ASSESSMENT REPORT

PENRITH LAKES SCHEME
SECTION 75W MODIFICATION FOR IMPORTATION OF VIRGIN EXCAVATED NATURAL MATERIAL AND EXCAVATED NATURAL MATERIAL (DA2 MOD 5, DA3 MOD 4 & DA4 MOD 9)

1 BACKGROUND

This report is an assessment of a request under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to modify existing consents (Development Application No. 2 (DA2), Development Application No. 3 (DA3) and Development Application No. 4 (DA4)) for development of the Penrith Lakes Scheme.

Penrith Lakes Development Corporation (PLDC) currently has approval to import up to 3 million tonnes of Virgin Excavated Natural Material (VENM) to the Penrith Lakes Scheme (Scheme) over a period of 3 years. This modification application seeks to import an additional 5 million tonnes of VENM and/or Excavated Natural Material (ENM) to fulfil final landform requirements outlined in the Structure Plan and approved as part of the detailed conditions of consent for the Scheme.

The application was submitted by PLDC and was accompanied by an Environmental Assessment (EA) prepared by Arup Pty Ltd dated September 2014 to support the proposed modifications.

2. SUBJECT SITE

The Penrith Lakes Scheme is a large extractive operation that has traditionally supplied around half of Sydney's sand and gravel demand for the construction industry from the mid 1960s until the mid-2000s. The Scheme covers an area of just under 2,000 hectares of the Penrith Castlereagh floodplain in the Penrith local government area, as shown on the Penrith Lakes Scheme Structure Plan (refer to Figure 1).

PLDC has managed the operation of the Scheme following the consolidation of quarrying interests under a single joint venture in 1980. PLDC is now moving into the next phase of the Scheme to undertake rehabilitation and development of the final landform as quarrying activities approach finalisation.

Extraction and rehabilitation activities at Penrith Lakes have historically been governed by the Sydney Regional Environmental Plan No 11 - Penrith Lakes Scheme (SREP 11). In 2012, SREP 11 was renamed *State Environmental Planning Policy (Penrith Lakes Scheme) 1989* (Penrith Lakes Scheme SEPP).

A Regional Environmental Study (RES) was completed in 1984 to examine considerations in developing a system of interconnected lakes suitable for regional water oriented recreation pursuits within reconstituted landforms capable of supporting a range of associated land

uses. The RES identifies a number of key principles to guide overall design and delivery of the Scheme which were subsequently incorporated into a Deed of Agreement, a regional environmental planning instrument and a series of development consents.

The 1987 Deed of Agreement (1987 Deed) is a contractual agreement between PLDC and the NSW State government. The 1987 Deed outlined the original intentions for overall delivery of the Scheme and also outlines obligations to be met by PLDC for works to be undertaken as part of the rehabilitation. Under the 1987 Deed, PLDC is obliged to deliver the completed Scheme to Government following cessation of quarrying and rehabilitation activity. All quarrying operations are due to cease in June 2015 and rehabilitation is expected to be completed by September 2015. PLDC has commenced the transfer of the Eastern Lakes site to the Government and the Wildlife Lake is also expected to be transferred during 2015.

The Penrith Lakes Scheme SEPP contains a structure plan which includes provision for the final landform of the Scheme (refer to Figure 1).

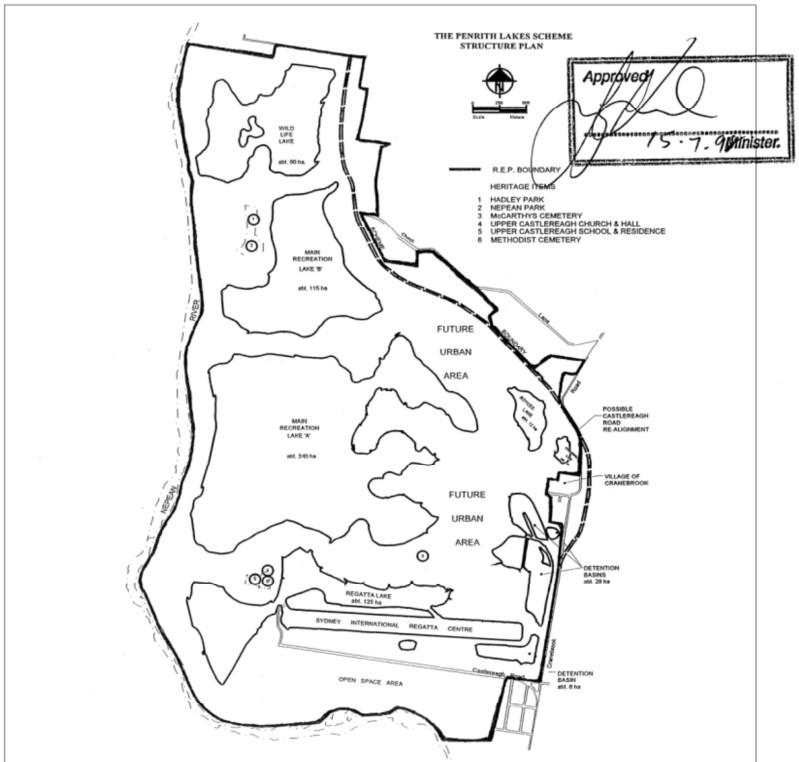

Figure 1 Structure Plan

3. Development Consents

There are a number of development consents that govern the activities on the site, including the quarrying activities and the future rehabilitation works.

Under SREP 11, provision was made for the submission of sequential development applications for the progressive release of resource-bearing land within the Penrith Lakes site. A number of consents for the Scheme have subsequently been approved by the Minister and are summarised in Table 1 in accordance with the consent map in Figure 2.

Table 1 Summary of consents

Name/Date	*About*
Development consent 1 (DA1) Dated: July 1982	Interim extraction while detailed planning studies and preparation of SREP 11 were undertaken.
Development consent 2 (DA2) Dated: 24 Feb 1987	Applies to land east of the former alignment of Castlereagh Road (southern part) and includes Lake A, the Southern Wetlands and Quarantine Lake In 1989 DA2 was modified to facilitate the construction of the rowing lake and associated facilities (known as Sydney International Regatta Centre), and the Castlereagh underpass.
Development consent 3 (DA3) Dated: 27 June 1995	Applies to land east of the former alignment of Castlereagh Road (northern part)
Development consent 4 (DA4) Dated: 9 September 1998	Applies to land west of the former alignment of Castlereagh Road Applies to Wildlife Lake, Lake B and the Southern Wetlands, Lake A and Quarantine Lake.

The conditions of consent under DA2, DA3 and DA4 include the requirement for preparation of “detailed consents” every two years (referred to as ‘two year plans’). These form the detailed consent for landform rehabilitation works associated with the Scheme. PLDC is required to submit two year plans providing the detailed plans for works to be carried out in the subsequent two years in accordance with the Structure Plan and the 1987 Deed.

Two year plans for the Wildlife Lake, Lake B and 2013-2015 precincts were progressively approved by the Minister in 2013 and provide design and engineering specifications for the final landform broadly in accordance with the Structure Plan. Calculations for fill requirements to meet the landform specifications have been refined as extraction operations approach completion and two year plans have been progressively approved by the Minister. This has allowed for calculation of the likely extent of available overburden and the volume of approved VENM imports in relation to the final landform specifications and a shortfall of approximately 5 million tonnes was identified.

PLDC has also undertaken a detailed review of the Scheme’s Water Management Plan which provides a holistic approach to water management across the site. The updated water management plan was approved in 2013 and included detailed prescriptions for flood infrastructure and landform design to manage water levels during both typical flow conditions and during flood events. The flood management system includes a series of weirs and flow paths between the interconnected lakes to control flood waters within the lake system for flood events up to the 100 year Average Recurrence Interval (ARI).

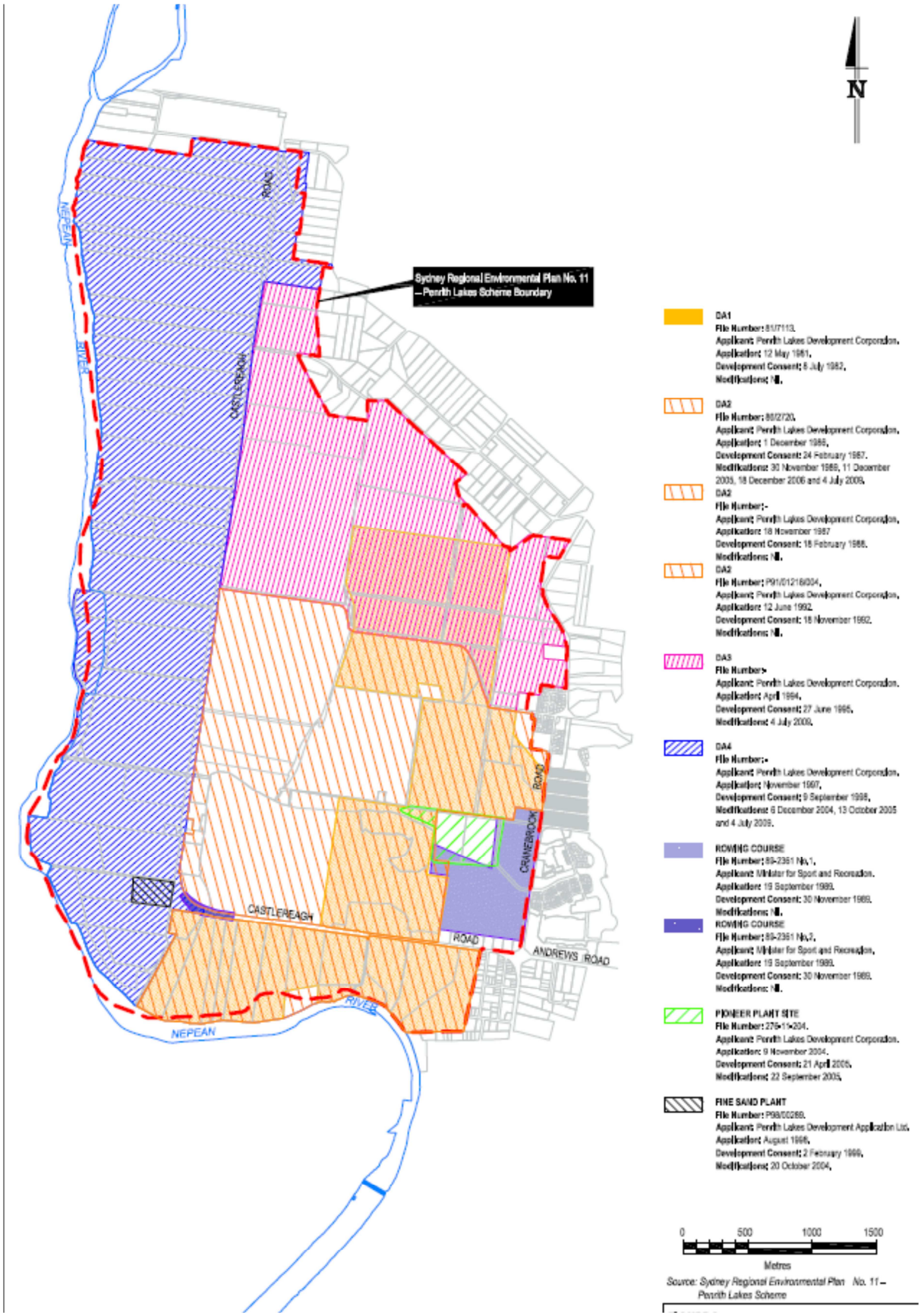

Figure 2 Existing Development Consents

The approved two year plans reflect the specifications of water management plan and provide for the landform surrounding the lakes to be free from flooding in events up to the 100 year ARI event to maximise the opportunities for future development of the Scheme site. PLDC has calculated the need for an additional five million tonnes of material to be imported to the site to meet its obligations to provide the Scheme landform, which has been approved by the Minister as part of the detailed consent conditions for the Scheme.

DA2, DA3 and DA4 have previously been modified to allow the importation of up to three million tonnes of VENM to the site over a period of three years. Consent was initially granted in 2009 to modify DA2, DA3 and DA4 to allow the importation of VENM. A subsequent modification was submitted in 2012 as the schedule for importing VENM had been delayed and the previous consent for VENM importation had not been activated. The modification was approved on 5 February 2014 and provided for the works to extend from 2014-2016 and to expand the potential source of VENM from a single source to numerous locations in the Sydney Metropolitan area.

This modification application seeks to import an additional five million tonnes of VENM and/or ENM to fulfil final landform requirements of recently approved two year plans. The approved landform includes land described under each of the applicable consents as shown on Figure 2, and therefore modifications to DA2, DA3 and DA4 are required as part of this application.

4 PROPOSED MODIFICATION

The proposed modification to DA2, DA3 and DA4 includes:

- Importing VENM and ENM with strict import protocols including geotechnical and environmental sampling, testing and certification;
- Increasing the amount of VENM and ENM to be imported by an additional five million tonnes (being a total of 8 million tonnes) at a rate of up to two million tonnes per year;
- Sourcing VENM and ENM from excavation sites anywhere in the Sydney Metropolitan Area and surrounding areas using the public road network and legal road trucks for haulage to Penrith; and
- Commencing the importation of the additional five million tonnes of VENM and ENM in early to mid-2015 when quarrying operations have ceased.

The modification is described in further detail within the applicants EA dated 25 September 2014. A comparison of the proposed modification with the current consents is provided in Table 2.

Table 2 Comparison of approved and proposed projects

Item	Approved Project	Proposed Modification	Difference
Type of fill	VENM	VENM and ENM	Addition of ENM subject EPA sampling and analysis requirements
Volume	3 million tonnes over 3 years at a rate of 1 mtpa	Additional 5 million tonne at a rate of up to 2 mtpa	Total infill requirements increasing from 3 to 8 million tonnes at a rate of up to 3 mtpa
Timing	2014 to 2016	Additional importation to commence following the completion of extraction activities	Import of material extending through to 2018
Source	Various locations in Sydney Metropolitan Area	Various locations in Sydney Metropolitan Area	None
Location of fill at site	Various locations throughout site to meet final landform specifications	Various locations throughout site to meet final landform specifications	None
Haulage Routes	Prescribed haulage routes dependent upon the source of fill	Prescribed haulage routes dependent upon the source of fill	None

5 STATUTORY CONTEXT

5.1 Consent Authority

The works required for the progressive extraction, rehabilitation, reconstruction and landscaping of the land at Penrith Lakes have been approved by the Minister for Planning under Part 4 of the EP&A Act.

However, under clause 8J(8) of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), for the purposes only of modification, a development consent granted by the Minister under Part 4 of the EP&A Act (relating to state significant development) before 1 August 2005 are taken to be approvals under Part 3A of the Act and section 75W of the Act applies to any modification of such a consent.

The progressive development of the Penrith Lakes Scheme has been approved by the Minister under a number of consents under Part 4 of the EP&A Act.

Section 75W of the EP&A Act was repealed in 2011 as part of the broader repeal of Part 3A of the EP&A Act. Under Clause 3 of Schedule 6A of the EP&A Act, Section 75W as in force immediately before its repeal, continues to apply to transitional Part 3A projects. Consequently, the Minister is the approval authority for the proposed modification.

The Department is satisfied that the application can properly be characterised as a modification to the original project approval, and can therefore be assessed and determined under Section 75W of the Act.

Under delegation dated 16 February 2015, the Executive Director, Infrastructure and Industry Assessments may determine the application as:

- Council has not made an objection; and

- A political donation disclosure statement has not been made; and
- There are less than 25 public submissions in nature of objection.

5.2 Exhibition and notification

The Modification Application was exhibited between 21 October and 21 November 2014. As part of the exhibition period a total of eight submissions were received from the following parties:

- Penrith City Council (Council);
- Environment Protection Authority (EPA);
- Department of Primary Industries (DPI) – comprising inputs from the NSW Office of Water (NOW) and Agriculture NSW;
- Roads and Maritime Services (RMS);
- Sydney Catchment Authority (SCA); and
- Three nearby residents.

A summary of the key issues in the submissions is provided in this section.

Penrith City Council

- Consideration of methods to ensure all environmental commitments are being adhered to and implemented;
- Assurance that the proposed works will not impact upon the ability to implement the Water Management Plan;
- Concern is raised in regards to the intensification of truck movements on the local road network;
- Consideration be given to the upgrade of Castlereagh Road to provide dual carriageway from McCarthy's Lane to Cranebrook Road;
- Requirement to upgrade intersection of Castlereagh Road and Northern Access Road No. 8 and the need for a Roads Act application to be lodged with Penrith City Council for the proposed works;
- Submissions noted from concerned residents in regards to traffic; and
- Lack of consideration of flooding impacts within the EA and consideration of flooding in the context of the draft water management plan and approved final landform.

Environment Protection Authority

- The EPA does not object to PLDC bringing additional VENM and ENM to the site
- Analysis of asbestos to be included in sampling and testing program;
- Ensure waste is classified in accordance with Waste Classification Guidelines Part 1: Classifying Waste, EPA 2014;
- Haulage activities to be limited to standard construction hours between 7:00 am and 6:00 pm Monday to Friday and 8:00 am until 1:00 pm on Saturdays;
- Transport management plan be prepared and include details as to how truck movements will be scheduled to minimise impacts upon peak travel times; and
- Management of air quality including the requirement that all vehicles used in the transport of VENM and ENM to be appropriately maintained.

NSW Office of Water

- Erosion and sediment controls to be undertaken in accordance with the existing conditions of consent;
- Any works on water-front land should be conducted in accordance with NSW Office of Water's guidelines for Controlled Activities;
- Extensive use of shale based VENM has potential to increase salinity in groundwater and surface water resources; and

- Management of imported materials onsite should be undertaken in such a way as to minimise the potential risk of mobilisation of the imported materials during heavy rainfall and flood events.

Agriculture NSW

- Material being imported and stockpiles / disturbed land will need to be monitored and managed for noxious and other weed intrusions.

Roads and Maritime Services

- Raised no objections to the current proposal and re-iterated previous advice on the following issues;
  - Requirement for the preparation of a Traffic Management Plan;
  - Road occupancy licence required for any works which impact upon traffic flows along the haulage route;
  - The Applicant to be responsible for any public utility adjustments or relocations required as a result of the proposal;
  - Site entrance to be designed in accordance with AUSTROADS based upon the swept path of the longest vehicles entering or exiting the site;
  - Vehicles to enter and exit the site in a forward direction; and
  - Maintenance levy for the upkeep of the roads on the haulage route to be maintained.

Sydney Catchment Authority

- Noted that the proposal is not located within the SCA's operational area and would otherwise not impact upon the activities of the SCA.

Private Resident

- Increased heavy traffic on all major roads into and out of Penrith;
- Increase in noise pollution;
- Increase in air pollution; and
- Damage to the road system.

Private Resident

- Road traffic noise and impacts upon receivers along Cranebrook Road;
- Use of Receiver 4 does not provide a true reflection of the noise impacts to receivers in Cranebrook village;
- Use of engine brakes on approach to Castlereagh Road; and
- Increased risk of vehicle incidents associated with additional traffic on the haulage route.

Private Resident

- Concern that RMS has not offered a response to the proposal;
- Concern regarding the need to provide a dual carriageway between McCarthys Lane and Gate 3;
- Concern about the impact of the proposal on the safety of other road users; and
- Seeking clarification of the future use of the site.

Department of Planning and Environment

The Department also requested clarification on a number of aspects associated with the proposed importation of VENM and ENM to the site including:

- Provision of peak hourly traffic volumes and traffic generation on the local road network;
- Consideration of the operation of intersections in the surrounding network;

- A review of recent (5 year) crash data and consideration of any existing safety issues in the surrounding road network;
- Clarification of road function/capacity on the haulage network for proposed haulage volumes;
- Indication as to why there is a reduction in traffic in 2017/2018;
- Confirmation of the timing of the additional VENM/ENM transportation in relation to ceasing road haulage;
- Justification for the proposed intersection for access to Gate 3 in accordance with AUSTROADS Guide to Road Design;
- Provision of documentation on the assumptions for the assumed split between the three gates. For example, is there potential for the fill to be delivered in campaigns to specific areas of the site resulting in 100% of movements through an individual gate for extended periods of time;
- Consideration of the impact on key intersection performance during peak travel hours; and
- Provision of justification of existing compliance records to justify the level of noise assessment in accordance with the Industrial Noise Policy.

Following the completion of the exhibition period, PLDC and its planning consultant, ARUP, provided the Department with a response to submissions report. A copy of this report and the EA are attached at Appendix B.

6. ASSESSMENT

The Department considers the key issues for assessment are impacts upon traffic and the local road network, road traffic noise, impacts upon flooding and the implementation of the approved water management plan and environmental controls for the quality of material imported to the site. These issues are discussed in detail below.

6.1 Traffic impacts

A number of submissions raised impacts associated with the intensification of heavy vehicle movements on the local road network.

Existing vehicle movements

The site currently has approval to import 1 million tonnes per annum (MTpa) of VENM over 3 years as part of the rehabilitation of the Scheme, which equates to 120 trucks per day (240 movements).

The site also has a long history of extractive industry with no limits or restrictions on the total vehicle movements used for the removal of quarry products. Sand and gravel exports have historically ranged between 400 trucks (800 movements) and 1100 trucks (2200 movements) per day. There is currently approximately 800 truck movements per day used for the export of quarry products from the site which is significantly lower than the historical highs exceeding 2,000 truck movements each day prior to the closure of Readymix and Fine Sands Plants in 2009 as shown on Figure 3.

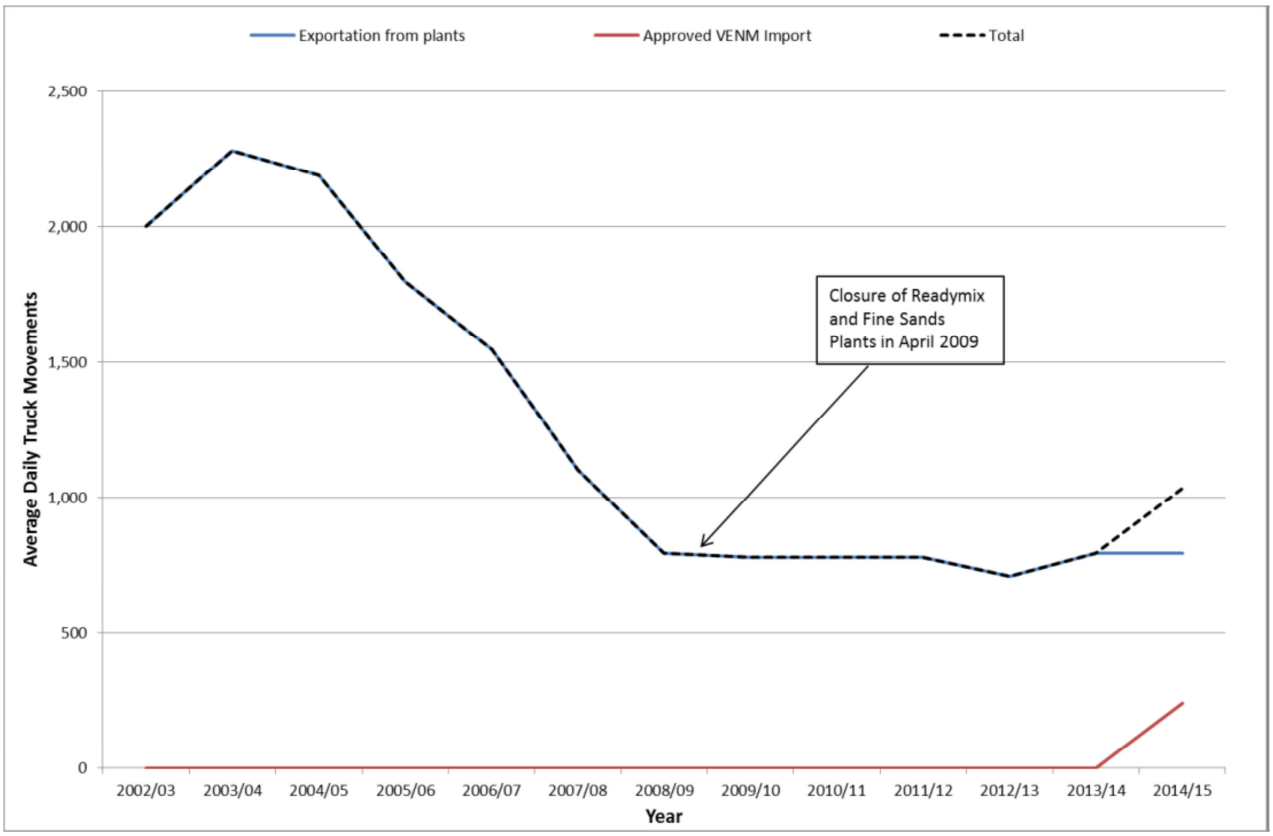

Figure 3 Historical daily truck movements (Source: Arup, 2014)

The proposal involves importing an additional 5 million tonnes of fill material, at a rate of up to a 'worst case' maximum of 2 million tonnes annually. The proposal is in addition to the previously approved 1 million tonnes annually for VENM imports and is proposed to commence in approximately mid-2015. Based upon a maximum proposed haulage of 2 million tonnes annually, this would equate to a total of 238 trucks per day (or 476 truck movements) necessary to transport the fill, which is based upon a 240 day working year and each truck having an average 35 tonne payload.

A forecast of traffic volumes on surrounding roads provided with the modification application, indicates there will only be a minor increase in average weekday traffic volumes (between 1% and 3%) on the haulage route in close proximity to the site. This takes into account a conservative assumption for growth in background traffic volumes per year (3%). The increase in traffic associated with the additional VENM and ENM importation was predicted to be up to 9% on Old Castlereagh Road, reducing to less than 3% increase in tr affic volumes for the regional road network surrounding the site. It should be noted that Old Castlereagh Road currently receives relatively low volumes of traffic primarily associated with the operation of the Scheme and it is noted that existing access restrictions on the number of vehicles accessing Gate 1 on Old Castlereagh Road will remain in place for the duration of the proposed works.

A key premise for the traffic impact assessment presented in the EA was that importing of additional fill material would only commence following the completion of extraction activities and therefore the proposal would result in a net reduction in the total number of heavy vehicles currently travelling to the site. Further clarification was provided by PLDC which indicates that extraction is due to be completed in June 2015 and there will be a progressive reduction in vehicle movements following the completion of extraction activities to allow for the removal of stockpiled material for a period of two to three months. A gradual transition to additional VENM imports was therefore proposed as haulage decreases from the site.

Heavy vehicles used to export quarry products from the site historically made up a significant proportion of the background traffic in the vicinity of the site. The number of heavy vehicles previously used for the export of quarry products was significantly higher (about 700 per day for the last 5 years of the quarry operations) compared to the number of heavy vehicles proposed for the import of VENM and ENM (less than 250 per day) and there is anticipated to be a net reduction in the number of vehicles accessing the site. The traffic assessment is therefore considered conservative and the total vehicle movements are anticipated to fall considerably compared to the number of heavy vehicles historically accessing the site, particularly prior to the closure of the CSR Readymix and Pioneer processing plants in 2009.

Haulage Routes

There are two likely routes that vehicles will take to approach the site from the north and south as described in the EA and reproduced in Figure 3 and Figure 4 below. The proposed haulage routes in the vicinity of the site remain unchanged from those approved as part of the 2012 VENM importation and all roads form part of the state and regional road network and are considered suitable for the proposed use. Local roads in Cranebrook Village are of insufficient geometry and will not be used by haulage vehicles.

A review of crash statistics in the locality indicated that there were no crash clusters which could be attributed to the current operations. The majority of crashes involving heavy vehicles occurred on The Northern Road between Andrews Road and Vincent Road, which will not form part of the existing or proposed haulage routes.

Additional detail regarding the haulage routes and measures to minimise impacts upon the local road network will be submitted as part of a detailed traffic management plan which is required to be prepared as part of the conditions of approval.

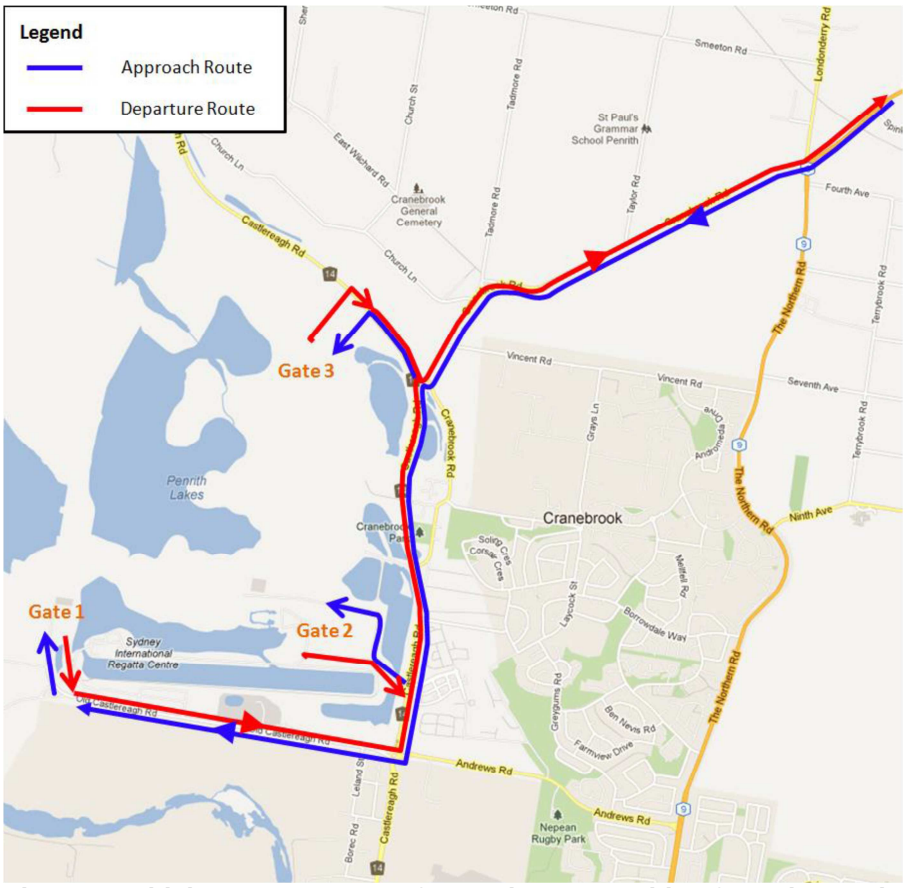

Figure 4 Vehicle Access Routes for trucks approaching from the north (Source: Arup, 2014)

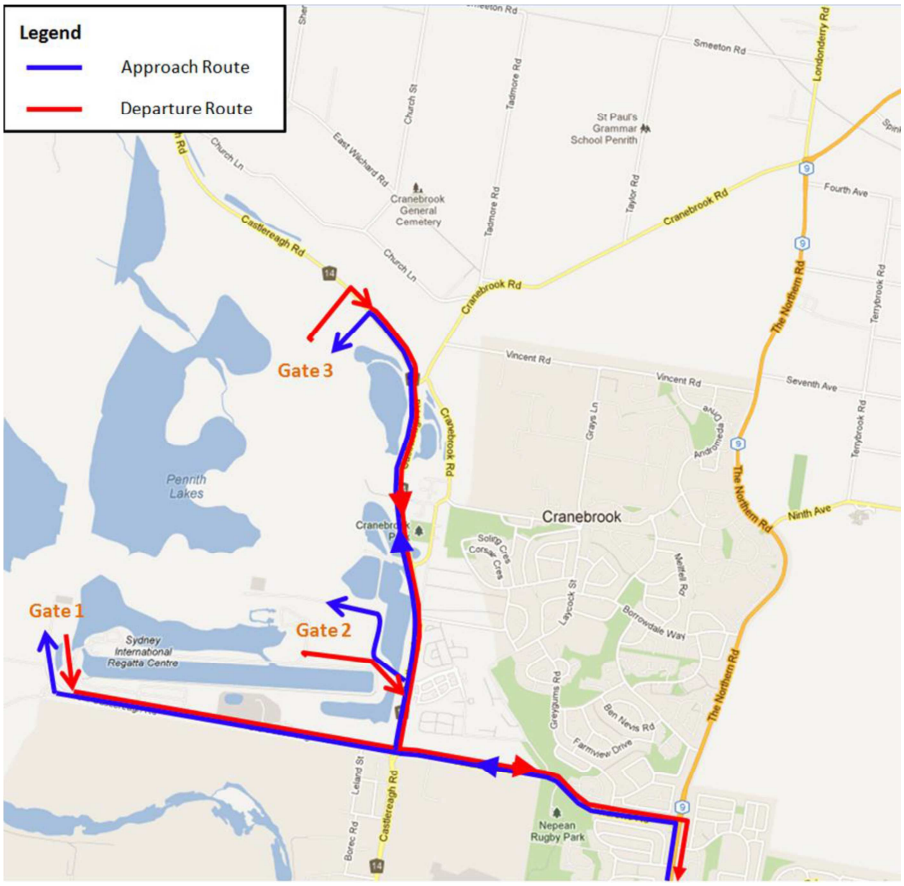

Figure 4 Vehicle Access Routes for trucks approaching from the south (Source: Arup, 2014)

Road network capacity

As the number of vehicles accessing the site falls well within the historical numbers, and extraction will be completed prior to the importation of additional fill, the proposal will have limited impact upon the existing level of service or safety of the road network.

Observations during a site inspection by the Department's representatives indicated the road network appeared to be operating with spare capacity with limited delays observed in the surrounding intersections during the morning peak period.

The EA predicts that the majority of heavy vehicle movements will avoid peak travel times. The response to submissions qualifies that vehicle movements will be evenly spread throughout the day resulting in up to 24 vehicle movements per hour with approximately half arriving from the north and south respectively. This is considered to roughly mirror the historical distribution of vehicle movements associated with quarry exports which is anticipated to have been market driven and based upon regional development to the north and south of the site. The finalisation of extraction activities and quarry exports from the site will contribute to offsetting the additional truck movements associated with the proposal.

The proposed modification will continue the use of heavy vehicles on the proposed haulage routes for a period of approximately 2.5 to 3 years based upon the applicants forecast annual traffic projections at a significantly reduced rate than experienced in the past. Given the history of extractive industries at the site since the 1960s, the continued use of the road network to facilitate rehabilitation and development of the final landform is considered appropriate and will ultimately provide benefit to the broader western Sydney community.

Road upgrades
Penrith City Council in its submission has requested consideration be given to an upgrade of Castlereagh Road to provide dual carriageway from McCarthy's Lane to Cranebrook Road and upgrade of the intersection between Castlereagh Road and the internal site access road at Gate 3.

In 2007 Castlereagh Road was realigned to the east of the site to allow for the delivery of the Penrith Lakes Scheme. The new alignment was designed and constructed with wide shoulders and good sight distances to allow for ease of expansion to dual carriageway if required based upon growth in traffic and future development in the area.

As the current modification will not result in a significant increase in the use of Castlereagh Road or place significant constraints upon the existing road capacity, there is little justification to require the upgrade of Castlereagh Road. An upgrade of Castlereagh Road would need consideration as part of the future rezoning of master-planning process for the Scheme site following careful consideration of future identified demand.

The provision of an upgraded intersection to allow for left and right turn entry to Gate 3 is proposed by PLDC to assist in managing traffic flow on Castlereagh Road and will form part of the conditions of consent for the proposed modification. A separate application has been submitted to Penrith City Council seeking approval of the intersection works.

6.2 Road Traffic Noise

A number of submissions raised concerns in regards to the impact associated with noise generated by heavy vehicles used to transport fill to the site, including comments regarding the selection of receiver locations and noise generated by the use of engine brakes.

Road traffic noise
The EA included a road noise traffic assessment undertaken in accordance with the NSW Road Noise Policy (RNP) to assess the impact of the proposal. Measured and predicted levels show that existing road traffic noise levels currently exceed RNP noise criteria of 60 dB $L_{Aeq,15hr}$ at all receivers except for those on Old Castlereagh Road (Receiver 1) and Castlereagh Road north of Cranebrook Road (Receiver 4). The RNP considers that where existing traffic noise levels are already above the assessment criteria, an objective is to protect against excessive decreases in amenity as the result of the project and a 2 dB increase is considered a barely perceptible and therefore a minor impact.

The applicant's road traffic noise assessment was based on the anticipated increase in vehicle numbers presented within the traffic impact assessment. The noise modelling indicated increases of typically less than 2 dB at all receiver locations which is consistent with the NSW RNP assessment criteria.

A small exceedance in criteria occurs on Old Castlereagh Road, which predicts an increase of 3 dB over the existing road traffic noise and 1 dB over the RNP criteria. It has been observed that these properties are provided with double brick façade construction and window shutters. This may have been the result of earlier mitigation measures relating to previous quarry operations. As these dwellings have considerable acoustic protection already installed, application of a 15dB correction factor would result in internal noise levels equivalent to the RNP criteria.

It is noted that the occupiers of these properties on Old Castlereagh Road have not made objections to the proposed modification and the EPA made no comment in regards the

application of the RNP criteria in its submission. The road traffic noise impacts associated with the proposal are considered acceptable.

Receiver Locations

A submission received from a local resident expresses concern regarding the adequacy of the location of Receiver 4 in the EA to provide a true representation of noise impacts to residents living in the vicinity of the intersection of Cranebrook Road and Vincent Roads. This intersection is located more than 400m from the boundary of the Penrith Lakes site.

The acoustic assessment provided with the EA has considered the impact of road traffic noise on residential properties adjacent to the site boundary. A total of four receiver locations were selected to provide sufficient representation of the typical locations likely to be impacted by heavy vehicle movements associated with proposed operation. The Department considers the identification of receiver locations for this assessment to be adequate.

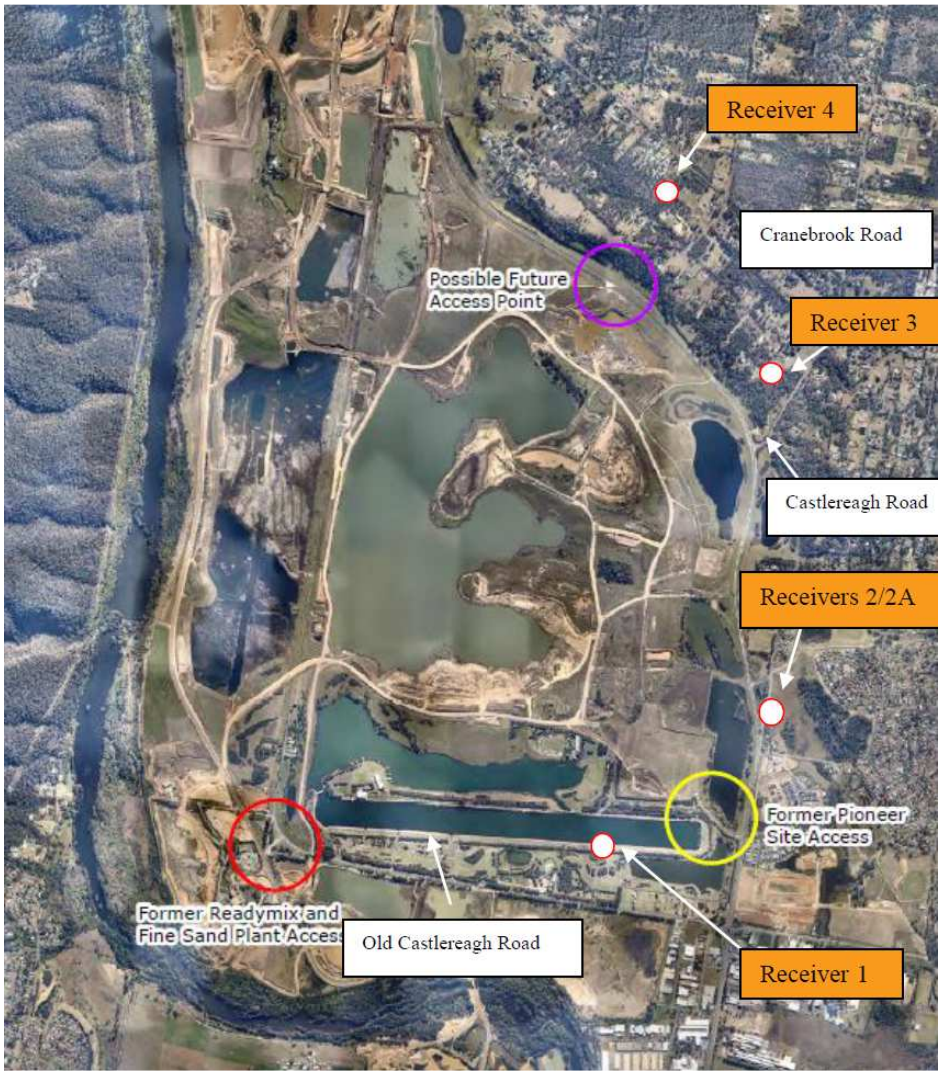

Figure 5 Overview of receiver locations (source Arup, 2014)

Internal haulage movements
Noise emissions associated with internal haulage within the Scheme boundary are regulated by an Environment Protection Licence (EPL) and consent noise limits based upon recent compliance monitoring. Internal haulage is anticipated to be considerably reduced following the completion of extraction activities and haulage associated with additional VENM and ENM extraction is expected to continue to fall within the consent limits. Ongoing compliance monitoring will be continued in accordance with EPL requirements.

Hours of operation
The EPA has recommended operation hours in accordance with the Interim Construction Noise Guideline between 7:00 am and 6:00 pm Monday to Friday and 8:00 am until 1:00 pm on Saturdays be adopted for the proposal. The applicant has requested that these hours be extended to allow for haulage to commence at 7:00 am on Saturday mornings consistent with the existing consent conditions.

The importation of VENM and ENM is required as part of the rehabilitation of an operational quarry and is not considered a construction activity. The consent conditions under each applicable DA include specified hours for rehabilitation activities commencing from 7:00 am Monday to Saturday and the previous approval for VENM importation from February 2014 included recommended hours from 7:00 am to 1:00pm on Saturdays. It is considered that there are no key drivers to alter the current approved hours within the consent which are considered appropriate for the proposed modification. Maintaining consistent hours of operation will allow for auditing of truck movements in accordance with a consistent set of conditions. It will also reduce the potential for queuing of trucks in the surrounding road network prior to being permitted to enter the site.

6.3 Flooding

Submissions received raised the absence of a detailed flood assessment as a part of the EA and potential for the additional fill imported to the site to restrict the implementation of the Water Management Plan for the scheme, a key issue of concern.

The additional VENM and ENM is required by PLDC in order to meet the final landform approved as a part of the development of Two Year Plans for the Scheme. The Two Year Plans were developed in parallel with the preparation of an updated Water Management Plan for the Scheme's operation. The Water Management Plan includes a series of weirs and flow paths between the interconnected lakes to control flood waters within the lake system for flood events up to the 100 year Average Recurrence Interval (ARI).

The finished surface levels that have been previously approved within the two year plans are consistent with terrain that was subject to extensive flood modelling in the updated Water Management Plan. The proposed importation of VENM and ENM to enable construction of approved landforms is consistent with the landform terrain that has been extensively modelled as part of the approved Water Management Plan for the Scheme. Given there are no proposed changes to the approved landform, an updated flood assessment is not considered necessary.

6.4 Environmental Management

A number of submissions raised concerns in regards to the need for appropriate environmental management including the appropriate testing and classification of VENM and ENM imported to the site and appropriate sediment and erosion controls to minimise the potential for transport of the imported material from the site.

All material imported to the site will be pre-classified as either VENM or ENM and should consist of natural material that has been excavated from the ground and does not contain contaminated material (including asbestos) or sulfidic material.

Classification of VENM and ENM will be undertaken by qualified environmental consultants prior to import in accordance with the new Waste Classification Guideline: Part 1 Classifying Waste, EPA 2014.

Testing and reporting requirements will apply to the proposed works in accordance with the Resource Recovery Order issued under clause 93 of the *Protection of the Environment Operations (Waste) Regulation 2014* ("The excavated natural material order 2014") and the Resource Recovery Exemption issued under clauses 91 and 92 of the *Protection of the Environment Operations (Waste) Regulation 2014* ("The excavated natural material exemption 2014"). Validation of each source location for VENM/ ENM that is to be used for the proposal is required to be provided before material is accepted onto the site.

Erosion and sediment controls will continue to be implemented in accordance with the approved Two Year Plans for the scheme which include detailed prescriptions for the establishment of suitable groundcover and scour protection on drains and waterways. PLDC has also advised that it is in the process of compacting sandstone on internal haul roads in to create all weather access within the site and to minimise the potential for mud-tracking from haulage vehicles onto the public road system.

6.4 Other issues

The Department is satisfied that the other potential environmental impacts associated with the proposed modification (ie air quality, flora and fauna, Aboriginal and non-Aboriginal heritage, landscape and visual amenity are generally negligible and can be managed by PLDC's existing consent conditions to ensure an acceptable level of environmental impact. These issues are summarised in Table 3 below.

Table 3 Other issues

Issue	Consideration
Air quality	The EA contains an air quality assessment which considers the impact of vehicle emissions and dust generation associated with the proposal. Predicted levels of vehicular emissions and deposited dust for the proposed VENM and ENM transportation are predicted to fall within relevant air quality criteria. Ongoing management and monitoring in accordance with existing consents and EPL will ensure the Scheme continues to comply with relevant criteria.
Flora and fauna	All activities associated with the proposed modification will occur within previously disturbed sites as part of the overall rehabilitation of the Scheme. The importation of VENM and ENM is required to achieve the approved final landform and will be revegetated in accordance with the prescriptions in the approved Two Year Plans which have been prepared in accordance with the Penrith Lakes Land Rehabilitation Manual and a Natural Heritage and Biodiversity Master Plan for the site.
Aboriginal and non-Aboriginal heritage	The Penrith Lakes site has been quarried for many years and is heavily disturbed. Areas of known or potential Aboriginal and European heritage have been managed to ensure any relic or other significant find is protected, recorded and preserved if possible. Earlier approvals issued to PLDC since 1982 have required considerable research and documentation of the site's heritage. The Department is satisfied that measures already adopted by PLDC to protect known heritage items in and around the site will be suitable to accommodate the proposed modification.

Landscape and visual amenity	The landscape of the site has been altered over time through extraction activities, lake formation and the construction of roads and other infrastructure. The works are being undertaken to meet the final landform requirements for the rehabilitation of the site and existing bunding will limit the visual impacts associated with internal transport and haulage during the rehabilitation process.
Implementation of mitigation measures	The statement of commitments contained within the EA and all conditions included in the instrument of modification as recommended will form part of the conditions of consent for the proposed modifications for DA2, DA3 and DA4.

7. CONCLUSION

The Department has assessed the proposed modification in accordance with the requirements of the EP&A Act. This assessment concluded that the proposed modification can be carried out with minimal environmental impact.

Consequently the Department believes the proposed modification is in the public interest and should be approved subject to the conditions recommended in the Instrument of Modification at **Appendix A**.

8. RECOMMENDATION

It is recommended that the Executive Director, Infrastructure and Industry Assessments:

a) **Consider** the findings and recommendations of this report;
b) **Approve** the proposed modifications under section 75W of the *Environmental Planning and Assessment Act 1979*; and
c) **Sign** the attached Instruments of Modification to DA2, DA3 and DA4 (**Tags A, B and C**).

Chris Wilson
Executive Director
Infrastructure and Industry Assessments