ENVIRONMENTAL ASSESSMENT

SECTION 75W MODIFICATION (3)

DA 267-11-99

HODGSON QUARRY PRODUCTS PTY LTD

ROBERTS ROAD

MAROOTA

17 May 2015

NEXUS
Environmental Planning Pty Ltd

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ROBERTS ROAD

MAROOTA

Prepared by:
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TABLE OF CONTENTS

FIGURES

APPENDICES

STATEMENT OF VALIDITY

Submission of Environmental Assessment

Prepared under Section 75W of the Environmental Planning and Assessment Act 1979

Environmental Assessment prepared by

Name:	Neil Richard Kennan
Qualifications:	B.A., Dip. Urb. & Reg. Plan., Dip. Cart., Ord 4. Certified Practising Planner
Address:	PO Box 212 **CONCORD NSW 2137**
In respect of:	Section 75W Modification No.3 of Development Consent No.267-11-99

Applicant and Land Details

Applicant name:	Hodgson Quarry Products Pty Ltd
Applicant address:	PO Box 1778 **GOSFORD NSW 2250**
Land to be developed:	Lots 1 & 2, DP 228308 and Lot 2, DP 312327 Roberts Road MAROOTA NSW 2756

Environmental Assessment	An Environmental Assessment is attached

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Statement of Validity

I certify that I have prepared the contents of this Environmental Assessment in accordance with the 29 May 2014 Secretary's Requirements and that, to the best of my knowledge, the information contained in the Environmental Assessment is neither false nor misleading.

Signature: 

Name: Neil Kennan

Date: 17 May 2015

EXECUTIVE SUMMARY

INTRODUCTION

Hodgson Quarry Products operates an extractive industry at Roberts Road, Maroota pursuant to Development Consent 267-11-99 (**the Consent**) issued by the then Minister for Urban Affairs and Planning.

Modification (2) to the Consent proposes to both regularise the existing extraction operation and to extend the life of the approved extraction. The Draft Environmental Assessment for Modification (2) has been submitted to NSW Planning and Environment for review.

Modification (3) which seeks the approval of the Minister for the extension of extraction on the Site for 1 year, or another time frame considered appropriate, pending the resolution of Modification (2). This Environmental Assessment has been prepared on behalf of Hodgson Quarry Products pursuant to Section 75W of the Environmental Planning and Assessment Act 1979.

The objectives of the proposed Modification (3) are:

(a) To continue the supply of graded sand and gravel products suitable for use in the construction industry and specialty markets, and

(b) To continue to realise the economic potential and maximise the efficient recovery of natural resources on the Site pending the resolution of Modification (2).

THE SITE

The land to which the Consent relates (**the Site**) is:

Lots 1 & 2, DP 228308 and Lot 2, DP 312327
Roberts Road
MAROOTA

The Site is located on the northern side of Old Northern Road, at the intersection of Old Northern Road with Roberts Road. A small part of Lot 2, DP 228308, however, is located on the southern side of Old Northern Road, however, that part of Lot 2, DP 228308 was never part of the proposed extraction and, for the purposes of preparation of information below, that section of Lot 2, DP 228308 has been discounted.

Access to the Site is via Roberts Road.

The land is within The Hills Shire Council local government area and is zoned RU1 Primary

Production pursuant to The Hills Local Environmental Plan 2012.

DEVELOPMENT CONSENT No.267-11-09

The Minister for Urban Affairs and Planning, by Notice of Determination dated 31 May 2000, granted consent to DA 267-11-99 subject to conditions.

A Notice of Modification (Modification (1)) dated 29 November 2000 was issued by the then Minister for Urban Affairs and Planning.

The Consent, as modified, permits:

(a) development for the purposes of an extractive industry on the Site, in accordance with details contained in the Environmental Impact Statement (**EIS**) prepared by Nexus Environmental Planning Pty Ltd, dated 1999 as submitted with the development application;

(b) extraction in accordance with an extraction plan prepared by Woodward Clyde which details both the sequence and depth of extraction, and

(c) extraction in accordance with the modified method of extraction as detailed in the documents prepared by Dick Benbow & Associates which were submitted with the Modification (1) application.

MODIFICATION (2)

Hodgson Quarry Products is currently seeking the approval of the Minister for Planning to modify the Consent as follows.

Dam Construction

Part of the Consent was for the continued construction of a water supply dam on the Site, that dam being required to provide sufficient water to maintain the life of the approved extraction.

The approved dam was to be constructed in two (2) stages, details of which were described in the EIS which accompanied the application for extraction.

During the construction of the approved dam, the applicant has determined that the construction process would be better served if the dam were to be constructed in three (3) stages rather than the approved two (2) stages. It is proposed to amend the consent to modify the dam construction process accordingly.

Sequence of Extraction

There is an approved sequence of extraction of the Site.

During the extraction process, it has been determined that the approved method of extraction is neither an economic nor practical way to achieve that extraction.

It is proposed to modify the approved sequence of extraction to reflect that which is now being undertaken on the Site such that the most efficient means of extracting the material on the Site is achieved.

Extraction Process

The approved extraction was to be undertaken in accordance with the method of extraction described in Modification (1) to the Consent where a *"Pumping Unit"* method of extraction was to be employed.

Since commencement of the extraction, it has been determined that the approved *"Pumping Unit"* method of extraction is not a practical means by which the resource can be extracted.

While the general concept of the *"Pumping Unit"* method of extraction remains, it is proposed to modify the Consent to regularise the existing method of extraction.

Approved Volume of Material to be Extracted and Life of the Consent

The EIS relating to the Consent provided details of the sequence of extraction, the volume of material to be extracted from each cell, and the time for that extraction to be completed, those data having been provided by Woodward Clyde as part of the mine plan prepared for the approved extraction.

It has become apparent that the volume calculations undertaken by Woodward Clyde are flawed in that they do not provide accurate volumes of the material present on the Site.

To establish a more accurate figure of the volume of material contained on the Site, VGT Environmental Compliance Solutions (**VGT**) has undertaken detailed volume calculations utilising survey data obtained in December 2013. Using a computer generated model of the Site, VGT has determined that there is 4,607,822m^3 of material on the Site compared to the 2,144,000m^3 calculated by Woodward Clyde.

Advice from the applicant is that a conservative estimate of 2 tonnes per m^3 should be applied to determine the tonnage of material on the Site. Applying that conversion rate, there is 9,215,644 tonnes of material on the Site. The applicant has advised that a figure of 60% sand to 40% clay/gravel is generally obtained. As such, 5,529,386 tonnes of the volume calculated by VGT would be sand product.

The applicant has advised that approximately 1,000,000 tonnes of sand has been exported from the Site during the life of the extraction to date which means that approximately 4.5 million tonnes of sand product remains to be extracted.

In light of the above, Modification (2) seeks approval to extend the life of the extraction from 31 May 2015 to 31 May 2025.

MODIFICATION (3)

As detailed above, one of the modifications to the Consent proposed in Modification (2) is that the life of extraction on the Site be extended from 31 May 2015 to 31 May 2025.

The assessment process for Modification (2) has been such that the collection of a complex level of empirical detail which has been required with regard to groundwater, acoustic and air quality impacts has been such that the timeframe originally expected for the completion of the Environmental Assessment has been significantly exceeded. As such, the assessment of Modification (2) by the Department of Planning and Environment and other agencies involved in that assessment will not be completed by 31 May 2015.

If extraction activity ceases on 31 May 2015, pending the resolution of Modification (2), there would be an hiatus in the provision of Maroota Sand to the Sydney construction industry. In addition, less than half of the Site has been extracted, and, as such, it would be impossible to rehabilitate the Site in accordance with the Consent until such time as the Site is fully extracted as per the Consent. In order to cause the least disruption to the operation of the existing extraction, the continued employment of workers at the Site, and to maintain the supply of Maroota Sand to the local market, Modification (3) has been submitted to extend the existing extraction of the Site for a period of up to 12 months while Modification (2) is comprehensively assessed and determined.

It is proposed that the extended period of extraction proposed as Modification (3) would allow the continued extraction of the Site in accordance with the current Consent as modified.

Part of the Environmental Assessment process for Modification (2) has been determined that the wet weather groundwater level of the Site is higher than that predicted in the original EIS. As such, it is proposed that the continued extraction of the Site as proposed in Modification (3) would not involve extraction within 2 metres of the newly assessed groundwater level of 183.1m AHD.

CONCLUSION

Modification (2), with commitments in place, would ensure that a valuable resource is utilised to its economic capacity and ensure that the Site would be rehabilitated to be consistent with the agricultural landscape of the area.

Proposed Modification (3) would allow for the continued extraction of the Site as per the Consent pending the resolution of Modification (2). There would be no significant impact to the environment of the Site and the locality resulting from approval of Modification (3).

Part One

INTRODUCTION

1.1 Introduction

Hodgson Quarry Products operates an extractive industry at Roberts Road, Maroota pursuant to Development Consent 267-11-99 (**the Consent**) issued by the then Minister for Urban Affairs and Planning.

It is proposed to modify the Consent to extend the life of the approved extraction on an interim basis pending the completion of the assessment of Modification (2) to the Consent which is currently in draft form with NSW Planning and Environment.

1.2 The Site

The land to which the Consent relates (**the Site**) is:

Lots 1 & 2, DP 228308 and Lot 2, DP 312327
Roberts Road
MAROOTA

The Site is located on the northern side of Old Northern Road, at the intersection of Old Northern Road with Roberts Road. A small part of Lot 2, DP 228308, however, is located on the southern side of Old Northern Road, however, that part of Lot 2, DP 228308 was never part of the proposed extraction and, for the purposes of preparation of information below, that section of Lot 2, DP 228308 has been discounted.

Access to the Site is via Roberts Road.

The land is within The Hills Shire Council local government area and is zoned RU1 Primary Production pursuant to The Hills Local Environmental Plan 2012.

The land has been extensively disturbed by the extraction.

The Site is owned by:

- Dr Leonard Stanley Martin.

Figure 1.1 shows the Site location. **Figure 1.2** shows the Site in more detail. **Figure 1.3** is a plan showing the cadastral details of the Site and surrounding land and **Figure 1.4** is an aerial photograph of the Site.

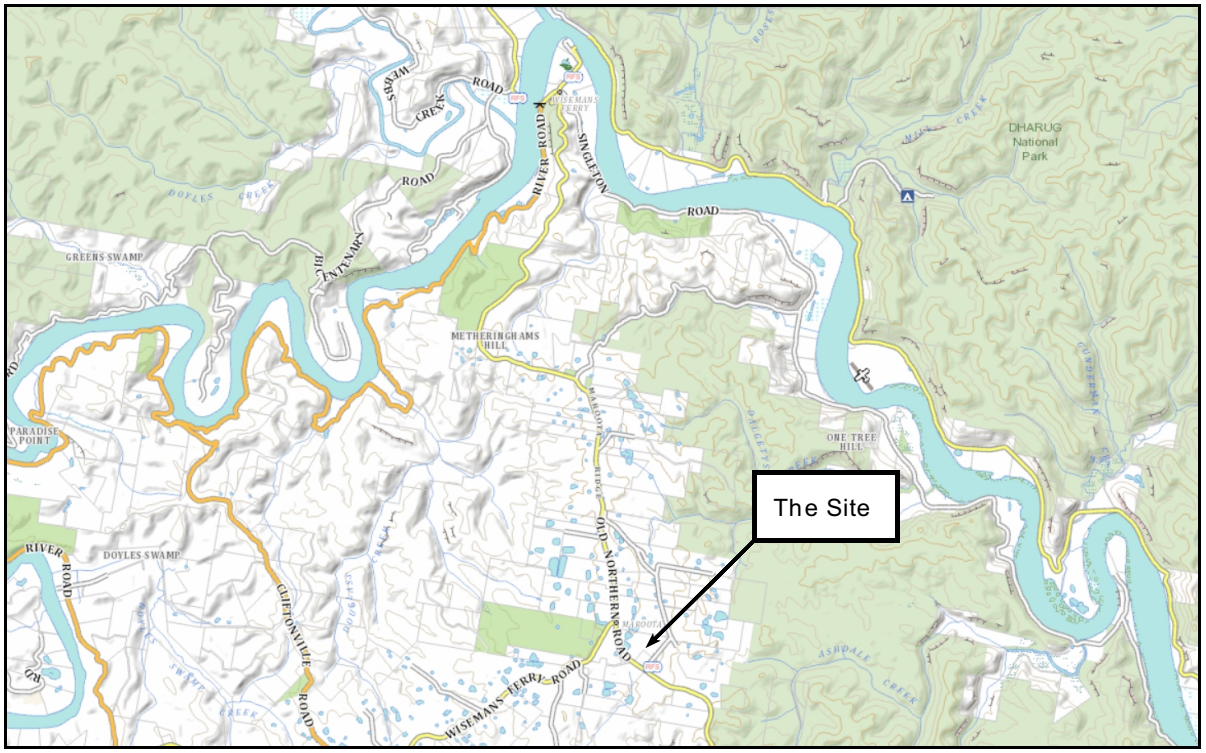

Figure 1.1: Regional Location of the Site.

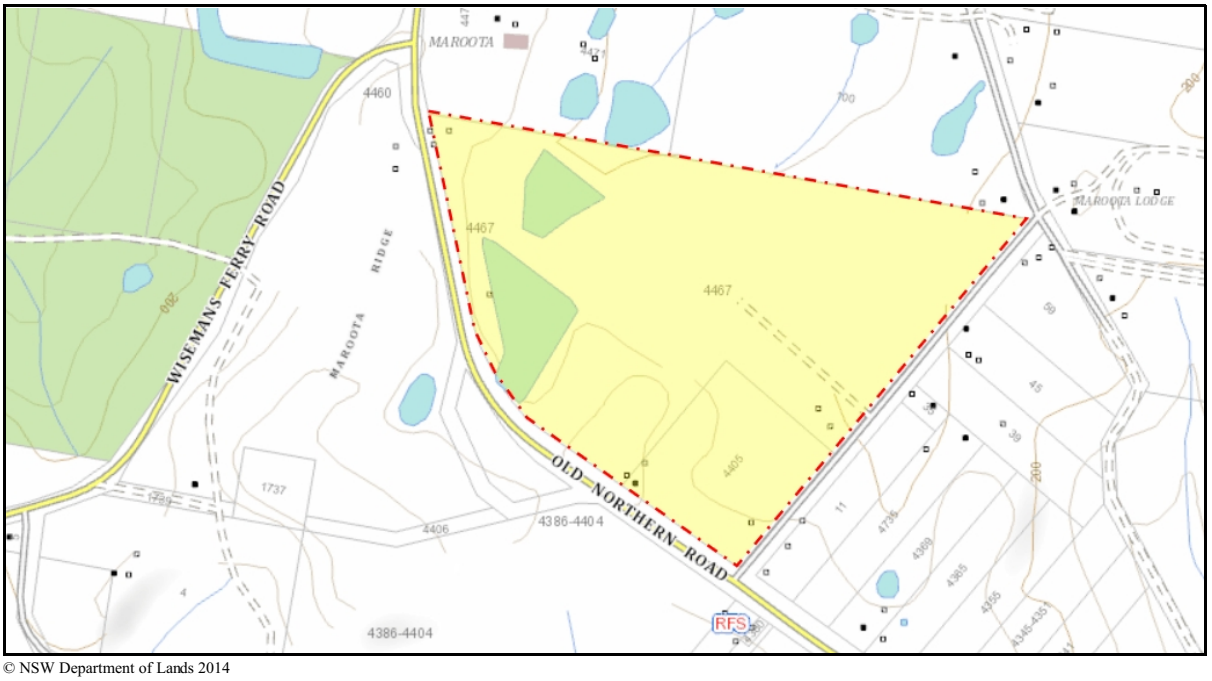

Figure 1.2: Site location highlighted in yellow.

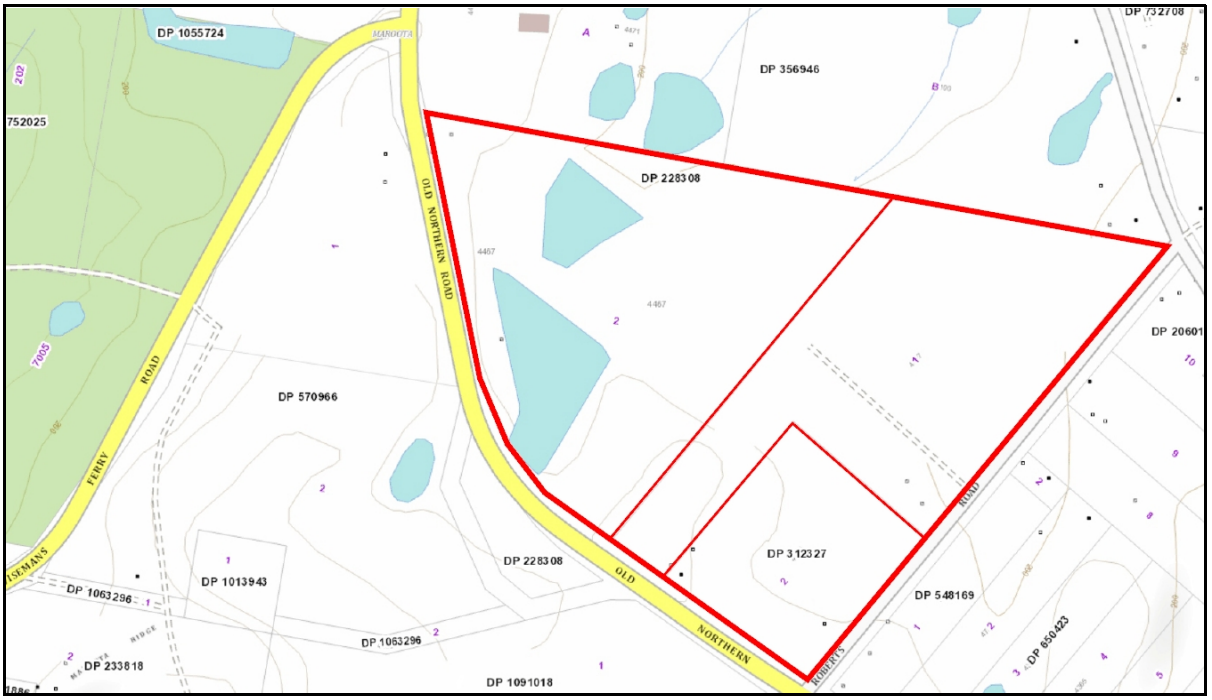

Figure 1.3: Cadastral details of the Site and surrounding land.

Figure 1.4: Aerial photograph showing the boundary of the Site.

1.3 History of the Site

Prior to extraction, the Site had been used for agriculture and, in particular, as an orchard and plant nursery. The north western corner of the Site remains in use as a plant nursery.

The initial "extraction activity" on the Site related to the construction of a dam which was located on the northern boundary of the Site. The construction of the dam commenced in or around 1970.

The construction of the dam was dependent on the winning of clay material from the Site to provide for a comprehensive seal of that dam. The material available on the Site is a mix of clay materials suitable for the dam construction and sand which is important in the Sydney construction market.

The clay material on the Site was separated from the sand by washing the raw product which resulted in a significant amount of sand as a by-product of the winning of the clay material for the dam construction. The by-product sand material was exported from the Site to the Sydney construction market.

Notwithstanding the construction of the dam on the Site, the then Baulkham Hills Shire Council (**the Council**) commenced Class 4 proceedings in the Land and Environment Court which was based on the opinion of the Council that the construction of the dam was unlawful in that is was an unapproved extractive industry.

The Land and Environment Court, by Orders dated 29 May 1991, permitted the continuation of the construction of the dam. Order No.3(g) of the Court Orders stated:

> *(g) The construction of the dam and rehabilitation of the surrounding area is to be completed within ten (10) years. The respondent may apply to the Council for an extension of the period of time specified setting out reasons and the applicant Council shall give such application due and proper consideration.*

Having regard to the above Order No.3(g), the construction of the dam and the rehabilitation of the surrounding area was required to be completed by 29 May 2001, unless an extension of that period was granted.

It was always intended that the construction of the dam would cease on the granting of consent for the extraction of the remaining sections of the Site not covered by the Court Orders. In this regard, a Development Application (No.90/108) and an accompanying Environmental Impact Statement (**EIS**) were lodged with the Council for an extractive industry covering that part of the Site where sand and clay materials were to be extracted for the construction of the dam.

The Executive Summary to the EIS which accompanied Development Application No.90/108 states:

The landholders, Dr Martin and the Warrah School Society now require to extract the Maroota Sand deposit within an approximately rectangular area of about 16 ha. This area comprises the easternmost two thirds of the subject lands. Although there is in excess of 2 million cubic metres of commercial sand on the total site this application, which is partly aimed at regularising past operations addresses only the first stage of extraction. In this stage a total volume of about 300,000 m^3 of Maroota sand will be removed, processed into construction sand and aggregate and transported from the site over a 5 year period.

By Notice of Determination dated 7 November 1990, the Council consented to Development Application No.90/108 for the operation of an extractive industry on the Site, subject to a number of conditions.

It had been the intention to extract sand in accordance with the abovementioned approval such that sufficient funds could be generated to prepare a second EIS and Development Application which would seek the approval of the Council for the extraction of the remaining sand resource on the Site. The commencement of the approved extraction operation was, however, dependant upon the completion of the water supply dam the subject of the Court Orders. The water supply was required in order to sustain sufficient water supply on the Site to wash the clay from the material won from the approved extractive operation.

In the years which followed, a number of events occurred which led the Council to conclude, rightly or wrongly, that Consent No.90/108 had not been commenced and, as such, the consent had lapsed. This was essentially due to the fact that the dam construction had not been fully completed to allow extraction to occur.

Following protracted discussions with the Council as to whether the consent had or had not lapsed, Dr Martin, the landowner, indicated to the Council that he would not, at that point in time, pursue that Consent further pending approval of a further Development Application for extraction of sand from the entire Site.

On 22 November 1999, an application for extraction of sand from the Site was submitted to the then NSW Department of Urban Affairs and Planning pursuant to the then State Significant Development provisions of the Environmental Planning and Assessment Act 1979. The application was DA 267-11-99. The EIS which accompanied that application stated:

Future extraction operations will involve the excavation, washing and screening of the Maroota Sand using the same process plant as per the existing operation. The proposed excavation will cover the majority of the site, some 23 ha, allowing for boundary buffer zones .....

Production objectives are demand related, however, a maximum sand production rate of 1000 t/day has been used for the extraction plan.

Future extraction operations are to involve the following:

- *Materials are to be excavated using a self-loading scraper and transported to the process plant. In areas where the underlying material cannot be effectively excavated using the scraper, the surface would be initially ripped using an excavator and in exceptional circumstances using a dozer.*

- *Process water for washing/screening will be primarily sourced from a water dam constructed at the location of the existing excavation pit (adjacent to the northern boundary). The existing pump-out facility will be utilised.*

- *Processed material is to be stockpiled adjacent to the plant area prior to transportation off-site generally using articulated trucks. A front-end loader is to be used to load the trucks.*

- *The residue clay/silt slurry is to be delivered by pipeline to designated drying areas in the previously extracted cell where it is spread in thin layers to dry. Liberated water will be drained into the water dam for re-use in the process plant. The clay materials will be used for the rehabilitation of the extracted areas.*

- *The materials are to be sequentially extracted in "cells" commencing along the northern boundary (adjacent to the process water dam) and working towards the southern boundary (to Old Northern Road). Each cell will be approximately 200 m x 50 m wide (1 ha in area) which provides sufficient area for the machinery to load and manoeuvre within each cell. The extraction process will minimise the disturbed area (i.e. the area exposed to erosive processes) and enable rehabilitation procedures to commence during operations.*

- *Each cell will be progressively rehabilitated (following extraction of the sand materials) involving surface contouring and replacement of a suitable growth medium/topsoil layer to enhance revegetation.*

Extraction within the site will be undertaken in two stages as follows:

Stage 1 Area *located to the east of the catchment divide (i.e. the process water dam catchment), occupying a total area of approximately 16.5 ha, and*

Stage 2 Area *located to the west of the catchment divide (i.e. the catchment of the two existing water dams for the nursery), occupying a total area of approximately 6.5 ha.*

Extracts from *"Figure 12: Proposed Water Dam Layout*, *Figure 15:Cell 1A Extraction"* and *"Figure 21: Final landform Contours"* of the EIS which accompanied DA 267-11-99 are **Figure 1.5, 1.6 & 1.7** below. Figure 1.5 shows the location of Stage 1 and Stage 2 of the then proposed extraction.

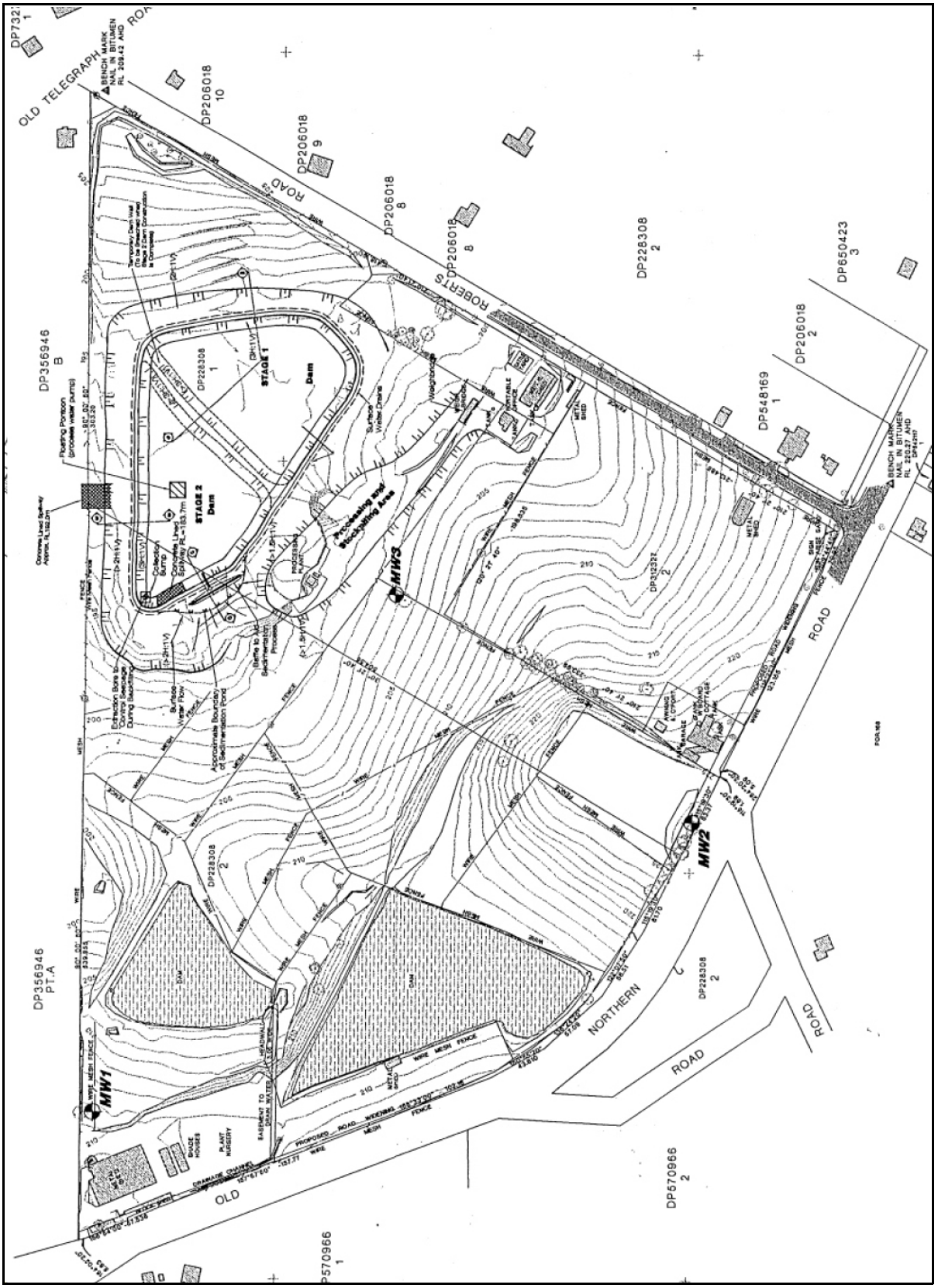

Figure 1.5: Extract from Figure 12 of the EIS which accompanied DA 267-11-99 showing the then proposed dam layout.

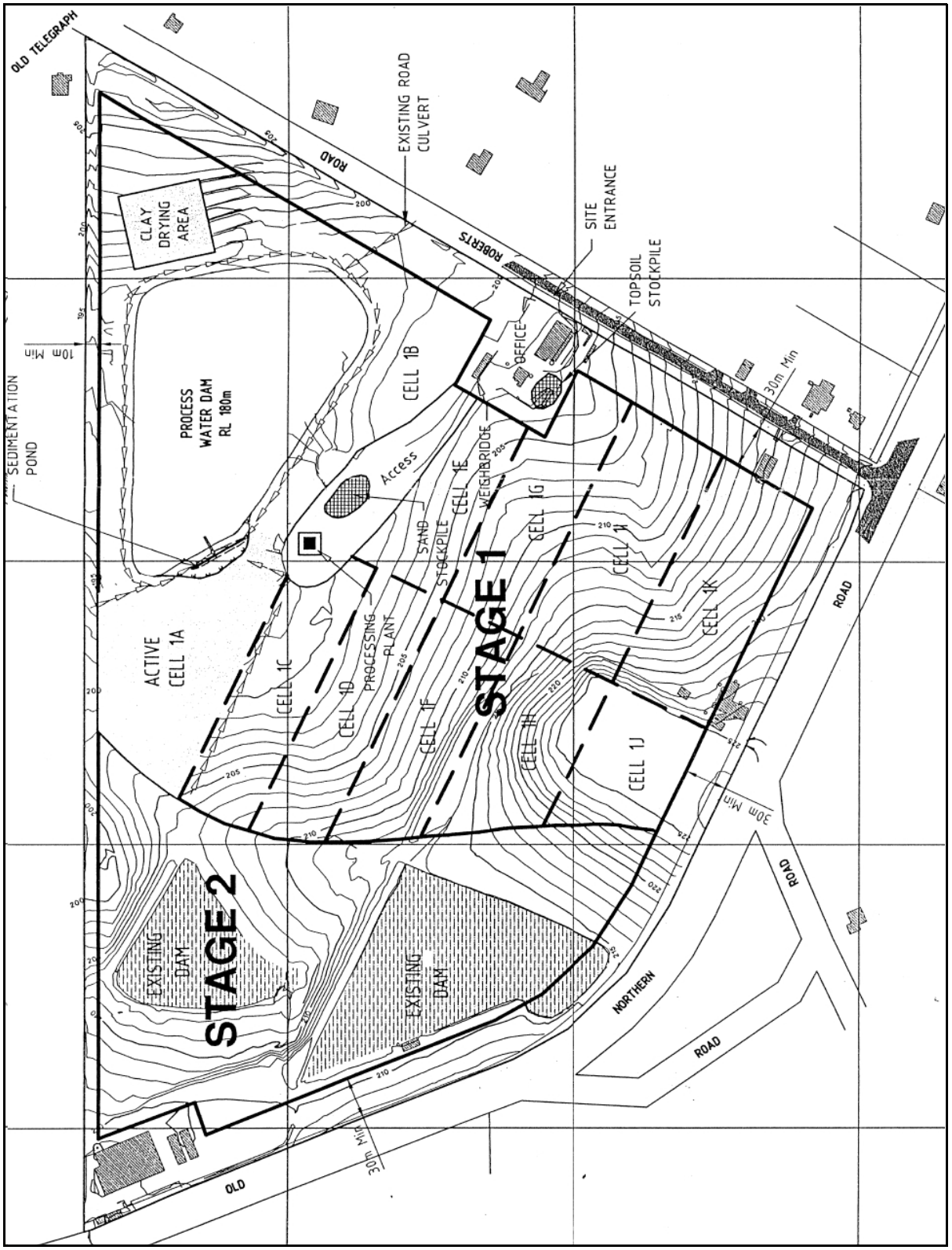

Figure 1.6: Extract from Figure 15 of the EIS which accompanied DA 267-11-99 showing Stage 1 and Stage 2 of the approved extraction and the location of the Cells of extraction for Stage 1.

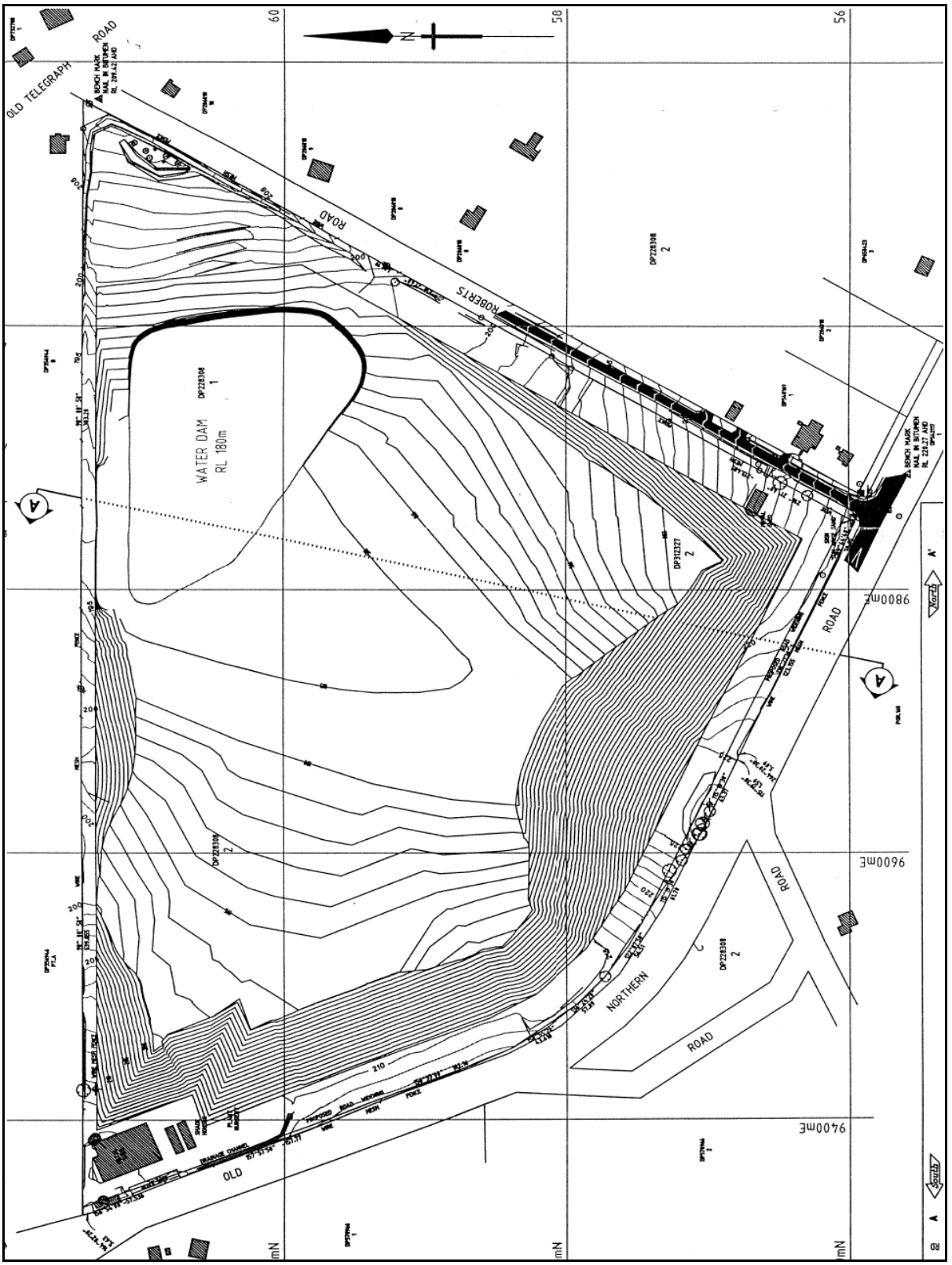

Figure 1.7: Extract from Figure 21 of the EIS which accompanied DA 267-11-99 showing the approved final landform.

Of particular note is the fact that the development proposed in DA 267-11-99 included the continuation of the construction of the dam on the Site.

The Minister for Urban Affairs and Planning, by Notice of Determination dated 31 May 2000, granted consent to DA 267-11-99 subject to conditions. A copy of the consent is at **Appendix 1.** As such, the construction of the dam on the Site was now included in this consent.

Of particular importance was Condition No.9 which stated:

> *9. The duration of extraction under this Consent is for a maximum period of 15 years. The Applicant shall ensure that rehabilitation of all disturbed areas is completed within six months of completion of extraction.*

As such, Consent 267-11-99 requires extraction on the Site to cease on 31 May 2015.

1.3.1 Modification (1) of Development Consent DA 267-11-09

On 21 July 2000, an application to modify consent DA 267-11-99 was made to the then Department of Urban Affairs and Planning pursuant to section 96(2) of the Environmental Planning and Assessment Act 1979. The planning report which accompanied the s.96(2) application stated:

> *The proximity of housing to the site of the approved extractive industry has resulted in the need for a variety of acoustic mitigation measures to be incorporated into the design of the extraction plan, not least of which is the requirement for perimeter bunding to assist in the reduction of the potential impact of noise from the extraction operation.*
>
> *..... the main generators of noise from the approved extraction will be:*
>
> - *the dredging excavator*
> - *pump adjacent to the dam*
> - *scraper*
> - *dozer.*
>
> *In order to alleviate the noise impact from the approved extraction, Condition No.8 of the development consent states, inter alia:*
>
> > *"8. No extraction shall commence in areas that are not currently subject to extraction, until the Applicant has:*
> >
> > *(a) constructed the perimeter bund wall;"*
>
> *.... In order to mitigate the potential impact from noise generated by the above*

machinery, Dr Martin has investigated an alternative means of winning the extractive material. Dr Martin, in conjunction with Sand Classifiers Pty Limited, has developed two (2) options:

1. The Genflo Injector, and

2. The Pumping Unit.

.... It is the Pumping Unit option which is now proposed by Dr Martin.

.... Sand is extracted using an excavator. The excavator would start at the natural ground surface level but would immediately dig a hole so that the excavator and processing equipment would be working against an extraction face. The extraction face provides significant noise shielding.

The excavator which will be used will be fitted with acoustic mufflers to achieve a noise level of approximately 76 dBA when measured at 7 metres. This noise level has been achieved at several similar sites with noise issues. Discussions with the potential excavator suppliers have found that this specification can be met.

The excavator loads the sand into an acoustically lined hopper. The hopper is located above a belt feeder which introduces the sand into a mixing tank. The belt drive is variable rate controlled and is powered by an electric motor.

A centrifugal electrically driven water pump will be located at the approved clean water storage dam. This pump will pump water to the mixing tank through a rubber and polyethylene pipeline. The flow rate of the clean water will be controlled so that the water level in the mixing tank remains constant.

The sand slurry is then drawn out of the mixing tank by an electrically driven slurry pump and pumped via a rubber and polyethylene pipeline to the sand processing plant.

Electricity will be supplied to the belt feeder and slurry pump from a diesel generator. The generator will be fitted with an acoustic enclosure. A design for the enclosure has been provided by Enco Noise Control Pty Ltd. The design states that a noise level below 44 dBA at 30 metres will be achieved.

The belt feeder, mixing tank, slurry pump and enclosed generator will be located on a rubber tyred trailer. This will allow the unit to be moved as the sand extraction face progresses.

.... The major benefit of the proposed pumping unit system is that sand is won from the extraction cell by means of an excavator rather than a bull dozer and/or scraper. The excavator will be fitted with a power shovel which will allow the excavator to be located on the floor of the extraction cell, thus allowing for acoustic attenuation.

The material won will be mixed with water from the approved water supply dam in a portable mixing tank located in the extraction cell. It is then transported by gravity to the processing plant by means of a pipe system. The only noise generating machinery attached to the mixing apparatus will be a diesel powered motor which will be contained in an acoustic enclosure for noise attenuation purposes.

.... The pumping unit method of extraction will provide a significant number of environmental benefits which will accrue when compared to the approved method of extraction. These benefits include:

- *elimination of the need for both the bull dozer and scraper to win the sand from the extraction cell and transport the material to the processing plant. This will provide for a significant reduction in noise generated from the site during extraction.*

- *the removal of the bull dozer and the scraper from the extraction process will mean that many of the noise mitigation measures which are now required will no longer be required to meet the requirements of the EPA. In particular, there will no longer be a need for the perimeter bunding to extend around the site .... The removal of that bunding will mean a significant improvement in the visual impact of the site when viewed from Old Northern Road, Old Telegraph Road and Roberts Road. We are of the opinion that this will be a major environmental benefit.*

- *the use of the excavator and the portable mixing apparatus will mean that a smaller section of the active extraction cell will be worked at any one time compared to the total cell being worked with the use of the scraper, thus reducing the area of the site disturbed at any one time.*

- *the removal of the need to transport the extractive material from the extraction cell to the processing plant by scraper will mean that there will be little, if any, traffic on the site other than delivery trucks entering and leaving the site. This will have a significant and positive impact on the potential of the development to generate dust.*

Of particular note is that the Modification (1) stated that:

- *the approved amount of sand to be extracted will not alter.*

- *the approved time frame for the extraction (15 years) will not alter.*

- *the approved number of truck movements (100 per day) from the site will not alter.*

- *the approved dam design and capacity will not alter.*

- *the existing processing plant configuration will not alter.*

- *the approved extraction cells proposed as part of the EIS will not alter either in their location or area. The only change will be the method of winning the material from the cells and the reduction in area of the cell disturbed at any one time.*

- *the removal of the bund walls from the perimeter of the site will mean that the visual impact will be altered but only in a positive way.*

- *the proposed landscaping of the perimeter will not alter, however, it will now not have to incorporate the perimeter bunding.*

- *the removal of the perimeter bunding will allow the better protection of both the endangered Acacia species and Blue Mountains Mahogany species located on the site.*

- *the removal of the perimeter bunding will alleviate the potential noise impact to adjoining residences during the construction of the bund wall.*

Notwithstanding the above proposal to remove the approved perimeter bunds, the s.96(2) application also included an assessment by Scott Murray & Associates of the proposed modification of the approval from a visual impact perspective. The Scott Murray & Associates report was prepared:

> *... to describe the proposed landscape changes for the Dr Martin property following the approval for the sand extraction and processing development at the site by the Minister for Urban Affairs and Planning on the 31st May, 2000.*

In this regard the following statements were made by Scott Murray & Associates:

> *The removal of the bunds as recommended ... has the potential to impact on the visual and landscaping impact of the development as amended.*
>
> *The revised extraction process .... would result in the elimination of the need for the use of dozers and scrapers on the site, thus significantly reducing noise emissions from the site during the extraction and processing process. As a direct result, the noise modelling .... report, states that: -*
>
> - *The permanent earth bunds around the perimeter of the site as recommended in the EIS will no longer be required – from a noise perspective*
>
> - *The temporary earth bunds around each extraction cell as recommended in the EIS will no longer be required – from a noise perspective*
>
> - *The wall in the processing area as recommended in the EIS will still be required – from a noise perspective*

As a result of this study it is clear that earth bunding – from a noise reduction standpoint – is not required.

However, from a visual impact viewpoint, we believe that certain earth bunding works are still required.

*.... As a consequence, it is therefore recommended – from a purely visual impact standpoint - that initial earth bunding still be implemented at the intersection of Old Northern and Roberts Road to prevent views into the site of the early stage 1 works. Plan **MP–01B** shows this revised bunding strategy. As in the previous scheme, this bunding would achieve heights of up to approximately 3 metres within the 30 metre setback, using a maximum 1:4 road-facing slope.*

*All other earth bunding previously proposed within boundary perimeter setbacks is now to be deleted as it is no longer required from either a visual impact or noise perspective. Again, plan **MP–01B** shows the current proposal.*

It should be noted that there is no alteration to the vegetation proposed within the boundary setbacks – only the deletion of the now unnecessary earth bunding.

*Plans **MP–02B – MP-05B** have been revised to reflect this current proposal.*

A Notice of Modification dated 29 November 2000 was issued by the then Minister for Urban Affairs and Planning, a copy of which is at **Appendix 2**.

Modification to Condition 2(c) of consent 267-11-99 inserts reference to the report of Dick Benbow and Associates (Report No.10065 Issue 1) dated 26 June 2000 into the Consent. The Dick Benbow and Associates report details the modified extraction process as described above.

Figure 1.8 shows the location of the processing plant and loading area.

Figure 1.9 shows the existing entrance to the Site including the location of the weighbridge.

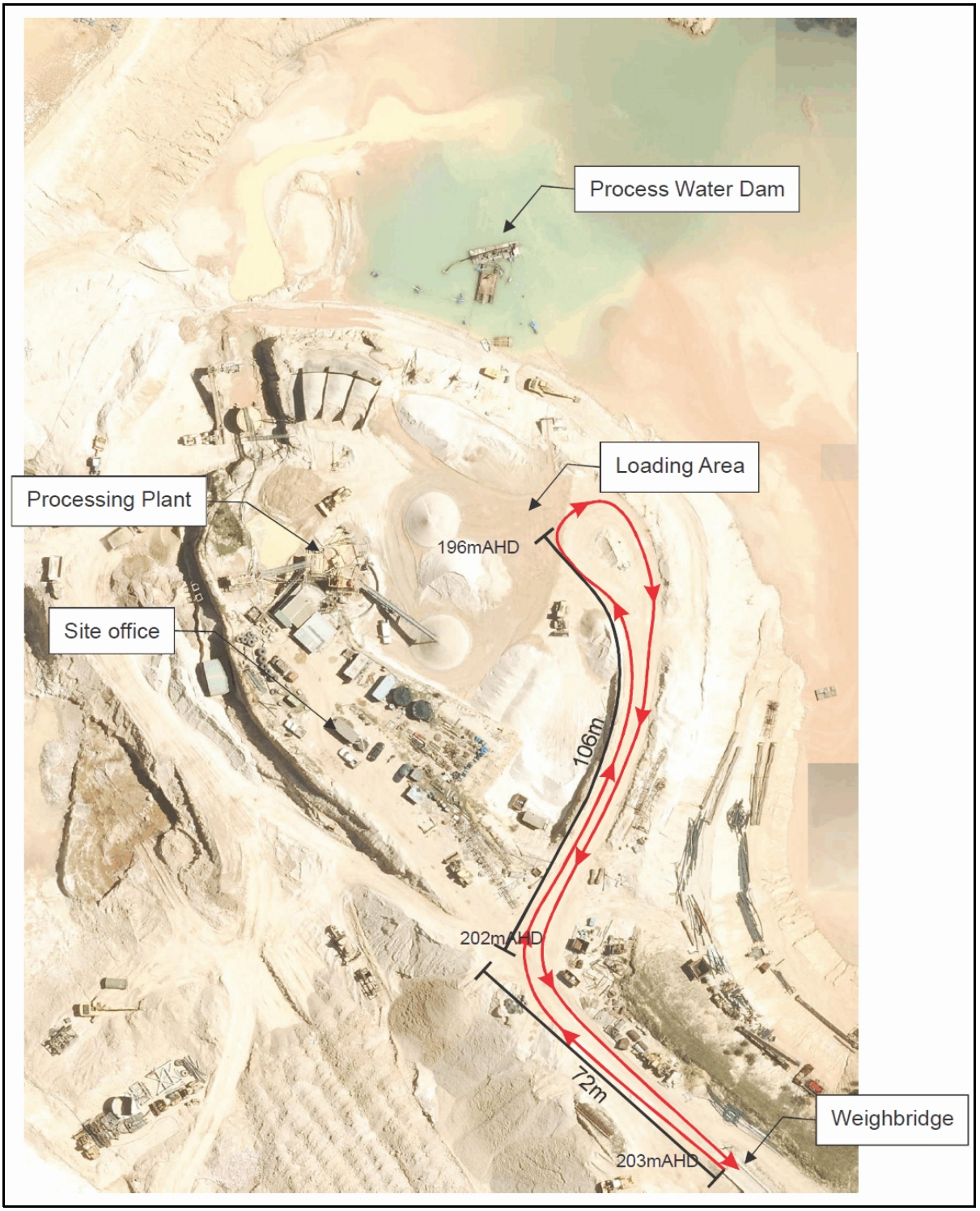

Figure 1.8: Aerial photograph showing the location of the existing processing plant and loading area together with the location of the weighbridge and process water supply source.

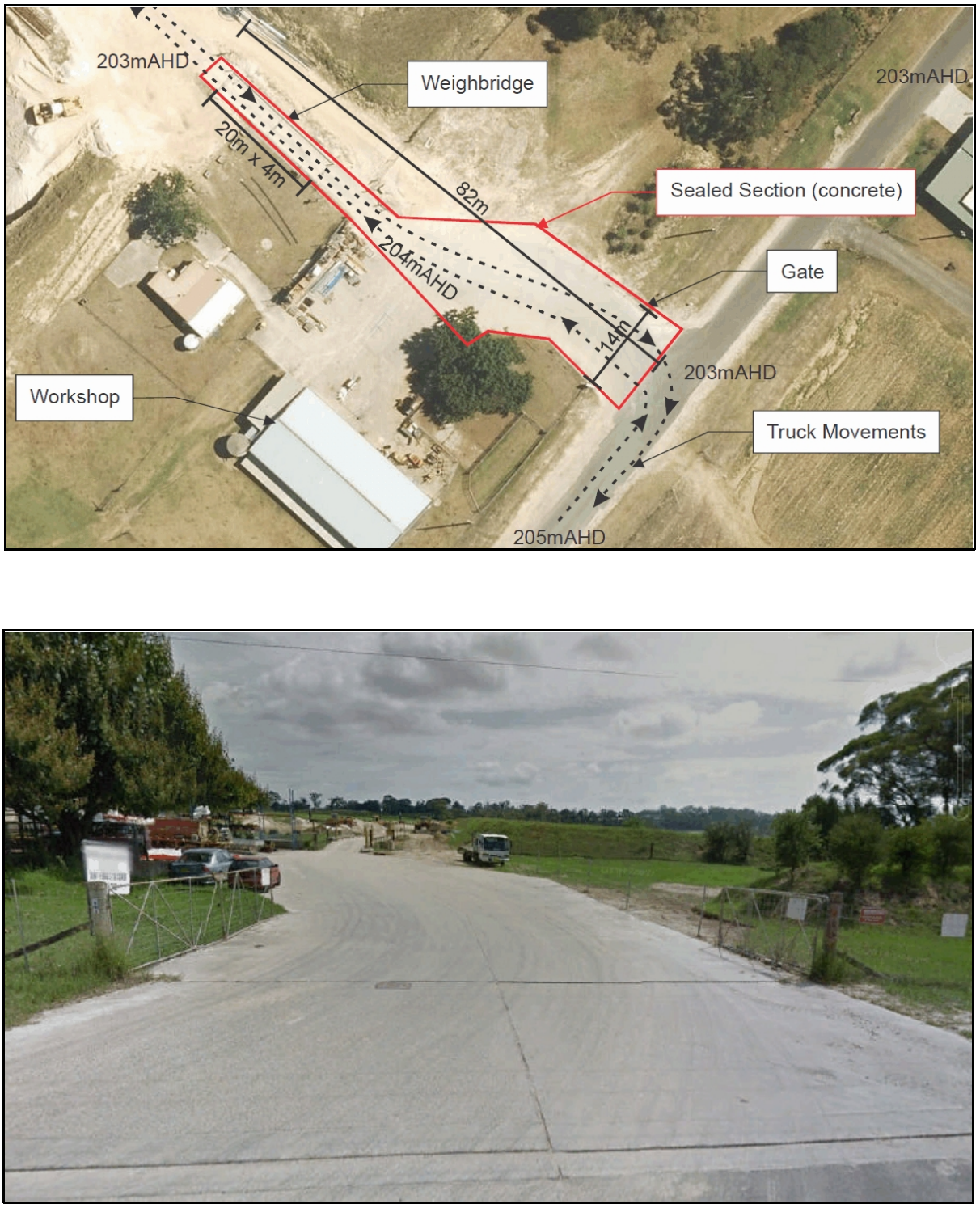

Figure 1.9: This figure shows, at the top view, an aerial photograph of the existing entrance to the Site and the existing weighbridge. At the bottom is a photograph of the existing sealed entrance to the Site with the weighbridge shown in the background of the photograph.

1.3.2 Modification (2) of Development Consent DA 267-11-09

The Consent, as modified, permits:

(a) development for the purposes of an extractive industry on the Site, in accordance with details contained in the Environmental Impact Statement (**EIS**) prepared by Nexus Environmental Planning Pty Ltd, dated 1999 as submitted with the development application;

(b) extraction in accordance with an extraction plan prepared by Woodward Clyde which details both the sequence and depth of extraction, and

(c) extraction in accordance with the modified method of extraction as detailed in the documents prepared by Dick Benbow & Associates which were submitted with the s.96(2) modification application.

Modification (2) to the Consent has been prepared and an Environmental Assessment has been prepared and is currently with NSW Planning and Environment in draft form for review. Modification (2) seeks to amend the Consent as follows.

Dam Construction

Part of the Consent was for the continued construction of a water supply dam on the Site, that dam being required to provide sufficient water to maintain the life of the approved extraction.

The approved dam was to be constructed in two (2) stages, details of which were described in the EIS which accompanied the application for extraction.

During the construction of the approved dam, the applicant has determined that the construction process would be better served if the dam were to be constructed in three (3) stages rather than the approved two (2) stages. Modification (2) proposes to amend the consent to modify the dam construction process accordingly.

Sequence of Extraction

There is an approved sequence of extraction of the Site as shown in **Figure 1.6**.

During the extraction process, it has been determined that the approved method of extraction using the cells shown in **Figure 1.6** is neither an economic nor practical way to achieve that extraction.

The existing extraction process on the Site involves a similar cell by cell extraction process to that which is approved but one which is not as rigidly defined as that portrayed in **Figure 1.6**.

Modification (2) seeks to modify the approved sequence of extraction to reflect that which is now being undertaken on the Site such that the most efficient means of extracting the material on the Site is achieved.

Extraction Process

The approved extraction was to be undertaken in accordance with the method of extraction described in Modification (1) to the Consent where a *"Pumping Unit"* method of extraction was to be employed.

Since commencement of the extraction, it has been determined that the approved *"Pumping Unit"* method of extraction is not a practical means by which the resource can be extracted.

While the general concept of the *"Pumping Unit"* method of extraction remains, there have been modifications made to that method. Modification (2) proposes to modify the Consent to regularise the existing method of extraction.

Approved Volume of Material to be Extracted and Life of the Consent

Table 4.3 of the EIS relating to the Consent provided details of the sequence of extraction, the volume of material to be extracted from each cell, and the time for that extraction to be completed, those data having been provided by Woodward Clyde as part of the mine plan prepared for the approved extraction.

It has become apparent that the volume calculations undertaken by Woodward Clyde, as detailed in Table 4.3 of the EIS, are flawed in that they do not provide accurate volumes of the material present on the Site.

To establish a more accurate figure of the volume of material contained on the Site, VGT Environmental Compliance Solutions (**VGT**) has undertaken detailed volume calculations utilising survey data obtained in December 2013. Using a computer generated model of the Site, VGT has determined that there is 4,607,822m^3 of material on the Site compared to the 2,144,000m^3 calculated by Woodward Clyde.

Advice from the applicant is that a conservative estimate of 2 tonnes per m^3 should be applied to determine the tonnage of material on the Site. Applying that conversion rate, there is 9,215,644 tonnes of material on the Site. The applicant has advised that a figure of 60% sand to 40% clay/gravel is generally obtained. As such, 5,529,386 tonnes of the volume calculated by VGT would be sand product.

The applicant has advised that approximately 1,000,000 tonnes of sand has been exported from the Site during the life of the extraction to date which means that approximately 4.5 million tonnes of sand product remains to be extracted.

Having regard to the errors in the original calculations undertaken by Woodward Clyde, Modification (2) proposes to modify the Consent based on the volume figures calculated by VGT. The EIS for the original development provided a formula to determine the rate

of extraction. Using that formula, the following applies:

- maximum 50 trucks per day (approved).
- average load per truck 33.5 tonnes.
- 1,675 tonnes per day.
- 5.5 days per week extraction = 286 days per annum.
- maximum 479,050 tonnes per annum extracted.
- 9.4 years of extraction remaining.

In light of the above, Modification (2) proposes to extend the life of the extraction from 31 May 2015 to 31 May 2025.

A fully detailed Environmental Assessment process has been undertaken as part of Modification (2) to determine the environmental impact of the modifications proposed.

During the preparation of the Environmental Assessment for Modification (2), it became apparent that there was a significant amount of data which need to be collected to determine the environmental impact of Modification (2), not least of which was the need to undertake significant assessment of the wet weather groundwater level on the Site to ensure that the proposed extension of the life of the Consent did not adversely impact on groundwater.

Since extraction of the Site commenced, policy changes have seen the introduction of the Greater Metropolitan Region Groundwater Sources Water Sharing Plan (**WSP**) (2011) and Aquifer Interference Policy (**AIP**) (2012). As part of the Modification (2), the New South Wales Office of Water requires evidence that the proposed modifications adhere to the above mentioned plans.

While Modification (2) does not seek to increase the lateral extent of the approved extraction, the proposed modification presented an opportunity to review the maximum wet weather elevation for the Maroota Tertiary Sands Groundwater Source (**MTSGS**).

The groundwater assessment which has been required for Modification (2) has concluded that the data which was originally sourced as part of the original EIS was not sufficient to meet the updated requirements the WSP and AIP.

A detailed groundwater impact assessment has been prepared as part of Modification (2) which:

1. Evaluates the approved depth of extraction (from the original EIS) in context of the proposed modification.
2. Updates the original groundwater assessment, including review of groundwater

levels to confirm the extraction depth limit.

3. Assesses the quarry modifications against the Greater Metropolitan Region Water Sharing Plan (GMRWSP) and the aquifer interference policy (AIP).

4. Outlines a strategy for groundwater monitoring and management that will ensure compliance against the WSP / AIP.

1.4 The Proposed Modification (3)

As detailed above, one of the modifications to the Consent proposed in Modification (2) is that the life of extraction on the Site be extended from 31 May 2015 to 31 May 2025.

The assessment process for Modification (2) has been such that the complex level of empirical detail which has been required with regard to groundwater, acoustic and air quality impacts has been such that the timeframe originally expected for the completion of the Environmental Assessment has been significantly exceeded. As such, the assessment of Modification (2) by the Department of Planning and Environment and other agencies involved in that assessment will not be completed by 31 May 2015.

If extraction activity ceases on 31 May 2015, pending the resolution of Modification (2), there would be an hiatus in the provision of Maroota Sand to the Sydney construction industry. In addition, less than half of the Site has been extracted, and, as such, it would be impossible to rehabilitate the Site in accordance with the Consent until such time as the Site is fully extracted as per the Consent. In order to cause the least disruption to the operation of the existing extraction, the continued employment of workers at the Site, and to maintain the supply of Maroota Sand to the local market, Modification (3) has been submitted to extend the existing extraction of the Site for a period of up to 12 months while Modification (2) is comprehensively assessed and determined.

It is proposed that the extended period of extraction proposed as Modification (3) would allow the continued extraction of the Site in accordance with the current Consent as modified.

Notwithstanding, as part of the Environmental Assessment process for Modification (2), is has been determined that the wet weather groundwater level of the Site is higher than that predicted in the original EIS. As such, it is proposed that the continued extraction of the Site as proposed in Modification (3) would not involve extraction within 2 metres of the newly assessed groundwater level of 183.1m AHD.

Part Two

IMPACT OF THE PROPOSED MODIFICATION (3)

2.1 Existing Impacts

As shown in **Appendix 1** and **Appendix 2**, the existing extraction activity on the Site is subject to a number of conditions relating to, among other things:

- Air quality impact
- Acoustic impact
- Impact on groundwater
- Traffic management
- Soil and water management
- Site rehabilitation
- Hours of operation
- Water quality
- Independent auditing
- A complaints register.

The operation of the existing extraction has occurred such that the general requirements of the conditions of consent have been adhered to and the independent auditing has determined that impacts to the surrounding environment have been in accordance with the requirements of the conditions of consent. This has been confirmed by the lack of complaints during the operation of the existing extraction.

2.2 Impacts Associated with Modification (3)

The extension of extraction on the Site as proposed in Modification (3) will maintain the existing environmental record attained to date and will continue to be subject to the conditions of the Consent, as modified.

The Environmental Assessment of Modification (2) has determined that there would be a requirement for the approved depth of extraction to be raised to ensure the integrity of the Maroota Groundwater Source. As such, as part of Modification (3), it is also proposed to ensure that the depth of extraction does not proceed below 185.1m AHD.

Part Three

DRAFT STATEMENT OF COMMITMENTS

3.1 Introduction

This part of the Environmental Assessment for Modification (3) outlines the measures which Hodgson Quarry Products would undertake in respect of the environmental management of the Site during the continuation of extraction detailed in Modification (3).

3.2 General

(a) The proposed Modification (3) would be undertaken in accordance with the Environmental Assessment prepared by Nexus Environmental Planning Pty Ltd.

(b) The continued extraction of material from Lots 1 & 2, DP 228308 and Lot 2, DP 312327 would be undertaken in accordance with the existing conditions of Development Consent No.267-11-99, as modified.

(c) The continued extraction of the Site would be undertaken in accordance with the existing Licence to extract.

3.3 Groundwater

The proposed Modification (2) seeks to raise the depth of extraction from the approved 183m AHD to 185.10m AHD such that extraction does not impact on the regional groundwater table.

Hodgson Quarries is committed to the continued monitoring to ensure that suitable data are obtained with regard to the behaviour of groundwater as per the current licensing requirements. The following commitments are made with regard to groundwater.

3.3.1 Groundwater Management Strategy

The strategy for groundwater management is to minimise groundwater inflows from the Maroota Tertiary Sands Groundwater Source (**MTSGS**) to the open cut and preservation of groundwater quality. It involves maintaining the depth of mining to an elevation which is at least 2 metres above the "wet weather" groundwater elevation.

The groundwater monitoring program specifically deals with:

- A mechanism for ensuring the project is compliant with the rules of the Water Sharing Policy (**WSP**) and NSW Aquifer Interference Policy (**AIP**).

- Unforseen impacts on groundwater levels on neighbouring properties and on any users of groundwater.

- Unforseen impacts of the development on groundwater quality such as around storages.

- Periodical monitoring for changes and local and regional impacts of the quarry on groundwater levels and quality during the project and on a reduced basis for at least five (5) years post extraction.

Information gained from the monitoring program has been used to determine the modified pit extraction depth of 185.10m AHD. This will ensure the pit floor remains at least 2 metres above the "wet weather" groundwater level of 183.10m AHD, thereby mitigating any drawdown impact to the MTSGS.

Part Four

CONCLUSION

Hodgson Quarry Products seeks the approval of the Minister for Planning to modify Development Consent No.267-11-99 to permit a continuation of the approved extraction on Lots 1 and 2, DP 228308 and Lot 2, DP 312327, Roberts Road, Maroota pending the determination of Modification (2).

Development Consent No.267-11-99, as modified, permits:

(a) development for the purposes of an extractive industry on the Site, in accordance with details contained in the Environmental Impact Statement (**EIS**) prepared by Nexus Environmental Planning Pty Ltd, dated 1999 as submitted with the development application;

(b) extraction in accordance with an extraction plan prepared by Woodward Clyde which details both the sequence and depth of extraction, and

(c) extraction in accordance with the modified method of extraction as detailed in the documents prepared by Dick Benbow & Associates which were submitted with the s.96(2) modification application.

Proposed Modification (2) would amend the Consent as follows.

Dam Construction

Part of the Consent was for the continued construction of a water supply dam on the Site, that dam being required to provide sufficient water to maintain the life of the approved extraction.

The approved dam was to be constructed in two (2) stages, details of which were described in the EIS which accompanied the application for extraction.

During the construction of the approved dam, the applicant has determined that the construction process would be better served if the dam were to be constructed in three (3) stages rather than the approved two (2) stages. It is proposed to amend the consent to modify the dam construction process accordingly.

Sequence of Extraction

There is an approved sequence of extraction of the Site as shown in **Figure 1.6**.

During the extraction process, it has been determined that the approved method of extraction using the cells shown in **Figure 1.6** is neither an economic nor practical way to achieve that extraction.

The existing extraction process on the Site involves a similar cell by cell extraction process to that which is approved but one which is not as rigidly defined as that portray in **Figure 1.6**.

It is proposed to modify the approved sequence of extraction to reflect that which is now being undertaken on the Site such that the most efficient means of extracting the material on the Site is achieved.

Extraction Process

The approved extraction was to be undertaken in accordance with the method of extraction described Modification (1) to the Consent where a *"Pumping Unit"* method of extraction was to be employed.

Since commencement of the extraction, it has been determined that the approved *"Pumping Unit"* method of extraction is not a practical means by which the resource can be extracted.

While the general concept of the *"Pumping Unit"* method of extraction remains, there have been modifications made to that method of extraction.

It is proposed to modify the Consent to regularise the existing method of extraction.

Approved Volume of Material to be Extracted and Life of the Consent

It has become apparent that the volume calculations undertaken by Woodward Clyde, as detailed in Table 4.3 of the original EIS, are flawed in that they do not provide accurate volumes of the material present on the Site.

Having regard to the errors in the original calculations undertaken by Woodward Clyde, it is now proposed to modify the Consent based on the volume figures calculated by VGT as detailed in Modification (2).

In light of the above, the applicant seeks a modification to the life of the extraction from 31 May 2015 to 31 May 2025.

The assessment process for Modification (2) has involved obtaining a complex level of empirical detail with regard to groundwater, acoustic and air quality impacts such that the timeframe originally expected for the completion of the Environmental Assessment has been significantly exceeded. As such, the assessment of Modification (2) by the Department of Planning and Environment and other agencies involved in that assessment will not be completed by 31 May 2015.

If extraction activity ceases on 31 May 2015, pending the resolution of Modification (2), there would be an hiatus in the provision of Maroota Sand to the Sydney construction industry. In addition, less than half of the Site has been extracted, and, as such, it would be impossible to rehabilitate the Site in accordance with the Consent until such time as the Site is fully extracted as per the Consent. In order to cause the least disruption to the

operation of the existing extraction, the continued employment of workers at the Site, and to maintain the supply of Maroota Sand to the local market, Modification (3) has been submitted to extend the existing extraction of the Site for a period of up to 12 months while Modification (2) is comprehensively assessed and determined.

The existing extraction activity causes acceptable impact to the environment of the Site and its surroundings as demonstrated in the independent auditing which has occurred during the life of the extraction. The existing activity on the Site operates within the parameters detailed in the conditions of the Consent, as modified.

The continuation of the existing extraction in accordance with both the existing conditions of consent and the existing Licence would ensure that the environmental impacts would be acceptable pending the resolution of Modification (2).

Appendix 1

Development Consent No. 267-11-99

Department of
Urban Affairs and Planning

Development and Infrastructure Assessment

Level 22, 1 Farrer Place
Sydney NSW 2000
GPO Box 3927
Sydney NSW 2001

Telephone: 02 9391 2176
Facsimile: 02 9391 2151
Email:
caitlin.richards@duap.nsw.gov.au

P98/00772 Pt 3

Dr L. S. Martin
c/ Nexus Environmental Planning
PO Box 212
CONCORD NSW 2157

Dear Dr. Martin,

Extraction of sand, clay and pebble – DA number 267-11-99

The Minister for Urban Affairs and Planning, the Hon Andrew Refshauge MP, has granted consent to your Development Application for the extraction and on-site processing of sand, clay and pebble at lots 1 and 2 DP 228308 and Lot 2 DP 312327, Roberts Road, Maroota, in the Baulkham Hills Local Government Area, subject to conditions. Pursuant to clause 68A of the *Environmental Planning and Assessment Regulation, 1994* a copy of the development consent is attached for your information.

The Instrument of Consent sets out the date on which the Application was determined and reasons for the conditions. The Consent becomes effective and operates 28 days from the date of this letter in accordance with Section 83 of the *Environmental Planning and Assessment Act 1979*.

If you are dissatisfied with this decision, section 97 of the *Environmental Planning and Assessment Act, 1979* gives you the right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

If you have any questions, please contact Caitlin Richards on (02) 9391 2176.

Yours sincerely

Richard Lloyd
5/6/00

Richard Lloyd
Senior Environmental Planning Officer
Development and Infrastructure Assessment

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

DETERMINATION OF A DEVELOPMENT APPLICATION UNDER SECTION 80(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

I, the Minister for Urban Affairs and Planning, under Section 80(1) of the Environmental Planning and Assessment Act, 1979 (the Act), determine the Development Application referred to in Schedule 1 by granting consent to the Application, subject to the conditions set out in Schedule 2.

The reason for the imposition of conditions is to minimise any adverse environmental effects of the development, consistent with the objectives of the Act.

Andrew Refshauge MP
Minister for Urban Affairs and Planning

Sydney 31 MAY 2000 File No. S98/00772

SCHEDULE 1

Application made by:	Dr L. S. Martin ('the Applicant").
To:	The Minister for Urban Affairs and Planning ("the Minister").
In respect of:	Lots 1 and 2 DP 228308, Lot 2 DP 312327, Roberts Road, Maroota, in the Baulkham Hills Local Government Area.
For the following:	Extraction and on-site processing of sand, clay and pebble; construction of a bund wall.
Development Application:	DA No. 267-11-99 lodged with the Department of Urban Affairs and Planning on 22 November 1999, accompanied by a Environmental Impact Statement prepared by Nexus Environmental Planning Pty Ltd. and dated November 1999.
Determination:	1) To ascertain the date upon which the consent becomes effective, refer to Section 83 of the Act. 2) To ascertain the date upon which the consent is liable to lapse, refer to Section 95 of the Act. 3) Section 97 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of notice.

SCHEDULE 2

Conditions of Development Consent

Abbreviations and Interpretation

The Act	*Environmental Planning and Assessment Act 1979*, as amended.
Approval from EPA	means approved in writing by the EPA or as specified as a condition of a licence.
BCA	Building Code of Australia
construction	construction of the perimeter bund wall
Council	Baulkham Hills Shire Council
DA	Development Application
DCP 500	Baulkham Hills Shire Council Development Control Plan No. 500 – Extractive Industry
The Department	the Department of Urban Affairs and Planning
The Director-General	Director-General of the Department of Urban Affairs and Planning, or nominee
DLWC	Department of Land and Water Conservation
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EPA Licence	means a licence under the *Protection of the Environment Operations Act 1997*
GTA	General Term of Approval
$L_{A10(15\ minute)}$	is the sound pressure level that is exceeded for 10% of the time when measured over a 15 minute period.
NPWS	National Parks and Wildlife Service
PCA	Principal Certifying Authority
Subject Site	Lots 1 and 2 DP 228308, Lot 2 DP 312327, Roberts Road, Maroota, in the Baulkham Hills Local Government Area.

INTEGRATED DEVELOPMENT

Integrated development is development (not being complying development) that, in order for it to be carried out, requires development consent and one or more of the approvals set out in the Act. The subject proposal is integrated development, as it requires development consent and the approval of the Environment Protection Authority under the *Protection of the Environment Operations Act 1997* and, the approval of the Department of Land and Water Conservation under Parts 2 and 5 of the *Water Act 1912*. The general terms of approval of both the EPA and the DLWC therefore form part of this Consent.

GENERAL

Obligation to Prevent and Minimise Harm to the Environment

1. There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, the decommissioning of the development.

Adherence to Terms of DA and EIS

2. Development shall be carried out in accordance with:
   (a) DA No. 267-11-99;

(b) the Environmental Impact Statement prepared by Nexus Environmental Planning Pty Ltd., dated November 1999, including the landscaping plan attached to the EIS;
(c) all additional information supplied to the Department in relation to the development including:

- the two faxes from Dick Benbow and Associates Pty Ltd. dated 17 February 2000 and attachments;
- the letter from Dick Benbow and Associates Pty Ltd dated 27 January 2000;
- the letter from Dick Benbow and Associates Pty Ltd dated 5 January 2000 and attachments;
- the fax from Holmes Air Sciences dated 21 December 1999;
- the letter from Nexus Environmental Planning Pty Ltd dated 21 December 1999 and attachments;
- the letter from Woodward-Clyde dated 21 December 1999; and,
- the letter from Woodward-Clyde dated 16 December 1999

except as modified by the following Conditions.

In the event of an inconsistency between this Consent and DA No. 267-11-99 (and the accompanying EIS), this Consent shall prevail.

Compliance

3. The Applicant shall comply with all reasonable requirements of the Director-General in respect of the implementation of the Conditions of this Consent, within such time as the Director-General agrees. The Director-General may order the Applicant to cease work until non-compliance has been addressed to the Director-General's satisfaction.

4. The Applicant shall ensure that all contractors and sub-contractors are aware of, and comply with, the Conditions of this Consent.

5. The Applicant shall comply with all relevant conditions prescribed in Part 7 of the *Environmental Planning and Assessment Regulation 1994*, as required by Section 80A (11) of the Act.

6. The Applicant will submit a Conditions Compliance Report to the Director-General prior to the commencement of extraction in areas that are not currently subject to extraction. Subsequent reports will be submitted annually for the first three years of extraction in areas not currently subject to extraction. Further reports shall be submitted as required by the Director-General.

   To enable ready comparison with the EIS's predictions, diagrams and tables, the Conditions Compliance Reports shall include, but not be limited to, the following matters:
   (a) a compliance audit of the performance of the project against conditions of Consent and statutory approvals;
   (b) a review of the effectiveness of the environmental management of the development;
   (c) the results of environmental monitoring required under this Consent or other approvals, including interpretations and discussion by a suitably qualified person;
   (d) a listing of any variations obtained to approvals applicable to the DA since the last report;
   (e) a record of all complaints and the actions taken to mitigate all such complaints;
   (f) a report detailing the rehabilitation measures undertaken since the last report; and
   (g) environmental management targets and strategies for stages of the development yet to be completed.

7. The Director-General may, after considering a Conditions Compliance Report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the Director-General may direct.

> *Note: The Applicant is obliged to ensure that all statutory requirements, including all relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions and Directions of the Councils and relevant government agencies are met and approvals obtained.*

Commencement and duration

8. No extraction shall commence in areas that are not currently subject to extraction, until the Applicant has:
   (a) constructed the perimeter bund wall;
   (b) submitted the Conditions Compliance Report required under Condition 6; and
   (c) obtained all licences necessary for the commencement of extraction.

9. The duration of extraction under this Consent is for a maximum period of 15 years. The Applicant shall ensure that rehabilitation of all disturbed areas is completed within six months of completion of extraction.

Complaints Procedures

10. Prior to commencement of construction, the Applicant shall:
    (a) publicise a telephone number on which complaints about the subject development can be registered during the hours of operation in Condition 16; and
    (b) publicise a postal address where written complaints may be lodged.
    The telephone number and postal address shall be displayed on the property where it can be read from a public road, for the duration of the development.

11. The Applicant shall record details of all complaints received and actions taken in response to complaints in an up-to-date log book. The log book shall be made available for inspection upon request by the Director-General, the EPA or the Council; and a summary of complaints received shall be included in the Conditions Compliance Reports under Condition 6.

12. The Applicant shall ensure that an initial response to complaints is provided to the complainant within 24 hours of receipt. The Applicant shall then:
    (a) investigate the concerns raised by the complainant and undertake all reasonable attempts to determine the cause of concern; and
    (b) if adverse impacts are identified, undertake all practicable measures to modify the activity which may be causing the impacts.

13. If the Applicant's response does not address the complaint to the satisfaction of the complainant within six weeks, the Applicant shall inform the Director-General and take any action as directed by the Director-General. This may include a requirement to carry out independent investigations of noise and/or dust at the cost of the Applicant, in accordance with Condition 14.

14. If the Director-General is satisfied that an independent investigation is required, the Applicant shall:
    (a) appoint a qualified independent person or team to plan and implement an investigation to qualify the impact and determine the sources of the impact; and
    (b) bear the cost of the independent investigation and make available plans, programs and other information necessary for the independent person to form an appreciation of the past, present and future works and their effects on dust and/or noise emissions.

This investigation is to be carried out in accordance with a documented Plan. The Plan shall be designed and implemented to measure and/or compute (with appropriate calibration by measurement) the relevant noise and/or dust levels at the complainant's property, that are emitted by the development; and specify a monitoring period and reporting schedule.

The independent person or team, the Plan and the timing of its implementation, shall be approved by the Director-General. The independent person or team shall report to the Director-General and the Applicant.

Further independent investigations shall cease if the Director-General is satisfied that the relevant levels are not being exceeded and are unlikely to be exceeded in the future.

Dispute Resolution

15. In the event that the Applicant, Council, the PCA, or a government authority other than the Department, cannot agree on the specification or requirements applicable under this Consent, the matter shall be referred by either party to the Director-General or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.

HOURS OF OPERATION

16. Unless prior written approval of the EPA is obtained, the hours of operation are:
    - construction: 7.00am to 6.00pm Monday to Friday
    - extraction and processing of material: 7.00am to 6.00pm, Monday to Friday and 7.00am to 1.00pm on Saturdays
    - vehicle loading: 6.00am to 6.00pm, Monday to Friday and 6.00am to 1.00pm on Saturdays.

    No works shall be undertaken on Sundays or Public Holidays.

    These restrictions do not apply to routine maintenance work, such as the repair of machinery, provided the work does not result in exceedance of the noise limits in Condition 47.

DEPTH OF EXTRACTION

17. Baulkham Hills Shire Council Development Control Plan for Extractive Industries (DCP 500) requires that the depth of extraction incorporate a 2m freeboard above the wet weather high groundwater level. To meet the objectives of this policy, the Applicant shall ensure that the depth of extraction is consistent with the depth as shown in the extraction plan in the EIS and follow the procedures in Condition 40 if groundwater is encountered during extraction.

ENVIRONMENTAL MANAGEMENT PLAN

18. The Applicant shall prepare a Construction Environmental Management Plan (EMP) to the satisfaction of the Director-General prior to commencement of construction. The Construction EMP shall contain appropriate measures which demonstrate how the environmental objectives for the project will be achieved, including objectives stated in this Consent; and contain a monitoring, reporting and response program.

19. The Applicant shall prepare an Operational Environmental Management Plan (EMP) in consultation with the relevant authorities and to the satisfaction of the Director-General, prior to the commencement of extraction under this Consent. The EMP shall incorporate and integrate environmental management for the existing extraction areas, as well as the areas approved under this Consent.

20. The Operational EMP shall include, but not be limited to:
    (a) environmental objectives for the site;
    (b) the Air Quality Management Plan (Condition 29);

(c) the Soil and Water Management Plan (Condition 38);
(d) the Noise Management Plan (Condition 46);
(e) the Road Noise Management Plan (Condition 48);
(f) the Flora and Fauna Management Plan (Condition 55); and
(g) the Rehabilitation Plan (Condition 58).

21. The Applicant shall make copies of both EMPs available to Council, EPA and DLWC within 14 days of approval by the Director-General. The Applicant shall also make a current copy of the EMPs available for inspection by the public or these agencies, for the duration of the Consent.

22. The Applicant shall, in consultation with the Director-General, the EPA and the DLWC, update the Operational EMP from time to time in order to ensure continuing compliance with the Conditions of this Consent and all relevant approvals and licenses. The EMR shall be responsible for determining if any significant changes to the Operational EMP should be referred to the Director-General for approval.

Environmental Management Representative

23. The Applicant shall be ultimately responsible for ensuring that all environmental safeguards proposed for the development, and as required by this Consent and other statutory approvals, are monitored and complied with. The Applicant shall nominate a management representative who has the authority to stop work if an adverse impact on the environment has occurred or is likely to occur. The Director-General shall approve the management representative.

The management representative shall:
(a) oversee the receipt of, and response to, complaints about the environmental performance of the development; and
(b) liaise with the community in relation to matters of concern associated with the environmental impact of the development – this may involve public meetings from time to time.

24. The Applicant shall, for the duration of this Consent, engage suitably qualified environmental consultant(s) to assist the management representative in the environmental management of the project.

The environmental consultant(s) shall, in addition to assisting with the matters listed in Condition 23:
(a) be responsible for the preparation or certification of all environmental management plans;
(b) be responsible for considering and advising the Applicant on matters specified in the Conditions of this Consent and compliance with such matters;
(c) facilitate an induction and training program for all persons involved with construction, extraction and rehabilitation activities; and
(d) be present on-site during any critical construction or operation activities as defined in the EMPs.

INDEPENDENT ENVIRONMENTAL AUDIT

25. Every three (3) years from the date of this Consent, at the completion of works under this Consent, and at any additional time(s) as the Director-General may direct, the Applicant will arrange for an Independent Environmental Audit of the development. The audit will be conducted pursuant to ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing (or the current versions) and any specifications of the Director-General. The Applicant shall submit 4 copies of the report to the Director-General, who shall provide a copy to the EPA, DLWC and Council.

The audit will :
(a) assess compliance with the requirements of this Consent, licence and approvals;
(b) review the effectiveness of the environmental management of the development, including any mitigation works;

(c) be carried out at the Applicant's expense; and
(d) be conducted by a duly qualified independent person or team approved by the Director-General.

26. The Director-General may, after considering an audit report and any submissions made by the EPA, DLWC and Council on the report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the Director-General may direct.

WASTE

27. The Applicant must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal, or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the *Protection of the Environment Operations Act 1997*.[1]

AIR QUALITY

Air Quality Criteria

28. The Applicant shall take all practical steps to manage the development so that the ambient air quality goals for total suspended particles (TSP) of 90ug/m3 (annual average) and the dust deposition goal of 4gm/m2 (annual average) are not exceeded as a result of the development, when measured at any monitoring location specified in the Air Quality Management Plan.

Air Quality Management

29. The Applicant shall prepare and implement an Air Quality Management Plan as part of the EMP. The Air Quality Management Plan shall:
    (a) identify existing and potential sources of dust deposition, TSP and fine particulates (PM10 and PM2.5) and specify appropriate monitoring intervals and locations. The purpose of the monitoring is to evaluate, assess and report on these emissions and the ambient impacts with the objective of understanding the development's contribution to levels of dust deposition, TSP and fine particulates in ambient air around the site;
    (b) provide a monitoring plan having regard to local meteorology and the relevant Australian Standards, identifying the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements;
    (c) provide details of dust suppression measures for all sources of dust from the development, including a planting and watering regime to ensure that no more than 3 hectares of the site are exposed and active at any one time. The use of a polymer in the water to minimise dust impacts shall be investigated as part of this Plan;
    (d) provide details of actions to ameliorate impacts if they exceed the relevant criteria; and
    (e) provide the design of the reactive management system intended to reduce the day-to-day impacts of dust and fine particulates due to the development.

30. Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.[2]

31. The Applicant shall cease offending work at such times when the operations are resulting in visible dust emissions blowing in a direction so as to cross onto public roads or lands not owned by the Applicant.

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[1] Environment Protection Authority General Term of Approval
[2] Environment Protection Authority General Term of Approval

32. The Applicant shall install, operate and maintain a sprinkler system to adequately water all cleared areas and stockpiles so as to minimise dust emissions to acceptable levels.

33. The Applicant shall ensure that all vehicular movements on unsealed areas are restricted to specific routes and that all vehicles within the subject site keep to a speed limit of 30 km/h.

34. The Applicant shall ensure that trucks are covered when entering and leaving the premises carrying loads of potentially dust generating material.

Air Quality Monitoring

35. All monitoring equipment is to be installed and operational prior to commencement of construction.

36. Operation of dust deposition gauges and monitoring must be carried out in accordance with;
    (a) Australian Standard 3580.10. 01 (1991) Particulates – Deposited Matter – Gravimetric Method. Approved method AM-19 referred to in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*, December 1999.
    (b) Australian Standard 2724.3 (1984) Particulate Matter – Determination of Total Suspended Particulates (TSP) - High Volume Sampler Gravimetric Method. Approved method AM 15 referred to in Approved Methods for the sampling and Analysis of Air Pollutants in New South Wales, December 1999.
    (c) Australian Standard 3580.9.6 (1990) for Suspended Particulate Matter – PM10 High Volume Sampler with Size Selective Inlet-Gravimetric Method. Approved method AM-18 referred to in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*, December 1999.[3]

37. A meteorological station measuring wind speed and direction must be installed and operated by the Applicant at a site determined in consultation with the EPA.[4]

WATER QUALITY

Soil and Water Management Plan

38. The Applicant shall prepare and implement a Soil and Water Management Plan as part of the EMP. This plan shall be updated on an annual basis, to the satisfaction of DLWC and in consultation with DLWC. This Plan shall have particular regard to the most recent editions of the Department of Housing's publications *Managing Urban Stormwater: Soils and Construction (1998),* and the requirements of Council's Development Control Plan 500 – Extractive Industries.

    The Soil and Water Management Plan shall contain, but not be limited to:
    (a) management of the impacts of all phases of the development on the quality and quantity of surface and groundwater, including water in storage, sedimentation dams and flooding impacts;
    (b) details of measures to be employed to minimise soil erosion and the discharge of sediment to land and/or waters;
    (c) management of the impacts of the development on nearby creeks and waterbodies, in particular, the Hawkesbury River;
    (d) a strategy for the decommissioning of water management structures, including storage, sedimentation and leachate dams once extraction is complete;
    (e) identification of all potential sources of water pollution and a detailed description of the remedial action to be taken or management systems to be implemented to minimise emissions of these pollutants from all sources within the subject site;

[3] Environment Protection Authority General Term of Approval
[4] Environment Protection Authority General Term of Approval

(f) description of monitoring methodologies and standards that will be adhered to;
(g) identification of the locations where monitoring will be carried out;
(h) detailed description of the monitoring cycle and the duration of each monitoring cycle;
(i) details of actions to ameliorate impacts if they exceed the relevant criteria;
(j) detail any exceedances and the mitigative actions used; and
(k) emergency contingency plans for implementation in the event that the groundwater is encountered during excavation (see Condition 40).

Water Monitoring

39. Groundwater monitoring shall be undertaken on a regularly scheduled basis to provide data suitable for the determination of the wet weather high groundwater level, to the satisfaction of DLWC. A network of monitoring bores shall be installed at appropriate locations across the site to accommodate these objectives.[5]

Groundwater Management

40. The Applicant shall immediately notify DLWC in the event of groundwater being encountered during excavation. The location and elevation of such intersections is to be reported to allow determination by DLWC whether the water table occurs within a perched aquifer or if it is at a regional level. In the event of breaching of the groundwater table, operations are to cease and DLWC consulted immediately to determine the basis upon which extraction may recommence. [6] If no response is received from DLWC within 24 hours, the Applicant shall implement the emergency contingency plans as described in the Soil and Water Management Plan (Condition 38). The Applicant shall advise the Director-General of the results of any such incidents under this Condition.

41. Site works and excavations are to be backfilled or infilled only with earth and rock materials sourced as a result of extraction operations in the Maroota area.[7] This condition does not apply to the construction of the perimeter bund wall.

Licensable Groundwater Works

42. All groundwater investigation/monitoring and groundwater supply works are required to be licensed with the DLWC under the provisions of the *Water Act 1912.* A licence under Part 5 of the *Water Act 1912* is required to authorise a water supply bore (10BL157594) for industrial (Sand Washing) purposes and stock.

Surface Water Management

43. The applicant shall not allow any tailwater drainage to discharge into or onto:
- any adjoining public or Crown road;
- any other persons land;
- any Crown land;
- any river, creek or watercourse;
- any groundwater aquifer;
- any native vegetation as described under the *Native Vegetation Conservation Act 1997;*
- any wetlands of environmental significance.[8]

44. Surface stormwater runoff from the disturbed areas on the site must be directed to the sedimentation dam(s). [9]

[5] Department of Land and Water Conservation General Term of Approval
[6] Department of Land and Water Conservation General Term of Approval
[7] Department of Land and Water Conservation General Term of Approval
[8] Department of Land and Water Conservation General Term of Approval

Dam Licensing

45. A license will be required for any new dams under Part 2 of the *Water Act 1912*. The Applicant shall submit design plans/ survey of the structures as required by DLWC.[10]

NOISE

Noise Management Plan

46. The Applicant shall prepare and implement a Noise Management Plan as part of the EMP.

The Noise Management Plan shall:

(a) identify existing and potential noise sources and their relative contribution to noise impacts from the development;
(b) specify appropriate intervals for noise monitoring to evaluate, assess and report noise emission levels due to construction and normal operations of the development under prevailing weather conditions;
(c) outline the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements, the design of any noise modelling or other studies, including the means for determining the noise levels emitted by the development;
(d) specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they occur;
(e) provide details of noise amelioration measures, including measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms) and reactive management responses for particular noise sources; and
(f) contingency measures to be implemented should noise complaints be received.

Operational Noise Limits

47. Noise from the premises must not exceed:
- an $L_{A10\,(15\,minute)}$ noise emission criterion of 45 dB(A) (7am to 6pm) Monday to Saturday.
- an $L_{A10(15minute)}$ noise emission criterion of 40 dB(A) (6am and 7am) Monday to Saturday.
- an $L_{A1minute}$ noise emission criterion of 50 dB(A) (6am and 7am) Monday to Saturday

Noise from the premises is to be measured at any affected receptor to determine compliance with this Condition.

Note: Noise measurement

For the purpose of noise measures required for this Condition, the L_{A10} noise level must be measured or computed at any point as specified below over a period of 15 minutes using "FAST" response on the sound level meter.

For the purpose of the noise criteria for this condition, 5dBA must be added to the measured level if the noise is substantially tonal or impulsive in character. The location or point of impact can be different for each development, for example, at the closest residential receiver or at the closest boundary of the development. Measurement locations can be:
- 1 metre from the facade of the residence for night time assessment;
- at the residential boundary;

[9] Environment Protection Authority General Term of Approval
[10] Department of Land and Water Conservation General Term of Approval

- 30 metres from the residence (rural situations) where boundary is more than 30 metres from residence.

The noise emission limits identified in this condition apply for prevailing meteorological conditions (winds up to 3m/s), except under conditions of temperature inversions. Noise impacts that may be enhanced by temperature inversions must be addressed by:

- documenting noise complaints received to identify any higher level of impacts or patterns of temperature inversions;
- where levels of noise complaints indicate a higher level of impact then actions to quantify and ameliorate any enhanced impacts under temperature inversions conditions should be developed and implemented.[11]

TRAFFIC AND TRANSPORT

Road Noise Management Plan

48. The Applicant shall ensure that traffic noise from the development does not exceed (L Aeq(1 hr)) 55 dB(A) between 7 am and 10 pm and 50 dB(A) between 10 pm and 7 am at any affected residence under adverse weather conditions. Where ambient Leq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2 dB(A).

Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.

49. The Applicant shall prepare a Road Noise Management Plan as part of the EMP. The Plan shall document measures to be taken to meet the criteria, including a monitoring, reporting and response program; and methods for educating drivers in the reduction of road noise impacts.

Truck movements

50. The Applicant shall ensure that truck movements associated with the development do not exceed 100 movements per day (50 laden truck movements) or 20 (10 laden truck movements) movements per hour, during construction or operation.

Section 94A Contributions

51. The Applicant shall pay to Council a contribution under Section 94A of the Act at the rate of $0.65 per tonne of all extracted/ processed material transported from the subject site.

    The following conditions apply to the payment of this contribution:

    (A) The contribution will be calculated and paid monthly from the date of this Consent;
    (b) The contribution will be indexed and adjusted annually as from the date of Consent, in accordance with the Consumer Price Index. This adjustment will be applicable to each financial year for the duration of this Consent and shall take effect from and including July each year, commencing 1 July 2000;
    (c) On or before the fourteenth day of each month for the duration of the Consent, the Applicant shall deliver to Council weighbridge records showing the true quantities of extracted/processed material transported from the property during the immediately proceeding month and the Council will then, as soon as it can conveniently do so, issue an invoice to the Applicant, to be paid within fourteen days;
    (d) The Council has the right to inspect and have the original records relating to any extraction/processing material, including numbers and types of laden trucks, trailers and load

[11] Environment Protection Authority General Term of Approval

quantities transported from the property audited, at any time when Council makes a written request to do so;

(e) The Council will pay all the said contribution payments into a specially identified account for payment towards the rehabilitation, restoration, repair and/or maintenance of Old Northern and Wisemans Ferry Roads within the Baulkham Hills Shire boundary.

Note: This condition has been imposed in accordance with Council's Contributions Plan No. 6 – Extractive Industries. A copy of this plan may be inspected at the Customer Service Centre, Council's Administration Complex, corner of Carrington and Showground Roads, Castle Hill, between the hours of 8:30 am and 4:30 pm weekdays.

FLORA AND FAUNA

52. The Applicant shall conserve the six *Acacia bynoeana* plants in the following manner:
    (a) a conservation area is to be established, containing the six plants and incorporating a 30 metre buffer;
    (b) the boundary of the conservation area shall be surveyed and marked by a suitably qualified surveyor, with the assistance of a botanist/ecologist;
    (c) the surveyed boundary shall be fenced to prevent vehicles entering the area;
    (d) no clearing, construction or extraction shall occur within 30 metres of any plant identified in the EIS until steps (a) to (c) have occurred.

53. The Applicant shall not clear the strip of remnant vegetation along the southern fence line (Old Northern Road) and the vegetation to the north of the site entrance (Roberts Road) containing Blue Mountains Mahogany (*Eucalyptus notabilis*). This area shall be fenced off to prevent vehicles entering the area.

54. In constructing the perimeter bund wall, the Applicant shall minimise disturbance to existing native vegetation.

Flora and Fauna Management Plan

55. The Applicant shall prepare a Flora and Fauna Management Plan as part of the EMP. The Plan shall be prepared in consultation with National Parks and Wildlife Service and Council, and shall:
    (a) describe the characteristics and location of species, populations and communities that the proposal may impact upon;
    (b) consider the feasibility and practicality of salvaging trees removed for the development for relocation to conserved or rehabilitated areas, for the purposes of reconstructing habitat for ground fauna
    (c) contain a program for the active management and maintenance of all conserved and rehabilitated vegetation (as detailed in the EIS and required under this Consent) including consideration of:
        - post-extraction land use objectives for the site;
        - utilisation of local endemic species or species naturally occurring in the Maroota area;
        - planting around the *Acacia bynoeana* conservation area to further buffer this species and enhance its long term viability as a bushland ecosystem;
        - connection of existing areas and future areas of revegetation to form a network of wildlife corridors throughout site and to adjoining lands to facilitate species recruitment through natural immigration;
        - provision of rocks of varying sizes to provide refuge and basking sites for herpetofauna;
        - fencing of revegetated areas to prohibit grazing by stock; and
        - provision of artificial nest boxes for a range of arboreal fauna.
    (d) mitigation measures to be implemented should operations compromise the significant flora and fauna communities identified in the EIS; and

(e) an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristical structure and diversity, resilience and robustness to disturbance, and fauna species diversity. The information obtained from the monitoring shall be used to guide future revegetation and management efforts.

56. The Applicant shall maintain the revegetated areas for the duration of the Consent. Maintenance may include:
    - replanting failed or unsatisfactory areas
    - repairing erosion problems
    - fire management – fire suppression or fire encouragement
    - pest and weed control
    - control of feral animal populations
    - maintain and repair fencing
    - fertiliser application
    - watering plants in drier areas, especially in the establishment phase
    - application of lime or gypsum to control pH and improve soil structure.

HERITAGE

57. If, during the development, the Applicant becomes aware of any heritage or archaeological material, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the Heritage Office, and the Local Aboriginal Land Councils. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.

REHABILITATION PLAN

58. The Applicant shall prepare a Plan for the staged rehabilitation of the site as part of the EMP. The Rehabilitation Plan shall:
    (a) outline procedures for the implementation of rehabilitation measures within an acceptable timeframe;
    (b) document the source of material for rehabilitation and methods to ensure that no contaminated or otherwise unsuitable material is brought onto the site; and
    (c) detail the preferred option for the final landform and the implementation of this landform.

Appendix 2

29 November 2000 Modification (1)

Department of
Urban Affairs and Planning

Development and Infrastructure
Assessment
Level 22, 1 Farrer Place
Sydney NSW 2000
GPO Box 3927
Sydney NSW 2001

Telephone: 02 9391 2384
Facsimile: 02 9391 2151

Dr L.S. Martin,
C/- Nexus Environmental Planning
P.O. Box 212
CONCORD NSW 2157

Dear Dr Martin,

Proposed Modification of Extractive Industry
Our reference: S98/00772

I refer to the application and Statement of Environmental Effects lodged to modify the consent for the above development under section 96(2) of the *Environmental Planning and Assessment Act 1979* (the Act).

The Minister for Urban Affairs and Planning has now determined the application subject to conditions and a copy of the determination is enclosed for your information. The reasons for the imposition of conditions are to:

(i) minimise the adverse impact of the development;

If you are dissatisfied with this decision, section 96 (6A) of the Environmental Planning and Assessment Act, 1979 gives you the right to appeal to the Land and Environment Court.

Should you require any further information on this matter, please contact Val Smith on (02) 9391 2384

Yours sincerely,

6/12/00

Richard Lloyd
Senior Environmental Planning Officer
Development and Infrastructure Assessment

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

NOTICE OF MODIFICATION TO A DEVELOPMENT CONSENT PURSUANT TO SECTION 96 (2) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

I, the Minister for Urban Affairs and Planning, under Section 96(2) of the amended Environmental Planning and Assessment Act, 1979, modify the development consent referred to in Schedule 1 in the manner set out in Schedule 2. I am satisfied that the development to which the development consent, as modified, will relate, is substantially the same development.

Andrew Refshauge MP
Minister for Urban Affairs and Planning,

Sydney, 29 November 2000 File No: S00/00772

SCHEDULE 1

Development consent granted by the Minister for Urban Affairs and Planning on 31 May 2000 to a development application made by Dr. L.S. Martin for extraction and on-site processing of sand, clay and pebble, and construction of a bund wall, on Lots 1 and 2 DP 228308, Lot 2 DP312327, Roberts Road, Maroota.

SCHEDULE 2

The development consent is modified as follows:

Abbreviations and Interpretation

Delete the word "perimeter" from the definition of "construction".

General

Condition 2(c)

Insert after "the two faxes from Dick Benbow and Associates Pty Ltd dated 17 February 2000 and attachments" the following:

"except as modified by the report of Dick Benbow and Associates (Report No 10065 Issue 1) dated 26 June 2000."

Commencement and Duration

Condition 8 (a)

Delete all the words in Condition 8(a) and insert instead:

"constructed the bund walls at the corner of Roberts Road and Old Northern Road;"

Groundwater Management

Condition 41

Delete the sentence "This condition does not apply to the construction of the perimeter bund wall."

NOISE

Noise Management Plan

Condition 46

Insert after subclause (f) the following:

"(g) Provision for the notification of adjoining property owners of the commencement and duration of works adjoining the boundary.
(h) Construction of temporary noise shielding to residences affected by short-term noise impacts."

Operational Noise Limits

Condition 47

Insert after Condition 47 the following new conditions:

"47(a) The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dB(A) when measured at 7 metres.

47(b) The on-site generator is to be fitted with an acoustic enclosure to ensure that noise levels less than 44dB(A) at 30m are achieved.

47(c) A noise compliance investigation is to undertaken within one month of the installation of the equipment to demonstrate compliance with the noise level limits stated in Conditions 47(a) and 47(b). The results of the compliance investigation are to be provided for the approval of the Director-General within 14 days of the completion of the investigations."

FLORA AND FAUNA

Condition 54

Delete all the words in Condition 54 and insert instead:

"In construction of the bund walls at the corner of Roberts Road and Old Northern Road, the Applicant shall minimise disturbance to existing native vegetation."

REHABILITATION PLAN

Condition 58

Delete the word "and" at the end of the sentence in subclause (b) and insert after subclause (c) the following:

"(d) detail proposals for the integration of the visual bund walls into the final landform of the site.

(d) Provide evidence of consultation with Council in the design of the final landform for the site."
