NSW GOVERNMENT | Planning & Infrastructure

Major Projects Assessment
Mining & Industry Projects
Contact: Kerry Hamman
Phone: (02) 9228 6516
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Our Ref: 12/07275-1

Mr Dom Tenace
Glass Recovery Services
94 Maffra Street
COOLAROO VIC 3048

Dear Mr Tenace

State Significant Development - Director-General's Requirements
Penrith Glass Beneficiation Plant (SSD - 5267)

I have attached a copy of the Director-General's environmental assessment requirements (DGRs) for the preparation of an Environmental Impact Statement for the Penrith Glass Beneficiation Plant.

These requirements are based on the information you have provided to date and have been prepared in consultation with the relevant government agencies and Penrith City Council. Their comments, which you should address appropriately when preparing the EIS, are also attached (see Attachment 2). Please note that the Department may alter these requirements at any time, and that you must consult further with the Department if you do not lodge a development application and EIS for the development within two years of the date of issue of these DGRs. The Department will review the EIS for the development carefully before putting it on public exhibition, and will require you to submit an amended EIS if it does not adequately address the DGRs.

I wish to emphasise the importance of effective and genuine community consultation and the need for proposals to proactively respond to the community's concerns. Accordingly a comprehensive, detailed and genuine community consultation and engagement process must be undertaken during preparation of the EIS. This process must ensure that the community is both informed of the proposal and is actively engaged in issues of concern to them. Sufficient information must be provided to the community so that it has a good understanding of what is being proposed and of the potential impacts.

Your proposal may require a separate approval under Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). If an EPBC Act approval is required, I would appreciate it if you would advise the Department accordingly, as the Commonwealth approval process may be integrated into the NSW approval process, and supplementary DGR's may need to be issued.

I would appreciate it if you would contact the Department at least two weeks before you propose to submit the development application and EIS for your development. This will enable the Department to:

- confirm the applicable fee (see Division 1AA, Part 15 of the *Environmental Planning and Assessment Regulation 2000*); and
- determine the number of copies (hard-copy and CD-ROM) of the EIS required for review.

If you have any enquiries about these requirements, please contact Kerry Hamann on the details above, or Christine Chapman on (02) 9228 6537.

Yours sincerely,

16.5.12

Chris Wilson
Executive Director
Major Projects Assessment
As delegate for the Director-General

Director General's Environmental Assessment Requirements

Section 78A(8A) of the *Environmental Planning and Assessment Act*

State Significant Development

Application Number	SSD 5267
Development	The Penrith Glass Beneficiation Plant which includes: • conversion of an existing building into a glass beneficiation plant with the capacity to process up to 105,000 tonnes of glass per annum; • ancillary fit-out including external storage bunkers, stormwater and landscaping; and • utilisation of existing infrastructure such as two weighbridges, car park and offices.
Location	126 Andrews Road, Penrith, Lot 1, DP 747153, Penrith Local Government Area
Proponent	Glass Recovery Services
Date of Issue	May 2012
General Requirements	The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in Clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000.* In addition, the EIS must include a: • detailed description of the development, including: – need for the proposed development having particular regard to the aims, objectives, and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2007;* – justification for the proposed development; – likely staging of the development - including construction, and operational stage/s; – likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; – plans of any proposed building works; • consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; • risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment; • detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: – a description of the existing environment, using sufficient baseline data; – an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; – a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and – consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.
Key Issues	The EIS must address the following specific matters: • **Statutory –** a consideration of the proposal against all relevant planning instruments including, but not limited to the *Penrith Local Environment Plan 2010* and the relevant *Development Control Plans* (DCP's), and *Sydney Regional Environmental Plan No. 20 – Hawkesbury Nepean River.*

	• **Waste Management** – including: - identify, classify and quantify the likely waste streams that would be handled/stored/disposed of at the facility; - describe how this waste would be stored and handled on site, and transported to and from the site including waste sources; - clearly describe the glass beneficiation technology, timeframes for processing waste and the quality control measures that would be implemented; - detail how the proposed plant would operate in conjunction with the neighbouring glass container manufacturing plant; and - detail the potential impacts associated with receiving, processing and storing the incoming glass and with dispatching of the cullet product. • **Soil & Water** – including: - consideration of potential local and mainstream flooding impacts; - potential impacts on watercourses and riparian areas, wetlands, watercourses and riparian areas, groundwater and groundwater dependent communities nearby; - any proposed erosion and sediment controls (during construction); - the proposed stormwater management system; - a detailed water balance for the development including water supply and an outline of the measures that would be implemented to minimise the use of water on site and wastewater disposal; and - consideration of the nature and extent of any contamination on the site and potential contamination impacts. • **Noise – including a quantitative assessment of potential:** - construction, operational and traffic noise impacts; and - details of the proposed management and monitoring measures. • **Air Quality –** including: - air quality impacts arising from the construction and operation of the proposed plant, particularly in relation to dust during processing and impacts on sensitive receptors (both current and proposed); and - details of the proposed management and monitoring measures. • **Traffic and Transport** – including: - details of truck routes; - predictions of the traffic volumes likely to be generated during construction and operation; - an assessment of the impacts of this traffic on the safety, capacity and efficiency of the surrounding road network; - modelling of key intersections (including any nearby existing or proposed developments); - detailed assessment on the need for upgrading or road improvement works on Andrews Road; - details of the availability of non-car travel modes and measures to encourage greater use of these travel modes; and - access and parking. • **Hazards –** including an assessment of the potential fire risks of the development. • **Greenhouse Gas –** including: - a quantitative assessment of the potential scope 1 and 2 greenhouse gas emissions of the development; and - a detailed description of the measures that would be implemented on site to ensure that the development is energy efficient. • **Visual –** including; - an assessment of the potential visual impacts of the development on the amenity of the surrounding area; and - a detailed description of the measures that would be implemented to minimise the visual impacts of the development, including the design features, landscaping and measures to minimise the lighting and signage impacts of the development. • **Socio-Economic –** including a comprehensive assessment of the potential economic and social impacts of the development, demonstrating that it would

	have a net benefit for the community, paying particular attention to the potential impacts of the development on waste minimisation and resource recovery in the region. • **Biodiversity –** including impacts on flora and fauna located on the site and surrounds.
Plans and Documents	The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. These documents should be included as part of the EIS rather than as separate documents.
Consultation	During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • Environment Protection Authority; • Department of Primary Industries (including the NSW Office of Water); • Transport for NSW (including Roads and Maritime Services); • Penrith City Council; and • the local community and stakeholders. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.
Further consultation after 2 years	If you do not lodge an EIS for the development within 2 years of the issue date of these DGRs, you must consult with the Director-General in relation to the requirements for lodgement.
References	The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.

ATTACHMENT 1
Technical and Policy Guidelines

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:
http://www.planning.nsw.gov.au
http://www.bookshop.nsw.gov.au
http://www.publications.gov.au

Policies, Guidelines & Plans

Aspect	Policy /Methodology
Risk Assessment	
	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
Waste	
	Waste Avoidance and Resource Recovery Strategy 2007 (DECC)
	Waste Classification Guidelines (DECC)
	Environmental Guidelines: Assessment Classification and Management of Non-Liquid and Liquid Waste (NSW EPA)
	Environmental guidelines: Composting and Related Organics Processing Facilities (DEC)
	Environmental guidelines: Use and Disposal of Biosolid Products (NSW EPA)
	Composts, soil conditioners and mulches (Standards Australia, AS 4454)
Soil and Water	
Soil	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
	Draft Guidelines for the Assessment & Management if Groundwater Contamination (DECC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
Surface Water	Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources and the Water Sharing Plan for the Greater Metropolitan Region Groundwater sources National Water Quality Management Strategy: Water quality management - an outline of the policies (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Policies and principles - a reference document (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Implementation guidelines (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ)
	National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	State Water Management Outcomes Plan
	NSW Government Water Quality and River Flow Environmental Objectives (DECC)

	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
	Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Technical Guidelines: Bunding & Spill Management (DECC)
	Floodplain Development Manual (DIPNR)
	Floodplain Risk Management Guideline (DECC)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	Technical Guidelines: Bunding & Spill Management (DECC)
	Environmental Guidelines: Use of Effluent by Irrigation (DECC)
Groundwater	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft
	Guidelines for the Assessment and Management of Groundwater Contamination (DECC)
Noise	
	NSW Industrial Noise Policy (DECC)
	Environmental Noise Management – Assessing Vibration: a technical guide (DEC)
	Environmental Criteria for Road Traffic Noise (NSW EPA)
	Environmental Noise Control Manual (DECC)
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Hazards	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Hazardous and Offensive Development Application Guidelines - Applying SEPP 33
	Hazardous Industry Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Greenhouse Gas	
	AGO Factors and Methods Workbook (AGO)
	Guidelines for Energy Savings Action Plans (DEUS, 2005)
Visual	
	Control of Obtrusive Effects of Outdoor Lighting (Standards Australia, AS 4282)
	State Environmental Planning Policy No 64 - Advertising and Signage
Social & Economic	
	Draft Economic Evaluation in Environmental Impact Assessment (DOP)
	Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)
Biodiversity	
	Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECCW 2009)
	Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DECC 2004)

Guidelines for Threatened Species Assessment (DoP 2005)
The Threatened Species Assessment Guideline – The Assessment of Significance (DECC 2007)
NSW State Groundwater Dependent Ecosystem Policy (DLWC)
Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
State Environmental Planning Policy No. 44 – Koala Habitat Protection

ATTACHMENT 2
Agency Input into Key Assessment Issues

NSW GOVERNMENT | Office of Environment & Heritage

GLASS RECOVERY SERVICES PTY LTD

Attention: Dom Tenace

Notice Number 1503821

File Number

Date **3 February 2012**

Dear Mr Tenace,

RE: "Waste Management Facility - 126 Andrews Road, Penrith

I refer to your request for the Environment Protection Authority's ("the EPA") requirements for the environmental impact statement (EIS) in regard to the above proposal received by the EPA on 16 January 2011.

The EPA has considered the details of the proposal as provided by Glass Recovery Services Pty Ltd and has identified the information it requires to issue its general terms of approval in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Air qualities issues (including odour and dust management)

2. Noise impacts

3. Stormwater management and wastewater managements

4. Waste management

5. Ecologically sustainable development

6. Greenhouse gas assessment

7. Aboriginal cultural heritage

8. Native flora and fauna

9. Native vegetation

Specific assessment requirements are relevant to the project and these environmental impacts are listed below. The environmental impacts should be assessed in accordance with the relevant guidelines mentioned.

The EIS must provide sufficient information for a full assessment of the proposed works against the EPA's statutory responsibilities and in particular, the requirements of section 45 of the *Protection of the*

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Environment Operations Act 1997 ("POEO Act") in order for the EPA to provide appropriate general terms of approval.

If there are any questions regarding the above, please contact Jacqueline Ingham on (02) 9995 5795.

Yours sincerely,

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Jacqueline Ingham

Unit Head

Waste Management Section

(by Delegation)

Office of Environment & Heritage

ATTACHMENT A: EIS REQUIREMENTS FOR

126 ANDREWS ROAD, PENRITH - WASTE MANAGEMENT FACILITY

How to use these requirements

The EPA requirements have been structured in accordance with the DIPNR EIS Guidelines, as follows. It is suggested that the EIS follow the same structure:

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.
- Outline construction works including:
  a) any earthworks or site clearing; re-use and disposal of cleared material (including use of spoil on-site)

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

c) 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 (eg emissions from stack or vent) or*
  - *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 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 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:

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

  g) proper valuation and pricing of environmental resources
  h) identification of who will bear the environmental costs of the proposal.

3. Consideration of alternatives and justification for the proposal

- Consider the environmental consequences of adopting alternatives, including alternative:
  a) sites and site layouts
  b) access modes and routes
  c) materials handling and production processes
  d) waste and water management
  e) impact mitigation measures
  f) energy sources
- Selection of the preferred option should be justified in terms of:
  a) ability to satisfy the objectives of the proposal
  relative environmental and other costs of each alternative
  acceptability of environmental impacts and contribution to identified environmental objectives
  b) acceptability of any environmental risks or uncertainties
  c) reliability of proposed environmental impact mitigation measures
  d) efficient use (including maximising re-use) of land, raw materials, energy and other resources.

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) surrounding land uses (potential synergies and conflicts)
  c) ecological information (water system habitat, vegetation, fauna)
  d) 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.

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) EISs 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 EIS 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.
- For odour provide the emission rates in terms of odour units (determined by techniques compatible with EPA 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.

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 EPA.
- 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.

- Reference should be made to : *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (2005); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (2007); *Assessment and Management of Odour from Stationary Sources in NSW* (2006); *Technical Notes: Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW (2006).*

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 (LA90) and ambient (LAeq) 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

  day, evening and night assessment background levels for each day of the monitoring period

  the final Rating Background Level (RBL) value

  f) graphs of the measured noise levels for each day should be provided
  g) 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*
  h) determination of LAeq 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 LA1(1min) noise levels from the site are less than 15 dB above the background LA90 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 EIS.

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 (EPA 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 EIS 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 EIS 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 EPA 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 EPA 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 EPA 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).

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 instream 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* EPA 2004).

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 EPA).

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 *Waste Classification Guidelines (2008).*

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. Greenhouse Gas Assessment

Describe baseline conditions

- The EA should include a comprehensive assessment of, and report on, the project's predicted greenhouse gas emissions (tCO2e). Emissions should be reported broken down by:

  a) direct emissions (scope 1 as defined by the Greenhouse Gas Protocol – see reference below),
  b) indirect emissions from electricity (scope 2), and
  c) upstream and downstream emissions (scope 3)

  before and after implementation of the project, including annual emissions for each year of the project (construction, operation and decommissioning).

- The EA should include an estimate of the greenhouse emissions intensity (per unit of production). Emissions intensity should be compared with best practice if possible.

- The emissions should be estimated using an appropriate methodology, in accordance with NSW, Australian and international guidelines (see below).

Describe management and mitigation measures

- The proponent should also evaluate and report on the feasibility of measures to reduce greenhouse gas emissions associated with the project. This could include a consideration of energy efficiency opportunities or undertaking an energy use audit for the site.

Reference should be made to:

- The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute http://www.ghgprotocol.org/standards/corporate-standard
- National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest release), http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx
- National Greenhouse and Energy Reporting System, Technical Guidelines (latest release) http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/tools-resources.aspx
- National Carbon Accounting Toolbox http://www.climatechange.gov.au/government/initiatives/ncat.aspx
- Australian Greenhouse Emissions Information System (AGEIS) http://ageis.climatechange.gov.au/

8. Impacts on Native Vegetation

The EA needs to address the potential impact on native vegetation; specifically:

- The hectares of native vegetation that will have to be cleared to accommodate the resource Recovery Park and the associated infrastructure.
- Full floristics of the vegetation types that will need to be cleared.
- A description and map of the dominate vegetation types must be provided. Vegetation types mapped should be assigned to corresponding vegetation types included in the Biometric tool vegetation database. These are available from:

  http://www.environment.nsw.au/resources/nature/Biometric_Vegetation_Type_CMA.xls
- The extent of native vegetation on the site which may be remnant vegetation, protection regrowth or non-protected re-growth as defined by the Native Vegetation Act 2003.
- The general requirements of the Native Vegetation Act 2003, especially in relation to Vulnerable Land.

9. Impacts on Aboriginal cultural heritage values

The assessment should if applicable:

- 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; and
- Demonstrate the effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

10. Impacts on threatened species, population, ecological communities and their habitat

Undertake an assessment on the likely impact on impacts on threatened species, population, ecological communities and their habitat. This should include:

- A field survey
- Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on.
- A description of the actions that will be taken to avoid impacts, or to mitigate 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.

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

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 EPA 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.

Department of Primary Industries
Office of Water

Contact Janne Grose
Phone 02 4729 8262
Fax 02 4729 8141
Email janne.grose@water.nsw.gov.au

Our ref ER21871
Your ref SSD-5267

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Christine Chapman

Dear Ms Chapman

SSD5267 – SKM Recycling, Penrith Glass Beneficiation, 126 Andrews Road, Penrith
Key Issues and Assessment Requirements

I refer to the email of 23 April 2012 to the NSW Office of Water's (Office of Water) requesting input into the environmental assessment requirements for the preparation of the Environmental Impact Statement (EIS) for the above development proposal.

The Office of Water has reviewed the Concepts Report and provides the following key issues to be addressed in the Environmental Impact Statement (EIS) including an expanded list of assessment requirements detailed in **Attachment A.**

Key issues to be addressed in the EIS for the proposal include:

- Compliance with the rules in any relevant Water Sharing Plan (WSP) and legislation.
- An assessment of the impact of the proposal on watercourses and riparian areas, SREP 20 wetlands, groundwater sources and groundwater dependent ecosystems
- Adequate mitigating and monitoring requirements to address impacts to surface water and groundwater sources and dependent ecosystems.

The Office of Water requests that all referrals from the Department of Planning and Infrastructure for this proposal include one (1) **hard copy** and one (1) **CD** copy of the EIS and any other accompanying documentation.

Should you require further information please contact Janne Grose, Planning and Assessment Coordinator on (02) 4729 8262 at the Penrith office.

Yours sincerely

Mark Mignanelli
Manager Major Projects, Mines and Assessment
9 May 2012

NSW Office of Water Environmental Assessment Requirements

SKM Recycling Penrith Glass Beneficiation

Relevant Legislation

The Environmental Impact Statement (EIS) should take into account the objects and regulatory requirements of the *Water Act 1912* and *Water Management Act 2000* (WMA 2000), as applicable. Proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the *WMA*.

Water Sharing Plans

The proposal is within the area covered by the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources* and the *Water Sharing Plan for the Greater Metropolitan Region Groundwater sources*. The WSP prepared under the provisions of the WMA 2000 establishes the rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. The EIS needs to:

- Demonstrate how the proposal is consistent with the relevant rules of the WSP including rules for access licences, distance restrictions for water supply works and rules for the management of local impacts in respect of surface water and groundwater sources, ecosystem protection, water quality and surface-groundwater connectivity.
- Provide a description of any site water use (amount of water from each water source) and management including all sediment dams, clear water diversion structures with detail on the location, design specifications and storage capacities for all the existing and proposed water management structures.
- Provide an analysis of the proposed water supply arrangements against the rules for access licences and other applicable requirements of any relevant WSP.

The proposal needs to ensure it is consistent with the water sharing rules. The site is located within two groundwater sources, the Hawkesbury Alluvials Groundwater Source and the Sydney Basin Central Groundwater Source. In regard to surface water, the site is located in the Lower Nepean River management zone.

Refer to: *http://www.water.nsw.gov.au/Water-Management/Water-sharing/default.aspx* .

Relevant Policies

The EIS should take into account the following policies (as applicable):

- NSW State Rivers and Estuary Policy (1993);
- NSW State Groundwater Policy Framework Document (1997);
- NSW State Groundwater Quality Protection Policy (1998);
- NSW State Groundwater Dependent Ecosystems Policy (2002); and
- Office of Water Guidelines for Controlled Activities (2010/ 2011).

http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx

Licensing Considerations

Section 1.3 of the Concepts Report notes the use of water in the proposed development will be discussed in the EIS (page 9). The EIS is required to provide:

- Details of the water supply source(s) for the proposal including any proposed surface water and groundwater extraction and all water supply works to take water.
- Information on the purpose, location, construction and expected annual extraction volumes including details on all existing and proposed water supply works which take surface water, (pumps, dams, diversions, etc) and
- Details on all bores and excavations for the purpose of investigation, extraction, dewatering, testing and monitoring and an approval obtained from the Office of Water prior to their installation. All predicted groundwater take must be accounted for through adequate licensing

Water allocation account management rules, total daily extraction limits and rules governing environmental protection and access licence dealings also need to be considered.

Surface Water Assessment

SREP 20 wetland

Map 26 of Sydney Regional Environmental Plan No. 20 – Hawkesbury–Nepean River shows a SREP 20 wetland (wetland no. 158) is located adjacent to the southern boundary of the site and another (wetland no. 156) is located approximately 1.5 km north of the site. It is recommended the EIS provides details on the wetlands including:

- scaled plans showing the location of:
  - the wetland
  - remnant vegetation surrounding the wetland (identify any areas to be protected and any native vegetation proposed to be removed)
  - the footprint of the proposal in relation to the wetland
- photographs of the wetland
- an assessment of the potential impacts of the proposal on the wetland including the water quality of the wetland, the hydrologic regime/ natural flow regime and local drainage patterns and habitat.
- safeguard measures to mitigate impacts including the rehabilitation of the wetland and provision of buffers.

Riparian Land

It appears there may be a watercourse located on, or adjacent to the western side of the site which flows into the Waterside Green site on the northern side of Andrews Road. The EIS needs to provide details on where the water flows and how it connects to the Waterside Green site. The Office of Water has issued Controlled Activity Approvals for the Waterside Green site and required a minimum 20 m riparian setback be rehabilitated either side of the lakes systems. If a watercourse is located on, or near the site it is recommended the riparian setback requirements are consistent with the riparian setbacks at the Waterside Green site.

To ensure the sustainable and integrated management of surface water sources and protection of the nearby watercourse, riparian areas and *waterfront land*, as defined in the WMA 2000, an assessment of surface water sources must include but is not limited to the following:

- scaled plans showing the location of:
  - watercourses
  - riparian setbacks

- any remnant riparian vegetation surrounding the watercourses (identify any areas to be protected and any native vegetation proposed to be removed)
- the footprint of the proposal in relation to the watercourse and riparian areas
- APZ requirements

- photographs of the watercourses
- Geomorphic assessment of the watercourses including details of stream order (using the Strahler System), river style and energy regimes both in channel and on any adjacent floodplains;
- Detailed description of all potential environmental impacts in terms of channel stability, riparian areas, sediment movement, water quality and hydraulic regime;
- Description of the design features and measures to be incorporated into the proposal to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers;
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

Groundwater Assessment

The site is located in an area mapped as High groundwater vulnerability. To ensure the sustainable and integrated management of groundwater sources, the EIS needs to include adequate details to assess the impact of the project on all groundwater sources including:

- the predicted highest groundwater table at the site.
- any works likely to intercept, connect with or infiltrate the groundwater sources.
- any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- a description of the flow directions and rates and physical and chemical characteristics of the groundwater source.
- the predicted impacts of any final landform on the groundwater regime.
- the existing groundwater users within the area (including the environment), any potential impacts on these users and safeguard measures to mitigate impacts.
- an assessment of the quality of the groundwater for the local groundwater catchment
- an assessment of groundwater contamination (considering both the impacts of the proposal on groundwater contamination and the impacts of contamination on the proposal).
- how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- measures for preventing groundwater pollution so that remediation is not required.
- protective measures for any groundwater dependent ecosystems (GDEs).
- proposed methods of the disposal of waste water and approval from the relevant authority.
- the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- any proposed monitoring programs, including water levels and quality data
- reporting procedures for any monitoring program including mechanism for transfer of information.
- an assessment of any groundwater source/aquifer that may be sterilised from future use as a water supply as a consequence of the proposal.
- identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- description of the remedial measures or contingency plans proposed.
- any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

Groundwater Dependent Ecosystems

The SREP 20 wetlands in the vicinity of the site are likely to be groundwater dependent ecosystems. The EIS should provide details on the presence and distribution of Groundwater Dependent Ecosystems (GDEs) in the vicinity of the site and:

- demonstrate that the proposed development would maintain natural patterns of groundwater flow and not disrupt groundwater levels that are critical to GDEs;
- identify any potential impacts on GDEs as a result of the proposal including:
  - the effect of the proposal on the recharge to groundwater systems;
  - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections;
  - the effect on the function of GDEs (habitat, groundwater levels, connectivity); and
- provide safeguard measures for any GDEs.

GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural environment and can vary in how they depend on groundwater, from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

End Attachment A
9 May 2012

PENRITH CITY COUNCIL
Serving Our Community

Our Reference: IMS 3473776
Your reference: SSD 5267
Contact: Allison Cattell
Phone: 02 4732 7909

7 May 2012

Christine Chapman
Major Projects Assessment
NSW Department of Planning & Infrastructure
GPO BOX 39
SYDNEY NSW 2001

Dear Ms Chapman,

Review of Concepts Report for a Proposed Glass Benefaction Plant
126 Andrews Road Penrith NSW 2750

I refer to the "Concepts Report" referenced 115011_SSD_Concepts_Report_Rev1, prepared by Benbow Environmental, release date 12 April 2012, received by Council 23 April 2012 as amended 2 May 2012 in email correspondence.

Thank you for the opportunity to review and provide feedback on the proposed development by close of business on Monday 7 May 2012 as agreed in our phone conversation 4 May 2012.

The following comments are made for your relay to the applicant to address in the preparation of any Environmental Impact Assessment for the proposed use at the proposed site:

General site affectations

The property is identified as being partly bushfire prone land, subject to flood-related development controls and as having scenic and landscape values.

Planning policies

The following policies are relevant to the proposed development and are to be addressed in any application for development:

State planning policy

State Environmental Planning Policy No.33 – Hazardous and Offensive Development, Protection of the Environment Operations Act 1997, Roads Act 1993 and Rural Fires Act 1997 apply to the proposal and the requirements are to be addressed in any application for development.

Regional planning policy

Sydney Regional Environmental Plan No.20 – Hawkesbury Nepean River applies to the site. Environmental considerations throughout the instrument will apply.

Local planning policy

The Penrith Local Environmental Plan 2010 applies to the site. The site is zoned IN1 (General Industrial). This policy contains aims and objectives for the zone and the plan, provisions relating to the development including, but not limited to, earthworks, salinity, flood planning and scenic & landscape values.

Draft Local planning policy

There is a planning proposal, "Amendments to Penrith Local Environmental Plan 2010 and draft Penrith Local Environmental Plan (Environmental Heritage Conservation) 2011" that applies to the subject land. Its gazettal is imminent.

Development Control Plans

Penrith Development Control Plan 2010 applies to the site. The most pertinent chapters to consider are C3 (Water management), C4 (Landscape management), C5 (Waste management), C6 (Landscape design), C10 (Transport, access and parking), C12 (Noise and vibration), D4 (Industrial development) and E4 (Waterside Corporate); the latter being relevant given its proximity to adjoining residential land.

Planning issues

The following comments have been provided following review of the "Concepts Report" by Council's Traffic Engineers, Environmental Officers and Environmental Planners:

Flooding and other engineering matters

You are advised to comply with Council's policies pertaining to water management and flood liable land as referred above as well as the State Government Floodplain Development Manual.

The following comments are provided from Council's Development Engineers:

a) The proposal must not have and adverse impact with regard to local and mainstream flooding; and
b) The location of the bunkers on the eastern side of the building are within the flood path and are unlikely to be supported;
c) The site is affected by mainstream flooding from the Nepean River;
d) The flood level for the site is 25.4m Australian Height Datum (AHD);
e) Please note the following:
    i. There is a current application from Stocklands for the development of Waterside Corporate which will require upgrades to Andrews Road;
    ii. Council currently holds a bond for access works at the front of this site within Council owned land;
f) The following comments relate to the conveyor belt system only. Although this is no longer part of this proposal, these comments are given to assist in any planning of the site in the future:

i. The future conveyer belt system must not impact on flooding (no details have been provided). The conveyor belt system would need to be raised for flooding but required supports may still have an unacceptable impact on flooding;
ii. If a conveyor belt is used it is likely to have aesthetic concerns especially where it is raised to accommodate flooding;
iii. It appears that a conveyer belt system would require legal rights to be created over two properties. Any application is to consider consolidation of the lots.

Traffic generation and car parking

You are advised to require a traffic report considering (but not limited to) the following issues:

a) Traffic generation potential including times and split proportion of vehicles and trucks;
b) Adequacy of proposed car parking for the proposed demand;
c) Requirement for trucks to enter and exit the site in a forward direction;
d) If Andrews road is not an existing B-Double Route then road improvements/ upgrades may be required (please confirm with RMS);
e) Subject to the above point, swept path allowance and queuing storage for B-Double vehicles on Andrews Road;
f) Requirement for traffic controls on Andrews Road and the access to the site;
g) Proximity of opposing driveways on Andrews Road and potential for conflict;
h) RMS consideration as this is a significant regional road corridor;
i) Adequate turnaround and parking provision for trucks and vehicles; and
j) Internal and external cycling and pedestrian movement assessment to ensure safety and connectivity and promote these two forms of transport to the site. In this regard shared pathway connectivity would be recommended.

The proposal must demonstrate no adverse traffic impacts on Andrews Road allowing for all required turning movements.

Noise and acoustic performance

The nearby residential estate of Waterside was planned to ensure existing nearby industrial land uses were not going to impact upon the residential use. The LEP and DCP that provides for Waterside set a threshold where development could not occur until compliance could be demonstrated, as modelled on industries in existence at the time. Therefore, the proposed development would need to demonstrate either:

a) The proposed use is not an additional noise source; or
b) Any proposed noise can be mitigated enough not to effect nearby residential development.

Any acoustic analysis is to address any noise sources including crushing, smashing, traffic, machinery operation including trucks and ventilation systems on a 24 hour basis to align with the proposed hours of operation. All noise sources are not to be assessed in isolation but rather modelled for their cumulative impact with other existing/planned industries (particularly those surrounding Andrews Road) as undertaken in previous noise modelling for the area.

You are advised that Benbow Environmental were the agreed consultants engaged to carry out an independent noise assessment of the impacts of the existing glass plant on the Waterside Estate.

It is noted the conveyor is no longer proposed as advised in email correspondence dated 2 May 2012.

Environmental

The EIS should adequately outline the likely impacts of the development and include details on all proposed mitigation measures including:

a) the likely impacts / mitigation strategies for Wetland 158 which is identified in SREP 20 (Wetland 158 is located to the rear of the site);
b) any impacts on the flora and fauna located on the site and surrounds. This should include a test of significance to satisfy the requirement of Section 5A of the Environmental Planning & Assessment Act 1979;
c) details on the impact on stormwater and how it will be managed both on and off site;
d) any odour proposed to be emitted as part of the proposed operations;
e) whether any new furnaces are proposed in either site.

Community consultation

Council is able to provide a list of adjoining property owners/occupiers and their postal addresses on your request to assist you to notify our community of the proposed development and the likely impacts.

Should you have any further queries, please contact me on 02 4732 7909.

Yours faithfully,

Allison Cattell
Senior Environmental Planner
Development Services Department

Your Reference:	SSD5267
Our Reference:	SYD12/00550
Contact:	Dianne Rees
Telephone	8849 2237

NSW GOVERNMENT | Transport Roads & Maritime Services

The Director
Mining and Industry Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Kerry Hamann

**SKM RECYCLING – PENRITH GLASS BENEFICIATION PLANT
STATE SIGNIFICANT DEVELOPMENT – DIRECTOR GENERAL'S REQUIREMENTS. SSD5267**

Dear Sir/Madam

I refer to your letter of 23 March 2012 requesting Roads and Maritime Services (RMS) to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Director General's Environmental Assessment (EA) requirements.

RMS would like the following issues to be included in the transport and traffic impact assessment of the proposed development:

1. It is noted that the Metropolitan Strategy has designated Penrith as a Regional City and a major focal point for regional transport connections and jobs growth. It is important that the infrastructure, landscaping and subdivision works takes into consideration, and contributes to the achievement of, transport objectives contained in this and other high-level NSW Government strategies.

   These strategies include the NSW State Plan and draft Northwest Subregional Strategy. These policies share the aims of increasing the use of walking, cycling and public transport; appropriately co-locating new urban development with existing and improved transport services; and improving the efficiency of the road network.

   By addressing both the supply of transport services and measures to manage demand for car use, the EA report should demonstrate how users of the proposed infrastructure, landscaping and subdivision works, will be able to make travel choices that support the achievement of relevant State Plan targets.

2. Daily and peak traffic movements likely to be generated by the proposed development including the impact on nearby intersections and the need/associated funding for upgrading or road improvement works (if required).

The key intersections to be examined/modelled include but not limited to:

- Andrews Road and The Northern Road/Richmond Road intersection;
- Andrews Road and Laycock Street;
- Andrews Road and Castlereagh Road.

3. Details of the proposed accesses and the parking provisions associated with the proposed development including compliance with the requirements of the relevant Australian Standards (ie: turning paths, sight distance requirements, aisle widths, etc).

4. Proposed number of car parking spaces and compliance with the appropriate parking codes.

5. Details of service vehicle movements (including vehicle type and likely arrival and departure times).

6. RMS requires the EA report to assess the implications of the proposed development for non-car travel modes (including public transport use, walking and cycling); the potential for implementing a location-specific sustainable travel plan (eg 'Travelsmart' or other travel behaviour change initiative); and the provision of facilities to increase the non-car mode share for travel to and from the site. This will entail an assessment of the accessibility of the development site by public transport.

7. RMS requires an assessment of the likely toxicity levels of loads transported on arterial and local roads to/from the site and, consequently, the preparation of an incident management strategy for crashes involving such loads, if relevant.

8. RMS will require in due course the provision of a traffic management plan for all demolition/construction activities, detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.

Further enquiries on this matter can be directed to Dianne Rees on phone 8849 2237 or facsimile 8849 2918.

Yours faithfully

O. Hodgson

Owen Hodgson
Senior Land Use Planner
Transport Planning, Sydney Region

8 May 2012