Our Reference : SRF15941

Mr Chris Ritchie
Manager – Manufacturing and Rural Industries
Major Development Assessment
Department of Planning
GPO Box 39
Sydney NSW 2001

Dear Mr Ritchie,

RE: PROPOSED REDEVELOPMENT OF ASPHALT, CONCRETE AND CEMENT PRODUCTION FACILITY AT EASTERN CREEK

Further to the Planning Focus Meeting, which I attended on behalf of the Department of Environment and Conservation (DEC), at Wallgrove Quarry on 7 September 2006, the DEC has considered the details of the proposal as provided at the meeting and has identified the information it requires to issue its comments on the Environmental Assessment (EA) in Attachment 'A'.

In summary, the DEC's key information requirements for the proposal relate to a complete assessment of:

a) Air emissions - it is essential to include all plant and equipment that will be affected by this proposal and how the proposal will meet the *Protection of the Environment Operations (Clean Air) Regulations 2002.* Further to this, the assessment must be undertaken with consideration to a number of different operating scenarios from normal operation conditions to worse case;

b) Noise Impact Assessment (NIA) must be undertaken strictly in accordance with the *NSW Industrial Noise Policy.* The NIA must consider the noise generated by the proposed plant and whether there will be a reduction in Noise from the site as a whole; and

c) Additional waste generated as a result of the demolition and construction works as well as the operations of the new plant. Waste must be classified and quantified in accordance with the *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non Liquid Wastes.* Details on the appropriate storage of waste with reference to the sites capacity to store additional waste if necessary.

d) The impacts of the project on threatened species and their habitat.

e) The impacts of the project on Aboriginal Cultural Heritage values.

f) The impacts of the project on (or related to) contaminated sites.

The DEC requests 5 copies of the EA when available. These documents should be provided at the DEC's Parramatta Office located at Level 7, 79 George St, Parramatta 2150. If you have any further queries regarding this matter please contact me on (02) 9995 6810.

Yours sincerely

KIERAN HORKAN
Head Sydney Industry
Metropolitan Branch
Environment Protection and Regulation Division

ATTACHMENT - A

EA REQUIREMENTS FOR PROPOSED ASPHALT, CONCRETE AND CEMENT PRODUCTION FACILITY, EASTERN CREEK

How to use these requirements

The EA should follow the following outline:

A. Executive summary

B. The proposal

C. The location

D. Identification and prioritisation of issues

E. The environmental issues

F. List of approvals and licences

G. Compilation of mitigation measures

H. Justification for the proposal

A EXECUTIVE SUMMARY

The executive summary should include a brief discussion of the extent to which the proposal achieves identified environmental outcomes.

B THE PROPOSAL

1. Objectives of the proposal

- The objectives of the proposal should be clearly stated and refer to:
  a) the size and type of the operation, the nature of the processes and the products, by-products and wastes produced
  b) a life cycle approach to the production, use or disposal of products
  c) the anticipated level of performance in meeting required environmental standards and cleaner production principles
  d) the staging and timing of the proposal and any plans for future expansion
  e) the proposal's relationship to any other industry or facility.

2. Description of the proposal

General

- Outline the production process including:
  a) the environmental "mass balance" for the process – quantify in-flow and out-flow of materials, any points of discharge to the environment and their respective destinations (sewer, stormwater, atmosphere, recycling, landfill etc)
  b) any life-cycle strategies for the products.
- Outline cleaner production actions, including:
  a) measures to minimise waste (typically through addressing source reduction)
  b) proposals for use or recycling of by-products
  c) proposed disposal methods for solid and liquid waste
  d) air management systems including all potential sources of air emissions, proposals to re-use or treat emissions, emission levels relative to relevant standards in regulations, discharge points
  e) water management system including all potential sources of water pollution, proposals for re-use, treatment etc, emission levels of any wastewater discharged, discharge points, summary of options explored to avoid a discharge, reduce its frequency or reduce its impacts, and rationale for selection of option to discharge.
  f) soil contamination treatment and prevention systems.
- Outline construction works including:
  a) actions to address any existing soil contamination

b) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)

c) construction timetable and staging; hours of construction; proposed construction methods

d) environment protection measures, including noise mitigation measures, dust control measures and erosion and sediment control measures.

Air

- Identify all sources of air emissions from the development.
  Note: emissions can be classed as either:
  - *point*
  - *fugitive (from wind erosion, leakages or spillages, associated with loading or unloading, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- Provide details of the project that are essential for predicting and assessing air impacts including:

  a) the quantities and physio-chemical parameters (eg concentration, moisture content, bulk density, particle sizes etc) of materials to be used, transported, produced or stored

  b) an outline of procedures for handling, transport, production and storage

  c) the management of solid, liquid and gaseous waste streams with potential for significant air impacts.

Noise and vibration

- Identify all noise sources from the development (including both construction and operation phases). Detail all potentially noisy activities (and explosions if any) including ancillary activities such as transport of goods and raw materials.
- Specify the times of operation for all phases of the development and for all noise producing activities.
- For projects with a significant potential traffic noise impact provide details of road alignment (include gradients, road surface, topography, bridges, culverts etc), and land use along the proposed road and measurement locations – diagrams should be to a scale sufficient to delineate individual residential blocks.

Water

- Provide details of the project that are essential for predicting and assessing impacts to waters:

  a) including the quantity and physio-chemical properties of all potential water pollutants and the risks they pose to the environment and human health, including the risks they pose to Water Quality Objectives in the ambient waters (as defined on www.environment.nsw.gov.au/ieo, using technical criteria derived from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000)

  b) the management of discharges with potential for water impacts

  c) drainage works and associated infrastructure; land-forming and excavations; working capacity of structures; and water resource requirements of the proposal.

- Outline site layout, demonstrating efforts to avoid proximity to water resources (especially for activities with significant potential impacts eg effluent ponds) and showing potential areas of modification of contours, drainage etc.
- Outline how total water cycle considerations are to be addressed showing total water balances for the development (with the objective of minimising demands and impacts on water resources). Include water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

Waste and chemicals

- Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes* (NSW EPA, 1999).
- Provide details of liquid waste and non-liquid waste management at the facility, including:
  a) the transportation, assessment and handling of waste arriving at or generated at the site
  b) any stockpiling of wastes or recovered materials at the site
  c) any waste processing related to the facility, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site
  d) the method for disposing of all wastes or recovered materials at the facility
  e) the emissions arising from the handling, storage, processing and reprocessing of waste at the facility
  f) the proposed controls for managing the environmental impacts of these activities.
- Provide details of spoil disposal with particular attention to:
  a) the quantity of spoil material likely to be generated
  b) proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil
  c) the need to maximise reuse of spoil material in the construction industry
  d) identification of the history of spoil material and whether there is any likelihood of contaminated material, and if so, measures for the management of any contaminated material
  e) designation of transportation routes for transport of spoil.
- Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes.
- Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage.
- Reference should be made to the guidelines: *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (NSW EPA, 1999).

ESD

- Demonstrate that the planning process and any subsequent development incorporates objectives and mechanisms for achieving ESD, including:

a) an assessment of a range of options available for use of the resource, including the benefits of each option to future generations

b) proper valuation and pricing of environmental resources

c) identification of who will bear the environmental costs of the proposal.

3. Rehabilitation

- Outline considerations of site maintenance, and proposed plans for the final condition of the site (ensuring its suitability for future uses).

C THE LOCATION

1. General

- Provide an overview of the affected environment to place the proposal in its local and regional environmental context including:

  a) meteorological data (eg rainfall, temperature and evaporation, wind speed and direction)

  b) topography (landform element, slope type, gradient and length)

  c) surrounding land uses (potential synergies and conflicts)

  d) geomorphology (rates of landform change and current erosion and deposition processes)

  e) soil types and properties (including erodibility; engineering and structural properties; dispersibility; permeability; presence of acid sulfate soils and potential acid sulfate soils)

  f) ecological information (water system habitat, vegetation, fauna)

  g) availability of services and the accessibility of the site for passenger and freight transport.

2. Air

- Describe the topography and surrounding land uses. Provide details of the exact locations of dwellings, schools and hospitals. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Describe surrounding buildings that may effect plume dispersion.
- Provide and analyse site representative data on following meteorological parameters:

  a) temperature and humidity

  b) rainfall, evaporation and cloud cover

  c) wind speed and direction

  d) atmospheric stability class

  e) mixing height (the height that emissions will be ultimately mixed in the atmosphere)

  f) katabatic air drainage

  g) air re-circulation.

3. Noise and vibration

- Identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals. Typically the location of any noise sensitive locations in relation to the site should be included on a map of the locality.
- Identify the land use zoning of the site and the immediate vicinity and the potentially affected areas.

4. Water

- Describe the catchment including proximity of the development to any waterways and provide an assessment of their sensitivity/significance from a public health, ecological and/or economic perspective. The Water Quality and River Flow Objectives on the website: www.environment.nsw.gov.au/ieo should be used to identify the agreed environmental values and human uses for any affected waterways. This will help with the description of the local and regional area.

5. Soil Contamination Issues

- Provide details of site history – if earthworks are proposed, this needs to be considered with regard to possible soil contamination, for example if the site was previously a landfill site or if irrigation of effluent has occurred.

D IDENTIFICATION AND PRIORITISATION OF ISSUES / SCOPING OF IMPACT ASSESSMENT

- Provide an overview of the methodology used to identify and prioritise issues. The methodology should take into account:
  a) relevant NSW government guidelines
  b) industry guidelines
  c) EAs for similar projects
  d) relevant research and reference material
  e) relevant preliminary studies or reports for the proposal
  f) consultation with stakeholders.
- Provide a summary of the outcomes of the process including:
  a) all issues identified including local, regional and global impacts (eg increased/ decreased greenhouse emissions)
  b) key issues which will require a full analysis (including comprehensive baseline assessment)
  c) issues not needing full analysis though they may be addressed in the mitigation strategy
  d) justification for the level of analysis proposed (the capacity of the proposal to give rise to high concentrations of pollution compared with the ambient environment or environmental outcomes is an important factor in setting the level of assessment).

E THE ENVIRONMENTAL ISSUES

1. General

- The potential impacts identified in the scoping study need to be assessed to determine their significance, particularly in terms of achieving environmental outcomes, and minimising environmental pollution.
- Identify gaps in information and data relevant to significant impacts of the proposal and any actions proposed to fill those information gaps so as to enable development of appropriate management and mitigation measures. This is in accordance with ESD requirements.

  Note: The level of detail should match the level of importance of the issue in decision making which is dependent on the environmental risk.

Describe baseline conditions

- Provide a description of existing environmental conditions for any potential impacts.

Assess impacts

- For any potential impacts relevant for the assessment of the proposal provide a detailed analysis of the impacts of the proposal on the environment including the cumulative impact of the proposal on the receiving environment especially where there are sensitive receivers.
- Describe the methodology used and assumptions made in undertaking this analysis (including any modelling or monitoring undertaken) and indicate the level of confidence in the predicted outcomes and the resilience of the environment to cope with the predicted impacts.
- The analysis should also make linkages between different areas of assessment where necessary to enable a full assessment of environmental impacts eg assessment of impacts on air quality will often need to draw on the analysis of traffic, health, social, soil and/or ecological systems impacts; etc.
- The assessment needs to consider impacts at all phases of the project cycle including: exploration (if relevant or significant), construction, routine operation, start-up operations, upset operations and decommissioning if relevant.
- The level of assessment should be commensurate with the risk to the environment.

Describe management and mitigation measures

- Describe any mitigation measures and management options proposed to prevent, control, abate or mitigate identified environmental impacts associated with the proposal and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- Proponents are expected to implement a 'reasonable level of performance' to minimise environmental impacts. The proponent must indicate how the proposal meets reasonable levels of performance. For example, reference technology based criteria if available, or identify good practice for this type of activity or development. A 'reasonable level of performance' involves adopting and implementing technology and management practices to achieve certain pollutant emissions levels in economically viable operations. Technology-based criteria evolve gradually over time as technologies and practices change.

- Use environmental impacts as key criteria in selecting between alternative sites, designs and technologies, and to avoid options having the highest environmental impacts.
- Outline any proposed approach (such as an Environmental Management Plan) that will demonstrate how commitments made in the EA will be implemented. Areas that should be described include:

  a) operational procedures to manage environmental impacts

  b) monitoring procedures

  c) training programs

  d) community consultation

  e) complaint mechanisms including site contacts

  f) strategies to use monitoring information to improve performance

  g) strategies to achieve acceptable environmental impacts and to respond in event of exceedences.

2. Air

Describe baseline conditions

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data. This description should include the following parameters.

Assess impacts

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (eg potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations. Discuss choice of model and parameters with the DEC.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional and global pollution, particularly in sensitive locations.
- For potentially odorous emissions provide the emission rates in terms of odour units (determined by techniques compatible with EPA / DEC procedures). Use sampling and analysis techniques for individual or complex odours and for point or diffuse sources, as appropriate.

  Note: With dust and odour, it may be possible to use data from existing similar activities to generate emission rates.

- Reference should be made to: *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2001); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (EPA, 2001); *Assessment and Management of Odour from Stationary Sources in NSW* (EPA, 2001); *Technical Notes: Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW (EPA, 2001); Load Calculation Protocol for use by holders of NSW Environment Protection Licences when calculating Assessable Pollutant Loads* (EPA, 1999).

Describe management and mitigation measures

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

3. Noise and vibration

Describe baseline conditions

- Determine the existing background (L_{A90}) and ambient (L_{Aeq}) noise levels in accordance with the *NSW Industrial Noise Policy*.
- Determine the existing road traffic noise levels in accordance with the *NSW Environmental Criteria for Road Traffic Noise*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
  a) details of equipment used for the measurements
  b) a brief description of where the equipment was positioned
  c) a statement justifying the choice of monitoring site, including the procedure used to choose the site, having regards to the definition of 'noise sensitive locations(s)' and 'most affected locations(s)' described in Section 3.1.2 of the *NSW Industrial Noise Policy*
  d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
  e) a description of the dominant and background noise sources at the site
  f) day, evening and night assessment background levels for each day of the monitoring period
  g) the final Rating Background Level (RBL) value
  h) graphs of the measured noise levels for each day should be provided
  i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the *NSW Industrial Noise Policy*
  j) determination of L_{Aeq} noise levels from existing industry.

Assess impacts

- Determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include:
  a) determination of the intrusive criterion for each identified potentially affected receiver
  b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
  c) determination of the amenity criterion for each receiver
  d) determination of the appropriate sleep disturbance limit.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible affects on sleep. Where $L_{A1(1min)}$ noise levels from the site are less than 15 dB above the background L_{A90} noise level, sleep disturbance impacts are unlikely. Where this is not the

case, further analysis is required. Additional guidance is provided in Appendix B of the *NSW Environmental Criteria for Road Traffic Noise*.

- Determine expected noise level and noise character (eg tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during:

  a) site establishment

  b) construction

  c) operational phases

  d) transport including traffic noise generated by the proposal

  e) other services.

  Note: The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).

- Determine the noise levels likely to be received at the most sensitive locations (these may vary for different activities at each phase of the development). Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise levels under calm conditions may also aid in quantifying the extent of impact where this is not the most adverse condition.

- The noise impact assessment report should include:

  a) a plan showing the assumed location of each noise source for each prediction scenario

  b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site

  c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc

  d) methods used to predict noise impacts including identification of any noise models used. Where modelling approaches other than the use of the ENM or SoundPlan computer models are adopted, the approach should be appropriately justified and validated

  e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions

  f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate

  g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived

  h) an assessment of the need to include modification factors as detailed in Section 4 of the *NSW Industrial Noise Policy*.

- Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.

- The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.

- Where relevant noise/vibration criteria cannot be met after application of all feasible and cost effective mitigation measures the residual level of noise impact needs to be quantified by identifying:

  a) locations where the noise level exceeds the criteria and extent of exceedence

b) numbers of people (or areas) affected

c) times when criteria will be exceeded

d) likely impact on activities (speech, sleep, relaxation, listening, etc)

e) change on ambient conditions

f) the result of any community consultation or negotiated agreement.

- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EA.

Describe management and mitigation measures

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:

  a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage

  b) control of traffic (eg: limiting times of access or speed limitations)

  c) resurfacing of the road using a quiet surface

  d) use of (additional) noise barriers or bunds

  e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern

  f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension

  g) driver education

  h) appropriate truck routes

  i) limit usage of exhaust breaks

  j) use of premium muffles on trucks

  k) reducing speed limits for trucks

  l) ongoing community liaison and monitoring of complaints

  m) phasing in the increased road use.

4. Water

Describe baseline conditions

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).

  Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC 2004) *or be approved and analyses undertaken by accredited laboratories).*

- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: www.environment.nsw.gov.au/ieo. The EA should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values are not available for groundwater resources. Where groundwater may be affected the EA should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (http://www.deh.gov.au/water/quality/nwqms/volume1.html)(Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANCECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries (www.hrc.nsw.gov.au) or the NSW Salinity Strategy (DLWC, 2000) (www.dlwc.nsw.gov.au/care/salinity/#Strategy).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the DEC on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:

  a) lake or estuary flushing characteristics

  b) specific human uses (e.g. exact location of drinking water offtake)

  c) sensitive ecosystems or species conservation values

  d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc

e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment

f) historic river flow data where available for the catchment.

Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act* 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with the technical guidelines section 'Bunding and Spill Management' of the *Authorised Officers Manual* (EPA, 1995) (http://www.environment.nsw.gov.au/mao/bundingspill.htm) and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:

  a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and

  b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.

- Consult with the DEC as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The DEC will advise the proponent

under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.

- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.
- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to: *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), *Guidelines for Fresh and Marine Water Quality* ANZECC 2000), *Environmental Guidelines: Use of effluent by Irrigation* (DEC, 2004).

Describe management and mitigation measures

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (eg preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
  a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
  b) minimising runoff
  c) minimising reductions or modifications to flow regimes
  d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
  a) site selection
  b) retention of native vegetation and revegetation
  c) artificial recharge
  d) providing surface storages with impervious linings
  e) monitoring program.
- Describe geomorphological impact mitigation measures including:
  a) site selection
  b) erosion and sediment controls
  c) minimising in-stream works

d) treating existing accelerated erosion and deposition

e) monitoring program.

- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

5. Soils and contamination

Describe baseline conditions

- Provide any details (in addition to those provided in the location description - Section C) that are needed to describe the existing situation in terms of soil types and properties and soil contamination.

Assess impacts

- Identify any likely impacts resulting from the construction or operation of the proposal, including the likelihood of:

  a) disturbing any existing contaminated soil

  b) contamination of soil by operation of the activity

  c) subsidence or instability

  d) soil erosion

  e) disturbing acid sulfate or potential acid sulfate soils.

- Reference should be made to: *Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites* (EPA, 1997); *Contaminated Sites – Guidelines on Significant Risk of Harm and Duty to Report* (EPA, 1999).

Describe management and mitigation measures

- Describe and assess the effectiveness or adequacy of any soil management and mitigation measures during construction and operation of the proposal including:

  a) erosion and sediment control measures

  b) proposals for site remediation – see *Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)

  c) proposals for the management of these soils – see *Assessing and Managing Acid Sulfate Soils,* Environment Protection Authority, 1995 (note that this is the only methodology accepted by the DEC).

6. Waste and chemicals

Describe baseline conditions

- Describe any existing waste or chemicals operations related to the proposal.

Assess impacts

- Assess the adequacy of proposed measures to minimise natural resource consumption and minimise impacts from the handling, transporting, storage, processing and reprocessing of waste and/or chemicals.
- Reference should be made to: *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (EPA, 1999).

Describe management and mitigation measures

- Outline measures to minimise the consumption of natural resources.
- Outline measures to avoid the generation of waste and promote the re-use and recycling and reprocessing of any waste.
- Outline measures to support any approved regional or industry waste plans.

7. Cumulative impacts

- Identify the extent that the receiving environment is already stressed by existing development and background levels of emissions to which this proposal will contribute.
- Assess the impact of the proposal against the long term air, noise and water quality objectives for the area or region.
- Identify infrastructure requirements flowing from the proposal (eg water and sewerage services, transport infrastructure upgrades).
- Assess likely impacts from such additional infrastructure and measures reasonably available to the proponent to contain such requirements or mitigate their impacts (eg travel demand management strategies).

8. Impacts on threatened species and their habitat

- A field survey of the site should be conducted and documented in accordance with the gazetted draft *Guideline for Threatened Species Assessment*.
- Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline.
- Describe the actions that will be taken to avoid or mitigate impacts or compensate for unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the guideline.

9. Impacts on Aboriginal cultural heritage values

- The EA should address and document the information requirements set out in the draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* involving surveys and consultation with the Aboriginal community.
- Identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area.
- Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on Aboriginal cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
- The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

F. LIST OF APPROVALS AND LICENCES

- Identify all approvals and licences required under environment protection legislation including details of all scheduled activities, types of ancillary activities and types of discharges (to air, land, water).

G. COMPILATION OF MITIGATION MEASURES

- Outline how the proposal and its environmental protection measures would be implemented and managed in an integrated manner so as to demonstrate that the proposal is capable of complying with statutory obligations under DEC licences or approvals (eg outline of an environmental management plan).
- The mitigation strategy should include the environmental management and cleaner production principles which would be followed when planning, designing, establishing and operating the proposal. It should include two sections, one setting out the program for managing the proposal and the other outlining the monitoring program with a feedback loop to the management program.

H. JUSTIFICATION FOR THE PROPOSAL

- Reasons should be included which justify undertaking the proposal in the manner proposed, having regard to the potential environmental impacts.

RTA

RDC 2006 - 1914

Andrew Popoff

The Director
Major Development Assessment
Department of Planning
GPO Box 39
Sydney NSW 2001

Attention: Brad Deane

HANSON CONSTRUCTION MATERIALS REDEVELOPMENT OF LAND AT LOT 11 DP 558723, LOT 1 DP 400697 AND LOT 2 DP 262213, EASTERN CREEK - DIRECTOR GENERAL'S REQUIREMENTS

Dear Brad,

I refer to the recent Planning Focus Meeting on the 7 September, 2006 requesting the RTA to provide comments for consideration for the preparation of the Environmental Assessment under Part 3A of the Environmental Planning and Assessment Act.

The RTA would like the following issues to be included in the traffic impact assessment of the proposed development:

1. The proposed means of vehicular access to/from the site;

2. Likely daily and peak traffic movements likely to be generated by the proposed development and the increase in the level and type of traffic associated with the proposal;

3. Impact of the proposed development on surrounding arterial road network and intersections and the need and associated funding for upgrading or road improvement works as part of the ultimate development of the SEPP59 (Central Western Sydney Economic and Employment Area).

4. Details of the anticipated route of trucks on the major arterial and local road network;

In addition, the following matters should also be addressed:

5. The need to contribute towards the regional road infrastructure levy as part of the ultimate development of the SEPP 59 (Central Western Sydney Economic and Employment Area).

6. That applicable developer contributions towards external intersection works including the Wallgrove Road / Old Wallgrove Road / M7 and the M4 / Archibold Road interchanges are to be arranged and agreed to with the RTA / Department of Planning.

7. The need to ensure that the site ties into the future road layout for the SEPP59 - Eastern Creek Employment Lands Precinct Plan.

Please refer any further queries on this matter to the nominated Assessment Officer, Andrew Popoff on phone (02) 8814 2180 or facsimile (02) 8814 2107.

Yours faithfully

Charles Wiafe
Land Use Development Manager
Sydney Region

22 September 2006

BlacktownCity

Growing with Pride

21 September 2006

David Kitto

Major Development Assessment
Department of Planning
GPO Box 39
SYDNEY 2001

Attention: Mr Brad Deanne

Dear Sir,

Re: Hanson's - Proposed concrete, asphalt and cement production facility and boundary adjustment - Lot 11, DP 558723, Part Lot 1, DP 400697 & Part Lot 2, DP 262213, Eastern Creek

Reference is made to your email dated 31 August 2006 regarding the Minister's intention to determine the above proposal pursuant to Part 3A of the Environmental Planning and Assessment Act 1979 (as amended) and enclosing a Preliminary Environmental Assessment Report prepared by Planning Workshop Australia on behalf of the applicant for Council's comments. It is understood that any deficiencies identified in the report will necessitate the applicant to address these in the preparation of the Final Assessment Report which will then be referred back to Council for comment.

In view of the above Council has examined the preliminary report and has raised a number of issues which the applicant needs to address. Of particular concern is the proposed boundary adjustment which is inconsistent with the planned location of the future collector road.

Essentially, Council's view is that the future collector road should remain as per the alignment shown in the Precinct Plan and should form the northern boundary to ensure a 50/50 split between the subject site and the Dial-a-Dump property to the north for equity, for satisfactory access into each site and to avoid creating residue areas severed by the road.

Council is also concerned that the applicant may not be obliged to contribute to the necessary regional infrastructure needed to facilitate this development.

Other issues such as noise, dust, protection of riparian corridors are also of relevance.

Council Chambers • 62 Flushcombe Road • Blacktown NSW 2148
Telephone: (02) 9839 6000 • **Facsimile:** (02) 9831-1961 • DX 8117 Blacktown
Email: council@blacktown.nsw.gov.au • **Website:** www.blacktown.nsw.gov.au
All correspondence to: The General Manager • PO Box 63 • Blacktown NSW 2148

Therefore it will be necessary for the applicant to address the outstanding matters listed at Attachment A to this letter, as part of the preparation of the Final Environmental Assessment Report.

Council also reserves the right to raise any further issues as deemed necessary when it later reviews the Final Environmental Assessment Report.

The list attached is now referred for your information and inclusion in any further correspondence to the applicant. Please do not hesitate to contact Ms Pauline Daw on 9839 6212 or by email should you wish to discuss the matter any further.

Yours faithfully,
RON MOORE
GENERAL MANAGER

Per:

File No.: MC 06-1733

ATTACHMENT A

1. Development Services Unit Issues

(i) Council is concerned at the proposal to relocate the private service road in close proximity to the quarry wall/lip. The location of the road northwards in the manner shown is not agreed to for the following reasons:

- The configuration (bend/curvature) of the proposed road is not considered safe from a traffic perspective. Sight distance issues are evident from the proposed new entry driveway to the Hanson site. As the Dial-A-Dump site is also seen to be proposing to continue to have access off the right-of-way such sight distance issues are also likely to affect any access to that site as well.

- The configuration of the proposed road is contrary to the path of the future collector road set out in the Stage 3 Employment Land Precinct Plan which provides for the road cutting through the site in a more orderly manner (i.e. without a kink).

- Given that the RTA have indicated that this collector is a certainty and that it will act as an important linkage which will also ultimately connect with/to the Motorway via the Archbold Road extension, it is considered inappropriate to support an alternative design (which entails a costly and special designed engineered solution to address the structural issues of its close proximity to the quarry edge), when in the longer term the road will still need to be repositioned to the location set out in the Precinct Plan. This would then leave the applicant with a portion of the Hanson site on the other side of the road which is not conducive to optimum use of their site and would entail future cross movements from one part of their site to the other which is not sound planning practice. It would also result in the road not having direct frontage to the Dial-A-Dump site. As the Dial-A-Dump activity also intends to rely on the right-of carriage way/road as a vehicular access to that site during the period whilst the quarry is being filled, the road should have frontage to the Dial-A-Dump Site. A 50/50 split of the road between the two properties is preferred to ensure both properties (i.e. Hansons and Dial-A-Dump) benefit from the road and so that contributions can be apportioned on an equitable basis.

- It is considered prudent to require that the proponent address the roads location now so that the plans approved provide the road as per the RTA's and Council's preferred location. This will create a situation of certainty for all and will avoid the difficulties that would be encountered later in trying to relocate the road as per the Precinct Plan when the boundary of the site will have been already shifted further north. There is also the risk that the residue containing the temporary road could also be on sold to some unsuspecting purchaser who will be solely burdened with this onerous obligation.

- Council has concern with respect to the lack of a suitable buffer between the road and the quarry. As per the Precinct Plan should the Minister determine to approve the road contrary to the preferred location of Council and the RTA then provision needs to be made for a minimum setback of at least 30m (as measured from the top of the bank of the pit) which shall be provided as a landscaped buffer with appropriate earth mounding and fencing in order to screen the operation of the quarry.

- A geotechnical report that addresses the structural stability, safety and soundness of the road prepared by a suitably qualified engineer will be necessary, however as indicated above, Council does not support the curved nature of the road as currently proposed.

- The report fails to provide sufficient information regarding the current and proposed operation and range of activities and processes undertaken on the existing site (in terms of their location, nature, truck movements, employees, hours of operation, sources of raw materials,) and to explain the altered impact of the existing operation with respect to the future proposed development, especially now that the quarry site is under the ownership of Dial-A-Dump.

- The report indicates that it is anticipated that the proposed concept plan will not generate traffic movements in excess of the existing situation. Given that the quarry is proposed to be filled in over a long term period as part of the Dial-A-Dump's operations and will therefore not be a source of raw materials it is unclear as to why traffic movements would not in fact be higher under the proposed new redevelopment, given the need to source materials from other off site locations. This needs to be fully documented in the required traffic report.

- Concern is raised at the current condition of the right of carriageway and its suitability in catering for the truck movements of this development noting that this right of carriage way is also shared by the Dial-A-Dump site. The current road pavement is showing signs of deterioration. In the event that the proposal is approved by the Minister without the need for the road to be rebuilt upfront to the collector standard set out in the Precinct Plan then the applicant should be required to engage a suitably qualified consultant to prepare a report that investigates the structural capacity of the road to accommodate the expected traffic movements and to indicate what upgrading measures are required.

- More detailed information is requested regarding how the various components of the development are to operate and how vehicles arrive, load and unload, number of employees and the processes to occur on the site.

- The applicant needs to demonstrate that the proposed development can accommodate the future collector road based on the assumption that the road will be located as per the Precinct Plan. In this regard, plans should be prepared to demonstrate how provision can be made for a 23.75m wide road reserve plus 10m landscaped setbacks on both sides of the road with all proposed development located outside of the 10m setbacks.

2. Council's Environmental Health Unit Issues

Noise

(i) An acoustic report will be required to be prepared which addresses both construction noise as well as operational noise of the entire facility. This report should be comprehensive and have regard for the total proposed uses to operate on the site irrespective of their intending staging. The report in particular needs to provide full details of the noise impacts of the facility upon the residential properties in the Minchinbury residential area. It is not evident in the Preliminary Environmental report what the proposed hours and days of operation are. If the facility is to operate after 10pm or before 6am then the acoustic report needs to also account for the reduced background noise levels at these times. Whilst the main concern is with residential noise, the report needs to also investigate the noise impacts upon other existing and future industrial developments within the SEPP 59 precinct, given that many of these are expected to incorporate offices of large companies It is recommended that with respect to industrial developments in the vicinity of the site that these should be assessed based on a "commercial" level of attenuation rather than at an "industrial" level.

Air Quality/Dust

(i) The applicant is required to submit a Dust Dispersion report prepared by a suitably qualified consultant with respect to all of the proposed activities. As the subject site is upwind from the adjoining residential area of the Minchinbury estate, the residents may be subject to windborne dust from the stockpiles, truck movements, concrete and asphalt plant activities. Dust may also be an issue for the other industrial uses in the SEPP 59 estate and so this needs to be addressed in the report as well. The report needs to explain how dust is presently minimised at the current operation and how it will differ and be addressed under the proposed redeveloped plant. This needs to include dust from the plant as well as dust from the movement of trucks to and from the development.

(ii) Council's Environmental Unit have indicated the need for the applicant to provide actual specifics of the dust suppression measures to be used, not just a written commitment stating that dust suppression will be undertaken. This should cover all dust producing activities on the site including dust from vehicles entering leaving the site, dust from stockpiles, dust from loading operations, dust associated with cleaning operations and any other activity.

Waste water and Pollution

(i) Details of what will happen to water/wastewater/rainwater on any forecourt/hard paved areas. If there is discharge, how often and who will monitor it.

(ii) Pollution - the applicant needs to identify all potential sources of pollution from all of the activities to be carried out and to identify what measures are to be used to ensure these do not make their way into the nearby watercourses and ponds or to the vegetated area along the southern part of the site. Details of bunding and the measures to prevent contaminated runoff from making its way into the watercourse to the south is required.

(iii) Any chemical storage to occur on the site needs to be detailed including quantities, types including material safety data sheets and means of storage and to demonstrate compliance with EPA/Work Cover requirements.

DEC Matters

(i) The applicant to consult with the DEC to seek an EPA licence and to satisfy any requirements of the DEC.

Environmental Management Plan

(i) The applicant to submit to Council an Environmental Management plan (EMP) for the development prior to any approval from the Minister so Council can review it and to assist Council to respond to any queries and complaints that may be directed to Council.

The EMP should not only state what is being carried out but also what will be carried out in the event that a problem is detected.

3. Traffic Engineering Issues

(i) A Traffic report prepared by a qualified Traffic consultant is required for the proposal. The Traffic report also needs to investigate and have regard for the traffic generated by the adjoining Dial-A Dump site and shall provide an assessment of traffic volumes, sight distance, suitability of the right of carriageway to cater for the volume of vehicle movements to be generated, impact of truck movements on peak commuter times and safety issues associated with the configuration of the proposed road.

(ii) Council's Traffic Section raise objection to the proponent's intention to relocate the boundary northwards in the manner shown for the reason that this could make the collector road need to be re-aligned to follow the new boundary which will create an unnecessary bend in the road. Council's Traffic Section do not support the bend in the road as indicated in the supplied drawings.

(iii) Council's Traffic Section indicate that any amendment to the road pattern as shown in the Eastern Creek Precinct Plan (Stage 3) should be supported by a Traffic Study. Should the proponent suggest any change in the road alignment it needs to be supported with a detailed investigation of its impact onto the wider road network.

(iv) The existing right of carriageway should only be used with respect to the existing operation. As the future collector road follows the alignment of the existing right-of carriageway it is considered logical to upgrade this road to the collector standard of the Precinct Plan as part of this application.

(v) The internal road servicing the various components of the proposal should be a private road.

4. S94 Contribution Issues

(i) The infrastructure requirements for the precinct are generally covered in the Precinct Plan. However, detailed designs and cost estimates for stormwater drainage and roads are required before equitable contributions can be apportioned between the land owners. Given the size of the precinct and the necessity for a precinct-wide infrastructure study, it is not possible at this stage to apportion equitable contributions amongst the land owners.

(ii) It should be noted that Council is currently in the process of supervising precinct-wide studies to determine the precise level of infrastructure provision. Once this is completed it will be possible to calculate the applicable apportionment of developer contribution for each developer. A S94 Contributions Plan will then be prepared and will comprise of infrastructure items such as public roads, stormwater drainage and riparian zones. Detailed costings are required for the design of such works and it is estimated that it will take at least 12 months to finalise this. Alternatively, planning agreements will need to be entered into, depending on the developer's timeframe to develop.

(iii) Should the Minister determine to issue an approval ahead of the finalisation of a Contributions plan then it should be on the basis that the developer is conditioned to fulfil their future apportioned infrastructure contribution obligations, as determined by Council through a Section 94 Contributions plan, or Section 94A CP prepared in the future by Blacktown City Council or a voluntary planning agreement.

5. Council's Drainage Engineer Issues

(i) Concern is raised about the management of stormwater from within the site as well as from adjoining sites. Council's On site detention and Storm Water Management polices need to be observed. To this end a detailed stormwater concept plan needs to be prepared that makes provision for all of the proposed uses on the site.

(ii) The plans submitted to Council are very conceptual and make it difficult for Council to provide definitive observations. In particular the concept plan lacks detail in relation to water quality and quality management and is ambiguous as to the extent of future development.

(iii) The applicant needs to address Section 27 of SEPP 59 in regard to location of site and flood extents.

(iv) There has been insufficient attempt to address the issues from the Precinct Plan. Comments related to stormwater treatment and quality control do not relate to the requirements of the Plan and need to be addressed for the whole catchment, not just the proposed development itself.

(v) Concept plans need to address the controls outlined in Section 5 of the precinct Plan and also the environmental and biodiversity controls in Sections 7 and 8 of the Precinct Plan.

(vi) As the depicted uses on the site will involve various chemicals and nominal pollutants some form of spillage control must also be incorporated into the overall site.

6. Riparian Issues

(i) The Precinct Plan requires that no development occur within 40m of Ropes Creek tributary and that provision be made for retaining and where possible enhancing connectivity between the riparian corridors. The Final PEA is required to address Section 8 of the Precinct Plan and demonstrate how this proposal will satisfy the objectives and controls with respect to the riparian corridor.

7. Indigenous Heritage

(i) Figure 21 in Section 9 of the Precinct Plan identifies the southern portion of the site as being a High sensitive area in terms of Indigenous Heritage Values. Land identified as being in this category is required under the Precinct Plan to be conserved and utilised as passive open space. Council would request that the applicant prepare an archaeological report in consultation with the 4 local Aboriginal groups to identify the significance of any artefacts on the site and to prepare a plan to address how these areas are to be fenced off and protected during the construction works and on an ongoing basis.

8. Rehabilitation Plan

(i) A Rehabilitation Plan will be required to be prepared as part of the Final PEA.