

New South Wales Government Department of Urban Affairs and Planning

Sydney Region West - Planning

Mr Ian Stainton
Chief Executive Officer
Penrith Lakes Development Corporation Ltd
Locked Bag 2000
SOUTH PENRITH NSW 2750

Contact:

Our Reference: T Doran

Your Reference: P97/00237 Pt4

Penrith Lakes Scheme - Development Application No.4

Dear Mr Stainton

I refer to the above development application lodged with the **Department of Planning** in November 1997. Pursuant to Section 92 of the Environmental Planning and Assessment Act, 1979, you are advised that the Minister for Urban Affairs and Planning has granted consent to the development subject to conditions. I enclose a copy of the instrument of consent for your information and attention.

Condition 39(i) specifically requires that in the event any previously unknown Aboriginal sites or relics are uncovered during excavation that work will cease immediately and that the material is to be assessed by the National Parks and Wildlife Service and Aboriginal stakeholders. Condition 40(i) requires that any nonAboriginal relics which are uncovered during excavation should be notified to the Heritage Office and excavation should cease. In both instances the Department believes that it is important that machinery operators are given the necessary training and guidance to enable these conditions to be effectively implemented. The Department also believes that it is important that appropriate protocols are in place so that PLDC staff know precisely what action needs to be taken and who should be contacted in the event that any unknown archaeological remains are uncovered.

During the assessment of the development application a number of matters which were not considered to be directly related to development were raised. These matters have not been covered by conditions of consent, however, the Department believes that in the broader context of the Lake Scheme the Corporation should consider the matters and should take appropriate action.

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The Department of Land and Water Conservation raised issues concerning rehabilitation works and requested that the following be undertaken:

- The Corporation gather seeds from plants indigenous to the area prior to their removal for replanting purposes within the Scheme area.
- In preparing the *Plan of Management for Flora and Fauna in the Penrith Lakes Scheme*, the Corporation address the following:
 - the maintenance and conservation of plant species found on the site and listed by Benson and McDougall (1991) as vulnerable in Western Sydney (page 18, Flora and Fauna Study, Appendix 'C' refers), and;
 - provide an indication of the area of terrestrial native habitat to be restored and species proposed within the plan of management;

Penrith City Council raised a number of issues and requested the following:

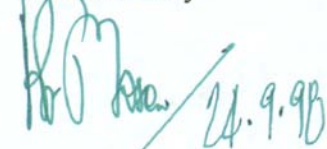
- In consultation with the Department of Urban Affairs and Planning, the Corporation examine sediment and erosion control measures for the disposal of sediment and weed growth dredged from the lakes.
- The Corporation enter into discussions with the Olympic Coordination Authority, the Hawkesbury Nepean Catchment Management Trust, the Middle Nepean Hawkesbury Catchment Management Committee and Penrith Council to ensure total catchment management principles are initiated and implemented as the scheme progresses.

Discussion also be held with the Department of Urban Affairs and Planning, the RTA and Penrith Council at an early date regarding the proposed relocation of Castlereagh Road.

A number of submissions raised the question of the water supply for the Scheme and, as discussed, the Corporation is asked to prepare a report in consultation with the Department of Urban Affairs and Planning which examines the possibility of using effluent from the Penrith Sewerage Treatment Plant and considers what effects such usage would have on water quality in the Lakes.

Should you wish to discuss these matters, Terry Doran of this Office can be contacted on telephone no. 9895 7092.

Yours sincerely



Ron Mason
Director
Sydney Region West

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Blue font represents 2004 S96 (1) Modification

Red font represents 2005 S96 (2) Modification

Orange font represents 2009 S96(2) Modification

Green font represents May 2011 S75W Modifications (Mods 4 and 5)

**NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION UNDER
SECTION 92 OF THE ENVIRONMENTAL
PLANNING AND ASSESSMENT ACT (1979).**

development application

<i>applicant name:</i>	Penrith Lakes Development Corporation
<i>application date:</i>	26 November 1997
<i>applicant address:</i>	1951 Castlereagh Road, Cranebrook
<i>proposed development:</i>	<p>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 <i>Sydney Regional Environmental Plan No. 11 – Penrith Lakes Scheme</i> on land described in, and identified on the plan, attached at Schedule B, and subsequently modified by:</p> <ul style="list-style-type: none">• 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 <i>Penrith Lakes Development Corporation, Importation of VENM</i> dated 22 December 2008, including the response to submissions dated 12 May 2009;• Modification Application DA4 MOD 4 and accompanying Environmental Assessment titled <i>Section 75W Application – Flood Discharge Pipe Construction at Penrith Lakes</i> dated November 2010, including the Supplementary Report titled <i>Wildlife Lake Section 75W – Weir and Flood Outlet Pipe Supplementary Report</i> dated 6 December 2010, and the response to submissions dated 21 January 2011; and• Modification Application DA4 MOD 5 and accompanying Environmental Assessment titled <i>Section 75W Application – Wildlife Lake Weir at Penrith Lake</i> dated November 2010, including the response to submissions dated 21 January 2011.

determination

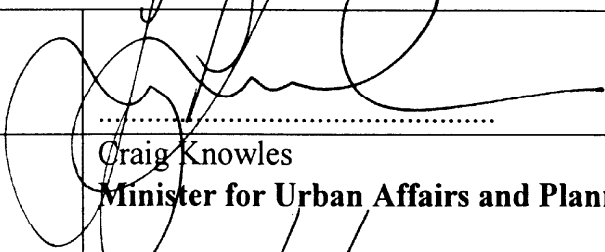
<i>made on:</i>	9th September 1998
<i>determination:</i>	Pursuant to clause 8 of Sydney Regional Plan No. 11 - Penrith Lakes Scheme consent is granted subject to conditions under Section 91 of the Environmental Planning and Assessment Act 1979 shown in the attached Schedule A.
<i>reasons for conditions:</i>	<ol style="list-style-type: none">1. To minimise any adverse impacts on the environment or the amenity of the area.2. To ensure the development is undertaken within acceptable technical and operational

	criteria.
	3. To ensure the area is rehabilitated to an agreed plan.

Notes:

1. *To find out when this consent becomes effective, see section 83 of the Environmental Planning and Assessment Act 1979 (EP&A Act); and*
2. *To find out when this consent is liable to lapse, see section 95 of the EP&A Act.*

Signed

signature:	
name:	Craig Knowles Minister for Urban Affairs and Planning
date:	9/9/98

Note

The above references to sections of the Act refer to the Environmental Planning and Assessment Act, 1979, prior to its amendment by the Environmental Planning and Assessment Amendment Act, 1997, which commenced on 1 July 1998.

Definitions

A reference in Schedule A to:

- a) the consent authority means the Minister for Planning and Infrastructure
- b) the Applicant means the Penrith Lakes Development Corporation or its successors in title
- c) the OEHL means the Office of Environment and Heritage
- d) the Director-General means the Director-General of the Department of Planning and Infrastructure, or delegate
- e) the Minister means the Minister for Planning and Infrastructure
- f) the DPI means the Department of Primary Industries
- g) PLDC means the Penrith Lakes Development Corporation or its successors in title
- h) Sydney Water means the Sydney Water Corporation
- i) SEE means Statement of Environmental Effects
- j) EPL means Environment protection Licence
- k) the RTA means the Roads and Traffic Authority
- l) VENM means Virgin Excavated Natural Material, as defined in the *Protection of the Environment Operations Act 1997*

SCHEDULE A

STATUTORY RESPONSIBILITY

1. That the applicant (and its successors in title) shall for the duration of this Development Consent meet the statutory requirements of all public authorities having statutory responsibilities in respect of the development, and shall negotiate with all authorities having an interest in the proposed development with a view to meeting any reasonable requirements relative to the proposed development.

ENVIRONMENT PROTECTION AUTHORITY APPROVALS

2. That the applicant shall, prior to the commencement of construction of the proposed development obtain from the Environment Protection Authority all statutory approvals required under the Pollution Control Act, 1970, Clean Air Act 1961, Clean Waters Act, 1970 and Noise Control Act, 1975, in regard to any necessary pollution control safeguards.

GUARANTEE

3. (a) That the applicant shall guarantee to meet the cost of remedial works to be carried out by the Minister in the event of -
 - (i) the applicant failing to perform or committing a breach of the conditions; or
 - (ii) any defects arising in the landforms, structures, plant, equipment or associated works,
- (b) That for the purposes set out in (a) above the applicant shall lodge with the Minister a Bank Guarantee, in the form approved by the Director of Urban Affairs and Planning and executed by a bank whereby the bank undertakes to pay the Minister the agreed sum, or a portion of the agreed sum as appropriate, in the event of -
 - (i) the applicant failing to perform or committing a breach of the conditions; or
 - (ii) any defects arising in the landforms, structures, plant, equipment or associated works, the applicant's obligation under this condition shall remain in force until the Minister is satisfied that the conditions set out in this consent have been fully performed and upon the Minister being so satisfied, the said Bank Guarantee or any unused part thereof shall be released to the applicant.
- (c) For the purposes of clause 3(b) "agreed sum" means the sum calculated in accordance with conditions 4, 5 and 6.
- (d) The current bank guarantee shall continue to apply to the proposed development. Any renewal of the bank guarantee necessitated by the review of the cost of remedial works referred to in conditions 4, 5 and 6 shall be lodged with the Minister within 3 months of the date of each detailed consent.
- (e) That if the applicant fails to comply with or breaches any of the conditions of consent, or in the event of any defects arising in the landforms, structures, plant, equipment or associated works, within the defects liability period set out in condition 7, then but not otherwise, the Minister may thereupon undertake works, including constructing a pump and pipeline, rounding off banks, fencing, demolishing, recontouring, revegetating and remove or take such other action as it may think fit to compel the applicant's compliance with the said conditions and all losses and expenses consequent upon such construction, demolition, recontouring, revegetation or removal or any other action as aforesaid and all damages which may sustain shall thereby be recovered by the Minister

from the applicant as a debt in any court of competent jurisdiction to the extent of the Bank Guarantee referred to in condition 3(b).

- (f) That in the event of default by the applicant in respect of the matters referred to in this consent, or in the event of any defects arising, in the landforms, structures, plant, equipment or associated works, the Minister
- (i) may serve on the applicant a notice (which is hereinafter referred to as the "default notice") -
 - (a) indicating the matters, in which, in the opinion of the Minister, the applicant is said to be in default;
 - (b) requiring the applicant, in the matter and within the date and time specified in the default notice to :
 - (1) rectify the default referred to therein, and allowing reasonable time for rectification of any default;
and
 - (2) showing cause why the Minister should not exercise his right under condition 3(e)
PROVIDED THAT the Minister may defer the coming into operation of condition 3(e) above until the expiration of the time specified in the default notice; and
 - (3) showing cause why the Minister should not institute proceedings under section 123 of the Environmental Planning and Assessment Act.
 - (ii) may consider any explanation and representation made by the applicant in pursuance of clause (1)(b)(2) of this condition.

CALCULATION OF BANK GUARANTEE

4. Bank Guarantee for Defects. arising in Structures. Plant. Equipment or Associated works

The guarantee for each two year period shall be for an amount of 2.5% of the estimated value of works to be undertaken adjusted each two years, at the time of detailed consent.

5. Bank Guarantee for Defects Arising in Landforms.

The guarantee for each two year period shall be for an amount of 2.5% of the estimated value of the total landform cost adjusted each two years, at the time of detailed consent.

6. Breach of any conditions of Consent

The guarantee for each two year period shall be the amount calculated by reference to the estimated cost to complete banks, construct foreshores of incomplete lakes, fence and provide a pump station and pipeline in the event of the Applicant terminating all extraction of works pursuant to condition 58.

7. Liability Period

The defects liability period shall be –

- (a) for plant, equipment and associated works 12 months after the issue of a Certificate of Practical Completion in respect of the previous 2 year period; and
- (b) for landforms and flood structures 12 months after issue of Certificate of

Practical Completion in respect of the previous 2 year period, with the final two year period in any consent warranted for a period of two years, fair wear and tear excepted.

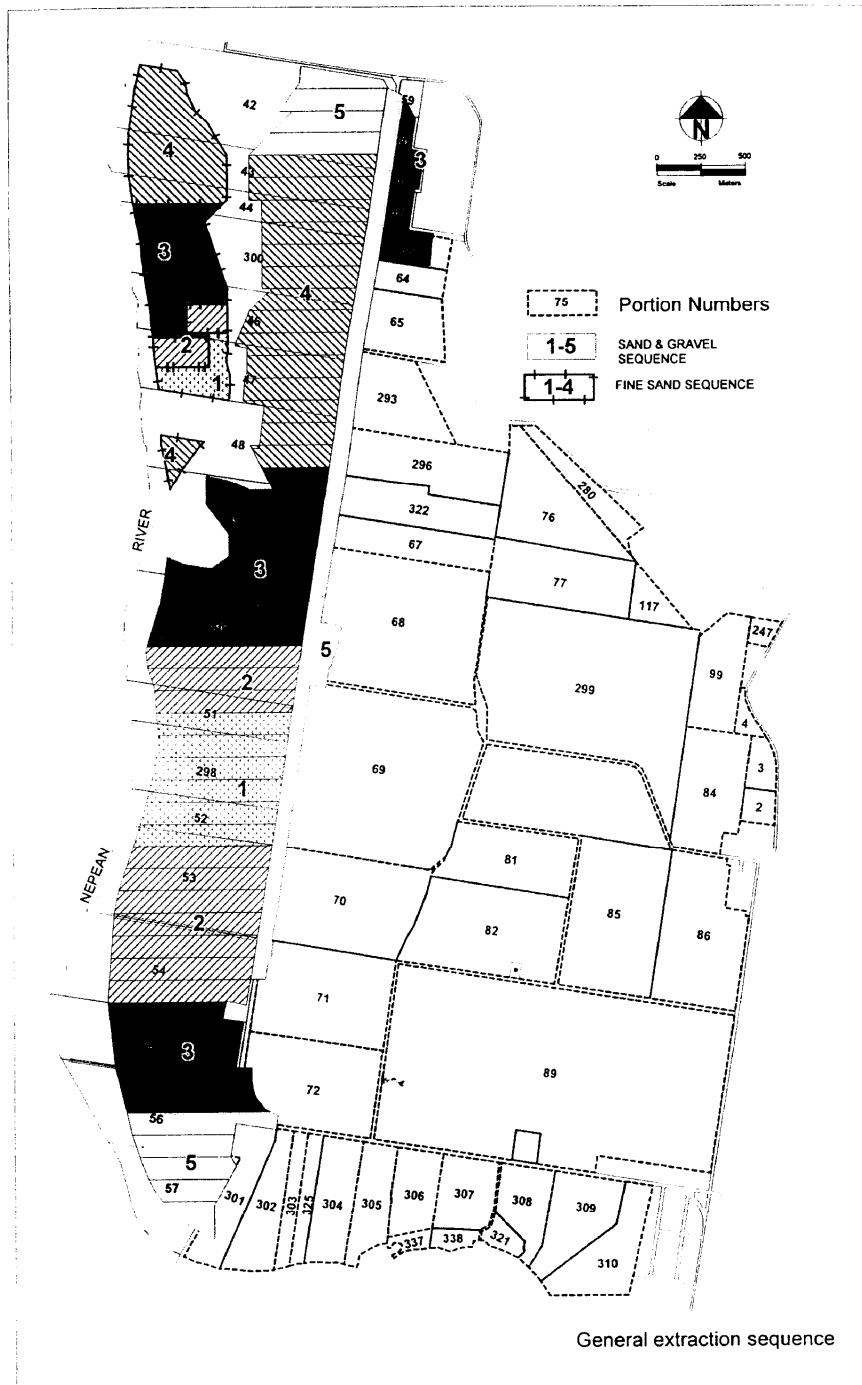
STAGING SEQUENCE

8. The Applicant shall carry out development in accordance with the sequence plan shown in Plan 'SEQ (overleaf) except as provided for in condition 9.
9. Condition 8 may be varied:
 - (a) When the consent authority following consultation with the Applicant directs otherwise;
 - (b) When the consent authority deems appropriate following a request for change of sequence from the applicant.

DETAILED CONSENT

10. The Applicant will lodge with the consent authority at two yearly intervals, detailed plans of works to be carried out within the subsequent two years. The first of such intervals shall commence from 1 July 1998.
11. Prior to preparing plans as required by condition 10 the Applicant shall consult with the relevant authorities and organisations as directed by the Regional Manager of the Department's Sydney Region West Office
12. Such plans shall be drawn at a scale of 1: 1000 and show -
 - (a) the relationship to the Sequence Plan (as shown in Plan 'SEQ');
 - (b) engineering design details;
 - (c) shall include details of landscaping and final rehabilitation plantings to be undertaken including species name, density or spacing, location and number of trees and shrubs to be planted. The plan will also include details of proposed ground cover plantings or sowing of grasses;
 - (d) shall demonstrate the proposed respective locations of site for plant, buildings, roads, means of access to works. drainage, parking area and other works generally if applicable.
13. Consent is deemed to have been refused where the consent authority has not determined the detailed plans within ninety days after lodgement of those detailed plans with the consent authority, except when notified otherwise by the consent authority.

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LAND REHABILITATION

14. All land rehabilitation is to be generally in accordance with the Land Rehabilitation Manual, 1987.
15. Within two years of the date of this consent the applicant shall consult with the Hawkesbury-Nepean River Trust and submit to the **Department of Planning and Infrastructure** for approval, design principles for the Wildlife Lake that will maximise the wildlife value of the lake. Detailed plans based on the approved Principles shall be prepared by the Applicant and submitted to the Department of Urban Affairs and Planning for approval.

16. **Bank Slopes**

The completed landforms above normal water level shall have an overall slope no steeper than 611: 1 V. Intermediate slopes steeper than this are permissible provided the overall slope is no greater than 6H: 1 V. Any departures from the uniform 6H:IV slope are to be specifically justified

Drainage and Erosion Control

17. Capacities of drainage and erosion control works are to be determined in accordance with the Australian Rainfall and Run-off Manual, 1987.
18. Minimum design storm return periods are to be
- lateral drains 5 years
 - waterways 20 years
19. A minimum of 100mm of topsoil is to be spread on all the reconstructed landforms which are to be revegetated.

20. **Revegetation**

Revegetation of landforms must commence within 30 days from the placement of topsoil. Extension of this time may be granted by the Regional Manager of the Department's Sydney Region West Office where site conditions prevent revegetation works being carried out. Subject to the concurrence of the Regional Manager, works may be deferred temporarily due to unfavourable weather conditions.

21. **Repairs and Maintenance**

Land shall be maintained, repaired and managed to the satisfaction of the consent authority. The repairs and maintenance are to be generally in accordance with the Land Rehabilitation Manual, 1987.

22. **Landscaping Species Selection**

Indigenous native trees and shrubs of the floodplain shall be used. Exception to the planting of indigenous trees and shrubs may be permitted provided these are in accordance with the Penrith Lakes Landscaping Manual (1987) or approved Conservation Management Plans.

23. **Plant Density**

Planting of trees and shrubs will be at a density of 163 units per hectare of future land area.

24. Condition 23 may be varied where the land area concerned may be future urban or where the land may be otherwise unable to support 163 units per hectare. Such variation should be specifically referred to in the appropriate landscaping plan.

25. **Water Plants**

Both submergent and emergent varieties of water plants to be planted concurrently to the first filling of any lake. Landscape plans should make reference to where such planting will occur, density and species.

26. Geo-Technical

All geo-technical works to be carried out in accordance with the detailed plans to be submitted for approval by the Regional Manager of the Department's Sydney Region West Office before rehabilitation works commence (refer to condition 10).

26A. Tree Screen

The Applicant shall prepare (and subsequently implement) a Landscape Plan to provide a vegetative screen between the Wildlife Lake Weir and the properties to the north, to the satisfaction of the Director-General. The Landscape Plan must be prepared in consultation with neighbouring landowners adjacent the northern boundary, and be submitted to the Director-General for approval by the end of July 2011.

WATER

27. Water Supply

The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of quarrying operations to match its available water supply, to the satisfaction of the Director-General.

Note: The Applicant is required to obtain all necessary water licences and approvals for the development under the Water Act 1912 and/or Water Management Act 2000.

27A. Water Management Plan

The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Director-General. This plan must be prepared in consultation with OEH, DPI and Council, and be submitted to the Director-General for approval by the end of October 2011, and prior to the construction of any flood infrastructure for the Wildlife Lake. The plan must include:

- (a) a Site Water Balance, which must:
 - include details of:
 - sources and security of water supply;
 - water use on site;
 - water management on site;
 - any off-site water transfers; and
 - investigate and implement all reasonable and feasible measures to minimise water use by the development;
- (b) an Erosion and Sediment Control Plan, which must:
 - identify activities that could cause soil erosion, generate sediment or affect flooding;
 - describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
 - describe the location, function, and capacity of erosion and sediment control structures; and
 - describe what measures would be implemented to maintain the structures over time;
- (c) a Flood Management Plan, which must include:
 - detailed baseline data and flood modelling for the Penrith Lakes Scheme;
 - a description of the measures to minimise flood risk associated with the development and in the surrounding area;
 - describe the location, function and capacity of flood management structures;
 - describe what measures would be implemented to maintain the structures over time; and

- a flood emergency response plan to effectively respond to flood events;
- (d) a Surface Water Management Plan, which must include:
 - baseline data on surface water flows and quality in the lakes and other waterbodies that are potentially affected by the development;
 - surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts;
 - a program to monitor and assess:
 - surface water flows and quality;
 - impacts on water users;
 - stream health; and
 - channel stability;
- (e) a Groundwater Management Plan, which must include:
 - baseline data of groundwater levels, yield and quality in the region;
 - measures to minimise interaction with the Hawkesbury Alluvials Groundwater Source;
 - groundwater impact assessment criteria including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor and assess:
 - groundwater inflows to the quarrying operations;
 - impacts on regional aquifers and the Hawkesbury Alluvials Groundwater Source;
 - (any) impacts on the groundwater supply of other groundwater users;
 - impacts on groundwater dependent ecosystems and riparian vegetation; and
- (f) a Surface and Ground Water Response Plan, which must include:
 - a response protocol for any exceedances of the surface water and groundwater assessment criteria;
 - measures to prevent, minimise or offset groundwater leakage from alluvial aquifers caused by the development; and
 - measures to mitigate and/or offset any adverse impacts on groundwater dependent ecosystems or riparian vegetation.

Note: Prior to approval of this Water Management Plan, the pre-existing Water Management Plan for the Penrith Lakes Scheme shall continue to apply to the development.

28. Reticulation Pipes

Alternative methods for water transfer are to be made available by the applicant should water levels be reduced to a level that causes the reticulation pipes to be unserviceable.

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 extraction and transport operations must not exceed the noise limits in the table below.

Noise Limits dB(A)

Location	5.00am-6.00am	7.00pm-8.00pm	8.00pm-9.00pm
	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$
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 $L_{Aeq(15\text{ minute})}$ 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.

HOURS OF OPERATION

30. The standard hours of operation for non-noise sensitive areas are:

Sand and gravel extraction, including haulage to processing plants	5.00am to 9.00pm, Monday to Friday; 5.00am to 7.00pm, Saturday.
Overburden stripping and rehabilitation	7.00am to 7.00pm, Monday to Saturday;
Importation of VENM	7.00am to 6.00pm, Monday to Friday; 7.00am to 1.00pm, Saturday

None of the above works must be undertaken on Sundays or public holidays.

- 31 The standard hours of operation for extraction and rehabilitation on Lot 2 DP61792 and in the Exclusion Zone shown by side hatching in "Figure 1 – Exclusion Zone for Additional Hours" are:

Sand and gravel extraction, including haulage to processing plants	7.00am to 6.00pm, Monday to Friday; 7.00am to 1.00pm, Saturday.
Overburden stripping and rehabilitation	7.00am to 5.00pm, Monday to Friday; 7.00am to 1.00pm, Saturday.
Importation of VENM	7.00am to 6.00pm, Monday to Friday; 7.00am to 1.00pm, Saturday

None of the above works must be undertaken on Sundays or public holidays.

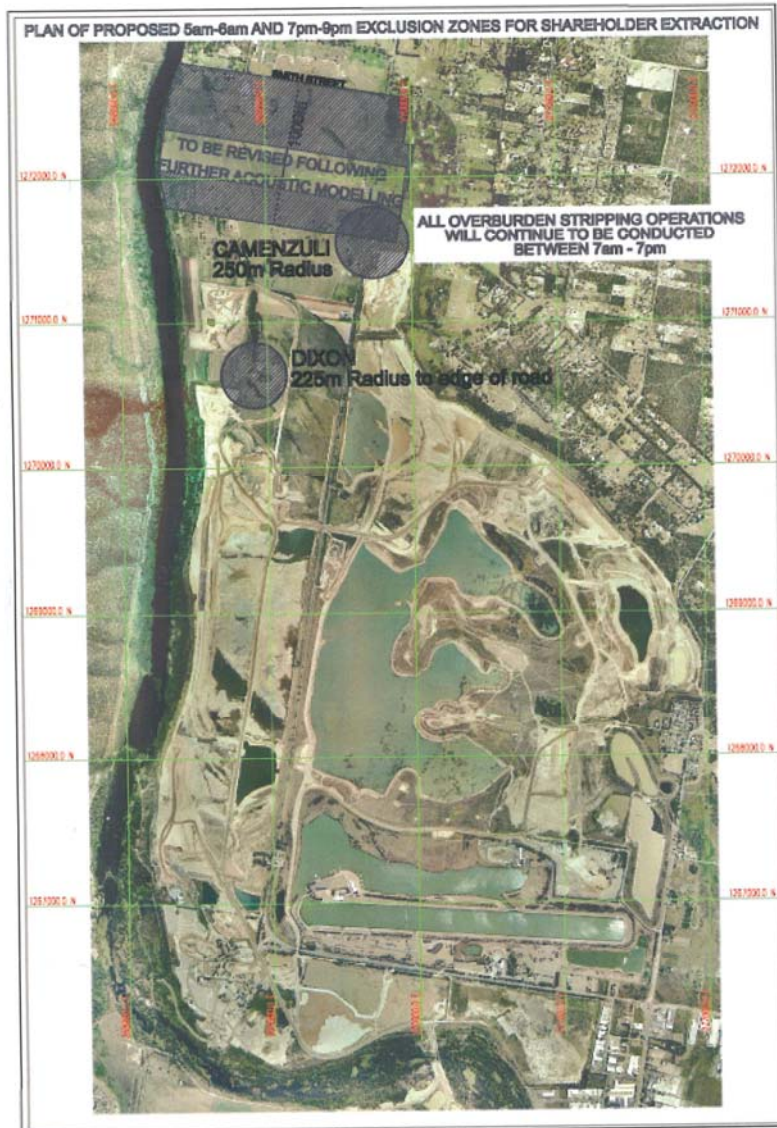


Figure 1 – Exclusion Zone for Additional Hours

Note

If the Applicant has a written noise agreement with the owners of the Dixon or Camenzuli residence(s), then the Exclusion Zone for Additional Hours shall be removed for the respective residence(s). Notwithstanding the above, the Exclusion Zone shall be maintained for a distance of 1000 metres from Smith Street residences.

33. Maintenance and Purchase of Machinery and Vehicles

- (a) All machinery used in quarry and reconstitution operations shall be properly maintained so as to prevent undue noise.
- (b) Any new machinery or equipment purchased for use on site, either in addition to or as replacement of existing machinery or equipment, shall be fitted with the manufacturers standard noise control equipment available at the time of purchase.

AIR QUALITY

- 34. Dust emanating from extraction and rehabilitation is not to exceed 4g per square metre per month (annual average) and 260ug/cubic metre for maximum concentration for a 24 hour period as measured at residences most likely to be affected by the operations.

35. When wind speeds average 5 m/s and nearby residences are likely to be significantly affected by dust, authorised Council or Environment Protection Authority officers may direct the Applicant to cease operations and the Applicant shall comply with these directions.
36. An additional dust monitor shall be erected on the eastern side of Castlereagh Road in the vicinity of the Sydney International Regatta Centre.
- 36A. Prior to carrying out any works on Lot 2 DP 617921 the Applicant shall erect a dust monitor in the vicinity of 138-147 West Wilchard Road to demonstrate compliance with the dust deposition criteria set out in Condition 34.

37. Use of Watering

That the Applicant shall keep all unsealed roads used for extractive or other material or overburden haulage sufficiently damp, at all times to prevent windblown or traffic generated dust. Plant shall be provided and operated to enable watering at least at a rate of 1.0 litres per square metre per hour.

38. Grasses

Rehabilitated areas shall be grassed as soon as possible, in accordance with condition 20 and the Land Rehabilitation Manual, 1987.

ABORIGINAL HERITAGE

39. Destruction of Aboriginal Objects

- (a) If any new or unknown Aboriginal objects are uncovered during the development, work affecting those objects is to cease immediately and the Applicant must seek the appropriate approvals under the *National Parks and Wildlife Act 1974*.
- (b) The Applicant shall further consult with the OEH regarding appropriate Aboriginal community participation in monitoring, surveying, and any salvaging requirements during the Aboriginal cultural heritage component of the development process. The Applicant shall also consult with the OEH regarding Aboriginal participation in management of the heritage values of the site in the interim period before the proposed regional park is established.

Management of Conservation Areas

- (c) By the end of October 2011, the Applicant shall develop a conservation management plan that addresses the interim day-to-day management of all areas set aside for heritage conservation for the intervening period before the proposed regional park is established, to the satisfaction of the Director-General. The plan is to ensure that the natural values of the land are not diminished and shall be prepared in consultation with relevant stakeholders, including the OEH, the Aboriginal community and the park advisory committee.

Geomorphic Unit D1

- (d) Excavation shall not occur within 20 m of Smith's Lane to ensure that portion of geomorphic unit D I (as identified in the *Supplementary Notes to Archaeological Investigations in the DA 4 area, Penrith Lakes Scheme, prepared by Dr J Kohen, May 1998*) is retained.

EUROPEAN HERITAGE

40. Archaeological Relics

- (a) If any archaeological relics are exposed during the course of development, the applicant shall notify the Heritage Office and obtain any necessary approvals to continue works. The applicant shall comply with any request made by the Office to temporarily cease work for the purpose of archaeological recording.

Due Care

- (b) Where excavation and associated works are to be carried out in the vicinity of heritage items that are to be retained, the Applicant is to take appropriate action to secure the properties and ensure that these items are not damaged by these works.

Castlereagh Road

- (c) In association with the relocation of Castlereagh Road, the Applicant is to retain or reinstate a section of Castlereagh Road in the vicinity of Landers Inn for interpretation purposes. The extent of the retained or reinstated road and its dimensions are to be determined by the Applicant in consultation with the [Department of Planning and Infrastructure](#) but shall be within the present alignment of Castlereagh Road.

Landers Inn

- (d) The Landers Inn complex and the curtilage shown shaded in green in the diagram identified as "Diagram I" and attached to these conditions of consent is to be retained.

Archival Recordings

- (e) Where work is to be carried out in the vicinity of built items identified in Tables 5.1.1, 5.1.2 and 5.1.4 within the Heritage Assessment Report prepared by Siobhan Lavelle (August 1997) (identified as Appendix E1 of the papers supporting DA 4) as holding local significance and these items are to be demolished, an archival recording of these items shall be carried out prior to their demolition. The recording shall be undertaken in accordance with the NSW Heritage Manual, November 1996. A copy of the documentation shall be lodged with the [Department of Planning and Infrastructure](#) and a second copy shall be made available to the management authority for the Penrith Lakes Scheme.

Penrith Quarry Complex

- (f) Subject to safe working procedures, a professional recording of the Penrith Quarry Complex (RES 21) is to be prepared for the Applicant prior to its demolition. The recording is to include a history of the item and its comparison with other sites. The recording shall be undertaken in accordance with the NSW Heritage Manual, November 1996. A copy of the documentation shall be lodged with the [Department of Planning and Infrastructure](#) and a second copy shall be made available to the management authority for the Penrith Lakes Scheme.

Minnaville (RES Site 15)

- (g) Prior to demolition of the buildings and bulk excavation works, appropriate professional studies and investigations are to be undertaken in terms of recommendations 3 to 5 of the Archaeological and Heritage Assessment report for Minnaville, prepared by Siobhan Lavelle (September 1996) (identified as appendix E2 of the papers supporting DA 4). A copy of the documentation shall be lodged with the [Department of Planning and Infrastructure](#) and a second copy shall be made available to the management authority for the Penrith Lakes Scheme.

Conservation Management Plans

- (h) Where items are to be retained and are owned by the Applicant, a conservation management plan is to be prepared for all items identified as holding local significance in tables 5. 1.1 and 5.1.4, as well as, the Mass Concrete House located at 95 Castlereagh Road, Castlereagh and Landers Inn.
- (i) A Conservation Management Plan shall be prepared for Hadley Park and include matters associated with Nepean Park and surrounding lands and be submitted to the Heritage Council for approval.

Collections Policy

- (j) The Applicant is to prepare a Collections Policy to guide the collection and order of European artefacts, their storage and recording.

Cultural Landscape Study

- (k) A Cultural Landscape Study detailing the history of land grants and development within the DA 4 area and providing a comparative assessment of the significance of the area, is to be prepared. A copy of the documentation shall be lodged with the **Department of Planning and Infrastructure** and a second copy shall be made available to the management authority for the Penrith Lakes Scheme.

NATURAL ENVIRONMENT

- 41.
 - (a) Prior to works being undertaken in the vicinity of the former settling pond (identified as site 12 within the DA 4 flora and fauna investigation report prepared by Kevin Mills, December 1996), the Applicant is to undertake a field survey to determine whether the Green and Golden Bell Frog is present in this location. Should this species of frog be found, the Applicant is to relocate the population to the most optimum location for this species elsewhere on the site.
 - (b) The applicant is to develop a strategy for the management of the Nepean River Corridor in association with the Hawkesbury Nepean Catchment Trust.
 - (c) The treed creek north of Hadley Park is to be retained as part of the curtilage around Hadley Park to permit the retention of a stand of *Angophora subvelutina*.

TRANSPORT

- 42. That the transport route for the carriage of all materials shall be via internal trunk haul roads as described in Figure 4.6 of the Statement of Environmental Effects.
- 42A. All VENM transport to and from the site and the M4 Motorway shall be via the approved route as shown in Figure 2 below and described in the VENM Importation Statement of Environmental Effects: Response to Submissions. No trucks shall use Castlereagh Road south of Old Castlereagh Road or Mulgoa Road to access or egress the site.

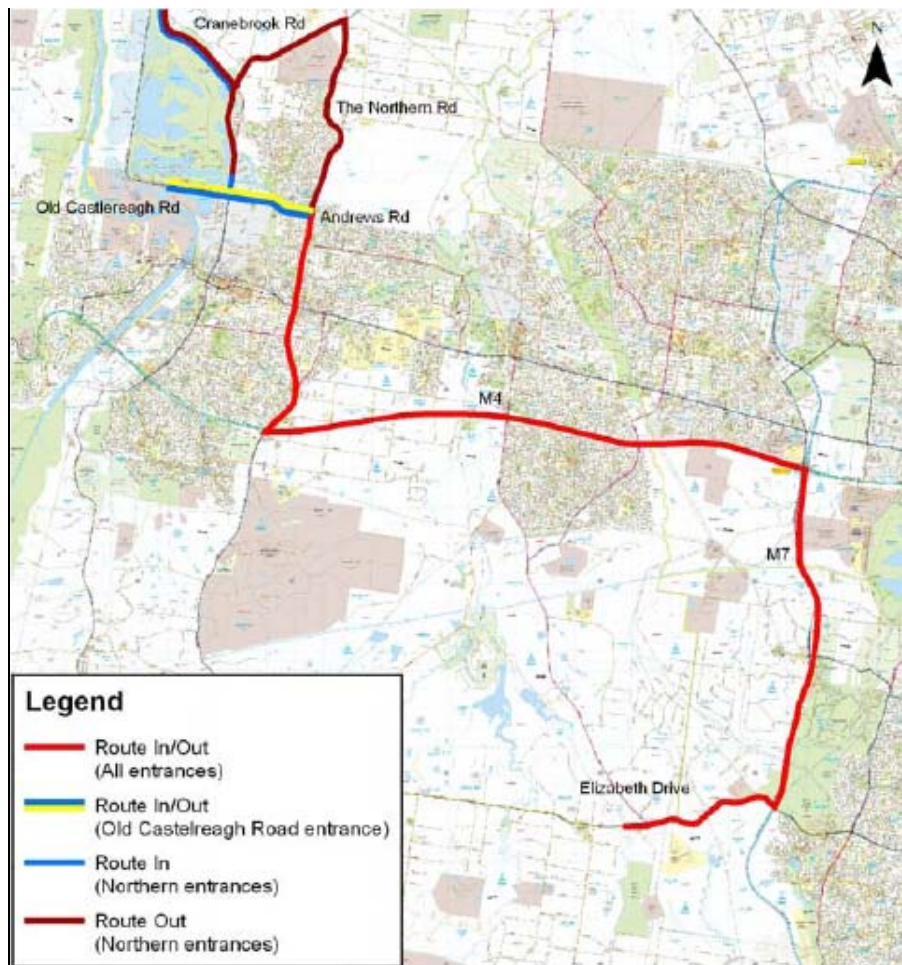


Figure 2 – Approved VENM Transport Route

43. That no road, public reserve or public place shall be used for the passage of *vehicles in the* transport Of extractive material between the lands and any State Highway, Trunk, Main or Secondary road as respectively classified under the Main Roads Act, 1924, as amended.
44. The applicant shall prepare and submit to the Director General for approval detailed plans for the relocation of traffic from Castlereagh Road to Cranebrook Road and a report addressing the traffic and associated impacts of the proposal, prior to any closures of Castlereagh Road. Detailed plans shall be to RTA standards.
45. Detailed plans for the construction of an underpass on Castlereagh Road are to be submitted to the RTA for approval.
46. The applicant is to consult with the RTA in respect of any proposed realignment of Castlereagh Road. Any future realigned Castlereagh Road must satisfy the evacuation objectives detailed within the Hawkesbury/Nepean Flood Plain Management Strategy.
47. The applicant is to consult with the Department of Land and Water Conservation in respect of the Hawkesbury/Nepean Flood Plain Management Strategy and its implications for the proposed development.
48. Access

Appropriate approval is required from the Roads and Traffic Authority, for the location and design of access to be provided at any point on Castlereagh Road.

- 48A. Prior to the commencement of importation of VENM using the northern most and second northern most access point, the Applicant shall upgrade the site entrances on Castlereagh Road to the north of Cranebrook Road to provide:
- AUL (auxiliary lane left turn treatment) for northbound traffic turning left into the site;
 - 'no right turn' signage for all southbound vehicles travelling on Castlereagh Road into the second most northern access, and for all southbound non-resident vehicles travelling on Castlereagh Road into the northern most access; and
 - advance warning signs, to the satisfaction of the RTA.

Road Haulage

- 48B. The Applicant shall ensure that:
- (a) all loaded vehicles entering or leaving the site are covered; and
 - (b) all loaded vehicles leaving the site are cleaned of materials that may fall on the road, before they leave the site.
- 48C. The importation of VENM shall be limited to 3 million tonnes over a 3 year period from the date of approval of the Traffic Noise Management Plan (referred to in Condition 65(d) of schedule A).

EXCAVATION IN THE VICINITY OF CASTLEREAGH ROAD

49. Where excavation takes place within 100 metres of Castlereagh Road a 1.2 metre high earth embankment should be built as a safety measure. The embankment may be built no closer than 20 metres to Castlereagh Road. Details of the embankment to be submitted as part of the appropriate two year detailed consent application. (refer to condition 10).

OTHER LANDOWNERS

50. Drainage

The applicant is to permit natural drainage of adjacent existing development areas into the scheme. Detailed plans shall be submitted outlining the mitigation measures to be undertaken to protect adjacent sites. These plans shall be drawn in accordance with sound engineering practice.

51. The Applicant is not to carry out any works that would cause inundation of surrounding developed areas by discharges produced by a 100 year recurrence interval rainfall event.
52. Where the Applicant alters discharge patterns from existing development the proposed measures to facilitate drainage including details of scour protection works should be submitted to Penrith City Council for Council's consent with a supporting report by a qualified civil engineer.

53. Damage to Other Property

That the Applicant shall take all reasonable steps in carrying out works on the land the subject of the application in such a manner as to prevent any injury, loss or damage to persons and stock on any other property.

54. Alterations to services or municipal facilities on the subject land necessitated by the development shall be carried out at the Applicant's expense to the reasonable satisfaction of the authority administering the service/facility. The service authority's written concurrence to such works shall be obtained prior to the commencement of such works.

55. Adverse Water Supply

That the Applicant shall, if directed in writing by the Council on the advice of the Department of Land and Water Conservation and at the Applicant's cost, make available or make arrangements for a supply of water to any person in the immediate locality of the operations who at the date of consent was licensed under the Water Act, 1912, to extract water from the aquifer and who can demonstrate to the satisfaction of the Department of Land and Water Conservation that the supply of such water has been adversely affected in quality or quantity by the development. Provided that Council in making such a direction shall not require an alternative supply of water exceeding the provision of the licence and shall specify a period for maintenance of the supply which in its opinion is reasonable having regard to the circumstances.

56. Limits of Working

That the Applicant shall not excavate or stockpile

- (a) within 30 metres of any Main or County Road;
- (b) within 15 metres of any other dedicated road, any public place or public reserve; and
- (c) within 15 metres of any adjoining privately owned property except with the written permission of the owner of that property and the consent of the Council.

except as provided for in condition 39(iii).

WORKS IN THE VICINITY OF THE NEPEAN RIVER

57. Proposed Weirs

- (a) The Applicant is to review the design of proposed weirs and outlets to the Nepean River in consultation with NSW Fisheries.

Riverbank Setback

- (b) Subject to condition 57 (iii), no quarrying activities are to take place within 100 metres of the waters edge of the Nepean River, with the exception of works for the construction of proposed weirs and/or for remedial purposes. Remedial and weir construction works are permitted subject to the Applicant obtaining necessary statutory approvals.

Variation of Riverbank Setback

- (c) Excavation works are permitted to within 40 metres of the top of the high bank of the Nepean River, subject to the Minister's approval of the detailed Two Year Plans and provided these plans are adequately supported by geotechnical studies that address river bank stabilisation and interim flood protection works (refer to condition no. 10).

Soil and Water Conservation Management Plan

- (d) The Applicant is to prepare in consultation with the Department of Land and Water Conservation a Soil and Water Conservation Management Plan to guide works within 40 metres of the banks of the Nepean River.

TERMINATION OR TEMPORARY CESSATION OF EXTRACTION

58. Details

The Applicant shall, in accordance with clause 6, prepare and submit to the Director General for consent details of proposals for completion and construction of landforms, banks, fencing and works including the construction of a pump and pipeline in the event of termination of the extraction works or temporary cessation of such works.

59. Temporary Cessation of Works

Where the Minister after consultation with the Applicant notifies the Applicant that he has formed the view that effective sand and gravel extraction has temporarily ceased and considerable time will elapse before effective extraction will resume then the Applicant shall undertake and substantially complete the works consented to in those circumstances pursuant to condition 58 within one year of the date of the notification and shall totally complete such works within 2 years of that date.

60. Total Cessation of Works

Where the applicant issues a termination notice to the Minister setting out the reasons for ceasing all sand and gravel extraction and the Minister agrees to such termination then the Applicant shall substantially complete the works consented to in those circumstances pursuant to condition 58 within one year of the date of the termination notice and shall totally complete such works within 2 years of that date.

MONITORING

61. Monitoring Programme

The applicant shall carry out the tests, recording and reporting referred to in conditions 62 and 63 to enable the impact of on-site activities to be assessed.

62. Land Rehabilitation

Compaction Tests

- (a) The Applicant will at its cost, be responsible for compaction tests at the following frequencies:

Engineered Zones - 1 test every 2500 cubic metre

- (b) Tests are not required in other construction zones.

- (c) The above frequency has been determined on the basis that the Applicant has a suitably qualified Engineer on site to supervise earthworks. Frequency of testing is to increase to 1 test every 500 cubic metres in Engineered Zones if such professional supervision is not provided.

- (d) Compaction tests shall be done in accordance with AS 1289E4.1-1982 unless specific approval is given by the consent authority to change the test method.

- (e) Testing to be undertaken by a National Australian Testing Authority registered laboratory.

- (f) Should the Applicant wish to undertake its own tests then: -

(i) it is to be National Australian Testing Authority registered; and

(ii) a minimum of 10% of all tests are to be undertaken by an independent consultant.

- (g) Any failures are to be rectified by the Applicant.

63. Settlement

- (a) The Applicant shall install up to 10 settlement plates in Open Space areas, the location of which are to be nominated by the consent authority.
- (b) The Applicant shall arrange to have these plates surveyed at appropriate intervals (more frequently at commencement) until such time that settlement is substantially completed .

64. Records and Reporting

- (a) The Applicant will establish and maintain records of
- works as executed diagrams;
 - compaction test results;
 - settlement plate results; and
 - any other relevant information relating to construction.
- (b) Records are to be available for inspection by an appointee of the consent authority at any time during normal working hours.

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 quarrying within 300 metres of any residence to the north of the Wildlife Lake, the Applicant shall prepare (and subsequently implement) a noise compliance monitoring 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) A report containing the results of all noise monitoring undertaken in the preceding 6 month period or other period determined by the Regional Manager shall be submitted to the Minister within 3 months of the end of the period.
- (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.

66. Air Quality

- (a) The Applicant shall, on a monthly basis, obtain and analyse dust samples collected in accordance with OEH licence conditions. Vertical dust deposit gauges shall be located at each site and, in addition directional dust gauges shall be located where agreed. This monitoring shall continue for one year from the date of this consent. Such monitoring shall cease after this period provided results obtained during the period indicate that dust emanating from quarry and reconstitution operations has not exceeded 4g/sq.m./month (annual average) at neighbouring residences.
- (b) PLDC shall install and operate a high volume dust sampler to ensure compliance with the 24 hour maximum concentration level. This monitoring shall continue for one year from the date of consent to the development application. Such monitoring shall cease after this period provided results obtained during the period indicate that dust emanating from quarry and reconstitution operations has not exceeded 260 ug/cubic.m./24 hour maximum concentration.
- (c) PLDC shall monitor wind speed and direction.
- (d) A report containing the results of all air quality monitoring undertaken in the preceding 3 month period shall be submitted to the OEH and Penrith City Council within 2 months of the end of the period.

67. Monitoring Records

The Applicant shall maintain a record of the following which shall be available upon request of the consent authority:

- (a) Works as executed drawings, 1: 1000 scale with 1 m contours;
- (b) Details of where topsoil was stripped from, placed and method of placement;
- (c) A report showing landforms completed and areas revegetated;
- (d) A summary of all works undertaken in regard to repairs and maintenance of landforms;
- (e) The results of all noise monitoring undertaken in the previous 12 month period;
- (f) The results of all air quality monitoring undertaken in the previous 12 month period;
- (g) Photogrammetric surveys at an appropriate scale showing the extent of rehabilitation which has been carried out in the lands;
- (h) The results of compaction and settlement tests;
- (i) The species composition and location of plantings completed together with loss rates;
- (j) Planting times and methods and cumulative maintenance procedure;
- (k) A description of all ancillary works which have an effect on the external environment;
- (l) And any other matters the consent authority may direct be included from time to time.

The Applicant shall maintain these records for the life of the scheme and shall then make available these records, in good order, to the consent authority.

68. The Applicant shall lodge with the consent authority summary reports of the records (referred to in condition 66) within three months of the completion of every two year period from June 1997.

69. Certificate of Practical Completion

The Applicant shall issue to the Minister a Certificate of Practical Completion on completion of works authorised by each detailed approval pursuant to condition 10.

70. Joint Inspection

That the Applicant shall make a representative available for joint inspection of the lands with officers of the Council, the Department of Land and Water Conservation and any other statutory authorities concerned with the proposed operation of these conditions. Such inspections shall be carried out after six (6) months but shall not be regarded as replacing any other inspections which any other authority is entitled to make.

71. Audit Checks

Inspections will be carried out on behalf of the **Department of Planning and Infrastructure** on an audit principle to ensure works are in accordance with approved plans.

SCHEDULE B

PLDC Land							
Ref	Description	Torrens Register	Vol.	Fol.	Conv	Bk	Area (ha)
1	Lot 471 DP 558416	471/558416	12116	85			9.146
2	Lot 470 DP 558416	470/558416	12116	84			0.101
3	Part Por 42				988	3192	32.375
4	Lot 1 DP 63308	1/63308	11693	241			19.35
5	Por43				852		36.13
6	Lot 1 DP 73955	1/73955	3460	31			7.845
7	Lot 1 DP 120891	1/120891	7777	57			13
8	Lot 1 DP 120872	1/120872	7777	56			2.023
9	Part Por 44				130	3136	6.475
10	Lot 300 DP 752021	300/752021	7074	206			45.19
11	Part Por 46				422	3462	18.129
12	Lot 1 DP 60859	1/60859	15175	87			18.72
13	Lot 1 DP 87060	1/87060	6733	116			17.82
14	Lot 2 DP 87060	2/87060	6733	115			20.23
16	Lot 1 DP 219895	1/219895	9849	93			32.39
17	Lot 21 DP 530256	2/1530256	10914	62			8.966
18	Lot 45 DP 545813	45/545813	11695	145			11.53
19	Lot 44 DP 545813	44/545813	11695	144			11.22
20	Lot 42 DP 546220	42/546220	11695	157			5.373
21	Lot 23 DP 530256	23/530256	10974	6			8.65
22	Lot 3 DP 219895	3/219895	9849	95			15.95
23	Lot 1 DP 436198	1/436198	12771	89			29.69
24	Part Por 51				687	2228	4.705
25	Lot 4 DP 2223	4/2223	13771	232			15.71
26	Part Por 298				709	1948	9.308
27	Lot 2 DP 348979	2/348979	5446	194			2.668
28	Lot 2981 DP 128099	2981/128099	8258	233			27.98
29	Part Por 52				386	2236	3.237
30	Lot 1 DP 2223	1/2223	916	35			16.13
31	Part Por 53				917	2240	3.49
32	Lot 2 DP 236125	2/236125	10784	45			43.563
33	Lot 1 DP 236125	1/236125	10784	44			0.355
34	Part Por 54				491	2973	11.47
35	Part Por 54				483	2050	39.651
36	Lot A DP 374807	A/374807	13771	231			20.39
37	Lot B DP 374807	B/374807	6614	133			20.89
38	Lot 1 DP 128036	1/128036	7209	143			5.911
39	Lot 2 DP 128036	2/128036	7209	142			14.12
40	Lot 56 DP 7868-6----	56/78686	7209	144			14.77
41	Lot X DP 421674	X/421674	8380	19			11.09
42	Lot Y DP 421674	Y/421674	8380	20			6.37
43	Order No F151934 Part Por 57		6178	202			7.285
44	Lot 104 DP 599725	104/599725	13906	14			2.587
45	Lot 103 DP 599725 (Part Only)	103/599725	13906	13			2.716
46	Lot 2 DP 630803	2/630803	15010	63			5.287
47	Lot 34 DP 241197	34/241197	11624	62			5.136
152	Lot 481 DP 849952	481/849952	4558	110			35.284
174	Sheens Lane Lot 1 DP 47720	1/47720	15721	175			1.92
48	Lot 2 DP617921						7.6
		Subtotal					709.926

Private Land							
Ref	Description	Torrens Register	Vol.	Fol.	Conv	Bk	Area (ha)
133	Comm. For Main Roads	1/419190	8168	52			0.749
153	Nepean Park Pty Ltd	482/849952	4558	110			13.727
		Subtotal					14.476
Roads							
Ref	Description	Torrens Register	Vol.	Fol.	Conv	Bk	Area (ha)
169	Castlereagh Road (Part) MR no 155	Govt. Gaz. 9.10.1942 No 136					14.4
173	Jacksons Lane (Pen C.C.C.)	Govt. Gaz. 26.2.1964 No 79					1.97
		Subtotal					16.37
Crown Land							
Ref	Descr	Torrens Register	Vol.	Fol.	Conv	Bk	Area (ha)
178	Non Public Crown Road	Road betw. Pors 50 & 51					2.63
181	Crown Subdivision Road	Road betw. Pors 55 & 56					0.964
		Subtotal					3.594

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