



HITCHCOCK ROAD SAND EXTRACTION AND REHABILITATION PROJECT MAROOTA



SUBMISSIONS REPORT

**HITCHCOCK ROAD SAND EXTRACTION
AND REHABILITATION PROJECT MAROOTA**

SUBMISSIONS REPORT

PF Formation

1774 Wisemans Ferry Road

Maroota NSW 2756

Telephone: 02 4566 8314

Facsimile: 02 4566 8355

Email: pform@pnc.com.au

March 2008

Hitchcock Road Sand Extraction and Rehabilitation Project

SUBMISSIONS REPORT

DFA Consultants

ABN 22 076 253 211

LIST OF CONTENTS



Hitchcock Road Sand Extraction and Rehabilitation Project

Submissions Report

List of contents

	Page
1 Introduction	
1.1 Background	1
1.2 Purpose of the Submissions Report	1
1.3 The Statutory framework	2
1.3.1 NSW Environmental Planning and Assessment Act	2
1.3.2 Commonwealth Environment Protection and Biodiversity Conservation Act	2
1.4 Preparation of the EA	3
1.5 The consultation program	4
2 Submissions to the environmental assessment	
2.1 Introduction	5
2.2 Issues raised in the submissions	5
2.2.1 Issues raised by government agencies	6
2.2.2 Status of Lot 2 DP555184	8
2.2.3 Development setbacks	8
2.2.4 Rehabilitation/biodiversity protection	9
2.2.5 Groundwater	10
2.2.6 Visual impacts	13
2.2.7 Air quality	13
2.2.8 Cumulative impacts	14
2.2.9 Community benefits	14
2.2.10 Alternative sources of sand	14
2.2.11 Importation of material	15
2.2.12 Community consultation	15
2.2.13 Ecologically sustainable development	16
2.2.14 Aboriginal archaeology	17
2.2.15 Significance of the Trig	18
2.2.16 Summary of the Environmental Assessment	18
2.3 Issues not relevant to the environmental assessment	19
3 Changes to the proposal	
3.1 The Proposal	21
3.2 Development Setbacks	23
3.3 Changes to the Statement of Commitments	23
4 Conclusions	

References

Appendices

- A** **Submissions register**
- B** **Revised Statement of Commitments**
- C** **Correspondence with the Commonwealth Department of Environment and Heritage**
- D** **Existing Consent Conditions**

List of figures

- Figure 3.1 Land Ownership
- Figure 3.2 Development Setbacks

CHAPTER

INTRODUCTION



Chapter One Introduction

1.1 Background

PF Formation (the proponent) currently undertakes sand extraction in Maroota, Baulkham Hills, over most of the site which is the subject of the present proposal. The operation has been carried out under consent orders issued by the Land and Environment Court in July 1998. The activity is also subject to Environment Protection Licence Number 3407.

Site operations are subject to the overall management of Baulkham Hills Shire Council under the terms of the consent orders. These have required regular meetings of a Liaison and Review Committee comprising community and agency representatives and the preparation and submittal of an annual audit of site activities including the reporting of environmental monitoring undertaken over the previous 12 months.

Over the period of operation it has become increasingly clear that the restriction on extraction in the central area of the site imposed by the current approval is seriously prejudicing the effective development of the site due to the difficulties involved in the process. This will ultimately lead to the sterilisation of a large volume of the available resource which could otherwise be extracted with little additional environmental impact. The proponent has acquired a long-term lease over the Crown land (the former Trigonometrical Reserve) for the purpose of sand extraction and has acquired the approach roads which were Crown roads. The leased land is no longer a Trigonometrical Reserve and is identified as Lot 1 DP1013943.

The consent orders also place a restriction on the depth of extraction. This was originally due to claimed uncertainties relating to the depth of the water table in the Tertiary Sand and its possible fluctuation during differing weather conditions. The *Maroota Groundwater Study Technical Status Report* (Department of Land and Water Conservation 2001) confirms the relevant depth relating to this site and together with the required buffer zone of two metres would allow a further four metres of high quality sand to be extracted with negligible additional environmental impacts.

The present proposal has two major differences in relation to the extraction area and its subsequent rehabilitation compared to the current operation. The new proposal would result in a final landform comprising a large, gently sloping area, approximately rectangular in shape compared to the currently approved final landform of two smaller hollows separated by a much higher central section. There would also be a rectangular area to the east where a single separate pit would be excavated following the removal of Lot 2 DP555184 from the application.

An Environmental Assessment (EA) of the proposal, dated December 2007 was prepared on behalf of PF Formation by DFA Consultants in accordance with the requirements of Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.2 Purpose of the Submissions Report

This Submissions Report (the report) has been prepared to satisfy the requirements of Part 3A of the EP&A Act and demonstrate that PF Formation has fully considered all submissions made during the exhibition period of the EA. The report will also assist the

Director-General of the Department of Planning (DoP) in the further consideration of the proposal.

The report is structured as follows:

- **Chapter 1 – Introduction:** An introduction to the proposal and environmental assessment process together with the consultation program.
- **Chapter 2 – Consideration of Submissions:** A consideration of the submissions made in response to the exhibition of the EA and the proponent's response to the issues raised in the submissions.
- **Chapter 3 – Changes to the Proposal and Statement of Commitments:** Any changes to the project proposed to be delivered and the Statement of Commitments are described. The full Statement of Commitments is provided in Appendix B.
- **Chapter 4 – Conclusions.**
- **References**
- **Appendices**

1.3 The Statutory Framework

1.3.1 NSW Environmental Planning and Assessment Act 1979

The environmental assessment and public exhibition processes were undertaken in accordance with Part 3A of the EP&A Act.

The application commenced as a proposal to be assessed under Part 4 of the EP&A Act with the Minister for Planning as the determining authority due to its scale and significance. The Director-General's requirements for the EIS were issued on 26 August 2003. The former Department of Infrastructure, Planning and Natural Resources (now DoP) advised on 15 August 2005 that, with the introduction of Part 3A of the EP&A Act, the proposal would now be assessed under that part of the Act and a Major Project Application would be required. This was submitted on 2 February 2006.

The Director-General's requirements for an EA under Part 3A of the EP&A Act were received on 9 May 2006. An amendment to the requirements in respect to the assessment of groundwater impact was requested and accepted by the DoP on 31 August 2006.

The Major Project Application was amended on 19 November 2007 to reflect the removal of Lot 2 DP555184 from the proposal. The draft EA was submitted for review and subsequently accepted by the DoP as adequately addressing the environmental assessment requirements on 28 November 2007.

1.3.2 Commonwealth Environmental Protection and Biodiversity Conservation Act 1999

The EA for the proposal addressed Commonwealth requirements in accordance with the *Commonwealth Environment Protection and Biodiversity Conservation Act* (EPBC Act).

Approval of the Commonwealth Environment Minister is required if the proposal is determined to have a significant impact on any matter of National Environmental Significance or on Commonwealth land. One endangered ecological community and one threatened flora species listed under the EPBC Act would be directly affected by the proposal. Accordingly, the proposal was referred to the former Department of Environment of Environment and Heritage (DEH), initially in June 2003 to determine whether Commonwealth approval would be required in accordance with Section 4 of the EPBC Act.

Following consideration of the proposal, the DEH advised that the impacts would constitute a controlled action and approval under Part 9 of the EPBC Act would be

required. It was indicated that under Section 87 of the EPBC Act, an accredited process must be used to assess the environmental impacts relevant to the proposal. The accredited process was deemed to be an EIS under Part 4 of the EP&A Act.

The NSW legislative changes brought about by the introduction of Part 3A of the EP&A Act resulted in an amended environmental assessment regime for projects considered likely to have significant impacts. The DEH confirmed on 10 April 2006 that an EA under the provisions of Part 3A of the EP&A Act would be considered by the Minister for Environment and Heritage to be an accredited process under the EPBC Act. Copies of the relevant correspondence are included in Appendix C.

1.4 Preparation of the EA

In accordance with the requirements of various State and Commonwealth legislation, an EA was prepared for the proposal by DFA Consultants in conjunction with a number of specialist sub-consultants. Requirements and guidelines for the preparation of the EA were provided by the Director-General of the former Department of Infrastructure, Planning and Natural Resources and then the DoP in accordance with Clause 231 of the EP&A Regulation. These requirements were addressed in the preparation of the EA. Compliance with these requirements is outlined in Appendix B of the EA. The Commonwealth Minister for Environment and Heritage accepted the preparation of the EA under Part 3A of the EP&A Act as an accredited process suitable for assessment of the proposal in accordance with Section 87 of the EPBC Act.

The EA addressed all relevant statutory requirements under the EP&A Act and took into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity as per Section 111 of the EP&A Act. The EA was prepared in accordance with the prescribed form and manner set out in Section 112(1)(a) of the EP&A Act. The EA also complied with Clause 228 of the EP&A Regulation. **Table 1.1** lists the NSW statutory requirements relating the preparation and exhibition of the EA.

Table 1.1 NSW Statutory requirements for the Environmental Assessment

Reference	Requirement
Section 111 of the EP&A Act 1979	Requires the proponent to examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.
Section 112(1)(a) of the EP&A Act 1979	Relates to the preparation and consideration of an EA in accordance with the prescribed form and manner.
Clause 228 of the EP&A Regulation 2000	Compliance with Section 111 and 112 of the EP&A Act 1979.
Clause 230 of the EP&A Regulation 2000	Content of the EA.
Clause 231 of the EP&A Regulation 2000	Content of the EA – Requirements of the Director-General of the Department of Planning.
Clause 234 of the EP&A Regulation 2000, Section 113 of the EP&A Act 1979	Notification and exhibition of the EA – responsibility of the Department of Planning under Part 3A of the EP&A Act 1979.

Clause 230 of the Environmental Planning and Assessment Regulation

The EA was prepared in compliance with Clause 230 of the EP&A Regulation. This clause requires that an EA complies with Schedule 2 of the Regulation. Section 1.5 and Chapter 3, together with Appendices A and B describe the compliance of the EA with Schedule 2 of the EP&A Regulation.

Clause 231 of the Environmental Planning and Assessment Regulation

The EA was prepared to comply with Clause 231 of the EP&A Regulation. This clause requires that the Director-General of DoP must be consulted concerning the form and content of the EA. The Director-General was consulted prior to the start of preparation of the EA and provided his requirements for the document. The correspondence from the Director-General is included in Appendices A and B of the EA.

Appendix B of the EA provides a checklist of the matters to be addressed in the EA derived from the Director-General's requirements. Each requirement is addressed in the EA.

Clause 234 of the Environmental Planning and Assessment Regulation

Clause 234 deals with the statutory exhibition of the EA. This took place between 5 December 2007 and 31 January 2008, a period of eight weeks and one day. This satisfies the statutory 30 day period for exhibition.

The EA was exhibited at the following locations:

- Department of Planning Information Centre, Bridge Street, Sydney;
- Baulkham Hills Shire Council, Showground Road, Castle Hill;
- Dural Branch Library, Pellitt Lane, Dural; and
- Nature Conservation Council, Kent Street, Sydney

1.5 The consultation program

The consultation process for the proposal commenced in December 2002. An outline of the community consultation involvement during the preparation, initially of the EIS, and then the EA is contained in Section 1.2.3 of Volume One of the EA.

The consultation program comprised:

- public meeting to define the issues and concerns;
- provision of information on the PF Formation website and telephone information line;
- distribution of a flier to all adjacent landowners and residents inviting discussion of the proposal and direction of interested parties to the application to the Minister for consideration under Part 3A of the EP&A Act and the proposal summary on the DoP web site; and
- advertising the exhibition of the DA and EA in State-wide and local newspapers, making available the documentation at selected locations and on the DoP website with a link to the PF Formation website and seeking community response (advertising and the exhibition are the responsibility of the DoP).

CHAPTER

2

SUBMISSIONS TO THE ENVIRONMENTAL ASSESSMENT



Chapter Two Submissions to the Environmental Assessment

2.1 Introduction

A total of 13 submissions were received following the public exhibition of the EA. Three of these were from State Government agencies, one from the Commonwealth Government and one from the local shire council. The remaining eight were divided between representatives of local interested groups (three) and individuals (five). Appendix A provides a record of the submissions received and the issues raised in each.

The issues to be addressed in the EA were defined by the Director-General of the DoP and these, together with the statutory requirements for the form and content of the documents, have provided the basis for the assessment. The responses have generally reflected these issues and are the source for the responses in this report.

2.2 Issues raised in the submissions

This section responds to issues raised in the submissions received in response to the public exhibition of the EA. Issues are addressed under the following main headings:

- Issues raised by government agencies
- Status of Lot 2 DP555184
- Development setbacks
- Rehabilitation/biodiversity protection
- Groundwater
- Visual impacts
- Air quality
- Cumulative impacts
- Community benefits
- Alternative sources of sand
- Importation of material
- Community consultation
- Ecologically sustainable development
- Aboriginal archaeology
- Downstream environment/water quality

- Compensatory habitat
- Significance of the former Trig site
- Summary of the Environmental Assessment

The following sections list the issues raised in the submissions followed by a response. The submissions containing references to the issues are listed at the end of each response.

2.2.1 Issues raised by State government agencies

Issue 1.1

Condition should be added to any approval to require the provision of production data.

Response

Production data is provided in the annual audit reports prepared for Baulkham Hills Shire Council and the Department of Environment and Climate Change. There would be no difficulty in making this data available to other relevant authorities as is currently done.

Submission 1

It was also noted in the submission that the resource was subject to a detailed and well-documented geological assessment. The existing operation was considered to be an important source of construction sand for the Sydney market.

Issue 1.2

The environmental and farm management plans need to address weed management.

Response

Weed management will be included in the revised environmental management plan and the subsequent farm management plan.

Submission 1

It was noted in the submission that the proposed rehabilitation is appropriate and the methods to be employed are sound.

Issue 1.3

Ambient background noise measurement for Location 3 should be applied to Locations 1, 2 and 4 for the purposes of establishing noise assessment criteria.

Response

It would, initially appear logical to apply the background noise measurements for Location 3 to Locations 1 and 2 for the purposes of establishing the noise assessment criteria. No file data is available to support using the noise levels at Location 5 instead.

However, there has been a substantial increase in noise levels in the area resulting from other adjacent/nearby sand extraction operations which have started since the original noise surveys were undertaken in 2004. Consequently, it would be expected that the RBL at Location 3 would now be closer to the 37 dBA used in the noise assessment than the 32 dBA established in 2004. An attended noise measurement undertaken on 7 March 2008 at a location just north of Maroota Public School indicated LA90, LAeq, and LA10(15 minute) noise levels of 34 dBA, 48 dBA and 52 dBA respectively supporting this view.

Submission 2

Issue 1.4

A sleep disturbance assessment for the early morning transport operations has not been undertaken.

Response

In accordance with the DECC's Application notes – NSW industrial noise policy, the $LA_{1(1 \text{ minute})}$ noise level criterion of the prevailing RBL + 15 dBA is a screening criterion only.

When this is not met, a more detailed analysis may be required which should cover the maximum noise level or $LA_{1(1 \text{ minute})}$, the extent that the maximum noise level exceeds the background level and the number of times this occurs during the night time period (10.00 pm to 7.00 am).

It is not reasonable to apply a *sleep disturbance limit* in the Planning Approval and EPL especially since the screening criterion, even based on the 2004 background noise data, would vary between 47 dBA and 52 dBA at the residence nominated in the EA.

Submission 2

Issue 1.5

Noise impacts at Location 4 and the residence on Lot 2 DP555184 should be managed via the planning approval if deemed by DoP to constitute sensitive receivers.

Response

The residence at Location 4 is located on an approved sand extraction site and would not be normally considered to be a sensitive receiver.

Lot 2 DP555184 is included in the current consent. This has been removed from the present application at the request of the landowner who in his submission has stated his intention to apply for a separate approval to operate a sand extraction facility. The implications of this change are addressed further under **Issue 2.1**. The residence on this lot is not considered to be a sensitive receiver and there would be no requirement for noise impacts to be managed via the new planning approval.

Submission 2

It is also noted in the submission that the EA adequately deals with all environmental issues likely to be foreseen.

Issue 1.6

Measures required to improve truck driver behaviour

Response

Mitigation measures relating to truck movements are included in the current Environmental Management Plan and in the driver induction procedures employed by PF Formation. These include the requirement to cover loads on leaving the weighbridge, maintenance of speed limits, and the repair of any damage at the intersection of the haul road with Wisemans Ferry Road.

The current Environmental Management Plan will be reviewed and amended, where required to include the necessary measures.

Submissions 3 and 10

2.2.2 Status of Lot 2 DP555184

Issue 2.1

Potential loss of existing Part 4 consent

Response

Lot 2 DP555184 is approved as a sand mine under the existing Part 4 consent of the Land and Environment Court (10064 of 1998) held by PF Formation. No extraction has so far taken place on Lot 2. The present application does not include Lot 2 DP555184 as the landowner wishes to pursue a separate proposal to extract sand from this lot and anticipates submitting an application to Baulkham Hills Shire Council in the near future. Council has expressed concerns that this will lead to an unsatisfactory situation.

Clause 75YA(2) of the EP&A Act states:

A condition of the approval of a project under this Part may require any one or more of the following:

(a) the surrender under section 104B of any development consent relating to the project or the land concerned

This is therefore not a necessary condition and it only relates to the land in the present development application (not Lot 2 DP555184). Once pre-commencement conditions have been met, the proponent could surrender the existing Part 4 consent to the extent that it relates to the land included in the Part 3A consent (Lots 1 and 2 DP570966, Lot 2 DP233818, Lot 1 DP1091018, Lot 167 DP752039 and Lot 1 DP345599). This would have no effect on the Part 4 consent as it relates to Lot 2 DP555184 – the only part of the current development area not surrendered.

Submission 9

2.2.3 Development setbacks

Issue 3.1

Issues relating to compliance with the setback provisions of Part D, Section 6 Extractive Industry of Baulkham Hills Development Control Plan 9.

Response

Lot 1 DP555184 and Lot 3 DP542117, not included in the proposal, were inadvertently omitted from Figure 2.3. Their inclusion will result in minor changes to the plans.

While an application is yet to be submitted to Baulkham Hills Shire Council to undertake sand extraction on Lot 2 DP555184, the landowner has indicated that he will do so. He also wishes to protect what he terms his existing rights under the current approval held by PF Formation over his land. This is discussed in the response to Issue 2.1. Extraction would therefore remain as an approved activity

on adjacent properties and, with the agreement of all parties no setbacks would be required.

A 30 metre setback to Hitchcock Road seems excessive but will be implemented.

The Maroota Rural Fire Brigade building on Lot 3 DP542117 is clearly a community facility but is not comparable to other social facilities (schools, hospitals) where possible disturbance from mining could be considered to cause potentially unacceptable impacts. As a result, a 100 metre set back is considered to be excessive and 30 metres to be more appropriate in this case. Note that the Consent Orders (Clause 3.3) required a setback of 50 metres from the house on Lot 1 DP223323 which was not included in the existing development.

It is noted that the proposed conversion of the disused Scout Hall to a dwelling on Lot 1 DP555184 did not proceed. This lot is privately owned and any future action is the responsibility of the owner. However, it is also understood that the Rural Fire Brigade is seeking additional space. This would obviously appear to be a suitable location for any expansion of Brigade facilities.

The amended setbacks reflecting these circumstances are shown on **Figure 3.2**.

Submissions 4 and 9

2.2.4 Site rehabilitation/biodiversity protection

Issue 4.1

Issues relating to removal of native vegetation, biodiversity conservation and site rehabilitation

Response

The specialist flora and fauna assessment (Section 4.10.9 in the EA) concluded that:

Two remnants of Shale Sandstone Transition Forest within the development footprint totaling 5.2 hectares, are small, isolated, have a large edge to area ratio and are almost entirely subject to edge effects. The removal of these remnants is unlikely to have a significant impact on the recovery of this community.

As this ecological community is classified as threatened in both the EPBC and TSC Acts, its removal would be conditional on the preparation and implementation of a Biodiversity Offset Strategy to be agreed with the DECC. The preparation of this strategy together with the Rehabilitation Plan is included in the draft Statement of Commitments in the EA.

The Biodiversity Offset Strategy will be based on *Guidelines for Biodiversity Certification of Environmental Planning Instruments* (Department of Environment and Climate Change 2007) and take account of *Use of Environmental Offsets under the Environmental Protection and Biodiversity Conservation Act 1999* (Department of Environment and Water Resources 2007) and the provisions of the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006*.

Part of the site has been rehabilitated using seed obtained from the existing community both by direct seeding and by the planting of seedlings. This was undertaken in collaboration with Greening Australia and the progress of the program reported in the annual audit reports and regularly inspected.

Rehabilitation is undertaken in a number of stages:

- drying and capping of the sedimentation ponds following decommissioning and introduction of new ponds into the cycle. Drying and capping can take up to three years to complete;
- land reformation to achieve the final contours;
- preparation of topsoil and re-soiling;
- seed collection and germination, undertaken in parallel with the previous activities;
- area seeding and planting of specimens;
- protection of plants from fauna; and
- weed control and general maintenance.

The proposed final landform is shown on Figure 2.7 in the EA. There remain some uncertainties relating to the proposals for Lot 2 DP555184 with its implications for boundary transitions. However, based on previous investigations of the existing resource the final landform in this area would not be expected to differ substantially from that currently approved.

Submissions 4, 5, 7, 11, 12 and 13

2.2.5 Groundwater

Issue 5.1

Claims of adverse impacts on the aquifer due to sand mining

Response

The sand miners at Maroota are only one user of groundwater; the use of groundwater for agricultural purposes is usually ignored. The Stage 1 Report of the Maroota Groundwater Study stated:

Anecdotal information suggests that irrigation is the largest consumer of groundwater, and that the shallow aquifer is used more extensively than the deep aquifer. (page 17)

The Maroota Groundwater Study, Technical Status Report (DLWC 2001) quantified groundwater usage on the basis of the existing groundwater entitlements and presented the results in Table 10, page 34, commenting that almost 200ML/year had been licensed to irrigation and industrial groundwater users in each case. The entitlements were 196ML/year from the Maroota Sand (shallow) aquifer and 196ML/year from the Hawkesbury Sandstone (deep) aquifer. These figures have not been updated since the 2001 report was published

Possible groundwater consumption from the Maroota Sand is similar for the two major users, due to the manner of exploitation by means of excavations in the shallow aquifer for irrigation, whereas the deep aquifer requires deep bores and greater capital expenditure.

One submission acknowledges that sand extraction will take place to two metres above the wet weather water table. This depth of mining is approved by the Department of Water and Energy (as the successor to the DLWC, DIPNR and DNR) and is a condition in the Baulkham Hills Shire Council Extractive Industries Development Control Plan 500 and in the Hornsby Shire Council Extractive Industries Development Control Plan. All miners in the area have in place monitoring networks in the shallow and deep aquifers and report annually to government authorities and Councils. The question of the rationale for the depth of the buffer should be addressed to the DWE.

The response of the shallow aquifer and its dependence on rainfall for the maintenance of water levels have been discussed at length in a large number of reports, such as annual Groundwater Management Plans prepared for PF Formation, in submissions in support of Development Application for PF Formation and other sand extraction companies and in government agency reports. The effects of the prolonged drought of the last five to six years has produced similar effects in monitoring bores in similar environments, so that it is not surprising that water levels during this period show declining trends. However, what is of greater interest is the shallow aquifer's response to periods of sustained rainfall as in June 2007 in Bore PF167MW1, when the water level rose by more than one metre.

The assertion that the sand extraction might not result in increased recharge to the shallow aquifer cannot be supported. The removal of trees and tree roots and soil exposes the top of the formation to direct rainfall and will facilitate the infiltration into the sandy material during the mining period. Clay, which is used to line the sediment basins would only cover a small proportion of the site.

Submissions 7 and 13

Issue 5.2

Claims of potential adverse impacts on downstream flows

Response

The comment is also made that the area designated for sand extraction is adjacent to a number of springs and a large spring fed dam. In addition, reference is made to anecdotal evidence that Little Cattai Creek is a perennial stream and that in this area a number of groundwater dependent ecosystems are present. Unfortunately no plan has been supplied identifying these sites.

The site of the proposed development is not a virgin site, since sand mining has been carried out there since 1980 and before that had accommodated large areas of orchards. The current proposal is basically about a modification of the depth of mining to 183 m AHD, against the current depth of 187 m AHD. Springs adjacent to the site would not be affected by the change in depth of mining (see also the response regarding Taylor's spring).

The 2001 DLWC report identified a number of Groundwater Dependent Ecosystems (GDE) in Section 5.1, page 81 and in Figure 17. Only one GDE is located directly downstream of the site.

The upper headwaters of Little Cattai Creek are located in part in the area already under development and in part in Lot 2, DP555184, which is not included in the proposed development. The large dam in Lot 2 (established for a long time) and listed in Formosa (1998) as Group of Springs S7 is located on the main arm of the Little Cattai Creek catchment in the area, thus capturing a significant

proportion of the run-off from that area, although that makes up a very small proportion of the catchment.

The recognised southern boundary of the Maroota Sand formation is located in the southern portion of the proposed development. The creek catchment area below this boundary is much larger than that included in the Hitchcock Road site (including Lot 2) and is entirely in the Hawkesbury Sandstone. It seems likely that the GDE ecosystems (identified or not) downstream of the proposed development are more dependent on the sandstone aquifer than on the Maroota Sand. As a result, the downstream biodiversity and, ultimately the Broadwater Wetlands, are not at risk from the sand extraction proposal.

Conclusions from the 2001 DLWC Report are quoted with regards to the extraction entitlements from the Maroota Sand aquifer being comparable with the sustainable yield from the shallow aquifer. In the absence of updated figures, the 2001 DLWC Report is the last study on the subject. Reliance should not be placed on anecdotal reports of decreased groundwater flows when these are not measured and analysed against rainfall data over the same period.

One submission refers to:

Hitchcock's Spring Maroota, located on the north east side of the Maroota Trig Hill, on the eastern side of Old Northern Road at Maroota and drains to the Ashdale Creek Catchment.

The precise location for this spring is not shown in the submission, but the indication given places the spring on the eastern side of the surface water and groundwater divide which runs along Old Northern Road and somewhat north east of the junction of Wisemans Ferry Road and Old Northern Road. If this location is correct, the spring is more likely to drain to the Coopers Creek catchment than to the Ashdale Creek catchment. However, in the area indicated there are several large irrigation dams deepened in recent years into the top of the Hawkesbury Sandstone and monitored by DWE monitoring bores. Water level records of these bores are not available to the applicant. The possible effects of pumping from these dams cannot be discounted as a contributing factor, together with a prolonged drought, in the reported decline of the spring recharge.

Reference is made in two submissions to Mr Taylor's spring. The conditions and performance of this spring were addressed exhaustively during the 1998 Land and Environment Court Case (Diamond vs Baulkham Hill Council and other). An initial report on the spring was prepared in 1995 followed by an in reply for the court case. The court concluded that there was no evidence that the spring, which is located within a pond and a shed along the creek had dried out as a result of mining activities. In fact, in the evidence provided to the court by Mr Taylor and Mr Sullivan, the decline of the spring yield had been occurring since 1980, 15 years before the excavation of the pond in Lot 167 on the Hitchcock Road site, subsequently licensed by DLWC in 1996.

The reported decline in yield was from 388 kL/day in 1980 to 52 kL/day in 1995, during which time there were no mining activities which required groundwater pumping. The evidence produced in court in 1998 indicated that the spring yield had remained at 52 kL/day since 1995, so that no impact could have been derived from Lot 67 mining activities. Furthermore, the evidence given in Court as to the production capacity of the spring was shown to be seriously flawed.

We are not aware of the presence of a spring in Hitchcock Road as indicated in one submission.

Submissions 7, 11 and 13

Issue 5.3

Delays in the completion of Stage 4 of the Maroota Groundwater Study

Response

Delays in the completion of the Stage 4 of the Maroota Groundwater Study have received unfavourable comment.

Submission 7

Issue 5.4

Exceedance of licence conditions

Response

Pumping of groundwater from the licensed dam on Lot 167 has exceeded the allocation on a number of occasions. This was reported in the annual Environmental Audit of the site and measures introduced to prevent this reoccurring. Pumping has now been significantly reduced (approximately 50 percent of the licensed volume over the last two years) as a result of efficiency improvements at the central process plant on Lot 198.

Submissions 7 and 13

2.2.6 Visual impacts

Issue 6.1

Claims of reduction of visual amenity

Response

The visual assessment (Technical Paper 8) shows that the site is not normally visible from any publicly accessible road or property due to the topography and intervening vegetation. It can be seen if someone specifically seeks to do so but that is unlikely to be the motive of residents or passersby. It can be seen from the Haerses Road area but this site is an operating sand mine and access will be limited. Views into the area will be further obstructed in the future as the new vegetation matures.

Submission 7

2.2.7 Air quality

Issue 7.1

Claims of excessive dust levels

Response

The air quality impact assessment prepared by specialist sub-consultants confirmed that off-site dust concentrations at all nearby residences would remain below relevant air quality goals.

Dust monitoring using deposition gauges is unreliable and it is not possible to identify the source of the material in the Maroota area. The current TEOM monitoring station at Maroota Public School will provide much improved data at

that source but, at present this is not available to PF Formation. This issue is under active consideration with the Department of Environment and Climate Change with the objective of providing accurate and reliable information on air quality in the Maroota area. Verbal advice has been received that existing criteria for a number of air pollutants have not been exceeded at the monitoring station since it was installed two years ago.

Submissions 7 and 13

2.2.8 Cumulative impacts

Issue 8.1

Claims of a lack of consideration of the cumulative effects of sand mining on the local community

Response

The issue of the work of the Maroota Quarry Cumulative Impacts Committee needs to be addressed to the Department of Planning.

In the case of the current application, it is proposed to replace one consent with another.

Submission 7

2.2.9 Community benefits

Issue 9.1

Claims of unfair burden on the community as a result of sand mining.

Response

The local community receives benefits via direct contributions (royalties, jobs and support for local businesses) which would not otherwise be available. These are inevitably not uniformly distributed as there is no mechanism to implement such a distribution. At the same time, some residents are more affected by the impacts of what is occurring at Maroota than others. The situation is complex and it is not possible for one development to make such a transformation possible even if it was feasible. It will therefore be necessary for the decision-makers to decide on the merits or otherwise of the proposal in relation to community effects before reaching a decision.

Section 94 contributions paid by the sand mining operators are strictly limited by the requirements of the EP&A Act. However, these have provided improved main roads in the area which would not have otherwise been available to benefit the community.

Submission 7

2.2.10 Alternative sources of sand

Issue 10.1

Consideration of other sources of construction sand.

Response

A proposal to extract marine sand off the coast of NSW was rejected by the State government some years ago due to major uncertainties regarding environmental and particularly coastal impacts. Given concerns about rising sea levels and their potential impacts on coastal communities, any decision on whether to proceed

with such a proposal would need to be approached with caution and be subject to considerable investigation.

One submission suggests that such a source could be a substitute for the current Hitchcock Road proposal; another supports the proposal in order to reduce the necessity to extract the maritime sand. Details of any new proposal to use the offshore resource are not available at present and it could be reasonably expected that it would attract widespread opposition.

As such a proposal cannot be considered to be a viable project as yet, it was not considered in the EA.

Submissions 6 and 7

2.2.11 Importation of material to the site

Issue 11.1 Specification of the imported material

Response

Only material which could be effectively recycled with that derived from the site would be imported. This would comprise sand, gravels and clay, all certified as clean, virgin material.

Submission 7

2.2.12 Community consultation

Issue 12.1 Claims of inadequate community consultation

Response

The community meeting held in 2002 was aimed at both providing accurate information to the community and identifying their issues. These would not be expected to change over time and, where relevant are addressed in the EA. The issues raised are listed in the EA and those relevant to the application are addressed in the document.

Information about the proposed development was made available on the PF Formation website and a flier was distributed to Maroota community members living adjacent to the site in August 2006 inviting interested parties to a discussion of the proposal and providing further information. This document indicated that a summary of the environmental assessment could be viewed on the Department of Planning website. This was the version provided to the DoP at the start of the 3A assessment process when the Minister decides if the proposal can be included in those categories defined in the Act.

The EA was placed on public exhibition at specified locations and on the website from 5 December 2007 to 31 January 2008, a period of eight weeks and one day (the required period is four weeks). Its exhibition was advertised in newspapers on two occasions by the Department of Planning.

The proposed process for acceptance of the EA by the DoP and the expected exhibition period was discussed with the Liaison and Review Committee at its meeting on 19 November 2007 and its exhibition was noted in the Eco-News

section of *Living Heritage* (a local community newspaper) in the December edition.

For those interested in Sandmining issues at Maroota, an application to extract sand in and around the (former) Maroota Trig site and (sic) has just been submitted to NSW Government Department of Planning. This proposal is likely to go on exhibition for public comment in December or January.

The consultation program comprised:

- public meeting to define the issues and concerns;
- provision of information on the PF Formation website and telephone information line;
- distribution of a flier to all adjacent landowners and residents inviting discussion of the proposal and direction of interested parties to the application to the Minister for consideration under Part 3A of the EP&A Act and the proposal summary on the DoP web site; and
- advertising the exhibition of the DA and EA in State-wide and local newspapers, making available the documentation at selected locations and on the DoP website with a link to the PF Formation website and seeking community response (advertising and the exhibition are the responsibility of the DoP).

The community consultation program is considered to be adequate given the nature of the proposal which is essentially an amendment to an existing development and the local community.

Submissions 7 and 13

2.2.13 Ecologically sustainable development

Issue 13.1

Non-compliance with the issues of social and intergenerational equity

Response

Tertiary sand is an important economic resource and the Maroota area has been designated by the State Government as a major source of this material. Sand mining inevitably results in impacts such as the removal of existing vegetation and the reshaping of the ground profile. Much of the native vegetation along and on both sides of the Maroota ridge had already been removed to make way for stone fruit orchards prior to the start of sand extraction. Mining will ultimately be completed and with the implementation of the rehabilitation plans the land will be reshaped and revegetated. This will inevitably take time but will remove the unattractive views experienced where current extraction is underway. Further shaping of the ground profile and the gradual maturing of the new native vegetation plantings will allow the previously extracted areas to again become an integral part of the overall landscape.

It is an important consideration of ESD as applied to the Hitchcock Road site to maximise the recovery of the available resource within the constraints imposed by environmental and economic considerations. A substantial volume of high grade sand is available with a marginal change in impacts compared to those currently

experienced. Any refusal to extract the available resource and adopt a substitute such as the marine sands would result in a substantial environmental penalty in an area where such impacts are not currently experienced.

There is no evidence that sand mining will result in the kind of lasting damage to the environment that is claimed by some individuals. Mining activities are closely controlled and are subject to extensive reporting regimes. The implementation of appropriate rehabilitation and protection of biodiversity values using offsets and new approaches such as biobanking will allow the environment to be returned to an acceptable state. This cannot be said about other land uses in the Maroota area.

The process by which sand mines are approved and subsequently managed requires much prior investigation and monitoring of the resulting environmental impacts of the extraction operations. The precautionary principle has been applied by reliance on comprehensive scientific data throughout the planning and assessment of the proposal leading to the identification of mitigation measures and environmental safeguards. Wherever a potential impact has been identified, mitigation measures have been proposed to reduce the impact as far as practicable.

Submission 7

2.2.14 Aboriginal archaeology

Issue 14.1

Inconsistencies between Technical Paper 7 and Volume 1 of the EA

Response

A submission noted that recommendations included in Technical Paper 7 Cultural Heritage Assessment relating to sub-surface testing were not included in the main volume of the EA.

Although the EA was not exhibited until December 2007, the Technical Paper was prepared in August 2004. In the interim, following approval by Baulkham Hills Shire Council some extraction activity has taken place under the terms of the existing Court consent. The relevant clauses are:

3.10 Discovery of Archaeological Material

In the event that any archaeological material is found during extraction, operations are to cease immediately and the National Parks and Wildlife Service and Council are to be consulted.

3.11 Discovery of Aboriginal Relics

The proponent is to ensure the conservation of all Aboriginal relics, artifacts, carvings, artwork or the like to the requirements of the Local Aboriginal Land Council and details of which are to be submitted to Council.

Similar wording is included in the current Environmental Management Plan which controls operations on site.

A small area of extraction has taken place adjacent to, or within the area roughly shown as MRPAD1 on Figure 4.13 in the EA. No archaeological material has been found. Extraction has now ceased at that location.

Future extraction will not intrude on this area and it is not believed to be necessary to undertake sub surface investigations. The area suitable for extraction in this part of the site was determined following the archaeological survey but it was assumed at the time by the archaeological consultant that the whole of the area would be subject to extraction.

Submission 8

2.2.15 Significance of the Trig Hill

Issue 15.1

Claims of historic and aesthetic significance of the former Trig Hill

Response

The NSW Heritage Office has defined a methodology and set of criteria for the assessment of cultural heritage significance for items and places where these do not include Aboriginal heritage from the pre-contact period ((NSW Heritage Office 1996, NSW Heritage Office 2000). The criteria are used to identify items for listing on the State Heritage Register. The former Trig Hill at Maroota is not included on that or any other heritage listing.

The Maroota Trigonometrical Station was first notified in 1888 but the original appears to have been destroyed. It was replaced in 1974 by a standard concrete pillar trigonometrical station (TS2985 (P) Maroota) which is located 3.5 metres to the east of the original site. The Maroota Trig is typical of the standard and most common type of station in NSW. It is less than 50 years old and as such is not considered to be a heritage item under the NSW Heritage Act.

An item is only able to display aesthetic qualities if it can be seen by viewers who can ascribe those qualities to it. The former Trig Hill cannot be seen from normally accessible areas due to the topography of the area, bunds constructed as part of the development and intervening vegetation. Views are however available from Haerses Road to the south west of the Hitchcock Road site but this road is located within an approved sand extraction and any access will be limited.

Submission 13

2.2.16 Exhibition of the Summary of the EA

Issue 16.1

Claimed discrepancies between versions of the EA summary

Response

While it is obviously regrettable that there are some differences between the version of the EA summary on the DoP website and that included in the full version of the document which is available on exhibition, detailed checking indicates that any differences are minor and none could be considered misleading or deceptive. The differences relate to the use of a slightly earlier version of the summary on the Department's website which was prepared to accompany the revised Part 3A application required to accommodate the removal of Lot 2 DP555184 from the application. The reader was directed to the full version of the EA containing the final version of the summary via a link on this website.

Each of the differences between the versions either comprises clarification of the issue, the provision of additional information or minor rewording. No differences are identified which reflect changes to the proposal seeking approval, the

identified impacts or the management measures proposed. There is no circumstance where the reader would be mislead concerning the proposal in the EA by the material contained in the summary on the DoP website and any interested reader would access the full version via the link to review the exhibited material.

Submissions 7 and 13

2.3 Issues not relevant to the environmental assessment

One submission contains a very considerable amount of material, much of it old and repetitive which has been presented in a number of forums in the past and has no relevance to the current application. Much of this includes repetition of the issues raised by one of the authors of the present submission at a hearing in the Land and Environment Court in 2003 (10206 of 2003) before Talbot J. The judgement contained the following with reference to the author:

98 The evidence given by Mr (D) was primarily in the form of assertions and submissions based on hearsay and conjecture relying upon his own judgement and assessment without the direct input of any expert. His allegations and complaints are wide ranging although they concentrate more particularly on the relationship between the company, PF Formation and BHSC. His failure to solicit a satisfactory response to his complaints made to ICAC, the Ombudsman, the Department of Local Government, the Premier, DLWC and PlanningNSW appears to have driven him to an attempt to widen the enquiry undertaken by this Court in this hearing well beyond relevance to the subject appeal.

99 In cross examination he proved himself to be evasive and deliberately unresponsive in his answers to questions about his motives for commencing these proceedings, pursuing them after consent orders were agreed upon and his own criminal record following conviction in this Court by Bignold J in relation to breaches of waste control legislation. Furthermore, it became apparent during cross-examination that Mr (D) has a justified reputation as an agitator and confrontationalist in relation to environmental and pollution matters to the extent that he is blacklisted by authorities, in particular the EPA.

Responses to this submission have been prepared where issues of substance have been raised relevant to the present application. Responses have not been made to unsubstantiated allegations and insinuations or where the issue has little or no relevance. However, in some cases where the comments contained in the material are factually wrong, a response has been provided.

The following issues are not considered to be relevant.

- Accusations of failure to comply with existing consent conditions in relation to rehabilitation and water use. The determination of compliance with consent and licence conditions is the responsibility of Baulkham Hills Shire Council and the Department of Environment and Climate Change based on detailed environmental monitoring and inspections as required by the Court orders. No notices have been served on PF Formation for a breach of any condition as provided for in Clause 3.2 of the Court orders.
- Issues relating to the rehabilitation bond.
- Section 94 contributions.

- Status of the assessment – the applicant was informed by the previous Department of Infrastructure, Planning and Natural Resources on 15 August 2005 that the proposal originally to be assessed under Part 4 would now be assessed under Part 3A of the EP&A Act following the change to the legislation.
- Litigation history of one of the authors of the submission.
- Activities on Lot 198 – no changes are included in the application.
- Lease terms on Lot 1 DP1013943.
- The internal haul road – this is not located on the Hitchcock Road site and no changes are included in the application.
- Unsubstantiated allegations and insinuations concerning named individuals.
- Issues of agency and authority governance.

These issues are raised in the submission but are not considered to be relevant to the current application.

3

CHAPTER

CHANGES TO THE PROPOSAL



Chapter Three Changes to the proposal

3.1 The proposal

Development consent is sought for the proposal including:

- extraction of Tertiary Sand, friable sandstone, clay and gravel to within two metres of the wet weather high groundwater table (nominally 181 metres AHD) with no extraction within buffer zones and perimeter setbacks as defined in the environmental assessment;
- loading and transport of the extracted Tertiary Sand via articulated vehicles to the existing sand slurry plant located at the northern end of the site. Other extracted material would be stockpiled for later reuse as backfill or for transport to the central wash plant on Lot 198 prior to removal to market;
- staged clearance of vegetation within those areas designated for extraction as defined in the environmental assessment;
- transport of extracted material as a slurry via the existing pipeline to the central wash plant on Lot 198 DP752025;
- processing and stockpiling of extracted material at the existing central wash plant in accordance with the consent for this operation;
- importation and processing of clean material for recycling up to a maximum of 20 laden trucks per day;
- return of wash water via the existing pipeline and disposal of tailings from the processed Tertiary Sand into sedimentation ponds located on the site of the proposal;
- transport of the product off-site in accordance with the existing consent;
- use of the existing access from Lot 1 DP34599 to Old Northern Road for transport of friable sandstone product not requiring processing at the central wash plant on Lot 198 DP752025;
- use of the existing dam on Lot 167 DP752039 to receive and detain runoff from the extraction area and return clean water to the sand slurry transport system and the existing dam on Lot 198 to receive and detain runoff from the central wash plant area; and
- rehabilitation of extracted areas on the site of the proposal to create an integrated, continuous landform across all extracted areas as the basis for productive future use.

The properties included in the application are shown on **Figure 3.1**.

Extraction operations

The extraction operations would take place in four general stages requiring approximately five years each to complete. In practice these would vary depending on site conditions and market demand. Extraction would continue as currently planned under the existing consent until a new approval is in operation.

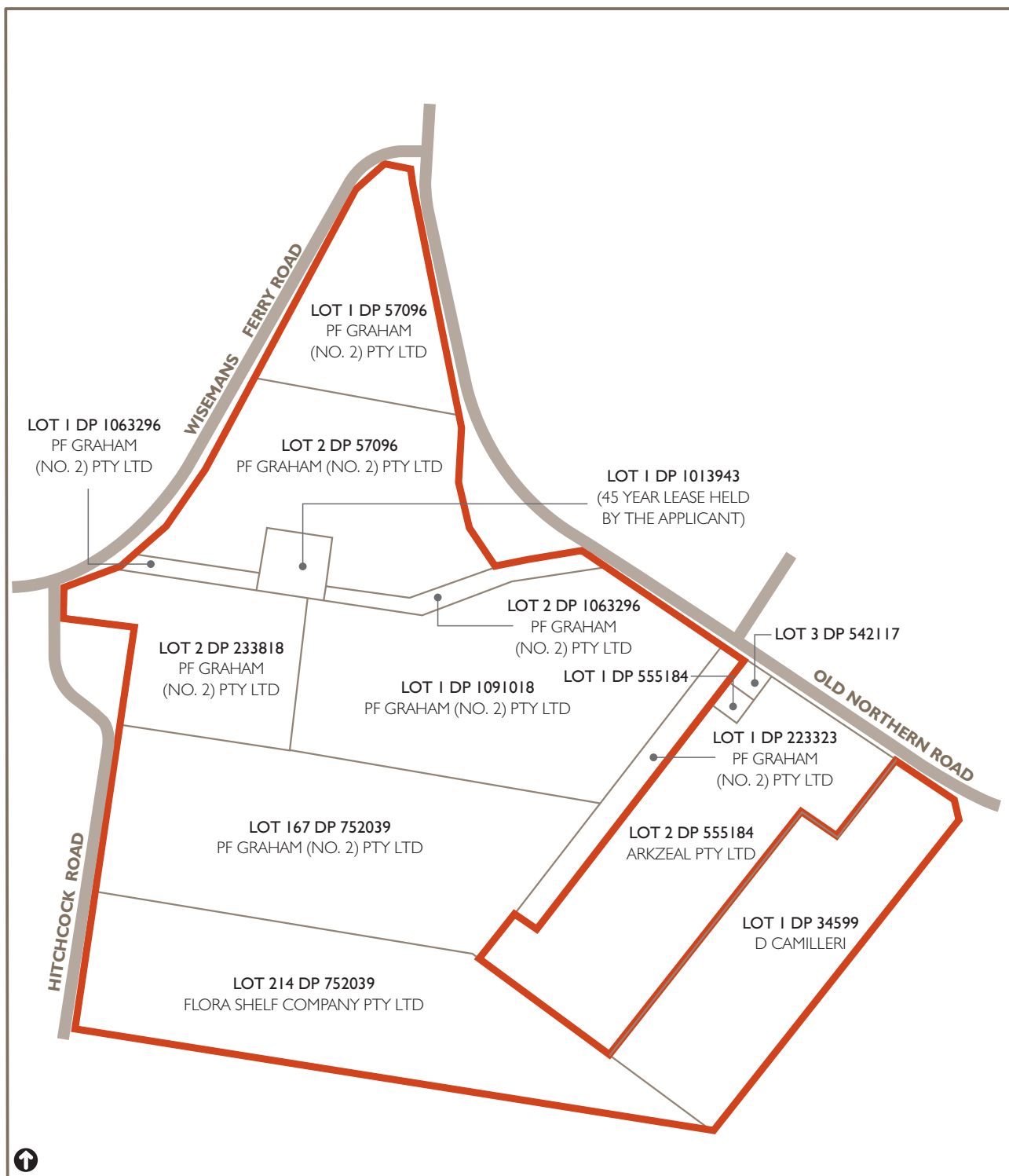


Figure 3.1
LAND OWNERSHIP

— Boundary of the proposed extraction area

Processing and product transport

All raw material requiring to be processed would be transferred to articulated dump trucks to transport the material via established on-site haul roads to the existing plant located at the northern end of the site. Here it would be mixed with water and transported as slurry by pipeline some 1.5 kilometres to the central wash plant located on Lot 198 DP752025. The wash water would be returned to the site for settlement in a series of clay lined basins prior to recirculation from the clean water pond at the lowest point on the system and subsequent reuse.

Product is currently trucked from the central plant and all sales of processed material are made from the weighbridge on Lot 198 DP752025. Trucks leave the site via the access road to Wisemans Ferry Road turning either left to the intersection with Old Northern Road and right to Dural and Castle Hill or right along Wisemans Ferry Road to Windsor, Richmond and Penrith. The proportion of trips on these routes is approximately equal.

Extracted and imported material not being processed at the central wash plant and requiring only on-site screening may be transported to market using the existing access from Lot 1 DP34599 Old Northern Road.

It is proposed that sand extracted from the Hitchcock Road site would supply the same markets as the current operation and the same transport routes would be used. The number of truck movements would remain within the currently approved limit of a total of 200 laden trucks per day (400 truck movements).

Site services

All necessary site services are available and no augmentation is required.

Workforce and hours of operation

The current workforce would remain at 20 to 22 staff. Truck drivers, either permanent staff or contracted or employed by others would pick up loads from the central process plant on Lot 198 DP752025.

The hours of operation would be in accordance with those applying to Lot 198 containing the central process plant and the weighbridge:

- 05.45 hours Monday to Saturday – gates open to allow entry of vehicles to the site;
- 06.00 to 07.00 hours Monday to Saturday (excluding public holidays) – 30 truck movements (15 loaded vehicles) may enter or leave the site;
- 07.00 to 18.00 hours Monday to Saturday (excluding public holidays) – extraction, transportation and processing or running of machinery for maintenance purposes permitted; and
- no extraction, transportation or processing on Sundays and public holidays.

Life of the proposal

Extraction rates at the Hitchcock Road site have ranged between 200,000 and 350,000 tonnes per year over the past eight years. Annual rates may vary from these levels depending on market conditions. Extraction of some 5,335,000 tonnes of material at these rates would require between 21 and 26 years to complete. This is consistent with the existing consent (30 years from November 1998).

Rehabilitation and final land uses

The final landform of the Hitchcock Road site would be influenced by the depth of extraction, the location of commercially available resource (both Tertiary Sand and friable sandstone) and the volume of overburden, mainly clay, available for re-contouring the extracted areas. Sand has been extracted from part of the site to the depth allowed in the existing consent and part of this area has been rehabilitated. These areas would only be reworked where a substantial volume of sand could be economically extracted.

A substantial part of the site would be reclaimed to Class 3 agricultural land suitable for grazing and improvement for pasture. Rehabilitation would comprise the return of the stored topsoil and the progressive revegetation of the site. Techniques to be used have been based on several sources: *Urban Erosion and Sediment Control Handbook* (Department of Conservation and Land Management 1992); *Managing Urban Stormwater* (Landcom 2007); and *Best Practice Environmental Management in Mining – Rehabilitation and Revegetation* (Environment Protection Authority 1995).

A comprehensive rehabilitation strategy including a biodiversity offset strategy would be prepared as part of the revised environmental management plan for the site.

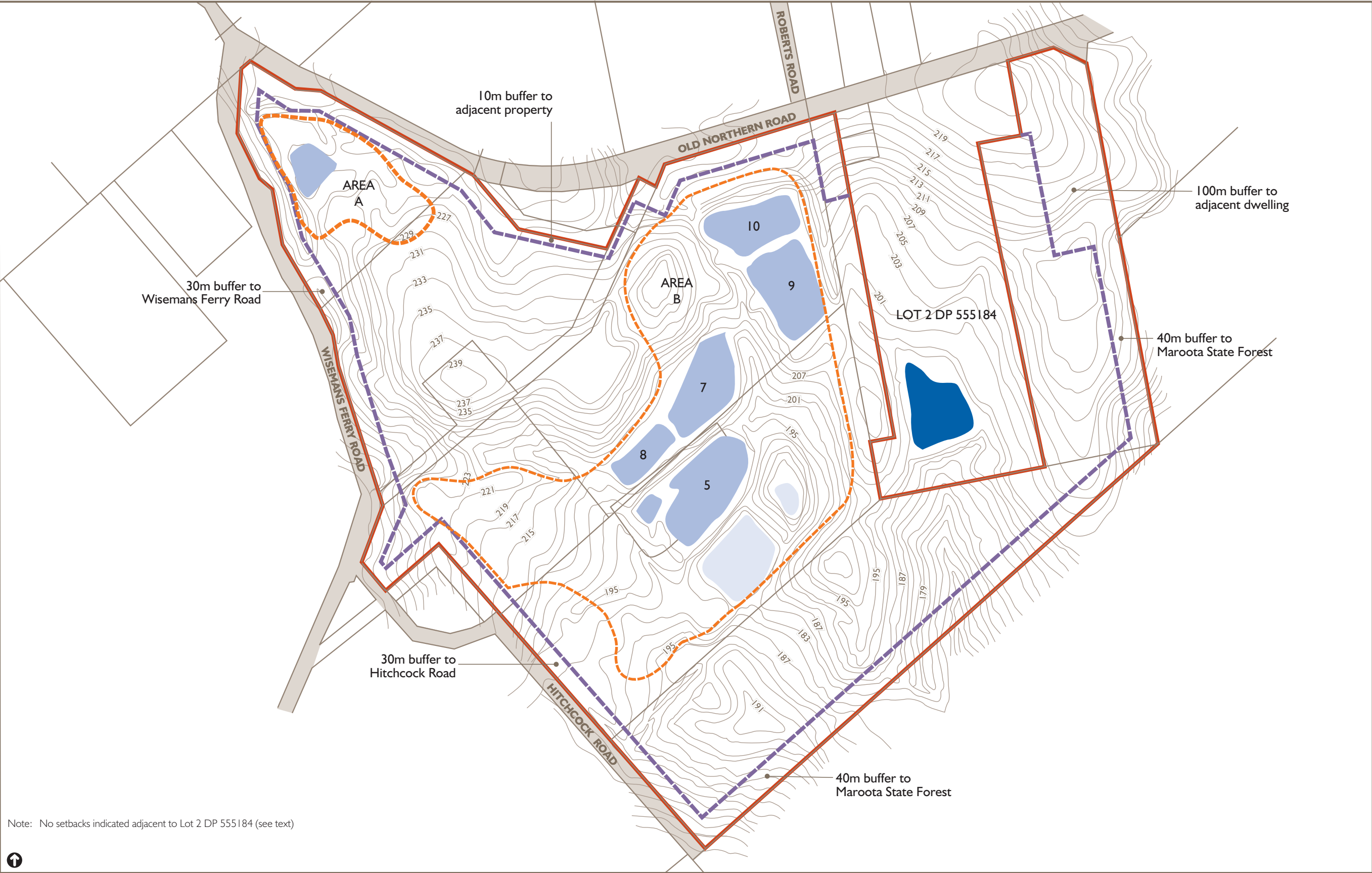
3.2 Development Setbacks

Setbacks around the periphery of the site, at the boundaries of properties not undertaking sand extraction and from buildings such as houses and other facilities not located on properties associated with sand extraction are defined in Baulkham Hills Shire Council Development Control Plan 16 – Extractive Industries. The setbacks shown on **Figure 3.2** generally comply with the requirements of DCP 16 with the following exceptions:

- No setbacks are shown between those lots included in the application (Lot 1 DP34599, Lot 214 DP752039, Lot 167 DP752039 and Lot 1 DP555194) and Lot 2 DP555184. This assumes that the existing approval will be amended by the Minister to allow the continuation of sand extraction under that approval until a new application is made by the landowner of Lot 2 DP555184, if he so chooses. It also assumes that agreement will be reached between the respective owners on the removal of setbacks on the respective property boundaries. If either or both of these assumptions is wrong, necessary changes would be made to the setbacks.
- A setback of 30 metres from the Rural Fire Brigade facility on Lot 3 DP542117 and the disused Scout hut on Lot 1 DP555184 is shown on **Figure 3.2**. Due to the nature of this facility, activities at this location are not likely to be disturbed by adjacent sand mining and the 100 metre setback included in DCP 16 is considered to be excessive.

3.3 Changes to the Statement of Commitments

One minor change is proposed to the draft Statement of Commitments. The final sentence *Bunds will be completed around the whole area to be worked (VA2 in Table B1)* has been deleted. The remaining text is relevant and appropriate as there are boundaries such as that to Maroota State Forest where bunds would not be required.



Scale
0 500 Metres

Note: Contours at 2 metre intervals

- Tailings pond
- Existing farm dam
- Clean water dam
- Sand extracted and partially rehabilitated
- Site boundary
- Development setback

Figure 3.2
DEVELOPMENT SETBACKS

4

CHAPTER

CONCLUSIONS



Chapter Four Conclusions

The Submissions Report demonstrates that:

- Statutory obligations have been met;
- All issues-relevant to this development have been considered and written responses provided;
- In response to these issues, some minor amendments have been made to the proposal. These relate to setbacks from an adjoining property which is not included in the present application but which the landowner wishes to see retain its current approval to extract sand under Part 4 of the EP&A Act. This would require the Minister's approval to a modification to the existing consent under Clause 75YA of the EP&A Act. In this case, no setbacks would be necessary on the boundary between Lot 2 DP555184 and those properties included in the application. All setbacks would comply with those in Baulkham Hills Shire Council Development Control Plan 16 except that from the Rural Fire Brigade facility on Lot 3 DP542117. In this case a setback of 30 metres, rather than 100 metres is considered to be adequate.
- No changes are proposed to the environmental management measures although a minor rewording to the Statement of Commitments has been made.
- Having considered the submissions received, the proponent is satisfied that the proposal as described in the EA could proceed with the only modifications relating to the setbacks as described above and shown in **Figure 3.2**.

The proponent therefore proposes to seek approval of the Minister for Planning under Part 3A of the EP&A Act for the proposal as described in **Section 3.1** of the Submissions Report with the modifications to the setbacks described in **Section 3.2**. If the proposal receives the necessary approvals under NSW legislation, the approval of the Commonwealth Minister for Environment, Heritage and the Arts would be sought for the proposal under the EPBC Act.

APPENDICES





SUBMISSIONS REGISTER



Appendix A Submissions register

No	Category	Name	Date received	Issues raised by Government agencies (2.2.1)	Status of Lot 2 DP555184 (2.2.2)	Development setbacks (2.2.3)	Rehabilitation/biodiversity protection (2.2.4)	Groundwater (2.2.5)	Visual impacts (2.2.6)	Air quality (2.2.7)	Cumulative impacts (2.2.8)	Community benefits (2.2.9)	Alternative sources of sand(2.2.10)	Importation of material (2.2.11)	Community consultation (2.2.12)	Ecologically sustainable development (2.2.13)	Aboriginal archaeology (2.2.14)	Significance of the Trig (2.2.15)	Summary of the EA (2.2.16)
1	Government agency	NSW Department of Primary Industries	06.02.08	●															
2	Government agency	NSW Department of Environment and Climate Change	06.02.08	●															
3	Government agency	NSW Roads and Traffic Authority	22.02.08	●															
4	Government agency	Baulkham Hills Shire Council	18.01.08		●	●													
5	Government agency	Commonwealth Department of Environment, Water, Heritage and the Arts	04.02.08				●												
6	Individual		31.01.08										●						

No	Category	Name	Date received	Issues raised by Government agencies (2.2.1)	Status of Lot 2 DP55184 (2.2.2)	Development setbacks (2.2.3)	Rehabilitation/biodiversity protection (2.4)	Groundwater (2.2.5)	Visual impacts (2.2.6)	Air quality (2.2.7)	Cumulative impacts (2.2.8)	Community benefits (2,2,9)	Alternative sources of sand(2.2.10)	Importation of material (2.2.11)	Community consultation (2.2.12)	Ecologically sustainable development (2.2.13)	Aboriginal archaeology (2.2.14)	Significance of the Trig (2.2.15)	Summary of the EA (2.2.16)
7	Individual		08.02.08				●	●	●	●	●	●	●	●	●	●	●		●
8	Individual		19.01.08														●		
9	Company		30.01.08		●														
10	Organisation	Eastbend Rural Communications Inc	05.02.08	●			●												
11	Organisation	Glenorie Environment Centre	05.02.08				●												
12	Organisation	Maroota Forest Conservation Committee	31.01.08				●												
13	Individual		31.01.08				●	●	●	●					●			●	●

B

REVISED STATEMENT OF COMMITMENTS



Appendix B Statement of commitments

The Statement of Commitments is set out in **Table B1**. Many of the measures listed in the table as commitments are in place in response to the existing consent.

Table B1 Statement of Commitments

Issue	Commitment	Location in the EA	
		Main Volume	Technical Paper
Noise and Vibration (NV1)	Site activities will be managed so that any necessary high noise and vibration levels occur at times of least impact.	4.8	TP4
(NV2)	All site activities will be undertaken incorporating noise attenuation measures such as restricting working hours for certain works required in the proximity of sensitive receptors.	4.8.4	TP4
(NV3)	All equipment used on site will be certified in relation to noise performance.	4.8.4	TP4
(NV4)	Panels and covers of silenced plant will be kept shut and plant and equipment switched off when not in use.	4.8.4	TP4
(NV5)	All mechanical equipment will be silenced by the best practical means using current technology, prior to use. Noise suppression devices will be fitted according to manufacturer's instructions. Noise control kits will be fitted to noisy mobile equipment and shrouds provided around stationary equipment where necessary.	4.8.4	TP4
(NV6)	Working will be limited to 07.00 to 18.00 hours, Monday to Saturday and at no time on Sundays and public holidays. A maximum of 15 laden vehicles will be permitted to enter and leave the site between the 06.00 and 07.00 hours, Monday to Saturday, excluding Sundays and public holidays.	2.4.8 and 4.8.3	TP4
(NV7)	All plant and equipment will be inspected regularly to ensure that it is well maintained to minimise noise emissions.	4.8.4	TP4
(NV8)	The L ₁₀ noise level at the boundary of adjacent receivers where baseline data has been obtained will not normally exceed the noise emission criteria by more than 5 dB(A).	4.8.3	TP4
(NV9)	Compliance monitoring of noise levels will be undertaken and appropriate records of measurements kept.	4.8.4	TP4

(NV10)	The local community will be informed of the level and duration of noise to be expected during specific activities and phases of development when necessary. Communication of concerns to the Environmental Manager will be invited.	4.16.3	TP4
Air Quality and greenhouse gas emissions (AQ1)	Ambient air quality monitoring will be conducted at identified sites.	4.9.3	TP5
(AQ2)	Dust suppression equipment will be fitted to all processing plant on the site. This will be regularly inspected and maintained in good working order at all times.	4.9.4	TP5
(AQ3)	Trafficable areas will be defined to prevent unnecessary vehicle movement into other parts of the site.	4.9.4	TP5
(AQ4)	All unsealed trafficable areas and working areas will be kept damp by spraying regularly with a water cart, water sprays or sprinklers to minimise dust emissions. Frequency of spraying to be determined based on weather conditions, soil erodibility and the observation of any visible dust.	4.9.4	TP5
(AQ5)	Speed controls will be applied to all unsealed areas (maximum speed of 20 km/h) and signposted accordingly.	4.9.4	TP5
(AQ6)	All semi-permanent stockpiles will be vegetated with suitable groundcover and regularly watered until the vegetation is well established.	4.9.4	TP5
(AQ7)	Work on any extraction activity producing dust will cease due to high winds if control cannot be achieved by watering or other means. Work will not resume until the wind velocity decreases and any dust generation can be controlled by normal means.	4.9.4	TP5
(AQ8)	All loaded trucks leaving the weighbridge area on Lot 198 DP 752025 will have their payloads fully covered by a suitable material to prevent spillage.	4.9.4	TP5
(AQ9)	No fires will be permitted on-site without a permit.	4.9.4	TP5
(AQ10)	A mechanical road sweeping unit and water cart will be maintained for use as required to keep all roads including the intersection of the haul road and Wisemans Ferry Road free from deposited material.	4.9.4	TP5
(AQ11)	Exhausts from all vehicles and plant/equipment will be inspected to ensure that they are maintained at an acceptable level.	4.9.4	TP5
(AQ12)	All vehicles will be regularly serviced to ensure that exhaust emissions comply with the regulations. Appropriate service records will be maintained.	4.9.4	TP5

(AQ13)	Any opportunities to minimise machinery use and ensure that all equipment used on the site is energy efficient will be identified.	4.9.4	TP5
Access and Traffic (AT1)	If the sand slurry plant and transport system is unusable due to breakdown or during maintenance periods, trucks will be used for the transport of extractive material on a temporary basis. This will cease once the system is operating satisfactorily.	2.4.6 and 2.4.7	TP3
(AT2)	The number of laden vehicle movements will not exceed a combined total of two hundred per day via the intersection of the haulage road and Wisemans Ferry Road. This is the total of laden vehicle movements allowed for PF Formation's combined extractive industry operations in Baulkham Hills Shire.	2.4.7	TP3
(AT3)	Operations involving the transportation of material on the site will only be undertaken between 07.00 and 18.00 hours, Monday to Saturday.	2.4.8	TP3
(AT4)	A maximum of 15 laden vehicles will be allowed to enter and leave the site between 06.00 and 07.00 hours, Monday to Saturday only. Vehicles will not be allowed to arrive at the site prior to 05.45 hours on any day.	2.4.8	TP3
Erosion and Sediment Control (ESC1)	Soil and Water Management Plan will be reviewed and revised, if required.	4.6.3	TP1
(ESC2)	Temporary erosion and sedimentation control structures such as detention basins and catch drains will be constructed as appropriate to collect runoff from cleared land including extraction areas and access roads.	2.7	
(ESC3)	Silt traps and erosion control fencing will be erected as appropriate along extraction area boundaries and drainage lines.	2.7	
(ESC4)	Sediment basins with a minimum storage capacity of 400 m ³ per hectare of catchment will be constructed. Spillway capacity and stability will be designed as follows: <ul style="list-style-type: none"> • life of less than 5 years, adopt the 20 year t_c event; • life between 5 and 10 years, adopt the 50 year t_c event; and • life greater than 10 years, adopt the 100 year t_c event. 	2.7 and 4.7.5	
(ESC5)	Stormwater control measures will be assessed and routine inspections conducted to ensure that compliance with best practice guidelines and relevant legislation is achieved.	4.7.5	

(ESC6)	Locations for topsoil and material stockpiles will be selected on level ground and away from drainage lines. Diversion drains and sediment filter fences will be installed up slope as appropriate.	4.6.3	
(ESC7)	Training will be provided to operational personnel on the importance of erosion control measures and drivers informed of the damage that can be caused to the environment by heavy vehicles.	4.6.3	
(ESC8)	Areas of exposed land will be kept to a minimum compatible with operational requirements.	4.6.3	
(ESC9)	Exposed areas not in use will be stabilized with an appropriate cover crop and watered until well established.	4.6.3	
(ESC10)	Erosion and sediment controls will be monitored regularly and immediately following a rainfall event. Monitoring will take place initially on a weekly basis, then monthly once operating correctly. Sediment will be cleared when the traps have collected 60% of the capacity of the basin or where sediment buildup is less than 300 mm below the spillway crest. Sediment will be removed to a location where further pollution to downslope lands and waterways will not occur.	4.6.3	
(ESC11)	Maintenance of erosion and sediment controls will be undertaken when any deterioration is identified or when replacement is necessary.	4.6.3	
(ESC12)	Stored stormwater will be reused for dust control and the watering of site vegetation.	4.6.3	
(ESC13)	Soil stockpiles will be seeded where these are to remain unused for a period in excess of four weeks. The area will be watered until the vegetation is well established.	4.6.3	
Water Management (WAM1)	Maximum depth of extraction will be restricted to not less than two metres above the wet weather high groundwater level. (nominally 181 mAHD).	2.4.3	TP2
(WAM2)	The groundwater will not be breached or contaminated. In the event that either should occur, operations will cease in the affected area and the Department of Environment and Climate Change consulted to determine the basis on which extraction may recommence.	4.5.7	TP2
(WAM3)	Retention basins will be designed to accommodate the 100-year t_c event. The minimum basin capacities are: <ul style="list-style-type: none"> Northern catchment 10,000 m³ Southern catchment 38,000 m³ Eastern catchment 19,500 m³ The retention basin serving the eastern catchment is expected to be located on Lot 2 DP555184. The volume of these basins can be varied depending on the extent of the area exposed for extraction within each catchment.	2.5.3	

(WAM4)	All retention basins will be regularly inspected and an annual report prepared on their effectiveness.	2.5.2	
(WAM5)	A minimum of two groundwater monitoring bores will be installed. One will be located within or near the extraction area and another at some location within the site beyond the area of any direct extraction influence. The location of these bores will meet the requirements of the Department of Environment and Conservation and Baulkham Hills Shire Council.	4.5.2	TP2
Flora and Fauna (FF1)	All areas which are not to be disturbed will be clearly marked. These will be fenced and access limited. All fences will be regularly inspected and maintained..	2.8.2	TP6
(FF2)	Areas where trees are to be removed will be assessed to determine the commercial value of any which are too large to mulch. Any with commercial value will be marked and arrangements made for removal.	2.8	TP6
(FF3)	A Rehabilitation Plan including a Biodiversity Offset Strategy will be prepared and implemented. This will include the replacement of the area of Shale/Sandstone Transition Forest to be removed on the basis of two hectares for every hectare of the current community removed. Other native forest communities removed would be replaced on an agreed basis.	2.8	TP6
(FF4)	An assessment of the species mix of the Shale/Sandstone Transition Forest will be made and seeds collected from the vegetation to be removed. Vegetation removed from the area will be mulched and stockpiled for later use. This will initially be used on the peripheral bunds followed by other areas of the site where the regrowth of the species mix is to be undertaken.	2.8.2	
(FF5)	Access to bushland will be restricted to minimise the potential for damage. These areas will be fenced and signs erected to ensure that this prohibition is made clear.	2.4.2	TP6
(FF6)	Topsoil will be separated and stored or use in rehabilitation works.	2.6	
(FF7)	Flora and fauna issues will be incorporated in the education programme so that site operatives are aware of the requirements of the EMP.	5.2.1	TP6
(FF8)	Once each extraction phase is complete, the rehabilitation and revegetation programme will be initiated as set out in the Rehabilitation Strategy.	2.8.2	
Rehabilitation (RH1)	The Rehabilitation Plan will be reviewed and amended as necessary to reflect changing operational conditions. This will include a revised phasing plan and implementation programme.	2.8.1	

(RH2)	Setbacks to all roads and adjacent properties will be defined taking account of existing trees and other features. Programmes of mound construction and screen planting will be undertaken as required in the Rehabilitation Plan. All plant material used will reflect the species mix existing in the area.	2.8.1
(RH3)	A staged seeding and planting programme will be undertaken as areas become available following completion of extraction and capping of sediment basins. This will be aimed at producing a dense plantation on the steeper slopes derived from the flora resources already established. The aim is to replicate as far as possible the mix and density of planting which is currently present.	2.8.2 and 2.8.3
(RH4)	All suitable plant material will be used on the site as a seed and planting medium. Topsoil will be stored in appropriately marked low stockpiles for reuse in locations as close as possible to their source. Care will be taken to ensure that this does not become contaminated with the seeds of exotic species and weeds.	2.8.2
(RH5)	The site will be rehabilitated in stages leaving areas exposed for as short a time as possible. This will be undertaken in conformity with the approved Rehabilitation Plan with maximum final batter grades of 4(H):1 (V) on north and west facing slopes and 3(H):1 (V) on those facing south and east. Final slopes will be as gentle as possible depending on the availability of fill material.	2.8.1 and 2.8.2
(RH6)	All soil stockpiles and exposed areas will be seeded with an appropriate vegetation cover where no activity is to take place for more than four weeks.	2.8.2
(RH7)	Revegetation of the site will be undertaken on the following basis: <ul style="list-style-type: none"> • as far as possible re-establish the Shale/Sandstone Transition Forest using seed and mulch collected from the area ; • rehabilitate other areas to native species with a light sowing of cereal and allowing natural regeneration; • rehabilitate the soil to achieve a full profile; • lime, fertilise and sow areas where improved grass cover is required; and • suitably turf surfaces expected to experience high surface flows leaving the site. 	2.8.2 and 2.8.3
(RH8)	A maintenance programme aimed at promoting and protecting the growth of the rehabilitated areas will be established.	2.8.3
Social Impact Management (SIM1)	Material concerning activities at the site will be prepared for publication in existing community newsletters which receive wide dissemination in the Maroota area.	4.16.3

(SIM2)	Regular bi-annual meetings of community representatives will be established to discuss issues in relation to sand extraction on the site.	1.3.2 and 5.2.1	
(SIM2)	A Complaints Register will be established incorporating date and time, type of communication, contact details of the complainant, nature of the complaint and response taken.	1.3.2	
Heritage (H1)	All work will cease in the area if an archaeological or heritage item is identified during extraction operations and the National Parks and Wildlife Service, the Deerubbin Aboriginal Land Council or the Heritage Office consulted to determine any appropriate course of action prior to recommencement of the work.	4.11.3 And 5.2.2	TP7
(H2)	Any additional survey work required for submittal of application to destroy artifact scatters located in the later stages of the development will be undertaken. Reasonable requirements of the National Parks and Wildlife Service, the Deerubbin Aboriginal Land Council and the Heritage Office arising out of any additional studies will be implemented.	5.2.2	TP7
Visual Amenity (VA1)	All vegetation to be retained will be clearly marked and protected with temporary fencing of an appropriate material and height.	2.4.2	TP8
(VA2)	Peripheral bunds will be constructed within the established setbacks where necessary to screen extraction activities. These will be a minimum of three metres high with slopes ranging from 3(H):1 (V) to 6(H):1 (V) depending on the location using overburden stripped from the site.	2.4.3	TP8
(VA3)	Screen planting works will be undertaken in the peripheral areas to an agreed specification using mulch to allow for native plant regeneration. This species mix will be reinforced using appropriate plantings at specified intervals.	2.4.3	TP8
(VA4)	A tree planting programme will be undertaken within the ten metre buffer zones and in other defined parts of the site to establish a dense plantation using an appropriate mix of species reflecting that of the existing community.	2.8.2 and 2.8.3	TP8
(VA5)	The final rehabilitated landform will be established in conformity with the Rehabilitation Plan.	2.8.1	TP8
(VA6)	All temporary fencing will be removed when no longer required.	2.8.2	
(VA7)	Vegetation in areas suitable for agricultural/horticultural uses will be re-established.	2.8.3	

(VA8)	All site infrastructure including the slurry plant and its associated pipelines will be removed. Those areas affected by the plant will be restored and rehabilitated.	2.8.2
	All waste materials will be removed and disposed of in an appropriate manner.	4.15
	The final Rehabilitation Plan will be reviewed and proposals for future use of the site prepared.	2.8.1
Waste Management (WSM1)	Waste handling areas will be clearly delineated.	4.15
(WSM2)	Specific areas for the collection of materials for reuse and recycling will be defined and clearly labelled.	4.15
(WSM3)	Cleared vegetation will be used within the landscape programme.	2.8.2
(WSM4)	All topsoil will be stored in stockpiles for later use in site rehabilitation.	2.8.2
(WSM5)	Bins or skips will be provided for the collection and storage of recyclable material and waste. General construction waste will be stored in a skip located at the workshop on Lot 198 DP752025. Waste food will be removed and stored in a vermin proof bin for collection by a waste contractor. Paper waste generated from site offices, plastics and glass will be collected separately for recycling.	5.2.2
(WSM6)	Hazardous wastes (including empty drums, rags, soil contaminated with oil) will be separated from non-hazardous wastes and managed in accordance with the relevant legislation.	5.2.2
(WSM7)	Liquid wastes (chemicals, oils and greases) will be temporarily stored in an appropriately bunded area and disposed of via a licensed contractor. Wash down water will be directed to an appropriate settlement basin if quality is acceptable.	5.2.2
(WSM8)	Copies of current licences of all waste removal contractors on site will be retained.	5.2.2
(WSM9)	All documentation relating to waste removal and disposal will be retained on file at the site. This documentation will include dockets for the removal and disposal of waste at a licensed facility.	5.2.2
(WSM10)	Waste material will be progressively separated and stockpiled in designated areas for collection. Adequately secure waste disposal areas to prevent access by wildlife.	5.2.2
(WSM11)	All waste licences will be reviewed and terms and conditions for compliance monitored.	5.2.2

(WSM12)	Any materials and waste remaining on the site following completion of extraction operations will be recycled or sent of disposal. This will be either recycled or disposed of in an appropriate manner.	5.2.2
Emergency Response (ER1)	All personnel on site during operations will be trained in appropriate procedures including site induction, materials handling and response procedures.	5.2.1
(ER2)	Emergency response procedures will be developed and put in place. Appropriate individuals will be appointed as emergency services liaison officers.	5.3.3
(ER3)	An emergency response table listing contact details of all relevant parties required in an environmental emergency will be prepared.	5.3.3
(ER4)	A Register of Environmentally Hazardous Materials to be stored and used on site will be established.	5.3.3
(ER5)	Appropriate safety and spill response equipment will be made available on site.	5.3.3
(ER6)	All materials to be used and stored on site will be clearly labelled.	5.3.3
(ER7)	Emergency response procedures will be reviewed and updated bi-annually.	5.3.3
(ER8)	Appropriate safety and response equipment will be available at all times.	5.3.3
		5.3.3
Hazard, Risk and Safety (HRS1)	A licence to keep dangerous goods will be obtained from WorkCover NSW for all materials stored on site which require licensing.	
(HRS2)	A Register of Hazardous Materials setting out details of quantities, storage and specific handling requirements for all relevant materials stored on site will be established.	5.3.3
(HRS3)	Material Safety Data Sheets for all hazardous materials stored on site will be obtained.	5.3.3
(HRS4)	Appropriate storage and secondary containment facilities for all hazardous materials stored on site will be provided. All bunded areas will be designed to contain at least 110% of the volume of materials stored within the area.	5.3.3
(HRS5)	A Safety Officer will be appointed for the development.	5.3.3
(HRS6)	All flammable material storage areas will be located at least ten metres from possible ignition sources.	5.3.3
(HRS7)	Contents of all above ground storage areas will be clearly labelled.	5.3.3

(HRS8)	All hazardous and dangerous goods storage areas will be secured and appropriate signage displayed. All incompatible material will be segregated.	5.3.3
(HRS9)	All personnel will be trained in the handling and safety procedures required for the hazardous materials stored and used on site.	5.3.3
(HRS10)	An Emergency Response Plan will be developed and put in place.	5.3.3
(HRS11)	A mobile spill control kit containing appropriate absorbent materials, neutralising chemicals and other spill containment equipment will be provided.	5.3.3
(HRS12)	Personal protective equipment will be provided and personnel instructed in its use.	5.3.3
(HRS13)	Any spills beyond the bunded area will be cleaned up immediately and the contaminated material disposed of in an appropriate manner.	5.3.3
(HRS14)	The relevant authorities will be contacted in the event of a leak or spill and any instructions followed. Any contamination will be remediated to the satisfaction of the regulatory authorities.	5.3.3
(HRS15)	Any spills or hazardous wastes that cannot be recycled will be collected and disposal by a licensed waste contractor arranged. All records of waste removal on site will be retained.	5.3.3



**CORRESPONDENCE WITH THE COMMONWEALTH
DEPARTMENT OF ENVIRONMENT AND HERITAGE**





Department of the Environment and Heritage

Mr John Graham
PF Formation
1 Kite Street
EMU PLAINS NSW 2750

Dear Mr Graham

**PF Formation Sand Extraction Proposal, Maroota, NSW
(EPBC Reference: 2003/991)**

On 7 April 2003 the Delegate of the Minister made a decision that approval was required for the above action. Preliminary information for the action was received under section 86 on 24 June 2003 for a decision on assessment approach under Part 8 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The assessment approach for the action has now been considered under the EPBC Act and, as delegate, I have decided that assessment by an accredited assessment process must be conducted. The instrument is attached.

The accredited process is an Environmental Impact Statement under Part 4 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). Once assessment is complete Planning NSW will provide the Commonwealth Environment Minister with an assessment report under Section 243 of the EP&A Act on the impacts of the action to allow the decision on approval to be made.

Yours sincerely

Malcolm Forbes
Assistant Secretary
Environment Assessment and Approvals Branch

18 July 2003



GPO Box 787 Canberra ACT 2601 Telephone 02 6274 1111 Facsimile 02 6274 1666
Internet: www.environment.gov.au





Australian Government

Department of the Environment and Heritage

Our reference: EPBC 2003/991

Mr David Fingland
Principal
DFA Consultants Pty Limited
30 Cumberland Ave
CASTLE HILL NSW 2154

Dear Mr Fingland

Thank you for your letter of 20 March 2006, regarding the accredited assessment of the PF Formation Sand Extraction proposal at Maroota, NSW and the applicability of Part 3A provisions of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

My advice is that preparation of an Environmental Impact Statement under the provisions of Part 3A of the EP&A Act would be considered by the Minister for the Environment and Heritage as an accredited process under the *Environment Protection and Biodiversity Conservation Act 1999*.

I understand that nothing substantial has changed in regard to the proposal described in the original referral.

Yours sincerely

Tim Kahn
Director
Mining and Energy Section
Department of the Environment and Heritage

10 April 2006

D

EXISTING CONSENT CONDITIONS



In the Land and Environment Court of New South Wales

No. 10064 of 1998

The Court orders by consent that:

1. The Appeal be dismissed,
2. Development consent is granted to the extractive industry, sand slurry transport system, sand slurry plant and such other development on land being:

Neville Diamond

Applicant

Maroota Trigonometrical Reserve
No. 6739;

Crown Reserve Roads;

**Baulkham Hills Shire
Council**

First Respondent

Lot 2 DP 555184 Wisemans Ferry
Road, Maroota;

Lot 167 DP 752039 Hitchcock
Road, Maroota;

Part Lot 168 DP 752039 Hitchcock
Road, Maroota;

John Graham

Second Respondent

Lot 2 DP 233818, Old Northern
Road, Maroota;

Lot I DP 34599, Old Northern
Road, Maroota;

Lot I DP 570966, Wisemans Ferry
Road, Maroota;

Order

Lot 2 DP 570966, Wisemans Ferry
Road, Maroota;

Lot 198 DP 752025, Old Northern
Road, Maroota;

Lot I DP 588936 Old Northern
Road, Maroota; and

Lot 2 DP 703821 Old Northern Road,
Maroota.

as is specified in Development Application
No.96/077 prepared by Collin C. Donges
and Associates on behalf of Mr J A Graham
with the Council on 21 March 1996 (as
amended) and subject to the conditions
annexed hereto and marked 'A'.

Ordered: 14 July 1998

By the Court

L E Williams
Registrar

Conditions of development consent

Annexure'A'

Neville Diamond

- v -

-

Baulkham Hills Shire Council (First Respondent)

and

John Graham (Second Respondent)

Part 1: General

1.1: Definitions:

In this consent except in so far as the context or subject matter otherwise indicates or requires:-

Batter means an artificial, uniform slope or its inclination expressed as one vertical unit to so many horizontal units;

Buffer zones means the setback distance between the areas of extraction and property boundaries. Buffer areas include bund walls and screening vegetation;

Conservation Zone means all areas within the development site but not within buffer areas which are to be conserved by their exclusion from development;

Contaminated water means a change in water quality that produces a noticeable or detectable change in its characteristics;

Groundwater means all waters occurring below the land surface;

Proponent means PF Formation Pty Limited or its successors in title or other person having the right to carry out development under and in accordance with this consent;

Tailings means the waste products from mining and processing operations, commonly in the form of fine grained sediments;

The development site refers to all properties intended to be physically extracted and excludes the central processing plant sites being Lot 198 DP 752025, Lot I DP 588936 and Lot 2 DP 703821(formerly Portion 35), Old Northern Road, Maroota.

1.2: Scope of Development:

The staged development is to be carried out substantially in accordance with Development Application No.96/077 prepared by Collin C. Donges and Associates on behalf of Mr JA Graham lodged with Council on 21 March 1996 together with the Rehabilitation Plan dated 25 June 1998 prepared by DFA Consultants and the other documents and plans referred to in Schedule 1 - Supplementary Information except where amended by the following conditions of consent.

1.3: Land Excluded from Development:

The Maroota Trigonometrical Reserve and part of the Shale Sandstone Transition Forest as identified in Rehabilitation Plan prepared by DFA Consultants dated 25 June 1999 and those parts of the development site indicated as being reserved from extraction on Revised Development Guidelines Plan No. LA-05B by Scott Murray and Associates, being Attachment H to the Rehabilitation Plan shall not be extracted and accordingly will be excluded from the phasing of development otherwise approved by this consent.

1.4: Need to Obtain Building Approvals:

Submission to and approval by Council of a building application for the sand slurry transport system and sand slurry plant as referred to in the Supplementary Environmental Impact Statement prepared by Colin C. Donges and Associates dated November 1996, and all other intended temporary or permanent structures.

Details shall include the consent and any requirements of the Roads & Traffic Authority and Department of Land and Water Conservation. Plans submitted with the building application are to demonstrate compliance with the Building Code of Australia and conditions of this consent.

1.5: Transportation by Truck to be for Limited Period

- (a) Subject to obtaining all relevant approvals, the proponent shall install a sand slurry transport system and sand slurry plant within eighteen months of commencement of commercial operation of the development.
- (b) Upon installation of the sand slurry, system and sand slurry plant, the proponent shall:
 - (i) use the system and plant for transportation of extractive material and residues between Lot 198 DP 752025 and the development site;
 - (ii) discontinue transportation of extractive material and residues between Lot 198 DP 752025 and the development site by truck;
 - (iii) discontinue deposition of residues derived from processing extractive material from the development site on tailing ponds on Lot 198 DP 752025, Lot 2 DP 703821 and Lot I DP 588936

except when the system and plant is unusable by reason of breakdown or necessary maintenance in which event extractive material may be transported by truck during the period of such breakdown or maintenance.

1.6: Changes to Development Require Consent:

The proponent is to lodge a separate application for any alterations and/or expansion to the approved extraction activities including vehicle ingress/egress arrangements and the erection of any signs not referred to by this consent.

Part 2: Prior To Commencement of Works

2.1: Submission of Data In accordance with Rehabilitation Plan:

To ensure the Rehabilitation Plan dated 25 June 1998 achieves a final landform generally consistent with the arrangements before the Court and which integrates with the surrounding catchment terrain, the proponent shall submit to Council the following details:-

- (a) Site analysis used to determine compatible contours, shape, form, landscape features and quality of the final landform, including the identification of conservation areas;
- (b) Tree retention, protection and replenishment scheme, including the means of maintaining and replenishing buffer zones, conservation zones, the retained part of the Shale Sandstone Transitional Forest and completed rehabilitated areas;
- (c) Retention of existing Crown Reserve Roads to maintain public access (including suitable batters and grades thereto) all to the requirements of Council and the Department of Land & Water Conservation;
- (d) The effective screening of mechanical equipment to be constructed within the development site;
- (e) A Works Program defining a schedule of works and associated time period for the rehabilitation of each disturbed and/or exposed extraction area or stage with the aim to restore vegetative covers at the earliest possible opportunity;
- (f) Details of all backfilling works, including source of materials and the grades and stability of all batters;
- (g) Schedule of works that are to be carried out under the supervision of a nominated qualified person;
- (h) The views of local permanent residents and community groups in relation to the proposed final landform; and

- (i) Compliance with the notified requirements (including established rehabilitation methods) of relevant public authorities, Hawkesbury Nepean Catchment Management Trust and Council's DCP No.500 - Extractive Industries.

2.2: Submission of Designs for Drainage Outlet Points:

All drainage outlets points are to be designed to ensure that the flow, pattern and quality of surface and sub-surface waters remains at pre-existing levels at all downstream boundaries.

Details of the designs are to be submitted to Council demonstrating compliance with any notified requirements of the Department of Land & Water Conservation, Environment Protection Authority and Council.

2.3: Installation of Groundwater Monitoring Bores:

Two Groundwater Monitoring Bores to the requirements of the Department of Land and Water Conservation are to be installed prior to the commencement of extraction.

Specifically, one monitoring bore is to be installed within or near the extraction area whilst the other monitoring bore is to be installed at some other location, within the subject site, beyond the radius of any mining influence.

The actual location and depth of each bore is to meet the notified requirements of both Council and the Department of Land & Water Conservation.

2.4: Obtaining other Relevant Approvals:

The proponent is to obtain all necessary operating licenses and permits from all relevant public authorities including the Environment Protection Authority and the Department of Land & Water Conservation and details of which are to be submitted to Council prior to the commencement of on-site works.

2.5: Provision of Sediment and Erosion Control:

The proponent is to undertake the following measures:-

- (a) Construct all internal all-weather surfaced access tracks with crossfall and associated table drains and leadouts, designed to carry the extraction vehicle loading;
- (b) Provision of headwalls, scour protection and sedimentation traps for all drainage systems and leadouts mentioned in (a) above;
- (c) The provision of erosion and sedimentation control. Details to be shown on engineering plans and the devices to be established prior to the commencement of engineering works;

- (d) Include all recommendations from the Authorities in preparation of the engineering plans in respect of access and transport of materials, extraction activities and rehabilitation works. The particular Authorities must include:-
 - (i) Department of Urban Affairs & Planning;
 - (ii) Hawkesbury-Nepean Catchment Management Trust;
 - (iii) N.S.W. Department of Agriculture & Fisheries;
 - (iv) Environmental Protection Authority; and
 - (v) Department of Land and Water Conservation.
- (e) Provision of safety protection fencing and guard rail where vertical faces are proposed in the quarry area and adjacent to the access track.

2.6: Approval of Engineering Plans:

The proponent is to submit for approval by Council's Manager - Subdivision Control detailed engineering plans in respect of Condition 2.5 above. In this regard, satisfactory engineering plans are required drawn to scale, showing a north point, contours, benchmark, catchment area, batter slopes for cut and fill and drainage calculation. The plans are to include details of all stages of erosion and sedimentation control, preliminary, temporary and permanent.

Receipt of such plans does not imply automatic approval of the plans.

Further, Council requires payment of the engineering plan assessment fee of \$150 as prescribed in Council's Schedule of Fees and Charges. These plans are to be accompanied by advice from the relevant Authorities, that their requirements are met.

2.7: Undertaking to Complete Engineering Works:

The proponent shall lodge a suitable undertaking to complete all engineering works within the site boundaries, such works are to be completed:-

- (i) prior to and during the operation of the proposed extraction activities; and
- (ii) prior to final approval for the rehabilitation required when extraction activities cease.

2.8: Rehabilitation Bond:

The proponent shall submit a Rehabilitation Bond in the form of an unconditional bank guarantee to be held by Council as a legal document over the life of the development, sufficient in amount to cover the cost of rehabilitating the extraction area and other likely disturbed areas in the event of non-compliance with this consent.

In this regard, the Rehabilitation Bond shall be based upon \$2.00 per square metre of all exposed extraction areas at any one time in accordance with the approved extraction program plan prepared by Collin C Donges and Associates as outlined in the Supplementary EIS dated September 1996 and the Rehabilitation Plan dated 25 June 1998 as referred to in Condition 2.1 of this consent.

The Rehabilitation Bond will be released upon Submission by the proponent of a certificate by a qualified landscape consultant pursuant to condition 5.3 of this consent that final rehabilitation has been completed in accordance with the conditions of this consent concerning rehabilitation and the Council's satisfaction of that fact.

Part 3: Operational

3.1: Life of Consent:

Subject to condition 3.2, consent for the staged extraction of material and rehabilitation is limited to a period of thirty (30) years effective from the endorsed date of this consent.

3.2: Notices in the Event of Non-Compliance with Consent

- (a) The proponent shall cease extraction if the Council serves on the proponent written notice requiring cessation of the extraction and shall carry out such steps as are specified by the Council and in the time specified in the notice.
- (b) The Council may serve notice under paragraph (a) if and only if:-
 - (i) no Environmental Management Plan is submitted to the Council pursuant to Part 6 of this consent; or
 - (ii) an Environmental Management Plan submitted to the Council pursuant to Part 6 of this consent reveals that the development is not being carried out substantially in accordance with the conditions of this consent; or
 - (iii) the Council is otherwise reasonably of the opinion that development is not being carried out substantially in accordance with the conditions of this consent.
- (c) The Council may amend or revoke any notice served under paragraph (a) or serve further notices under paragraph (a) from time to time.

3.3: Buffer Zones:

The area of the development site disturbed for the purposes of extraction shall not encroach within the following areas:-

- (a) 30m from Old Northern Road and Wisemans Ferry Road;

- (b) 50m from habitats of threatened species;
- (c) Batters to the Maroota Trigonometrical Reserve, the retained part of the Shale Sandstone Transition Forest, buffer zones, conservation zones and Crown Roads as identified in the Rehabilitation Plan dated 25 June 1998;
- (d) 10m from all property boundaries not associated with the extraction operation;
- (e) 50m setback from the dwelling on Lot I DP 223323 (currently owned by Mr A Jurd) or otherwise to the requirements of Council's Director - Planning Services Group.

3.4: Sequence of Extraction:

Extraction shall be carried out in the sequence specified in the Staging Programme in Attachment I and paragraph 3.1 of Attachment O of the Rehabilitation Plan dated 25 June 1998, or such other amended extraction program as may be approved in writing by Council's Director - Planning Services Group upon justification by the proponent.

3.5: Extraction Depth:

- (a) The initial maximum depth of extraction shall not be lower than RL 187 AHD.
- (b) If on the completion of the Maroota Groundwater Study being carried out by the Department of Land and Water Conservation the wet weather high groundwater level is determined to be:-
 - (i) higher than RL 185 AHD, the maximum depth of extraction shall be varied to be 2m above the wet weather high groundwater level, such maximum depth becoming effective upon written notice being given to the proponent by Council; or
 - (ii) lower than RL 185 AHD, the maximum depth of extraction may be varied to be not less than 2m above the wet weather high groundwater level on the written application being made to and approval being granted by the Council's Director - Planning Services Group to such varied level.

3.6: Intersection of Wisemans Ferry Road and Haulage Road:

- (a) The number of laden vehicle movements are not to exceed a combined total of two hundred (200) laden movements per day via the intersection of Wisemans Ferry Road and Haulage Road, being the proponent company's total vehicle movements for their combined extractive industry operations at Maroota;

- (b) The installation of vehicle cleaning devices which includes a cattle grid, wash down facility with adequate water storage and sediment and erosion measures necessary to remove sand, clay and soil from the underneath, bottom sides and wheels of vehicles or such other alternative cleaning devices as may be acceptable to the Council and achieve the requirements of Council and the RTA.
- (c) The proponent is to ensure that the Wisemans Ferry Road pavement in the vicinity of the intersection with the Haulage Road is regularly maintained and kept free of sand, clay and soil at all times. All costs of these works are to be borne by the proponent.
- (d) Details confirming the above matters are to be submitted to Council prior to the commencement of production and processing.

3.7: Public Access to Maroota Trigonometrical Reserve:

Public access to the Maroota Trigonometrical Reserve shall be provided and maintained via existing Crown Reserve Roads to the requirements of Council and the Department of Land and Water Conservation and details of which are to be submitted to Council.

3.8: Protection of Groundwaters:

The proponent is to ensure that groundwaters are not breached or contaminated. In the event of groundwaters being breached or contaminated, operations are to cease and Council together with the Department of Land and Water Conservation are to be immediately consulted to determine the basis upon which extraction may recommence.

3.9: Maximum Total Annual Volume of Extractive Material:

The maximum total annual volume of material to be extracted from the development site shall be 535,000 tonnes or 400,000 tonnes of processed material unless the prior written approval of the Council is obtained for a greater volume.

3.10: Discovery of Archaeological Material:

In the event that any archaeological material is found during extraction, operations are to cease immediately and the National Parks and Wildlife Service and Council are to be consulted.

3.11: Discovery of Aboriginal Relics:

The proponent is to ensure the conservation of all Aboriginal relics, artefacts, carvings, artwork or the like all to the requirements of the Local Aboriginal Land Council and details of which are to be submitted to Council

3.12: Hours of Operation:

Operations involving extraction, transportation and processing or running of machinery for maintenance purposes shall not take place on the development site except between 7.00 a.m. and 6.00 p.m., Monday to Saturday, and at no time on Sundays and Public Holidays.

The proponent will however be permitted to a maximum of ten (10) laden vehicles to enter and leave the subject site between the hours of 6.00 am and 7.00 am Mondays to Saturday, excluding Sundays and Public Holidays.

In relation to the transportation of material between 6.00 am and 7.00 am, the proponent will advise its drivers and its clients not to arrive at the site prior to 5:45 am on any day. Certified (under company seal) weighbridge dockets and a log book or equivalent computer records are to be kept to verify the arrival and departure times of vehicles and copies of which are to be submitted to Council on the twenty-eight (28) day of each month.

3.13: Conservation of Adjoining Bushland:

Care is to be taken at all times to ensure that all natural bushland directly adjoining the development site and bushland to be conserved within the development site as shown in the Revised Development Guidelines Plan No. LA-05B by Scott Murray and Associates, being Attachment H to the Rehabilitation Plan dated 25 June 1998, is not damaged or disturbed.

Part 4: Water, Air and Noise Quality

4.1: Compliance with Water Legislation:

The proponent shall ensure that the provisions of the *Clean Waters Act 1970* and *Rivers and Foreshores Improvement Act 1948* are complied with at all times.

4.2: Compliance with Clean Air Act:

The proponent shall comply with the provisions of the *Clean Air Act 1961*.

4.3: Compliance with Noise Control Act:

The proponent shall comply with the provisions of the *Noise Control Act 1975*, including the attainment of a licence pursuant to s 27 of that Act.

4.4: Compliance with Occupational Health & Safety Legislation:

The proponent shall ensure employees are not subjected to noise or dust levels greater than those specified and prescribed by the Workcover Authority and the Department of Mineral Resources and Factories (*Health and Safety Hearing Conservation*) Regulation 1979.

4.5: Noise Performance Standard:

The proponent shall ensure that construction and operational noise on the development site does not exceed the background noise level when measured at the receivers boundary, by no more than 5dB(A) or otherwise to the notified requirements of the Environment Protection Authority and Council's Director - Planning Services Group.

4.6: Dust Suppression Equipment:

Dust suppression equipment is to be fitted to all processing equipment and is to be maintained at all times. Details of these devices are to be submitted to Council in accordance with Condition 6.2 of this consent and to any other relevant authority referred to under s 23 of the *Clean Air Act 1961*.

4.7: Sprinkler System for Dust Suppression:

The proponent shall install wind activated sprinkler system capable of suppressing dust from all exposed/disturbed areas, internal access tracks and other sources or otherwise to the notified requirements of the Environment Protection Authority and Council's Director - Planning Services Group.

4.8: Monitoring of Dust Generation:

The proponent is to monitor dust generation from the extractive operations and associated activities and the results of which are to be detailed in the Air and Noise Quality report referred to in Condition 6.2 of this consent.

In the event of dust nuisance being identified, the proponent shall immediately inform Council's Manager - Development Control and implement any mitigation practice as required.

4.9: Prevention of Dust Nuisance from Stockpiles:

Stockpiles of material and other sediment laden areas are to be maintained so as to prevent any dust nuisance.

In this regard, arrangements satisfactory to Council's Director - Planning Services Group are to be made for dust suppression from topsoil stockpiles until such time as vegetative consolidation takes effect and details of which are to be confirmed prior to the commencement of on-site works.

4.10: Covering of Payloads:

Prior to leaving the central processing plant on Lot 198 DP 752025, all loaded trucks must have their payloads fully covered by a suitable material to prevent spillage from the trucks onto the roads.

4.11: Soil Erosion Mitigation Measures:

Mitigation measures to control soil erosion, sediment and surface water runoff are to be in accordance with the requirements of the Environment Protection Authority and Department of Land and Water Conservation. This is to include regular monitoring in conjunction with relevant Officer(s) from the Environment Protection Authority, Department of Land and Water Conservation and Council.

Part 5 Rehabilitation.

5.1: Native Bush Regeneration:

Native bush regeneration techniques shall be used to stabilise the semi-permanent topsoil and overburden bunds surrounding the extraction area. The specialised techniques shall be carried out under the direction of a qualified Plant Ecologist.

The techniques used shall include the re-use of stored topsoil that has not been contaminated with exotic grasses or weed species and the collection and propagation of species from the site.

5.2: Materials to be used for Backfill:

The extraction area is to be backfilled only with earth and rock materials sourced as a result of extraction operations in the Maroota area or such other material as may be approved by the Council's Director - Planning Services Group. No building waste or putrescible materials are to be disposed on the development site.

5.3: Progressive Rehabilitation of the Development Site:

The development site is to be progressively rehabilitated in accordance with the Rehabilitation Plan dated 25 June 1998 and the regularly endorsed Rehabilitation Management Plan the subject of Condition 6.4 of this consent or such amended plan as might be approved by Council's Director - Planning Services Group.

Final rehabilitation of the development site shall be completed in accordance with the conditions of this consent within three years of completion of extraction of the development site. The proponent is to submit thereafter a certificate of a qualified landscape consultant that final rehabilitation has been carried out in accordance with the conditions of this consent.

5.4: Rehabilitation of Other Land:

Without affecting the obligations imposed by development consent No. 90/003;

- (a) The proponent shall rehabilitate the lands described below by the time specified below:-
 - (i) Lot 2 DP 703821 (formerly Portion 35), and Lot 1 DP 588936 by 31 December 2001;
 - (ii) Areas B and C in Lot 198 DP 752025 by 31 December 2005 as shown in Figure 14 to the EIS prepared by Collin C. Donges and Associates Pty Limited dated December 1989 which accompanied development application No.90/003 to the Council.
- (b) Rehabilitation of the lands specified in paragraph (a) shall be in accordance with the requirements of the EIS prepared by Collin C Donges and Associates Pty Limited dated December 1989 which accompanied development application No.90/003 to the Council with the view to achieving the rehabilitated final landform shown in Fig. 16 to that EIS or such other landform as might be approved in writing by the Council's Director - Planning Services Group, upon justification by the proponent.

Part 6 Monitoring & Management:

6.1: Environmental Management Plan:

The proponent shall submit to Council every twelve (12) months after the endorsed date of this consent an Environmental Management Plan in which Council is to be satisfied of the overall performance and management of the operation.

The Environmental Management Plan should refer to the objectives and principles of Ecologically Sustainable Development (ESD) and shall include as chapters the reports specified in conditions 6.2 to 6.6 of this consent.

The proponent shall provide to the Council an additional copy of the Environmental Management Plan to be made available for inspection by the public during Council's office hours.

6.2: Air and Noise Quality Report:

The proponent is to prepare an Air and Noise Quality Report in which Council is to be satisfied of the following:-

- (a) dust and noise sources are identified, classified and contained;
- (b) details on the containment of noise sources shall include the status of the construction of acoustic/visual mounds surrounding all plant equipment and machinery as identified in the Supplementary EIS dated September 1996 and Rehabilitation Plan dated 25 June 1998;
- (c) all necessary licenses or permits are obtained;
- (d) dust and noise levels comply with the relevant standards and statutory requirements;
- (e) cumulative dust and noise levels do not adversely affect the amenity of surrounding residents and other rural land uses;
- (f) the comments and recommendations of the Environment Protection Authority, Department of Land and Water Conservation and any other relevant authority;
- (g) measures are implemented to effectively control and reduce noise and dust emissions and thereby improve the performance of the operation.

6.3: Water Management Plan:

The proponent is to prepare a Water Management Plan in which Council is to be satisfied that adequate means of transferring and/or discharging the build up of ground and surface waters is continually maintained and monitored particularly in relation to the following:

- (a) Certified and suitable arrangements for dewatering water pits including contingency arrangements;
- (b) Means of treating polluted (including sediment laden) waters;
- (c) Means of maintaining/monitoring current surface and sub surface water quality;
- (d) Identification and adequacy of existing destination points for waters collected within the extraction area;
- (e) On-site reuse of collected water and other potential uses;
- (f) Maximum and average water levels experienced and the capacity of the existing water sump to sustain major storm events;
- (g) State of significant site features, groundwater recharge areas and natural springs;

- (h) Achievement of qualitative and quantitative criteria of the approved Water Management Strategy including any improvements and/or adjustments now needed; and
- (i) The attainment of all necessary license and permits are obtained and complied with.

6.4: Rehabilitation Plan Review:

The proponent is to prepare a Rehabilitation Plan Review in which Council is to be satisfied of the following:-

- (a) the rate of rehabilitation should relate to the Staging Programme referred to in condition 3.4 of this consent;
- (b) vegetated conservation zones and rehabilitated areas are maintained;
- (c) vegetation within buffer zones are successfully retained and protected;
- (d) progressive rehabilitation integrates with the surrounding terrain as illustrated in the Rehabilitation Plan dated 25 June 1998, subject to the requirements of Condition 2. 1;
- (e) vegetative covers are established at the earliest possible opportunity;
- (f) assessment/comment on the progress of rehabilitation carried out under the direction of the nominated supervisor;
- (g) on-going monitoring program for all flora and fauna species and communities within the development site, particularly those scheduled under the *Threatened Species Conservation Act, 1995*;
- (h) conservation of threatened species, populations and ecological communities including buffer zones and conservation zones containing the Shale Sandstone Transition Forest as identified in the Rehabilitation Plan dated 25 June 1998 at all times;
- (i) the construction of acoustic and visual bunding surrounding and containing all mechanical equipment is progressing in accordance with the Rehabilitation Plan dated 25 June 1998 and Condition 2. 1;
- (j) method and progress of the rehabilitation of extracted areas and tailings darns are in accordance with current environmental laws standards and practices including guidelines published by the Australian, Federal Environment Department and the Department of Land and Water Conservation.

6.5: Social Impact Management Plan:

The proponent is to prepare a Social Impact Management Plan in which Council is to be satisfied that extraction operations effectively manage and monitor social impacts upon the local community including:-

- (a) Impact Management Planning which clearly identifying adjusted operating objectives and procedures undertaken to minimise social impact;
- (b) Monitoring and mitigating procedures involving the collection of information about actual impacts which is then applied to specific operating procedures to mitigate and manage social effects; and
- (c) Evaluating involving the retrospective review of the overall performance of extraction and assesses the effectiveness of the management process itself with the view to rectify any deficiencies

6.6: ESD Report:

The proponent is to prepare an ESD report in which Council is to be satisfied that extraction operations implement the principles of Ecologically Sustainable Development by demonstrating:-

- (a) Acquisition of all necessary licences and permits under all prevailing environmental statutes;
- (b) On-site materials management;
- (c) Water management;
- (d) Acoustic management;
- (e) Air quality management;
- (f) Transport routes, access and movements;
- (g) Rehabilitation management including results of flora and fauna monitoring programs;
- (h) Soil Conservation including geotechnical appraisal of tailing system, stability of all batters and certification of all erosion and sediment controls for all phases of development;
- (i) On-going consultation with community groups and nearby residents, together with the consideration of the recommendations of the Community Consultative Committee referred to in Condition 6.7 of this consent;

- (j) Identification, assessment and evaluation of risks, safeguards and the confidence level of contingency/emergency plans;
- (k) Statement of Compliance with the approved EIS documentation, conditions of this consent and the objectives of Council's DCP No.500 - Extractive Industries. To confirm and illustrate the status of extraction and rehabilitation, the Statement of Compliance shall include a survey plan prepared by a registered Surveyor;
- (l) Consideration of advice and recommendations of all relevant state government agencies;
- (m) Reference to International Standards (ISO) 14001-14004 relating to Environmental Management Systems, which should address issues such as:-
 - the capacity and support mechanisms necessary to implement and achieve the proponent company's environmental policy, objectives and targets; and
 - the means by which the proponent company measure, monitor and evaluate its environmental performance.
- (n) Consideration of recommendations to adjust operation procedures to improve the overall performance of the operation.

6.7: Liaison and Review Committee:

The proponent shall convene two review meetings a year to facilitate consultation and communication between the proponent, the Council, relevant state government agencies and the community in relation to the development and any impacts the development might have on the environment

The committee for the review meetings shall consist of such of the following invited representatives who wish to attend:-

- (a) two permanent residents of Maroota not associated with the proponent company approved by the Council;
- (b) two representatives of the Council;
- (c) one representative of each of the Environment Protection Authority, Department of Land and Water Conservation and Hawkesbury Nepean Catchment Management Trust;
- (d) one representative of the proponent; and
- (e) any other relevant person/s as may be considered appropriate by the Committee.

Part 7 Developer Contributions

7.1: Developer Contributions:

The applicant shall pay or procure payment to the Council of a contribution under s 94 of the *Environmental Planning and Assessment Act 1979* at the rate of sixty three cents (63c.) per tonne of all processed material transported from the subject site, and in respect of the said contribution, the following provisions shall apply:-

- (i) The said contribution will be calculated and paid monthly from the date on which and within development consent became effective.
- (ii) The said contribution will be indexed and adjusted annually as from the date the consent became effective, in accordance with the Consumer Price index applicable to each year ending 30th June, commencing 1st July, 1992 for the duration of the development consent and the said adjustment to the contribution shall take effect from and including 1st July each year for the duration of the consent.
- (iii) On or before the fourteenth day of each month of the duration of the consent, the applicant shall deliver or procure delivery to the Council of a true certified copy of the weighbridge or other returns or records showing the true quantities of extracted material transported from the property during the immediately preceding month and the Council will then, as soon as it can conveniently do so, issue to the applicant or its consenting assignee, who will pay to the Council within fourteen (14) days of the date thereof.
- (iv) The Council will pay all of the said contribution payments into a specially identified trust account for payment towards the rehabilitation, restoration, repair and/or maintenance of Old Northern Road and Wisemans Ferry Road, between its intersection with Old Northern Road and the Baulkham Hills Shire Boundary at Cattai Creek and other projects identified in its Contributions Plan No.6 - Extractive Industries.

SCHEDULE 1 – SUPPLEMENTARY INFORMATION

RELEVANT DOCUMENTS AND PLANS

DEVELOPMENT APPLICATION No. 96/077

- Environmental Impact Statement prepared by Collin C Donges and Associates dated 18 March 1996;
- Supplementary EIS (Volumes 1 and 2) prepared by Collin C Donges and Associates dated November 1996;
- Response to Baulkham Hills Shire Council correspondence prepared by Collin C Donges and Associates dated 19 June 1997;
- Various plans and documents prepared by or on behalf of Morse McVey and Associates, dated May and June 1998, specifically:-
 - Extraction Program Plan (June 1998 Plan No.971049-01) except where amended by Condition No.2. 1;
 - Extraction Process Strategy Plans (Plan Nos.971049-09 and 971049-10);
 - Technical report on the Sand Slurry Transport System prepared by Ponto Pty Ltd;
 - Sediment and Erosion Control Plans (June 1998 Plan No.971049-02 and May 1998 Plan No. 971049-08);
 - Water Management Strategy Plan (Plan No.971049-03); and
 - Supporting details in Statement of Evidence prepared by Morse McVey and Associates.
- Various plans and documents prepared by Scott Murray and Associates, except where amended by Condition No.2.1 and specifically:-
 - Visual Analysis Report prepared September 1996;
 - Revised Development Guidelines Plan No.LA-0513 dated June 1998;
 - Concept Rehabilitation Plan No.LA-06B dated June 1998; and
 - Typical cross section Final Landform. Plan Nos. LA-08, LA-09 and LA-11 dated May 1998 and LA-07B and LA-010B dated June 1998.

- Report - Maroota Trig Station Groundwater Impacts dated 22 May 1998 prepared by Woodward Clyde Pty Limited;
- Rehabilitation Plan prepared by DFA Consultants dated 25 June 1998.

P R Jensen
**Senior Conciliation and
Technical Assessor**
db/hb