation works undertaken by PLDC are subject to air quality targets under the various development consents and the Scheme's EPL. The air quality criteria are consistent with NSW OEH guidelines (including Action for Air and the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales). These requirements ensure that air quality at sensitive receivers, located both within and adjacent to the Scheme, are protected from adverse effects of dust generation during works.

With regard to the modification application, dust monitoring undertaken at site 16 (Cranebrook North) and site 44 (Northern Spur) provides existing conditions for the area affected.

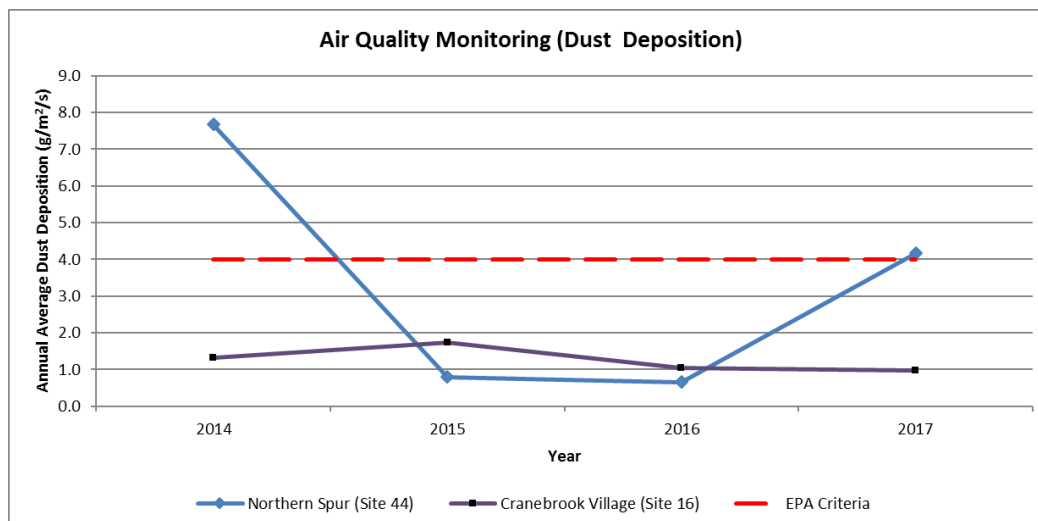


Figure 6 Dust Deposition Results (Cranebrook Village and Northern Spur)

The results displayed in Figure 6 show that deposited dust at site 16, which is closest to sensitive receivers at Cranebrook Village, has consistently met the EPA criteria of 4 g/m²/s as an annual average. Exceedances of the EPA criteria have been recorded in 2014 and 2017. The exceedance in 2014 is due to an anomalous high result in April 2014 of 80.8 g/m²/s. The remainder of readings in 2014 were below the criteria. Data were not available for site 44 between November 2016 and Jun 2017, therefore this is likely to have affected the annual average as higher concentrations would be anticipated in summer months during dry and hot weather.

Monitoring for PM₁₀ for the purposes of the Scheme is undertaken at one location at the Uniting Church located in the south west corner of the Scheme. As this site is distanced from the proposed area of rehabilitation and sensitive receivers likely to be affected by this, the data has not been considered further as part of this assessment.

Dust Generating Activities

The primary dust generating activity on the site is the rehabilitation of land. All quarrying and exportation activities previously undertaken on-site have now ceased.

A network of roads exists within the Scheme, as evident in Figure 2, which are comprised of unsealed access roads for general site access, as well as haulage roads predominantly used by machinery and large vehicles. Movement of vehicles on these roads has the potential to generate dust if management measures are not adhered to. The requirement to import additional fill material would not greatly increase the number or distance of internal truck movements.

6.3.2 Impact Assessment

As discussed, the number of vehicle movements required to import material will not increase from recent years and therefore impacts associated with vehicle emissions on the local road network are predicted to be negligible.

Vehicle movements on the internal road network will deliver fill material directly to the required locations. Any other transportation of fill within the Scheme will be undertaken by PLDC's own haul trucks. It is not anticipated that internal vehicle movements will change significantly as a result of the importation of additional material and therefore impacts associated with the vehicle and machinery emissions on-site are predicted to be negligible.

The proposals have the potential to increase dust generating activities in certain locations at the site. The additional import material will be used for land rehabilitation for the Northern Lot 4 Urban Precinct area (see Figure 4) and therefore has the potential to generate dust impacts close to sensitive receivers to the east and north east of the Lot 4 site boundary.

In order to ensure that the dust impacts remain negligible, PLDC will employ the following management measures, which are already required under the existing DA2, DA3 and DA4 and EPL for the Scheme.

- The dust deposition gauges located within the site will continue to monitor dust levels on a monthly basis. The results will be incorporated within PLDC programme of environmental reporting and will be reported to the EPA as part of compliance reporting required as part of the EPL.
- Any increase in monitored concentrations of dust above the EPA criteria will be investigated and further mitigation measures implemented to minimise dust generation and spread and bring the Scheme into compliance.
- The interior roads will be suitably maintained, including watering where necessary to minimise dust generation, on internal roads and work areas, with water sourced from the nearest stand pipe.
- All vehicles within the site have a maximum internal speed limit of 60km/hour.
- Rehabilitation of lands will stabilise soil surfaces and prevent dust generation.

The impact of the modification on Air Quality is considered to be low

7 Statement of Commitments

Table 6 documents measures in place as part of previous consents to avoid, minimise, manage, mitigate, offset and/or monitor impacts identified in the environmental assessment. These management measures will continue during the import of additional material to minimise the environmental impact of the proposals.

Table 6 Environmental Management Measures relevant to the Modification Application

	Environmental Management or Mitigation Measure	Phase
1.	Scope and Compliance	
1.1	PLDC will carry out the importation of VENM/ENM in general accordance with previous consents and approvals for similar activities.	All
2	Communication and Consultation	
2.1	<p>PLDC will continue to be responsive to the community's expectations and requests. In particular, PLDC will:</p> <ul style="list-style-type: none"> • continue to maintain a complaints register for the site; • follow up each complaint received by identifying the cause of the issue at the site and taking appropriate action; and • respond to the complainant in a timely and efficient manner regarding the cause of the complaint and how the issue has been resolved. 	All
3	Traffic and Access	
3.1	<p>A number of management measures are to be implemented during the importation period to further mitigate this impact. These are listed below:</p> <ul style="list-style-type: none"> • Vehicle approach and departure routes to the site will be restricted to major arterial roads such as the M2, M4 & M7 Motorways, The Northern Road, Mulgoa Road and Cranebrook Road • The majority of the VENM/ENM truck movements are expected to occur outside of the commuter peak hours. 	During VENM/ENM Importation
4	Noise and Vibration	
4.1	The Traffic Noise Management Plan (TNMP) for the VENM/ENM haulage operation will remain in place until importation of VENM/ENM is complete.	During VENM/ENM Importation

	Environmental Management or Mitigation Measure	Phase
5	Air Quality	
5.1	<p>PLDC will employ the following air quality management measures, which are already required under the existing DA2, DA3 and DA4 and EPL for the Scheme;</p> <ul style="list-style-type: none"> The dust deposition gauges located within the site, as well as at Cranebrook Village, will continue to monitor compliance at the Scheme. The results will be incorporated within PLDC programme of environmental reporting and compliance reporting to the EPA. The interior roads will be suitably maintained, including watering where necessary to minimise dust generation, on internal roads and work areas, with water sourced from the nearest stand pipe. All vehicles within the site have a maximum internal speed limit of 60km/hour. Rehabilitation of lands will stabilise soil surfaces and prevent dust generation. 	During VENM/ENM Importation
6	Soils, Water and Landform	
6.1	PLDC will ensure that any material delivered to the Scheme site meets and satisfy the requirements of and be delivered with supporting environmental information certifying to PLDC that the material is VENM or ENM as defined in the <i>Protection of the Environment Operations Act 1997</i> .	During VENM/ENM Importation
6.2	PLDC will ensure validation and certification of the material be undertaken by a suitably qualified environmental consultant in accordance with NSW OEH Waste Classification Guidelines using industry accepted procedures and NATA registered laboratories (for sample analysis) being an environmental consultant acceptable to PLDC.	During VENM/ENM Importation

	Environmental Management or Mitigation Measure	Phase
6.3	<p>PLDC will ensure no contamination or corruption of the material occurs en route between the originating source and the Scheme, as the source company must provide the following information:</p> <ul style="list-style-type: none"> • Site Address (Street, Suburb). • Description of previous land use and current land use and details of any demolition work (e.g. residential, service station, supermarket etc) at every site where the material is sourced. • Brief Description of proposed works (e.g. excavation of basement car park, footings tunnel etc) which has provided or will provide the material. • Material type and approximate quantity of VENM/ENM. • For VENM, certificate certifying to PLDC that if the material is VENM, it must contain no material that is not VENM including topsoil, building rubble, fill etc. • For ENM, certificate certifying to PLDC that if the material is ENM and meets the requirements of the <i>Excavated Natural Material Exemption 2012</i> under Part 6, Clause 51 and 51A of the POEO (Waste) Regulation 2005. • Source of material on the Scheme site and approximate depth(s) (e.g. all material below 300mm depth). 	During VENM/ENM Importation
6.4	<p>A statement in the report certifying that material to be received is VENM/ENM must contain certification as to the following:</p> <ul style="list-style-type: none"> • Laboratory analysis results included for the material to be delivered to the Site (Minimum of 3 samples required for residential sites from which the material is sourced/Minimum of 10 samples required for large sites from which the material is sourced plus duplicates for VENM). • Map of sample locations of the site from which the material is sourced (Field Sketch or Indicated on Engineering Plan). • Full description of material(s) to be delivered – either described in the report of Bore logs attached. • Laboratory Reports and Certificates for the material to be delivered attached and completed as part of the certification report (including Lab Quality Control). • The materials to be supplied are not Potential Acid Sulphate soils 	During VENM/ENM Importation
6.5	<p>Field Screening, Sampling and Analysis of materials</p> <ul style="list-style-type: none"> • Description of any Field Screening undertaken (if any) of the Site from which the material is sourced. • Samples provided of the material to be delivered must be discrete (not composite) by the environmental consultant. • Samples of the material to be delivered must be appropriately preserved and forwarded to a laboratory approved by PLDC. 	During VENM/ENM Importation

	Environmental Management or Mitigation Measure	Phase
6.6	<p>The Analysis Undertaken on VENM/ENM to be delivered to the Site must include:</p> <ul style="list-style-type: none"> • Priority Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc) • Organochlorine Pesticides (OCPs) • Petroleum Hydrocarbons (TPH) • Benzene, Toluene, Ethylbenzene, Xylene (BTEX Compounds) • Polycyclic Aromatic Hydrocarbons (PAHs) • Polychlorinated Biphenyls (PCB's) 	During VENM/ENM Importation
6.7	<p>PLDC will undertake:</p> <ul style="list-style-type: none"> • Material tracking by recording: the source(s) of material generation, including site address(s), the total amount of material generated per site and transport and receipt dockets that ensure total amount of material generated at the source site is consistent with the total amount received at PLDC. • Validation inspections and sampling at the Scheme site to 'check' that imported materials meet either VENM or ENM. The sampling frequency can be flexible given this environmental control is simply a validation process. 	During VENM/ENM Importation
6.8	In addition to previous consent conditions, erosion and sediment control including stabilisation measures as described in the industry standard Landcom Manual Managing Urban Stormwater: Soils and Construction (Volume 1 Edition 4) will be implemented.	Pre-VENM/ENM Importation
6.9	PLDC will minimise human and environmental exposure to soil during work in accordance with the PLDC Occupational Health Safety and Environmental Management System.	During VENM/ENM Importation
7	Flora and Fauna	
7.1	PLDC will ensure that existing management and rehabilitation measures as per the original development application and consents are implemented, including implementation of the Castlereagh Biodiversity and Natural Heritage Conservation Master Plan, which provides detailed policy and strategic direction to support the sustainability targets for the Scheme.	During VENM/ENM Importation
8	Indigenous Heritage	
8.1	PLDC will ensure that if any new or unknown Indigenous sites or relics are uncovered during the proposed Project, work affecting those sites or relics will cease immediately and the material will be assessed by Aboriginal stakeholders and OEH, in accordance with current consent conditions.	During VENM/ENM Importation

	Environmental Management or Mitigation Measure	Phase
9	Non-Indigenous Heritage	
9.1	<p>The conservation management plan (CMP) for the Scheme identifies appropriate conservation management measures to ensure that items of historical value are maintained.</p> <p>PLDC will ensure that sufficient buffers are established between any heritage item and the surrounding activities.</p> <p>Management will be undertaken in accordance with the CMP for the Scheme.</p>	During VENM/ENM Importation
10	Landscape and Visual	
10.1	PLDC will undertake other measures for mitigating visual impacts described in DA2, DA3 and DA4 consents where appropriate.	During VENM/ENM Importation

8 Justification and Conclusion

8.1 Justification of the Proposed Modification

Under the Penrith Lakes SEPP, a development application must be justified in terms of environmental, site suitability and social considerations. These are discussed below:

8.1.1 Site Suitability

The Scheme has been the site of extensive extraction operations since the establishment of PLDC in 1980. These operations have gradually come to a close and quarrying operations ceased in September 2015. For rehabilitation of the site to occur, fill is required, which cannot be sourced internally, as originally intended. Thus, the issue of site suitability is essentially redundant.

8.1.2 Social Considerations

The proposed modification represents a critical stage in achieving rehabilitation at the Scheme and providing a landform of a standard suitable for parkland and urban future development. While the full extent of future development is not yet defined, the proper rehabilitation of the site allows greater flexibility in its future use and ability to deliver social outcomes to the region in terms of both direct employment and community use of the land.

8.1.3 Environmental Considerations

The environmental systems within the vicinity of the site are largely artificial and cannot be described as pristine natural environments. Despite this, PLDC has made a significant investment in the rehabilitation of these areas. The landform creation planned for the site will greatly enhance the value of the site and of surrounding threatened habitat through the planting of local native species, use of stepping stones and establishment of ecological corridors.

The environmental impacts of the proposed modification extends mostly to noise and dust impacts which will not persist beyond the period of this proposal and are able to be managed to within acceptable limits.

8.2 Conclusion

PLDC propose to import an additional five million tonnes of VENM/ENM to provide fill material for the rehabilitation and creation of landform for the approved Northern Lot 4 Urban precinct area. Availability of VENM/ENM in the Sydney Metropolitan Area would determine the rate of importation, however a maximum rate of three million tonnes per year is allowed.

The Northern Lot 4 Urban Precinct is currently permitted under three separate development consents DA2, DA3, DA4. The proposal seeks to modify these development consents under Section 4.55(2) of the Act.

This EA has been prepared to meet the requirements of section 4.15 in assessing the likely environmental impacts of modifying the previously approved

development consent for fill importation. As presented in Table 5, all of the impacts are either low or negligible and relate mostly to noise and dust impacts. Vehicle movements associated with these proposals are not anticipated to increase from existing levels. Notwithstanding, there is a community expectation that external truck movements associated with importation activities would come to an end in 2018. PLDC therefore have an obligation to the surrounding community to ensure that the impacts of truck movement associated with the importation of additional VENM/ENM for a further period of time are minimised.

This EA has shown that existing management measures required as part of previous consents and approvals would ensure all impacts are kept within acceptable limits.

9 References

Relevant background information and environmental monitoring data essential to the preparation of this assessment has been identified from information made available by PLDC, are presented in Table 7.

Table 7 Relevant background information documents used in the preparation of this assessment.

Relevant Background Information
Statement of Environmental Effects for VENM Importation (Arup, 2008)
Environmental Assessment for Importation of VENM and ENM Modification (Arup, 2014)
Site Development Plans
DA1 Consent
DA2 Consent and modifications
DA3 Consent and modifications
DA4 Consent and modifications
Rowing Lake DA
Pioneer Plant DA
SEE for Dynamic Compaction (Arup 2006)
PLDC Two Year Reports; 2003 – 2005, 2005 – 2007, 2010 – 2013 and 2013 - 2016
Dust and noise monitoring data
Ongoing consultations with relevant personnel from PLDC and DP&I
Castlereagh Biodiversity and Natural Heritage Conservation Master Plan, Draft Report (Total Catchment Management Services Pty Ltd, 2008)
Penrith Lakes Heritage Strategy (Godden Mackay Logan, 2007)
Relevant Legislation (see Section 2)

Appendix A

Consent Conditions for DA2,
DA3 and DA4

Modification of Minister's Approval

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, I approve the modification of the project application referred to in Schedule 1, subject to the conditions in Schedule 2.

Chris Wilson
Executive Director
Infrastructure and Industry Assessments

Sydney

30.4.15

2015

SCHEDULE 1

The development consent (DA2) granted by the Minister for Planning and Environment on 24 February 1987 for the Penrith Lakes Scheme.

SCHEDULE 2

1. Insert the following after (g) in "APPLICATION"

- (h) Modification application DA2 MOD 5 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Importation of VENM and ENM Modification, dated 25 September 2014 including the response to submissions dated 13 January 2015

2. Insert the following condition after 17B of the schedule:

- 17C. Prior to the commencement of VENM and ENM importation in accordance with MOD 5, PLDC shall notify the EPA and the Department regarding the source of VENM and ENM including documentation that material has been classified in accordance with the Waste Classification Guidelines, Part 1 Classifying Waste, EPA 2014 and the requirements of the EPA 2014 Excavated Natural Material Order and Excavated Natural Material Exemption.

3. Delete Condition 36BB and replace with the following condition:

- 36BB. The applicant shall ensure the development described in DA2 MOD 4 and DA2 MOD 5 complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00am to 6.00pm	7.00 am to 1.00pm	No work

Table 2 – Hours of Operation

4. Delete the words "in MOD 87-6-2005, MOD 123-10-2006 and DA2 MOD4 in condition 36D", and replace with in MOD 87-6-2005, MOD 123-10-2006, DA2 MOD4 and DA2 MOD5

5. Delete condition 46A and replace with the following:

46A. All VENM and ENM transport to and from the site will be in accordance with the approved haulage routes shown in Figures 2 and 2A below and described in the Importation of VENM and ENM Modification. No trucks shall use Castlereagh Road south of Old Castlereagh Road or Mulgoa Road to access or egress the site.

6. After condition 49A insert the following condition:

49AA. Prior to the commencement of additional importation of VENM and ENM in accordance with DA2 MOD 5, the applicant will submit a revised Project Traffic and VENM Management Plan to the Department in accordance with the requirements of condition 49A. The plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan and outline the proposed management of additional vehicle movements associated with the increased requirements for VENM and ENM importation.

7. Delete condition 49C and replace with:

49C The importation of VENM and ENM shall be limited to 8 million tonnes at a maximum rate of 3 million tonnes per year.

8. After condition 49C insert the following condition:

49D. Prior to the commencement of importation of VENM or ENM using the northern most access, the road network adjacent to Gate 3 (Castlereagh Road north of Cranbrook Road intersection) would be upgraded to provide auxiliary left turn treatment for northbound traffic turning onto the site and right turn treatment for southbound traffic in consultation with Penrith City Council and RMS

Notice of Modification

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under delegation, I modify the Project Approval referred to in Schedule 1, subject to the conditions in Schedule 2.



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

Sydney 6 November, 2017

SCHEDULE 1

Development Approval:	DA 2 granted by the Minister for Urban Affairs and Planning on 24 February 1987
For the following:	Development for the purposes of implementing the Penrith Lakes Scheme
Applicant:	Penrith Lakes Development Corporation
Consent Authority:	Minister for Planning
The Land:	Penrith Lakes Scheme
Modification:	DA 2 MOD 6: the modification is for the extension of the hours of operation for the importation of fill to the site

SCHEDULE 2

The above approval (DA 2) is modified as follows:

- (a) Schedule 1 – Development Application is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

DEVELOPMENT APPLICATION: Development for the purposes of implementing the Penrith Lakes Scheme as described:

- (a) in Schedule 1 of *Sydney Regional Environmental Plan No. 11 - Penrith Lakes Scheme*;
- (b) on land described on the attached plan – B/1-40015 and described in the Schedule;
- (c) Development Application (DA) 86/2720 and accompanying information lodged on the 1 December 1986 with the Department of Planning and Environment; and
- (d) Modification Application MOD 87-6-2005 lodged with the Department of Planning on 26 June 2005, and accompanying information:
 - Statement of Environmental Effects titled “*Penrith Lakes Development Corporation, Penrith Lakes Scheme, Statement of Environmental Effects – Dynamic Compaction Prototype Trial*” dated June 2005; and
 - Supplementary assessment titled “*Penrith Lakes Development Corporation, Dynamic Compaction Prototype Trial Supplementary Assessment*” dated 21 September 2005; and
- (e) Modification Application MOD 123-10-2006 lodged with the Department of Planning on 9 October 2006 and accompanying Statement of Environmental Effects titled “*Penrith Lakes Development Corporation, Penrith Lakes Scheme, Statement of Environmental Effects – Dynamic Compaction*”, dated October 2006.
- (f) Modification Application DA2 MOD 3 and accompanying SEE titled *Penrith Lakes Development Corporation, Importation of VENM* dated 22 December 2008, including the response to submissions dated 12 May 2009.
- (g) Modification Application DA2 MOD 4 and accompanying Environmental Assessment titled *Penrith Lakes Development Corporation, VENM Importation Modification Assessment* dated August 2012, including response to submissions dated November 2012.
- (h) Modification Application DA2 MOD 5 and accompanying Environmental Assessment titled *Penrith Lakes Development Corporation, Importation of VENM and ENM Modification*, dated 25 September 2014, including response to submissions dated 13 January 2015.
- (i) Modification Application DA2 MOD 6 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Section 75W Amendment Application - Importation ENM/VENM Summary Report, dated 1 December 2015, including Submissions Report dated 1 March 2017 updated on 12 April 2017.**

Note: All references to VENM in this consent mean Virgin Excavated Natural Material, as defined in the Protection of the Environment Operations Act 1997.

- (b) Condition 36BB is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

36BB. The Applicant shall ensure that the development described in DA2 MOD4, DA2 MOD5 **and DA2 MOD6** complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00 am to 6.00 pm <u>6:00 am to 9:00 pm</u>	7.00 am to 1.00 pm <u>6:00am to 3:00pm</u>	No work

Table 2 – Hours of Operation

- (c) Condition 36C is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows

36C. The Applicant shall ensure the development ~~described in MOD 87-6-2005 and in MOD 123-10-2006~~ complies with the noise limits set out in Table 2, unless it has secured a written agreement from the affected landowner to exceed these limits.

Sensitive Receiver	Noise Limits
	dB(A), L _{Aeq} , 15 minutes, daytime
Poplars Heritage Complex (at occupied residence only)	43
Cranebrook Village	45
South Cranebrook residences	39
Upper Castlereagh Uniting Church residence	51
Whitewater Stadium (when in used)	48

Table 2 Noise Limits

Notes:

- Noise from the development is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in condition 36C.
- Where it can be demonstrated that direct measurement of noise from the premises is impractical, the Department of Environment and Conservation may accept alternative means of determining compliance. See Chapter 11 of the *NSW Industrial Noise Policy*.
- The modification factors presented in Section 4 of the *NSW Industrial Noise Policy* shall also be applied to the measured noise levels where applicable.
- The noise emission limits identified in condition 36C apply under meteorological conditions of wind speed up to 3 metres per second at 10 metres above ground level.

- (d) Condition 36D is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

36D. The Applicant shall ensure that the development described in ~~MOD 87-6-2005, MOD 123-10-2006 and in DA2 MOD4~~ complies with the vibration limits set out in Table 3, unless it has secured a written agreement from the affected landowner to exceed these limits.

Sensitive Receiver	Ground Vibration Limits	
	Building Damage (peak particle velocity)	Human Comfort (vibration dose value)
Residences at Cranebrook Village, South Cranebrook, and Upper Castlereagh Uniting Church	5 mm/s	0.20 m/s ^{1.75}
Poplars Heritage Complex	3 mm/s	0.40 m/s ^{1.75}
McCarthy's Cemetery	3 mm/s	N/A
Whitewater Stadium	10 mm/s	N/A

Table 3 Ground Vibration Limits

Note:

Vibration dose values sourced from Table 2.4 in "Assessing Vibration: a technical guideline" (DEC, 2006).

- (e) Condition 49A is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

49A Prior to the commencement of importation of VENM the Applicant shall submit a Project Traffic and VENM Management Plan to the Department. This plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan (TNMP) to be prepared in consultation with the Environment Protection Authority (EPA), and to the satisfaction of the Director General.

The CTMP shall:

- Cover the period of transporting VENM to the site;
- Outline the construction vehicle routes (once PLDC has determined the VENM sources);
- Outline other proposed traffic management measures for all proposed access points; and
- Describe the number of trucks per route, hours of operation, access arrangements and traffic control (including how PLDC intends to ensure only approximately 70 truck movements per day along Old Castlereagh Road).

The TNMP must include (but not be limited to):

- An investigation and description of all reasonable and feasible measures to reduce traffic noise;
- Noise compliance/monitoring assessment provisions (especially with regards to Old Castlereagh Road);
- Mitigation measures to be implemented should monitoring indicate exceedances of EPA criteria;
- Measures to regulate traffic volumes on the haulage routes into the site (as described in the EA);
- Vibration limits;
- Auditing provisions;
- Commitment to implement all feasible and reasonable noise mitigation measures;
- A program to monitor traffic noise and respond to complaints.

Prior to the commencement of the extended hours of operation, as approved by DA2 MOD6, the Applicant shall prepare and submit for the Department's approval an updated TNMP. The Updated TNMP shall include (but not be limited to):

- **updated information ensuring the TNMP assessment reflects the extended hours of operation;**
- **detailed consideration of the impact of the extended hours of operation on nearby sensitive receivers (and any relevant new sensitive receivers since the preparation of the original TNMP), including any additional mitigation/management measures that may be required;**
- **confirmation the truck movements to the site will be split between each of the vehicular entrances to the site;**
- **confirmation of a maximum number of truck movements to the site per hour;**
- **confirmation of a maximum number of trucks per vehicle entrance per hour;**
- **confirmation of the maximum number of truck movements during peak periods; and**
- **confirmation of the method(s) for the appropriate monitoring of truck movements to/from the site.**

- (f) Condition 49AA is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

49AA. Prior to the commencement of additional importation of VENM and ENM in accordance with DA2 MOD 5 the applicant will submit a revised Project Traffic and VENM Management Plan to the Department in accordance with the requirements of condition 41A. The plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan **(TNMP)** and outline the proposed management of additional vehicle movements associated with the increased requirements for VENM and ENM importation.

The TNMP shall be updated in accordance with the requirements of condition 49A.

**End of Modification
(DA2 MOD6)**

Modification of Minister's Approval

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, I approve the modification of the project application referred to in Schedule 1, subject to the conditions in Schedule 2.

Chris Wilson
Executive Director
Infrastructure and Industry Assessments

Sydney

20 April

2015

SCHEDULE 1

The development consent (DA3) granted by the Minister for Urban Affairs and Planning on 27 June 1995, for the Penrith Lakes Scheme.

SCHEDULE 2

- 1 Insert the following bullet point in Development Application
 - Modification application DA3 MOD 4 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Importation of VENM and ENM Modification, dated 25 September 2014 including the response to submissions dated 13 January 2015
- 2 Insert the following condition after 15A of the schedule:
 - 15B. Prior to the commencement of VENM and ENM importation in accordance with MOD 5, PLDC shall notify the EPA and the Department regarding the source of VENM and ENM including documentation that material has been classified in accordance with the Waste Classification Guidelines, Part 1 Classifying Waste, EPA 2014 and the requirements of the EPA 2014 Excavated Natural Material Order and Excavated Natural Material Exemption.

Insert the following after Condition 31:

- 31A. The applicant shall ensure the development described in DA3 MOD 3 and DA3 MOD 4 complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00am to 6.00pm	7.00 am to 1.00pm	No work

Table 2 – Hours of Operation

3 Delete condition 40A and replace with the following condition:

- 40A. All VENM and ENM transport to and from the site will be in accordance with the approved haulage routes shown in Figures 2 and 2A below and described in the Importation of VENM and ENM Modification. No trucks shall use Castlereagh Road south of Old Castlereagh Road or Mulgoa Road to access or egress the site

4 Insert the following after condition 41A:

- 41B. Prior to the commencement of additional importation of VENM and ENM in accordance with DA2 MOD 5, the applicant will submit a revised Project Traffic and VENM Management Plan to the Department in accordance with the requirements of condition 41A. The plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan and outline the proposed management of additional vehicle movements associated with the increased requirements for VENM and ENM importation.

5 Insert the following after condition 41B:

- 41C. The importation of VENM and ENM shall be limited to 8 million tonnes at a maximum rate of 3 million tonnes per year.

6 Delete condition 41 and replace with the following condition:

41. Prior to the commencement of importation of VENM or ENM using the northern most access, the road network adjacent to Gate 3 (Castlereagh Road north of Cranbrook Road intersection) shall be upgraded to provide auxiliary left turn treatment for northbound traffic turning onto the site and right turn treatment for southbound traffic in consultation with Penrith City Council and RMS.

Notice of Modification

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under delegation, I modify the Project Approval referred to in Schedule 1, subject to the conditions in Schedule 2.



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

Sydney 6 November, 2017

SCHEDULE 1

Development Approval:	DA 3 granted by the Minister for Urban Affairs and Planning on 27 June 1995
For the following:	Development for the purposes of implementing the Penrith Lakes Scheme
Applicant:	Penrith Lakes Development Corporation
Consent Authority:	Minister for Planning
The Land:	Penrith Lakes Scheme
Modification:	DA 3 MOD 5: the modification is for the extension of the hours of operation for the importation of fill to the site

SCHEDULE 2

The above approval (DA 3) is modified as follows:

- (a) Schedule 1 – Development Application is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

Development Application – Development for the purposes of implementing the Penrith Lakes Scheme as defined in Schedule 1 of the State Environmental Planning Policy (Penrith Lakes Scheme) 1989, as described in Development Application 3 and the Stage Environmental Effects (SEE) dated 1994, and subsequently modified by:

- Modification Application and associated documents dated 18 April 1995; and
- Modification Application DA3 Mod 3 and accompanying Environmental Assessment titled Importation of VENM dated August 2012, including the response to submissions dated November 2012.
- Modification Application DA 3 MOD 4 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Importation of VENM and ENM Modification, dated 25 September 2014 including the response to submissions dated 13 January 2015.
- **Modification Application DA3 MOD 5 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Section 75W Amendment Application - Importation ENM/VENM Summary Report, dated 1 December 2015, including Submissions Report dated 1 March 2017 updated on 12 April 2017.**

- (b) Condition 31A is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

32. The Applicant shall ensure that the development described in DA2 MOD3 and DA3 MOD4 **and DA3 MOD5** complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00 am to 6.00 pm <u>6:00 am to 9:00 pm</u>	7.00 am to 1.00 pm <u>6:00am to 3:00pm</u>	No work

Table 2 – Hours of Operation

- (c) Condition 41A is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

- 41A Prior to the commencement of importation of VENM the Applicant shall submit a Project Traffic and VENM Management Plan to the Department. This plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan (TNMP) to be prepared in consultation with the Environment Protection Authority (EPA), and to the satisfaction of the Director General.

The CTMP shall:

- Cover the period of transporting VENM to the site;
- Outline the construction vehicle routes (once PLDC has determined the VENM sources);
- Outline other proposed traffic management measures for all proposed access points; and

- Describe the number of trucks per route, hours of operation, access arrangements and traffic control (including how PLDC intends to ensure only approximately 70 truck movements per day along Old Castlereagh Road).

The TNMP must include (but not be limited to):

- An investigation and description of all reasonable and feasible measures to reduce traffic noise;
- Noise compliance/monitoring assessment provisions (especially with regards to Old Castlereagh Road);
- Mitigation measures to be implemented should monitoring indicate exceedances of EPA criteria;
- Measures to regulate traffic volumes on the haulage routes into the site (as described in the EA);
- Vibration limits;
- Auditing provisions;
- Commitment to implement all feasible and reasonable noise mitigation measures;
- A program to monitor traffic noise and respond to complaints.

Prior to the commencement of the extended hours of operation, as approved by DA2 MOD6, the Applicant shall prepare and submit for the Department's approval an updated TNMP. The Updated TNMP shall include (but not be limited to):

- **updated information ensuring the TNMP assessment reflects the extended hours of operation;**
- **detailed consideration of the impact of the extended hours of operation on nearby sensitive receivers (and any relevant new sensitive receivers since the preparation of the original TNMP), including any additional mitigation/management measures that may be required;**
- **confirmation the truck movements to the site will be split between each of the vehicular entrances to the site;**
- **confirmation of a maximum number of truck movements to the site per hour;**
- **confirmation of a maximum number of trucks per vehicle entrance per hour;**
- **confirmation of the maximum number of truck movements during peak periods; and**
- **confirmation of the method(s) for the appropriate monitoring of truck movements to/from the site.**

- (d) Condition 41B is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~stuck-out~~ words/numbers as follows:

41B. Prior to the commencement of additional importation of VENM and ENM in accordance with DA2 MOD 5 the applicant will submit a revised Project Traffic and VENM Management Plan to the Department in accordance with the requirements of condition 41A. The plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan (**TNMP**) and outline the proposed management of additional vehicle movements associated with the increased requirements for VENM and ENM importation.

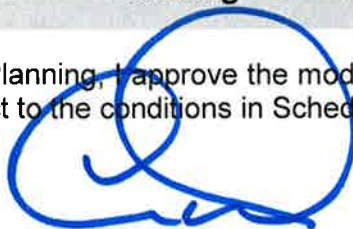
The TNMP shall be updated in accordance with the requirements of condition 41A.

**End of Modification
(DA3 MOD5)**

Modification of Minister's Approval

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning, I approve the modification of the project application referred to in Schedule 1, subject to the conditions in Schedule 2.



Chris Wilson
Executive Director
Infrastructure and Industry Assessments

Sydney

30 APRIL

2015

SCHEDULE 1

The development consent (DA4) granted by the Minister for Urban Affairs and Planning on 9 September 1998, for the Penrith Lakes Scheme.

SCHEDULE 2

1. Insert the following bullet point in Proposed Development:
 - Modification application DA 4 MOD 9 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Importation of VENM and ENM Modification, dated 25 September 2014 including the response to submissions dated 13 January 2015.
2. Insert the following condition after 14A of the schedule:
 - 14B. Prior to the commencement of VENM and ENM importation in accordance with MOD 5, PLDC shall notify the EPA and the Department regarding the source of VENM and ENM including documentation that material has been classified in accordance with the Waste Classification Guidelines, Part 1 Classifying Waste, EPA 2014 and the requirements of the EPA 2014 Excavated Natural Material Order and Excavated Natural Material Exemption.
3. Insert the following after Condition 31:
 32. The applicant shall ensure the development described in DA4 MOD 9 complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00am to 6.00pm	7.00 am to 1.00pm	No work

Table 2 – Hours of Operation

4. Delete condition 42A and replace with the following:

- 42A. All VENM and ENM transport to and from the site will be in accordance with the approved haulage routes shown in Figures 2 and 2A below and described in the Importation of VENM and ENM Modification. No trucks shall use Castlereagh Road south of Old Castlereagh Road or Mulgoa Road to access or egress the site

5. Insert the following after condition 43:

- 43A. Prior to the commencement of additional importation of VENM and ENM in accordance with DA4 MOD 9, the applicant will submit a revised Project Traffic and VENM Management Plan to the Department. The plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan and outline the proposed management of additional vehicle movements associated with the increased requirements for VENM and ENM importation.

6. Delete condition 48A and replace with the following condition:

- 48A. Prior to the commencement of importation of VENM or ENM using the northern most access, the road network adjacent to Gate 3 (Castlereagh Road north of Cranbrook Road intersection) shall be upgraded to provide auxiliary left turn treatment for northbound traffic turning onto the site and right turn treatment for southbound traffic in consultation with Penrith City Council and RMS.

7. Delete condition 48C and replace with the following condition:

- 48C. The importation of VENM and ENM shall be limited to 8 million tonnes at a maximum rate of 3 million tonnes per year.

Notice of Modification

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under delegation, I modify the Project Approval referred to in Schedule 1, subject to the conditions in Schedule 2.



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

Sydney 6 November, 2017

SCHEDULE 1

Development Approval:	DA 4 granted by the Minister for Urban Affairs and Planning on 9 September 1998
For the following:	Development for the purposes of implementing the Penrith Lakes Scheme
Applicant:	Penrith Lakes Development Corporation
Consent Authority:	Minister for Planning
The Land:	Penrith Lakes Scheme
Modification:	DA 4 MOD 10: the modification is for the extension of the hours of operation for the importation of fill to the site

SCHEDULE 2

The above approval (DA 4) is modified as follows:

- (a) Schedule 1 – Proposed Development is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~struck-out~~ words/numbers as follows:

Development as described in the development application identified as DA 4 and its supporting papers for the purposes of implementing the Penrith Lakes Scheme as defined in Schedule 1 of *Sydney Regional Environmental Plan No. 11 – Penrith Lakes Scheme* on land described in, and identified on the plan, attached at Schedule B, and subsequently modified by:

- Modification Application and accompanying noise assessment dated June 2004, and prepared by Wilkinson Murray Pty Ltd;
- Modification Application and accompanying SEE dated March 2005, and prepared by Arup Pty Ltd (which was subsequently modified by the supplementary noise information prepared by Arup Pty Ltd, and dated 22 August 2005);
- Modification Application DA4 MOD 3 and accompanying SEE titled *Penrith Lakes Development Corporation, Importation of VENM* dated 22 December 2008, including the response to submissions dated 12 May 2009;
- Modification Application DA4 MOD 4 and accompanying Environmental Assessment titled *Section 75W Application – Flood Discharge Pipe Construction at Penrith Lakes* dated November 2010, including the Supplementary Report titled *Wildlife Lake Section 75W – Weir and Flood Outlet Pipe Supplementary Report* dated 6 December 2010, and the response to submissions dated 21 January 2011;
- Modification Application DA4 MOD 5 and accompanying Environmental Assessment titled *Section 75W Application – Wildlife Lake Weir at Penrith Lake* dated November 2010, including the response to submissions dated 21 January 2011, and
- Modification Application DA4 MOD 6 and accompanying Environmental Assessment titled *Modification to DA4 Penrith Lakes Scheme* dated 30 June 2011.
- Modification Application DA4 MOD 7 and accompanying Environmental Assessment titled *Modification to DA4 Penrith Lakes Scheme* dated 28 November 2011
- Penrith Lakes Development Corporation – Importation of VENM Modification Section 75W Application: Environmental Assessment (ARUP, 30 August 2012).
- Modification Application DA 4 MOD 9 and accompanying Environmental Assessment titled *Penrith Lakes Development Corporation, Importation of VENM and ENM Modification*, dated 25 September 2014 including the response to submissions dated 13 January 2015.
- **Modification Application DA4 MOD 10 and accompanying Environmental Assessment titled Penrith Lakes Development Corporation, Section 75W Amendment Application - Importation ENM/VENM Summary Report, dated 1 December 2015, including Submissions Report dated 1 March 2017 updated on 12 April 2017.**

- (b) Condition 29 is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~struck out~~ words/numbers as follows:

NOISE LIMITS

29 The Applicant shall not exceed the following maximum noise levels in those areas designated.

- (a) Dwellings inside and outside the Scheme area (but not on the Castlereagh Escarpment):

- (i) Maximum Noise Levels

Noise levels as measured at any one dwelling are not to exceed the following criteria:

Maximum Noise Limits (L10)

Absolute maximum	70dB(A)
Greater than	65dB(A) for 1 month
Greater than	60dB(A) for 3 months
Greater than	55dB(A) for 30 months
Less than	55dB(A) for remainder of the time

The above absolute maximum may be exceeded as a result of the construction of noise control works eg noise bunds.

- (ii) The Applicant shall construct up to 5m high noise bunds to ensure that the noise limit criteria indicated in (i) above can be met at occupied residential properties in the locality, provided that the residents affected agree to the construction of the bunds. These bunds shall be removed when they cease to mitigate against the adverse noise, dust and visual impacts of the proposal.
- (iii) The Applicant shall:
- (a) not undertake any works within 98.5m of the eastern boundary of Lot 2 DP617921; and
 - (b) ~~construct and maintain a 2 metre high noise bund along the eastern~~ boundary of the limit of works on Lot 2 DP 617921 for the duration of works on Lot 2 DP 617921.

- (b) Dwellings on the Castlereagh Escarpment

Maximum Noise Levels

Noise levels as measured at any one dwelling on the Escarpment are not to exceed the following criteria:

Maximum Noise Limits (L10)

Absolute maximum	70dB(A)
Greater than	65dB(A) for 3 month
Greater than	55dB(A) for 30 months
Less than	55dB(A) for remainder of the time

- (c) Except as may be expressly provided by an EPL, noise generated from **importation of fill**, extraction and transport operations must not exceed the noise limits in the table below.

Noise Limits dB(A)

Location	5.00am- 6.00am <u>7.00</u> <u>am</u>	<u>6.00 pm</u> - 7.00pm- 8.00pm	8.00pm- 9.00pm
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)
Dixons Residence	55	55	55
Smith Street	38	43	43
Camenzuli Residence	41	50	47

Notes:

- (i) If the Applicant has a written noise agreement with any landowner, and a copy of this agreement has been forwarded to the Department and the OEH, then the applicant may exceed the noise limits in the table for the landowner's land in accordance with the terms of the noise agreement.
 - (ii) Noise from the development is to be measured at the most affected point or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary.
 - (iii) To determine compliance with the L_{Aeq}(15 minute) noise limits in the above table, where it can be demonstrated that direct measurement of noise from the development is impractical, the OEH may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in section 4 of the NSW Industrial Noise Policy shall be applied to the measured noise levels where applicable.
 - (iv) The noise emission limits in the above table do not apply under meteorological
 - i wind speeds in excess of 3m/s at 10 metres above ground level; and/or
 - ii temperature inversion conditions in excess of 3°C/100m, and wind speeds in excess of 2m/s at 10 metres above ground level.
- (d) The Applicant shall ensure that all extraction and transport operations carried out between 5.00am and 7.00am comply with the OEH's intrusive and sleep disturbance criteria set out in the Industrial Noise Policy.
- (c) Condition 32 is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~struck-out~~ words/numbers as follows:

32. The Applicant shall ensure that the development described in DA4 MOD9 **and MOD10** complies with the hours of operation set out in Table 2:

Monday to Friday	Saturdays	Sundays and Public Holidays
7.00 am to 6.00 pm <u>6:00 am to 9:00 pm</u>	7.00 am to 1.00 pm <u>6:00am to 3:00pm</u>	No work

Table 2 – Hours of Operation

- (d) Condition 65(c) is amended by the insertion of the **bold and underlined** words / numbers and deletion of the ~~struck-out~~ words/numbers as follows:

65 Noise

- a) The Applicant shall, on a six monthly basis or at other periods determined by the Department's Regional Manager of the Sydney Region West Office, measure noise emanating from the overall quarry and reconstitution operations at four residential sites within proximity to the operations. One

such site shall be the closest residential site to the operations. These measurements will be carried out using 20 minute spot checks.

- (a1) Prior to the construction of the Wildlife Lake Weir, the Applicant shall prepare a Noise Monitoring Program to the satisfaction of the Director-General. This program is to ensure that the development on site, including the construction works for the weir, complies with the relevant noise limits in this consent and any associated EPL at the residences adjacent to the northern boundary of the site. Following approval, the Applicant shall implement this program to the satisfaction of the Director-General.

Note: The purpose of the monitoring program is to ensure that the noise limits in condition 29 are complied with during the works in proximity to these receivers.

- b) The noise levels of all quarry and reconstitution machinery shall be tested in accordance with AS2012-1977 on an annual basis as evidence that the noise level of individual items of machinery has not increased through improper maintenance or neglect. These tests will be commenced by April 1999. Any new equipment will be tested within three months from the date of its arrival on site.
- (c) Prior to the commencement of importation of VENM the Applicant shall submit a Project Traffic and VENM Management Plan to the Department. This plan is to incorporate both a Construction Traffic Management Plan and a Traffic Noise Management Plan (TNMP) to be prepared in consultation with the Environment Protection Authority (EPA), and to the satisfaction of the Director General.

The CTMP shall:

- Cover the period of transporting VENM to the site;
- Outline the construction vehicle routes (once PLDC has determined the VENM sources);
- Outline other proposed traffic management measures for all proposed access points; and
- Describe the number of trucks per route, hours of operation, access arrangements and traffic control (including how PLDC intends to ensure only approximately 70 truck movements per day along Old Castlereagh Road).

The TNMP must include (but not be limited to):

- An investigation and description of all reasonable and feasible measures to reduce traffic noise;
- Noise compliance/monitoring assessment provisions (especially with regards to Old Castlereagh Road);
- Mitigation measures to be implemented should monitoring indicate exceedances of EPA criteria;
- Measures to regulate traffic volumes on the haulage routes into the site (as described in the EA);
- Vibration limits;
- Auditing provisions;
- Commitment to implement all feasible and reasonable noise mitigation measures;
- A program to monitor traffic noise and respond to complaints.

Prior to the commencement of the extended hours of operation, as approved by DA2 MOD6, the Applicant shall prepare and submit for the

Department's approval an updated TNMP. The Updated TNMP shall include (but not be limited to):

- updated information ensuring the TNMP assessment reflects the extended hours of operation;
- detailed consideration of the impact of the extended hours of operation on nearby sensitive receivers (and any relevant new sensitive receivers since the preparation of the original TNMP), including any additional mitigation/management measures that may be required;
- confirmation the truck movements to the site will be split between each of the vehicular entrances to the site;
- confirmation of a maximum number of truck movements to the site per hour;
- confirmation of a maximum number of trucks per vehicle entrance per hour;
- confirmation of the maximum number of truck movements during peak periods; and
- confirmation of the method(s) for the appropriate monitoring of truck movements to/from the site.

- (d) Prior to the commencement of importation of VENM the Applicant shall submit a Traffic Noise Management Plan prepared in consultation with OEH, and to the satisfaction of the Director-General. The plan must include:
- an investigation and description of all reasonable and feasible measures to reduce traffic noise; and
 - a program to monitor traffic noise and respond to complaints.

**End of Modification
(DA4 MOD10)**

Appendix B

Traffic and Transport

Your ref
Our ref 223104
File ref

ARUP

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27 March 2018

Dear Alan

PLDC VENM Importation - proposal to extend the importation timeframe

PLDC has successfully imported approximately 8 million tonnes of VENM and is continuing to do so to this day. VENM is imported under the section 75W amendment to the DA consents (i.e DA's for extraction & rehabilitation DA's 2, 3 & 4 by the Department of Planning) for the Penrith Lakes Scheme. The increase from 3 to 8 million tonnes was based on a Statement of Environmental Effects prepared by Arup in September 2014.

In its current negotiations with the Department, PLDC is seeking a modification to the existing DA consent conditions to increase the quantity of VENM by a further 5 million tonnes. Modification is sought under Section 4.55(2) to DA02, DA03 and DA04 with no changes proposed to the operational conditions of consent with the purpose to complete filling of the land at Penrith Lakes to the approved design.

Review of operations

Arup has reviewed the 75W Modification Environmental Assessment 25 September 2014, the Arup Submissions Report 13 January 2015 and the Modification of Minister's Approval 30 April 2015.

The Modification of Minister's Approval required a number of changes with those relevant to traffic discussed here:

- *Haulage routes shall be in accordance with Figures 2 and 2A attached to the conditions.*

These are the same haulage routes proposed in the S75W Environmental Assessment report. Contractors importing VENM to Penrith Lakes have complied with the nominated haulage rates in the s75W modifications. (See attached pages)

- *A Construction Traffic Management Plan (CTMP) to be submitted for approval prior to operations.*

This plan was submitted to the DP&E prior to commencement of the VENM import and has been accepted by the Department of Planning and adhered to throughout the project.

- *If the northern most access was to be used (Northern Access Road 8, Gate 3), then an intersection upgrade was conditioned.*

Truck entry to Site is via two of the three DA approved Gates (Gates 1 & 2). The third approved entry point, Gate 3 (Castlereagh Rd north of Cranebrook Rd) intersection, has not been upgraded because RMS has not gazetted the main road so there has been no approval or need to use Gate 3 as an entry point for VENM Import.

The Arup 75W Modification Environmental Assessment, 25 September 2014, considered the road network and the future traffic demands placed on it by the importation of VENM.

Approval was granted for the importation of an additional 5 million tonnes of VENM and ENM commencing in early to mid-2015. To source this material a maximum of 238 trucks per day (476 truck movements) have been transporting the fill.

The number of heavy vehicles operating within the Penrith Lakes site in previous years has been significantly higher than the existing and proposed future levels.

As seen in Figure 1, truck movements peaked in 2014/2015 with an increase in quarry exports as well as the commencement of the previously approved VENM importation.

Quarrying export ceased onsite in mid 2015 so that the overall total truck movements associated with the Penrith Lakes site decreased.

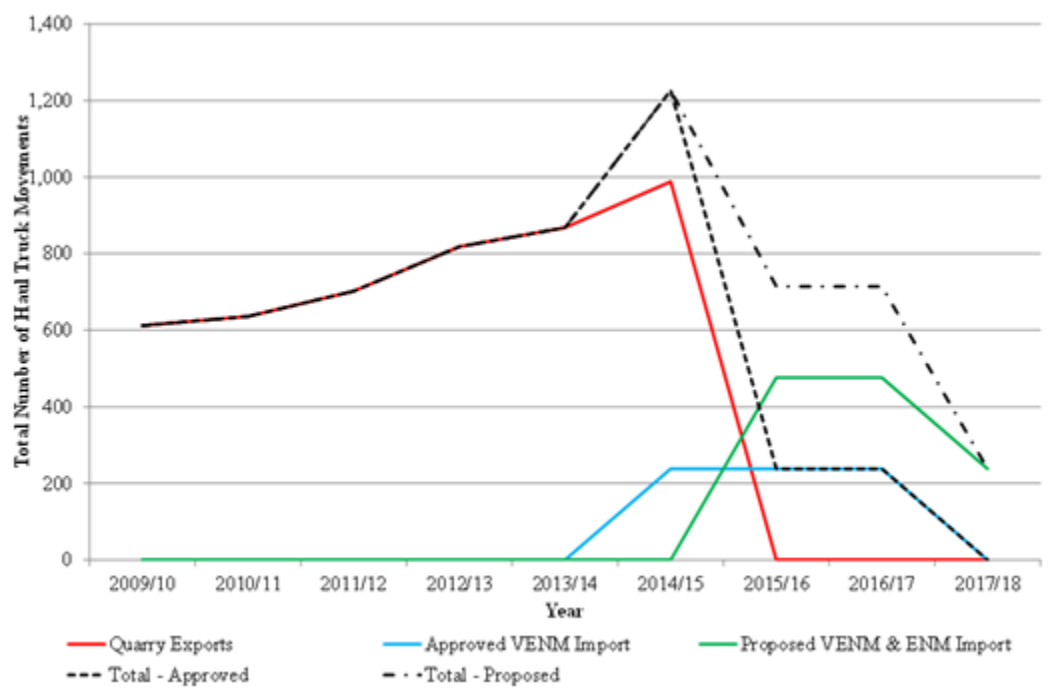


Figure 1 Historical and 'worst case' truck movements

Proposed future operations

Approval is now being sought for the importation of an additional 5 million tonnes of VENM commencing in 2018. Similar to the existing levels of operation, to source the required material a maximum of 238 trucks per day (476 truck movements) will be utilised to transport the fill.

As quarrying export ceased onsite in mid 2015 with an overall reduction in total truck movements associated with the Penrith Lakes site, continued importation operations at the existing levels is considered acceptable. The two existing access points and haulage routes will be retained and the CTMP requirements will be maintained.

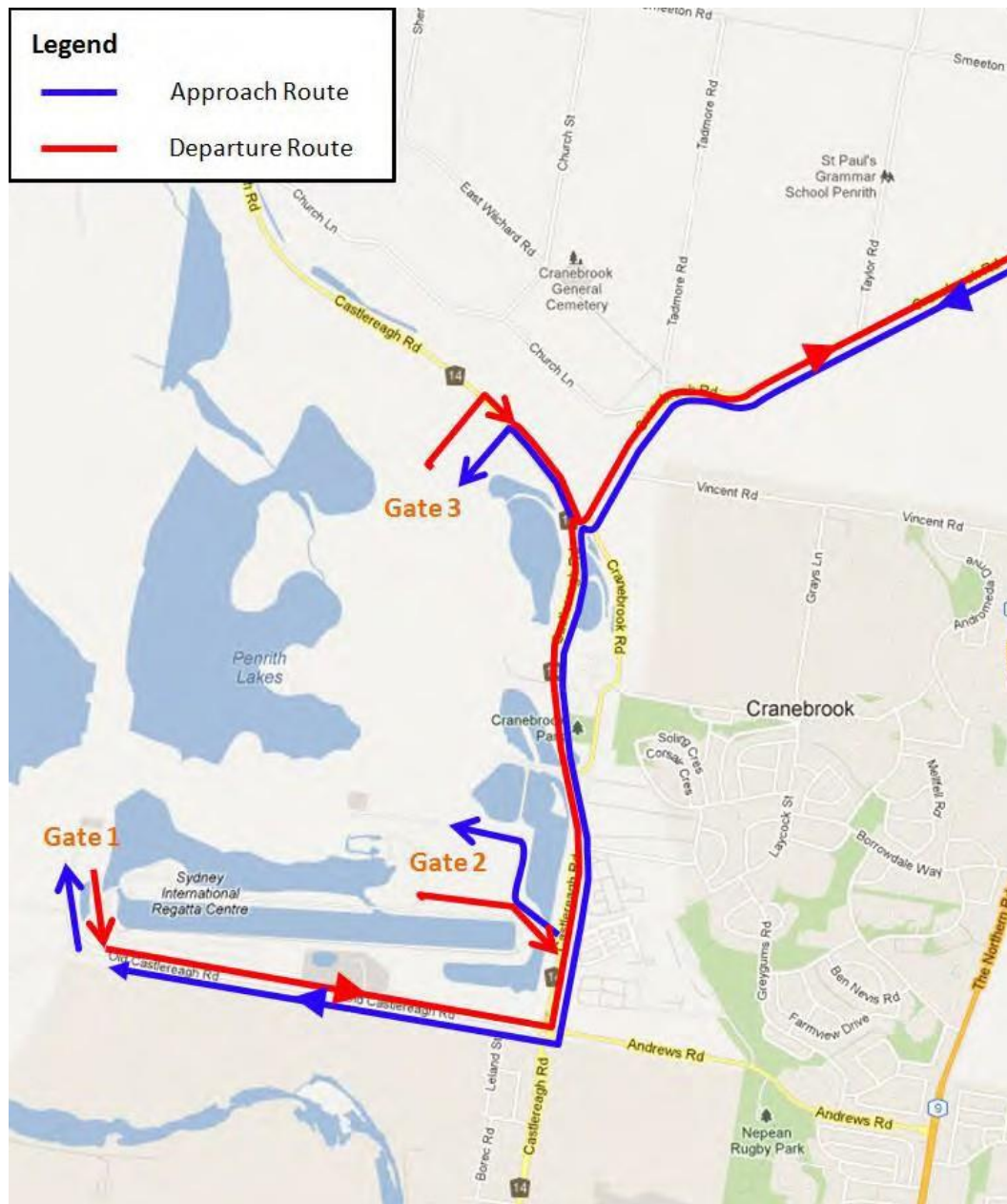
Should you have any queries about this matter please do not hesitate to call the undersigned.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Andrew Hulse', with a long horizontal stroke extending to the right.

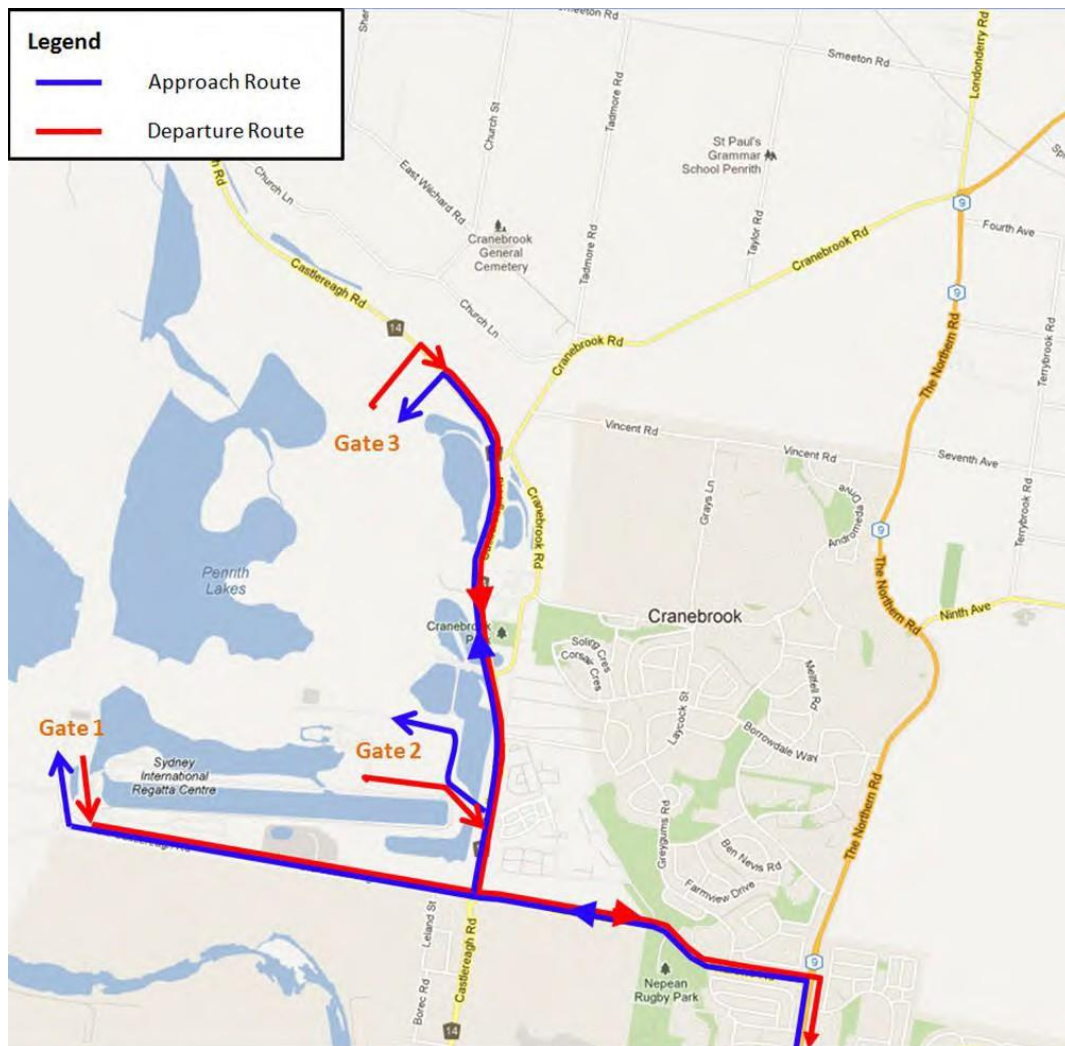
Andrew Hulse
Associate Principal

Approved Haulage Routes and Gates



Vehicle Access Routes for Trucks Approaching from the North

Image Source: Google Maps (2012)

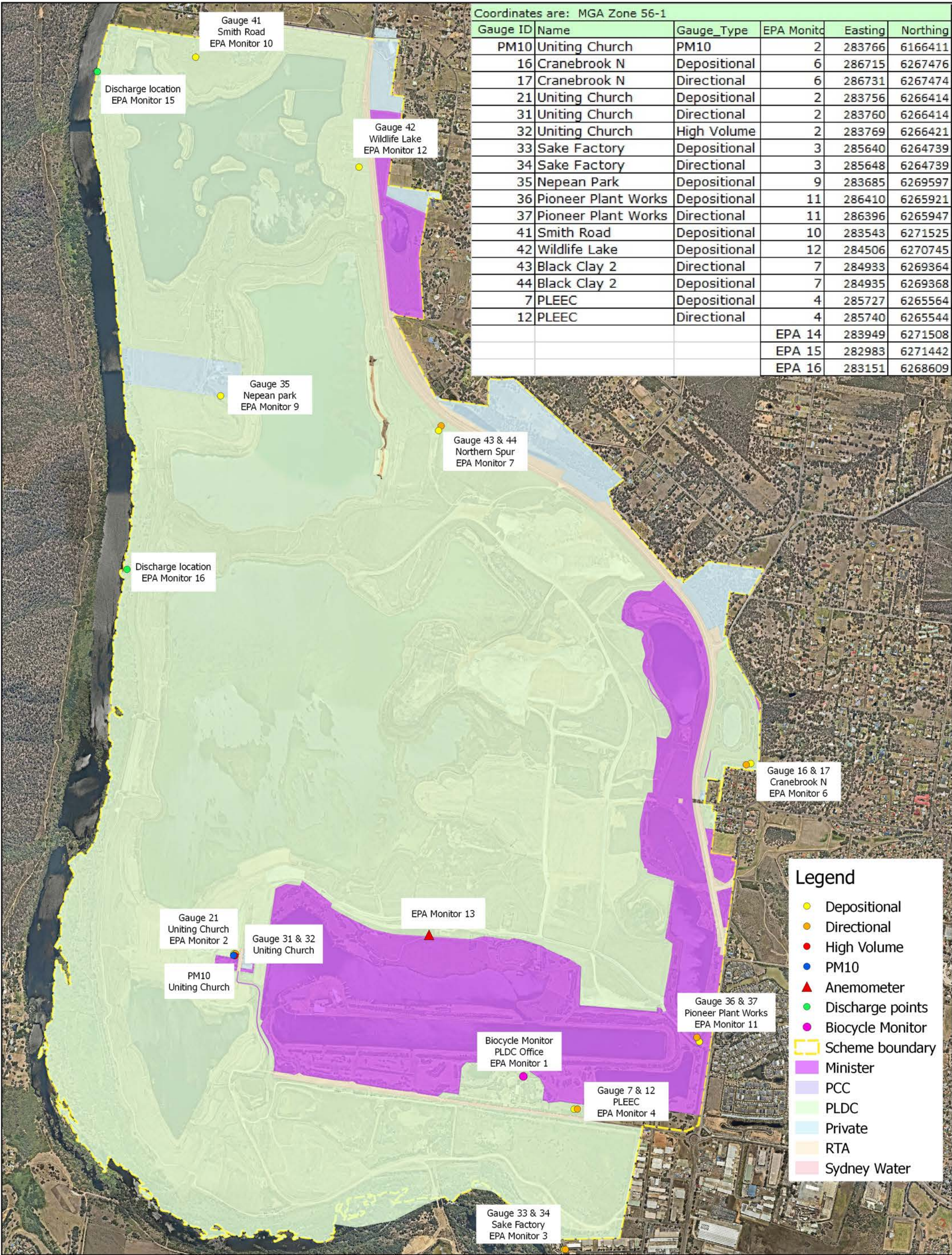


Vehicle Access Routes for Trucks Approaching from the South

Image Source: Google Maps (2012)

Appendix C

Air Quality Monitoring Locations



Coordinates are: MGA Zone 56-1					
Gauge ID	Name	Gauge_Type	EPA Monitc	Easting	Northing
PM10	Uniting Church	PM10	2	283766	6166411
16	Cranebrook N	Depositional	6	286715	6267476
17	Cranebrook N	Directional	6	286731	6267474
21	Uniting Church	Depositional	2	283756	6266414
31	Uniting Church	Directional	2	283760	6266414
32	Uniting Church	High Volume	2	283769	6266421
33	Sake Factory	Depositional	3	285640	6264739
34	Sake Factory	Directional	3	285648	6264739
35	Nepean Park	Depositional	9	283685	6269597
36	Pioneer Plant Works	Depositional	11	286410	6265921
37	Pioneer Plant Works	Directional	11	286396	6265947
41	Smith Road	Depositional	10	283543	6271525
42	Wildlife Lake	Depositional	12	284506	6270745
43	Black Clay 2	Directional	7	284933	6269364
44	Black Clay 2	Depositional	7	284935	6269368
7	PLEEC	Depositional	4	285727	6265564
12	PLEEC	Directional	4	285740	6265544
			EPA 14	283949	6271508
			EPA 15	282983	6271442
			EPA 16	283151	6268609