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SOUTHERN

ENVIRONMENTAL

ACN 064 710 989

6 December 1999

BAULKHAM HILLS SHIRE COUNCIL
P.O. Box 75
CASTLE HILL NSW
ATTENTION: Carolyn Collier

DCC No.:	
BOX No.:	39
- 4 JAN 2000	
BAULKHAM HILLS SHIRE COUNCIL	

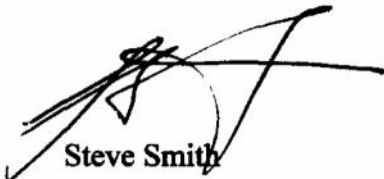
Our Ref: DixoxReplyPubSubm3Dec99LetterCcl6Dec99.doc

Dear Carolyn,

Ref: Dixon Sand EIS - Replies to Public Submissions to EIS

Please find attached the Replies to the Public Submissions (previously forwarded by email) prepared in conjunction with Dixon Sand

Yours sincerely



Steve Smith

Replies and comments on Summary Of Public Submissions

Development Application No. 796/00/HE - Designated Development - Extractive Industry

Lots 29 and 196 DP 752025 Old Northern Road, Maroota

In respect of comments and objections raised during the public submission period, responses are as follows. The attendance at the Council chaired public meeting of Wednesday 24th November by two local residents and one solicitor representing a third resident adds weight to this comment. It is important to note that a large proportion of the questions are orientated towards the commercial objectives of Dixon Sand competitors and not sourced from genuine concerns from residents.

Answers to questions put forward by objectors at the Conciliation Conference are also included in the responses.

1. Content and Form of Development Application and Environmental Impact Statement (EIS)

~ *The EIS is factually incorrect and misleading;*

No indication has been given as to where this has occurred.

The EIS has been prepared over a period of almost two years using more than 15 engineering and environmental consultants in specialized fields of work. Most of these consultants have prepared other EIS's on sandmining in the region and as such have a good working knowledge of local environmental concerns and how they should be addressed by the applicant. The EIS has been prepared to complete extraction of an existing site that has been previously 'worked' over some 7 years by the applicant. The development is essentially not 'new', with approximately 70% of resources already been extracted.

~ *Application is in breach of DP & A Regulations which requires the applicant to justify the proposal having regard to "The bio-physical, economic and social considerations and the principals of ecologically sustainable development";*

The principles of ESD and how they relate to the subject site are contained within the EIS Volume 1, 5.0 Ecologically Sustainable Development. This section quite clearly and concisely defines the principles of ESD and how these principles as contained in the DUAP guidelines have been addressed in the context of the development.

~ *No consent has been received from DLWC to include Crown Roads in the development;*

Confirmation of consent has been applied for and is forthcoming.

~ *No plan providing an accurate survey of the current landform information on plan 11 provided up to 5 years old;*

All existing site conditions including levels, slopes embankments and cuttings have been surveyed and are accurately represented within the EIS. Detailed surveys undertaken during 1998 and June 1999 were used to update existing data. Approximately 70-80 % of the site is either at final landform, excluded from extraction or at extraction limit and as such the topography would appear to have remained unchanged.

- ~ *Figures illustrating the proposal are inadequate and are based on an old survey, which does not adequately represent current conditions on-site;*

All on-site conditions are up to date and adequately represents existing site conditions.

- ~ *Inconsistencies between illustrations of the proposals, poor quality and lack of definition make it impossible to know what is proposed as the final outcome;*

It is difficult to determine the objective of the following question as it is very non-specific, non-directional and non-substantial.

- ~ *Many aspects of the proposal rely on the existence of future approval circumstances which do not exist at the time of the application;*

Following discussions with Council, Dixon Sand has agreed to reduce the approval period from 35 to 10 years, 10 years being the period required to completely extract and rehabilitate Lots 196/29. The current development application seeks consent for Lots 196/29 only, no additional extraction sites are included in the application.

- ~ *Assessment of cumulative impact, ESD issues, social and economic impacts are not adequately addressed in EIS;*

Cumulative impacts specifically relates to the collective impacts of the development and similar developments interacting within the region. The cumulative impacts of the development have been assessed in Volume 1 Section 10 of the EIS. This section specifically relates to transport effects, environmental impacts, impacts on community facilities and services and risks management. The traffic study concluded that the road carrying capacity of Old Northern Rd and Wisemans Ferry Rd would not be exceeded by the proposal and that noise impacts were within acceptable acoustic criteria. The cumulative environmental impacts of the site on the receiving environment has been accounted for in the relevant planning and environmental assessments.

- ~ *Vibration impacts from plant and machinery have not been assessed in the EIS;*

Vibration of plant is a structural consideration, which has been taken into consideration when designing the components of the plant and strength of foundations. The strength of the foundation material underlying the plant has been assessed by P A Eisezele Consulting Engineer Pty Ltd in designing the plant upgrade.

All moving components in the plant are mounted on rubber bearings to reduce noise and transmissions of shear loading on to struts. These noise reducers are included in the assessment of noise levels from existing plant contained in the EIS.

- ~ *Extent of extractive operations on Lot 2 DPO 595538 and the location of the house on Lot 1 DP 595538 are incorrectly shown;*

Please specify where in the documents this has occurred.

- ~ *Application has not been prepared in accordance with Department of Urban Affairs and Planning EIS Guidelines, particularly with respect to community consultation;*

Please refer to Appendix A3 – Consultation for a detailed summation of the Dixon Sand Consultation programs. Community consultation and awareness has played a large part in the compilation of the EIS, the local community and public authorities have at all stages of the preparation of the EIS been informed of its progress. This has included a community consultation plan which was implemented at the beginning of the EIS, an independent public survey, public meetings, on site meetings with public authorities and trusts, an open day inviting residents and local groups to attend, a regular column in the Living Heritage newsletter, advertising on public noticeboards etc

- ~ *Contradictory information contained in EIS and Appendices;*

Please specify.

- ~ *DA does not include provision for construction of new buildings and structures, or their environmental impacts;*

Environmental impacts associated with the extension of the existing works shed has been included in the EIS. At present roof water is stored on site for domestic consumption. All excess watershed from hardstand areas have been accounted for in the Integrated Surface Water Management Plan. All of the works area will be constructed with a concrete bunded floor to prevent and oil or fuel leaks. A gross sediment trap and grease trap shall be used to treat surface water before entering the tailings pond.

- ~ *EIS has not detailed consequences of not proceeding with the development;*

Justification of the proposal under the terms of Schedule 2 of the EPAR 1994, (including the consequences of not carrying out the development), has been determined. The company has established itself as a leading supplier of mortar sand to the Sydney market, equivalent to 210 000 tonnes p.a or 40 % of the total market. The interruption to a consistent supply of high quality mortar sand has had far reaching effects on the building industry during 1999. At present the demand is outstripping supply in the industry, with a desperate shortage of quality mortar sand.

The Maroota area has been identified as an important future supply of construction sands to the Sydney market. Dixon Sand is an existing operation with 80 percent of the site either at or nearing completion. The site is currently undergoing rehabilitation to re-establish native vegetation, this is a continuous process which will be accomplished in stages with the extraction plan. Should rehabilitation of the existing disturbed site not proceed or be successfully completed the consequences would be extreme.

- ~ *The content and intent of the EIS contradicts the Certificate in that it is not true in all material particulars and does, by its presentation or omission of information, materially mislead;*

This statement is once again non-specific non-substantial and could be in its own sense be construed as misleading.

- ~ *The application is State Significant development;*

The application does satisfy the criteria for State Significant development, but as the application was submitted to Council prior to October, Council are the deeming consent authority.

- ~ *EIS fails to address adequate monitoring of environmental effects likely to be caused by their operation;*

Upon receiving all approvals and licenses an Environmental Management Plan, to replace the existing manual will be drafted. This will include all requirements by approval bodies for on-site monitoring and management of environmental effects. The EIS specifies a comprehensive Environmental Monitoring Plan that the proponent will implement as a minim.

2. Life of Operation

- ~ *Future mining strategy to mine Lots 1 & 2 DP 547255, Lot 1 DP 204159 and Lot 1 DP 590937 would totally envelope the Maroota Public School;*

No proposal to mine other sites in the Maroota area have been sought in this EIS. At the feasibility stages of the EIS, lots 1 & 2 DP 547255 were considered in the proposal but were later omitted as a result of time limitations. This issue has been discussed with representatives of the school, who expressed a desire that the proponent not have a processing plant on Lots 1 or 2 in the future.

- ~ *Inappropriate to grant 35 year approval based on a vague proposal to extract future sites;*

Following discussions with local authorities and the community an approval for 35 years has been reduced to 10 years. Originally an approval period of 35 years was favored to allow processing of sand from lots 1 & 2 DP 547255. Due to time restrictions lots 1 & 2 were excluded from the application and subsequently the approval period reduced to cover operations on existing lots.

- ~ *Location of future sites in respect of processing plant;*

As mentioned lots 1 & 2 were originally contained within the EIS to take advantage of the close proximity to the central plant and its role in reducing and mitigating environmental effects. Also the planning and engineering benefits of

incorporating lots 1 & 2 into a uniform site were realized at an early stage. Much of the preliminary studies have been completed and environmental regimes on the site are currently being monitored.

- ~ *Importation of 7% concrete sand product from external sources inappropriate. No detail has been provided on the environmental impacts of importing material;*

During sieve analysis of sand samples a deficiency in consistent grading characteristics was identified. The size of aggregate represents 7% of the required grading suitable for concrete sand specifications. Dixon Sand seek approval for importation of a maximum of 7% of concrete sand product which is equivalent to 1.4 or 2 laden trucks. These movements will be included in the total of sixty (60) laden truck movements per day as contained within the EIS. These movements represent the maximum percentage that may be required to supplement grading deficiency and maintain stockpile levels once Dixon Sand has developed a customer base for the product.

- ~ *Amount of resource remaining on site and volume to be extracted has not been justified in accordance with Department of Mineral Resources requirements. Concerns raised that resource is overstated;*

The estimated reserves have been calculated by LyallMacoun Pty Ltd, Consulting Engineers and the survey undertaken by surveyors Keown and Drummond Pty Ltd. This analysis takes into account existing levels, setbacks, groundwater levels, overburden and interburden, and tailings fractions. Estimates have been calculated using best practice techniques based upon up-to-date survey data, monitoring of groundwater table, soil testing and previous site experience. PF Formation raised this objection on the basis that the available resource has been underestimated, if this were true the environmental impact would be reduced.

- ~ *Amount of resource is linked to time frame required for approval;*

The time frame for approval has been limited to 10 years to complete operations on lots 196/29 only.

- ~ *Time periods for which approval is sought are excessive and are unable to be properly assessed given the limited and inconsistent information on reserves and projected sales;*

Reserves estimates have been properly and adequately assessed. Market demand can be influenced by a number of factors one of which is the closing down of an operation for an extended period.

- ~ *Five (5) to seven (7) years is the maximum time frame required for the subject sites;*

The development proposal will see the extraction of the remaining resource on lots 196/29, some 1.7 million tonnes, producing 1.4 million tonnes of sales product. The life of the operation will depend upon the level of market demand. With the most optimistic scenario of 60 loads per day from day 1, the extraction operation will be complete in 4 years. At a more gradual buildup from 40-60 loads per day, the total

resource will be extracted within 7 years. To allow for staging of extraction and rehabilitation a further 3 years is required to successfully implement the rehabilitation strategy. The time period assumes that Dixon's will regain all original customers and also that market demand will remain high.

- ~ *Hours of operation should not be permitted before 7am given the location of the proposed access via poor roads adjacent to houses/residents;*

The earlier start time of 6 am has been selected to avoid the peak period outside the school. The crown road, that provides access to the site is proposed to be upgraded as is the intersection with Old Northern Road. The most effected houses at this intersection will be afforded more protection than was previously provided as the following is to be implemented :

1. Surfacing of the access road with bitumen
2. Limiting truck speed on the access road
3. Provision of an upgraded intersection
4. Provision of noise barriers along the access road
5. Provision of access to this road to PF Formation's trucks from their Hornsby Quarry.

The condition of Old Northern Road is not a situation that Dixon Sand can influence as the contract truck drivers pay for the road through Motor Vehicle Fees and Dixon Sand along with all the Sand Miners contribute to the road via the Section 94 contributions. This double payment is for the use of the road.

- ~ *Use of out of date surface information linked to justification of material available and life of extraction. Much of the material may have already been removed - volume of material over - estimated, casting doubts on time claimed as necessary to complete the operation;*

All survey data is up-to-date and reserve estimates accurately depicted based upon the subject site and existing methods of calculations..

3. Planning Instructions

- ~ *Non-compliance with setback requirements in DCP No. 500 - Extractive Industries (DCP 500);*

All setbacks are addressed in Section 6.4.1, pages 6.13 and 6.14. There are two locations where setbacks depart from DCP500 and these are fully justified within that section.

- ~ *Lots 1 & 2 DP 547255 are not subject to extraction, and therefore a minimum 10 metre setback is required;*

A 10 metre setback from lots 1 & 2 DP 547255 has been provided.

- ~ *Batters are located within setback areas, and many are too steep;*

All peripheral batters are located outside setback areas. As referred to above the peripheral batters along part of the western and northern boundaries of 196 were constructed by Dixon's when they occupied the site. The area had previously been cleared the former operator encroaching into the 10m setback required by DCP 108. Dixon Sand constructed the batter to prevent sediment loss from the site and recently revegetated all external batters for sedimentation and erosion control. Upon commencement of operations the internal face of the batter along the western boundary shall be reform to a slope no greater than 1:2. This has been identified in Volume 2 of the EIS, Rehabilitation and Revegetation Strategy Section 4.6.

~ *Details requirements of SREP No. 9(2) are not considered;*

All requirements of SREP 9(2) have been assessed and taken into consideration in the proposal. No inconsistencies have been specified.

~ *SREP No. 9(2) requirement for a detailed rehabilitation plan not complied with;*

A detailed rehabilitation plan has been provided, please refer to the Rehabilitation and Revegetation Strategy in the EIS prepared by the DLWC Soil Consultation Services. As referred to in the SREP No(2) - Rehabilitation, consent shall not be granted until rehabilitation measures have been carried out in accordance with DLWC Guidelines.

~ *Proposal is completely at odds with SREP No. 20 - Hawkesbury Nepean River;*

The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The EIS has thoroughly addressed issues contained within this act and issues raised during consultation and submissions from in particular the Hawkesbury and Nepean Catchment Management Trust.

4. Groundwater

~ *Effect of excavations on groundwater tables;*

The impact of the development on the Groundwater System has been assessed in Appendix C5- Groundwater Impact Assessment.

5. Transport

~ *EIS is misleading - claims made regarding negotiations with PF Formation with respect to internal haulage road;*

A copy of correspondence has been forwarded to Council. As evidenced within these documents Dixon Sand has attempted to resolve this issue directly with PF Formation. To date the attempts have failed and consequently Dixon's have contacted the relevant public authorities to resolve the matter in a timely manner to which it deserves.

- ~ *Proponent has not discussed proposal with adjoining extractive industry operator as suggested in the EIS, nor sought permission to affect the conditions and viability of their operations on Lots 1 & 2 DP 585538;*

Dixon Sand has been offering to provide alternative access arrangements over lot 29 for many years with no results. Negotiations have been hindered by PF Formations reluctance to reply and accept a mutually beneficial, simple and workable solution. The proposal has no effect on the adjoining operator's operation other than the commercial aspect of competition.

- ~ *The applicant has continually refused to provide access alternate to the Crown Road across Lot 29, thus negotiations have failed over the past seven year period;*

Once again this Statement is false. PF Formation have been in receipt of plans for many years offering a relocation of access way across Lot 29. At no stage during these meetings and discussions has PF Formation come to an agreement or offered an alternative proposal. It is in the best interest of Dixon Sand to extract the Crown road adjoining lots 196 and 29. It would also be in the best interests of the environment and PF Formation. It has also been a requirement of the Department of Urban Affairs and Planning (DUAP), the Department of Land and Water Conservation (DLWC), and the Hawkesbury Nepean Catchment Management Trust (HNCMT) to remove this landbridge and achieve a final landform for rehabilitation and the re-establishment of a riparian corridor. No agreement to these proposals or alternatively any counter proposals have been received by Dixon Sand.

- ~ *EIS needs to address in detail the alternative access, both temporary and permanent, which it proposes in exchange for its right to extract material below the Crown Road;*

A conceptual design has been forwarded to PF Formation and rejected. Until such an agreement is reached no detailed plans can be produced. The location of the alternative access is detailed in the EIS.

- ~ *The applicant has a preference for the public road system instead of the internal haul road;*

Dixon Sand do not have a preference for using the public road system over the haulage road system. An alternative haulage road system has not been feasible in the past due to local planning constraints, economic constraints, environmental and community constraints, landholder constraints and competing interests between operators. To date no independent comprehensive feasibility study for an alternative proposal has been undertaken or addressed in a local context. PF Formation presently use a haul road linking their operations in the North to the central processing plant. PF Formation have in the past proposed to extend this haul route to link their operations in Hornsby. Dixon Sand make available to competitive operators the use of the Crown Road access to Old Northern Road as an opportunity to avoid the public road system.

~ *No complete assessment of the environmental and cumulative impacts of the development proposal for the Crown Road have been provided;*

The development of the crown road is encapsulated in the EIS. The environmental impact of the total extraction of the site is covered in the EIS. The crown road offers no additional impact that is not covered in the EIS.

The extraction of the crown road in achieving a uniform final landform has been assessed in the proposal and is indicated as a preferred option

~ *Long term impact of proposed use of public road system on Maroota community, school and the road system for the next 35 years;*

As mentioned previously recent proposals and approvals within the Hornsby Shire have compounded the potential impacts on the public road system within the locality. Dixon Sands have estimated that in the short term the additional traffic generated from the Dixon proposal shall be minimal as a large proportion of the Dixon Sand client base presently using the road system shall return upon reopening. This has been concluded based on independent traffic counts and current information from Dixon Sand customers.

~ *EIS fails to address the number of laden vehicles travelling to site with imported material - reference is only made to laden vehicles leaving the site;*

This is incorrect. Please refer to the EIS Volume 1 Section 2.1.2 Justification & Alternatives. This states that " a maximum of approximately 7% of the concrete sand product shall be imported to the site." This is equivalent to a total maximum of two (2) laden trucks vehicles per day.

~ *Community concern that truck movements may in fact reach to 180 movements per day, if material is transported to site for processing;*

Dixon Sand seek approval to allow 60 laden vehicles per day to leave the site a total of 120 movements per day. As mentioned above an allowance for a maximum two (2) laden trucks entering the site per day has been allocated for. These two trucks are included in the total of sixty (60) laden trucks.

~ *Safety issues with number of trucks travelling along Old Northern Road, and in particular past Maroota Public School;*

This is of particular concern to Dixon Sand and should be of concern to all operators presently using Old Northern Rd. Dixon Sand effectively limit truck concentrations during school 'pick up and drop off times'. By allowing trucks to access the quarry in the morning and afternoon periods the peak morning and afternoon periods are reduced, thus improving safety. Trucks are not allowed to leave the site until loads have been tarped, this has been stringently adhered to and will be enforced in the future. Dixon Sand have recently held discussions with the Maroota Public School to alleviate any concerns that may exist and to remedy them. A proposal to alleviate any nuisances as

identified from the school is being prepared.

- ~ *Objection to proposal that would leave large vertical cuts without appropriate batters on either side of Crown Road, threatening structural integrity;*

Dixon Sand have received consent to extract the Crown Road overcoming the problem of the landbridge and any associated structural integrity.

- ~ *Lack of assessment of the structural, traffic and safety implications of the proposal on the Crown Road;*

As Above

- ~ *Cumulative impact of trucks/traffic has not been considered. EIS should have regard to recent approvals;*

The total number of truck movements on Old Northern road is an issue of both public and extractive industry concern. The road has a finite limit that now is in the control of Hornsby and Baulkham Hills Shire Councils and the State Government. It is impossible for any one operator to monitor this situation. In the case of Dixon Sand the truck movements that the company had up to December 15th 1998 are to be returned, with an increase from 40 to a maximum of 60. The current number of trucks on the road represent the business of the competing operators inclusive of that business that used to belong to Dixon Sand. This will mean that the total number of trucks will not significantly alter. The intense activities of Dixon Sand's competitors designed to keep the company from regaining its market share is testimony to this fact. The existing level of traffic on the road has been assessed in the EIS. The RTA have indicated that the road is not at capacity. The Dixon proposal includes an innovative step to alleviate traffic densities on the road in peak periods and it is hoped that Council accept this in the spirit that it is proposed – this is to schedule the trucks to avoid peak hour traffic and to avoid the school area when children are being dropped to school. In addition Dixon Sand have offered to allow PF Formation use of the upgraded Crown access road at no upgrading cost to PF Formation, thus allowing their Hornsby Quarry trucks the opportunity to avoid the school and Old Northern Road between the Access point and Wiseman's Ferry Road.

- ~ *Condition of Crown Road is not satisfactory and intersection of Crown Road with Old Northern Road is dangerous;*

The Crown Road is to be upgraded/reformed to a 7 metre wide pavement and sealed with a hot flush bitumen seal. The access to the site has been designed by Lyle Marshall & Associates Pty Ltd, Consulting Engineers, Transportation and Environmental Planners. The access has been designed to comply with Austroad standards and meets all criteria including safe sight distance from both directions. To suggest that the intersection is dangerous is unfounded and contradicts accepted standards of design.

- ~ *All sandmining companies should use the internal haulage road system;*

As discussed previously a feasibility study could be undertaken to assess the benefits and costs to landholders, sandminers, farmers, the environment and local

community of transportation options within the locality.

PF Formations are currently using a haulage road to link site operations on Lots 1 & 2 to their central processing plant on lot 198. To suggest all future operators and customers alike be directed through PF Formations central processing plant is unrealistic unfair and impractical in itself. Dixon Sand believe there are many environmental, economic and community constraints presently limiting the conceptual design of such a system in preference to the existing system. This, of course needs to be analysed with the direct and indirect benefits of alternatives. It is likely that a comprehensive study would be of considerable cost and take some time, however Council has the resources to implement such a study should it be considered. The current section of haul road could perhaps be used as a model.

- ~ *Traffic assessment conflicts with information in EIS - EIS refers to increasing sales demand, yet states that traffic noise will be negotiable because customers will come from PF Formation;*

This question has been adequately covered previously

- ~ *Impacts of proposal, particularly truck movements are understated;*

Please refer to previous questions and the EIS Volume 2 Appendix C6 Traffic and Transportation Assessment.

- ~ *Assumptions that PF Formations customers will return to Dixon Sands is flawed,*

Refer to previous responses.

- ~ *Hornsby based operations of PF Formation are independant of Portion 198;*

Please refer to previous questions and EIS regarding assessment of truck movements.

- ~ *Truck movements generated by the re-opening of the Dixon operations will result in substantial increases along Old Northern Road;*

Impacts from truck movements from Dixon Sand operations have been summarised in the body of the EIS, supplementary studies undertaken by Dixon Sand consultants, which has concluded that truck movements will only be slightly increased beyond previous conditions.

- ~ *Environmental impacts of upgrading the junction of Old Northern Road and has access road have not been addressed in the EIS;*

Minor impacts from construction operations are not of significant impact and shall be addressed at the appropriate time prior to construction.

- ~ *Poor condition of Old Northern Road and Wisemans Ferry Road - damage caused by trucks and resultant dangerous situation for motorists;*

The capacity of the road system to take any additional movements has been assessed in the Traffic Study.

- ~ *Closure of Crown Roads would deny lawful public access to Crown land and adjoining properties;*

The closure of the Crown Road will have no impact on public access.

6. Noise

- ~ *Noise impact of truck movements past school;*

Please read Appendix C4-Noise Assessment, Section 5.2.4-Traffic Noise Impact at Maroota Public School.

- ~ *Noise impact of machinery;*

Please refer to Appendix C4-Noise Assessment, Section 5.1-Operational Site Noise.

- ~ *Noise impact of trucks from as early as 5.30am;*

Benbow and Associates have addressed the impact of an early start for the trucks. In addition a noise barrier has been recommended along the Crown Access road to protect the houses near the intersection with Old Northern Road.

- ~ *Cumulative impact of noise - should also have regard to recent approvals;*

The Noise criteria set by the EPA at the property boundaries and the nearest residents are met as detailed in the EIS.

- ~ *Noise report was based on 120 movements a day on top of existing measured noise environment, with on-site measurements undertaken during an 11 day period whilst Dixon sands still operating. This has the effect of increasing the background noise level and making the required noise increase criteria easier to achieve after re-opening;*

This statement is misleading as the criteria for Dixon Sand to meet is set by the quietest period of the day, which was during period when the plant was not operating and the trucks were not moving.

- ~ *Noise levels are exceeded over the early morning period;*

The noise attenuation actions taken at the site will mean that this statement is not correct.

- ~ *EIS does not include construction noise assessment;*

The plant has been constructed.

- ~ *No evidence in noise assessment of the use of NATA calibrated type 1 noise level meters and associated instrumentation, hence the conclusions of the assessment cannot be checked or substantiated;*

Benbow and Associates have used only NATA calibrated meters.

- ~ *EIS only examines areas within close proximity to site and fails to address impacts five kilometres away at Jackson's Swamp, particularly noise impacts;*

An assessment of the house at 3km distant, River Road north west of the site, clearly indicates a compliance with EPA noise criteria (Report attached).

7. Sediment Control and Dust

- ~ *Impact of dust, particularly in dry weather;*

This aspect is clearly covered in the EIS as well as the recent replies to Council related to the correspondence from the EPA. The proposed dust control measures are more than adequate. The dust from traffic on the internal access road is a matter for the adjoining operator.

- ~ *Mud on roads;*

Run-off is collected in the existing pondage system

- ~ *Spillage of material on roads;*

The comment above applies to this aspect.

- ~ *Proposal does not comply with required criteria in relation to erosion control;*

This is not correct as the independent authority in this aspect has provided the appropriate input – department of Land and Water Conservation, Soil Services – Soil Consultants.

- ~ *Appendix C3 - Integrated Surface Water Management Strategy includes a fundamental error relating to estimates of soil loss - this casts doubts on calculations relating to the required size sediment control devices;*

Please specify where any errors have occurred regarding soil erosion calculations and what parameters or soil coefficients are in error. Soil erosion and erosivity of soil has been assessed by Soil Consulting services of the DLWC.

- ~ *Impact of dust on adjoining fruit and vegetable crops, and on amenity of surrounding residents;*

The EIS clearly indicates that the EPA's dust criteria is met. In addition the survey of the adjoining property owners and occupiers clearly indicates that dust problems are not associated with the Dixon Sand operation.

- ~ *Air quality assessment is based on less than useful and erroneous monitoring data covering two months, hence the EIS conclusion that dust dispersions is not an issue is false and unreliable;*

The dust monitoring was conducted during an operating period and hence is clearly more accurate than any attempt at modeling. The survey of the local residents supports the view taken by the EIS.

- ~ *Insufficient care and information is provided for the protection of the catchment with regard to run-off and groundwater;*

The comprehensive rehabilitation program, the runoff modeling and the detailed sedimentation basin design would refute the above statement. The issue of ground water protection is addressed by the fact that the Dixon Sand operation is not proposed to penetrate the permanent water table and is in fact well above that water table.

8. Rehabilitation

- ~ *Land which has been extracted is distressed, and it is considered impossible to rehabilitate it;*

The site has been broken into different classes of vegetation based upon the anticipated characteristics of the soil strata and the depth of growing material. Areas underlain by imported fill material or tailings are capped and topsoiled to required depths to provide a growing medium. This growing medium of stabilized sandstone must be of sufficient depth to support native regeneration without stressing. The area then undergoes a process of soil 'rebuilding' using sacrificial crops and cover crop techniques. The soil is tested to determine any requirements for Soil conditioners and fertilizers. Once the area has been stabilized with a suitable cover crop the process of revegetation of native trees and shrubs begins, using direct seeding or brushmatting techniques and planting of tube stock.

- ~ *Lack of deadlines for rehabilitation. EIS should provide dates;*

The staged rehabilitation strategy has been broken up into phases based upon the anticipated extraction sequence. Obviously the extraction program is largely determined by production requirements which is directly related to market demand. This degree of flexibility has been accommodated for within the rehabilitation strategy, which has been broken into 3 time periods based upon the anticipated requirements of the extraction plan. Rehabilitation of an extracted precinct is undertaken immediately after extraction is complete.

~ *Time span for rehabilitation is excessive. Sites should be fully rehabilitated within five (5) years;*

Once again it has been estimated that extraction of remaining resources shall take place within 4 to 7 years, assuming between 40 to 60 truck loads per day respectively. This is assuming all customers are return to Dixon Sand and market levels remain at a high. The rehabilitation and revegetation strategy involves the re-establishment of 40% of the disturbed site to original full floristics and scrub heath. This will involve the trialing and monitoring of rehabilitated areas in conjunction with the DLWC to implement a successful species regeneration program on the site and for future sites. All local species will be propagated on site by a qualified bush regenerator working on a part-time basis. A period of three years has been allocated to allow for a successful program to be established developed and finally completed.

~ *Application does not show where material will come from to rehabilitate the site;*

Filling material shall be used to bring extracted portions to final landform. Filling material is derived from tailings fractions, interburden and overburden. No importation of material is necessary to achieve final landform. Where final landform has been achieved by cutting no filling will be required. Topsoil quantities originally stripped and stockpiled on site will be reused.

~ *Final landforms proposed are not satisfactory;*

To whom and why? Please specify. Final landform design has been prepared to the requirements of Council Guidelines, public authorities and trusts and the landowner. Final landform design will re-establish environmental regimes and satisfy the final land use in character with the existing locality. The adjoining land holders /occupiers were surveyed and found to support an adoption of a uniform land form.

~ *Rehabilitation of the subject sites will not be completed for 35 years, if approval is granted for this time frame;*

The proposal is for a 10 year consent period as outlined in previous questions.

~ *SREP No. 9(2) requires the preparation of a detailed rehabilitation plan. This has not been adequately prepared;*

A detailed rehabilitation methodology, extraction and rehabilitation plan has been prepared by the Department of Land and Water Conservation (DLWC)

~ *Calculation of soil loss factors are incorrect which has resultant implications for rehabilitation;*

This issue was addressed above. The figures are correct and up to date.

- ~ *Unacceptable to allow majority of rehabilitation activities to be undertaken in final years of development;*

The rehabilitation of the site is progressively undertaken back-to-back with the extraction plan. The site is divided into 11 precincts. Rehabilitation is commenced immediately after extraction of cells, initially to stabilize the soil and build soil strata. Revegetation is a continuous process of trialing, planting, monitoring and maintaining and shall be undertaken during the life of the operation.

- ~ *Appendix C2 - Rehabilitation and Revegetation Strategy deals almost exclusively with revegetation;*

Revegetation is an important part of the strategy as almost 40% of the disturbed site shall be returned to original bushland. This approximates to almost 50% of the total site (including the heavily timbered region in the south-west corner), being returned to or left in its original state.

9. Flora and Fauna

- ~ *The EIS has not fully considered all potential flora and fauna, which could occur on the site;*

The only remaining flora and fauna existing on the site is in the south west corner of lot 196 (10 hectares which the owner has left undisturbed), and the western corner of lot 29 (containing the species *Kunzea Rupestris* which is to be protected).

- ~ *An "eight point" test pursuant to the provisions of Section 5A of the EP & A Act 1979 should be provided for all potentially affected species on an individual basis, including species known to occur on the site and in the region;*

This request has been addressed by the Flora & Fauna consultants Gunninah Environmental Consultants in a Supplementary Flora and Fauna Report submitted to BHSC in October 1999. This report concludes that it is not appropriate to apply an "8 part test" to the subject site, and as such none was carried out. Furthermore "it is neither relevant nor appropriate to attempt to apply S.5A of the EP&A Act", for reasons contained within the EIS and supplementary report.

- ~ *No assessment has been provided as required by SEPP No. 44 - Koala Habitat;*

The Flora and Fauna Consultant has stated that the proposal does not impose any "significant effect" on any biota or their habitats. The Flora and Fauna consultant has separately identified the area as having no significance with respect to SEPP44.

10. Ecologically Sustainable Development

- ~ *The sustainability of the ecology of natural resources in the SREP 9 area is critically under threat;*

This will not be the case if the constraints of DCP 500 are adhered to and sand mining is conducted in conjunction with rehabilitation strategy.

- ~ *Detrimental impact on adjacent bushland through increased stream sediment loads resulting from extraction and rehabilitation activities;*

Dixon Sand have recently undertaken extensive Sedimentation and Erosion control measures which have significantly improved discharged water quality. Dixon Sand will be required to continue sampling and independently testing water quality leaving the site on a regular basis to comply with EPA guidelines for discharging into a natural aquatic environment. These requirements shall be contained within the Environmental Management Plan to be approved upon consent

- ~ *EIS does not consider all the potential impacts of the ESD precautionary principal;*

This is not correct as the EIS does cover this aspect at Chapter 5 of Volume 1.

11. Past Performance of Dixon Sands

- ~ *Operator has failed to operate and rehabilitate in accordance with the previous EIS;*

All past breaches or occurrences have been rectified and remediated on a continual basis.

- ~ *Previous depth limitation was exceeded by Dixon Sands;*

As above.

- ~ *Operator is not considered reliable in complying with conditions of an EIS;*

Dixon Sand have agreed to a proposal to monitor environmental performance of extractive operators via an annual independent compliance audit. In combination with an Environmental management plan approved by the relevant authorities, the problem of general and undefined conditions of consent can be rectified.

- ~ *Previous track record of operator is not good and not representative of good environmental practices for extractive industry;*

The Dixon Sand operation has been augmented over the past couple of years to

include best practice techniques in Integrated Surface Water Management, Sedimentation and Erosion Control, Rehabilitation and Environmental monitoring.

~ *Lack of detail regarding methods of rehabilitating/rectifying past breaches;*

Dixon Sand have recently completed Stage 1 of their rehabilitation strategy incorporating Precincts 2,6,7 and 8. This includes the re-establishment of native grass covers and shrub species. Past extracted portions have been stabilized and revegetated and maintained. This work is been carried out in accordance with the detailed rehabilitation plan, which I refer the question too for further detail.

12. Other Issues

~ *Request for extension of time for submissions;*

The development is not new, the applicant seeks the intensification of an existing development that is essentially the same development. The EIS has been prepared over a period of almost two years, at which stage a community consultation and briefing program was establish and all residents and groups kept up-to-date with the progress of the EIS as events unfolded. Dixon Sand have continued to brief the community through articles published in the Living Heritage and meetings with local public authorities and community groups. The EIS has completed an extended exhibition period to cover School holidays in October.

~ *Community is not in receipt of a delivered local newspaper, therefore notice of the DA has not been effectively communicated;*

As above. In addition the legislated advertising process was adhered to by Council.

~ *Safety issues associated with ponds - potential for humans and animals to fall into them;*

Safety fencing has been used around ponds at the Dixon Sand quarry in accordance with the requirements of the Mineral Resources Department.

~ *EIS relies upon inaccurate and biased submissions from the building industry;*

This is incorrect. Please specify.

~ *Resumption of sandmining will impact on businesses in Jackson's Swamp - potential for loss of income and possible claims for compensation;*

A discussion with the lawyer associated with that business indicates that this statement is not correct. The Dixon proposal will have no impact on Eco-tourism associated with the group making this comment.

~ *No further extraction should be approved in Maroota.*

Maroota is located within the SREP (9) area which has been designated as a source of medium to coarse sand in close proximity to the Sydney basin.