

CONCEPTS REPORT FOR
PROPOSED STATE SIGNIFICANT DEVELOPMENT
GLASS RECOVERY SERVICE
126 ANDREWS ROAD, PENRITH

Prepared for: Glass Recovery Service
Minister for Planning & Infrastructure

Prepared by: Duke Ismael, Team Leader (Air Group)
Linda Zanotto, Senior Environmental Engineer
R T Benbow, Principal Consultant
BENBOW ENVIRONMENTAL

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Benbow
ENVIRONMENTAL

Engineering a Sustainable Future for Our Environment

Head office: 13 Daking Street North Parramatta NSW 2151 AUSTRALIA
Tel: 61 2 9890 5099 Fax: 61 2 9890 5399
BE Australia: Wollongong NSW, Taree NSW, Calamvale QLD
BE Asia: Causeway Bay, Hong Kong
Email: admin@benbowenviro.com.au

Visit our website at: www.benbowenviro.com.au

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1. INTRODUCTION

The purpose of this document is to provide information to assist Regulatory Authorities with the scope of the studies required for an Environmental Impact Statement (EIS) in relation to the proposed state significant development.

Previous discussions with the Department of Planning and Infrastructure has indicated that the proposed development constitutes state significant development under State Environmental Planning Policy (State and Regional Development) 2011. Under Schedule 1 of this SEPP, Clause 23(2) the following development is state significant:

Development for the purposes of waste or resource transfer stations in metropolitan areas of the Sydney region that handle more than 100,000 tonnes per year of waste.

Based on information provided by the proponent, the proposed development falls under the above definition. The following report provides preliminary information regarding the proposal to for the purposes of obtaining the Director-General requirements.

1.1 DESCRIPTION OF THE DEVELOPMENT

The proposed development would be located at 126 Andrews Road, Penrith, and is described by Lot 1, DP 747153.

The industrial building has been compartmentalised along its north-south direction using a fire rated wall. The building has internal store rooms along the eastern outside wall. Access doorways are along the two sides and rear. In the corner of the rear yard area is a shed. This has previously been used to store dangerous goods.

The proposed development shall involve the following:

- Conversion of an existing building on site into a glass beneficiation plant.
- Processing of used glass into "cullet".

The glass beneficiation plant would initially have a capacity of 105,000 tonne per annum and would be increased in a later stage to 150,000 tonnes of cullet processed.

The capital investment value of the proposed development is approximately \$10 Million. The cost of the land and existing building is approximately \$7M, the cost of the installation of processing equipment and associated works would be approximately \$3M.

Number of employees would typically be 25-40.



The construction phase of the development, being the installation of the glass processing equipment, structural steel requirements including site welding and erection, minor building works, external bunkers, stormwater works and landscaping would be undertaken by contractors. It is estimated that the construction works would create 20-25 jobs.

The development would house the glass beneficiation processing plant within the existing building.

The incoming glass for recycling would be received by truck and stored inside the building. The glass recycling process involves crushing used glass products and removing impurities to produce "cullet". Cullet is crushed glass that is ready to be re-melted. The colour separated and crushed cullet would be stored external to the building in a set of aboveground bunkers. The cullet would be transported to the adjoining glass bottling plant, Owens Illinois using trucks travelling the short distance along Andrews Road between the two sites.

There is a contractual arrangement between Glass Recovery Service and Owens Illinois for the supply of colour separated cullet. Owens Illinois would use this cullet in place of raw materials.

The proposed glass beneficiation plant is able to colour separate and process glass bottles to a significantly higher quality than other glass bottle recycling plants in NSW. Higher recovery rates are achieved using world's best practice processes.

The proponent operates a similar plant in Melbourne.

The general location of the site is shown on Figure 1-2. A diagrammatic representation of the landholding is shown in Figure 1-3. The area bordered as the site on this Figure is the area investigated.

A site plan is also shown as Figure 1-4 and the land use plan from Penrith City Council is presented as Figure 1-5.

1.1.1 Process Description

1.1.1.1 Glass Beneficiation

Glass bottles are brought to the site using a variety of truck types including B doubles. The preferred transport routes have been discussed with Penrith City Council.

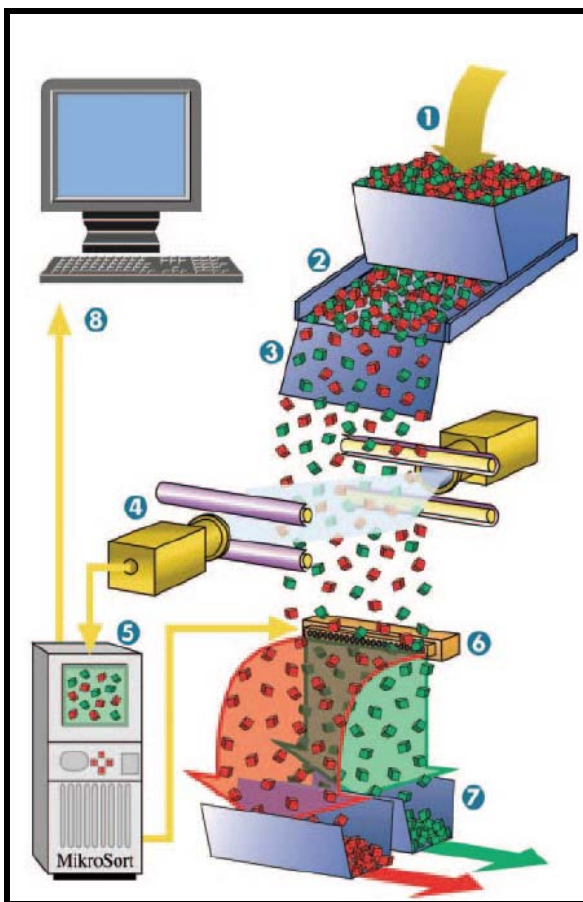
The trucks will pass over a weigh bridge, two weighbridges exist on the western side of the building on site. The trucks will then travel to the rear of the building and enter into the building, unloading the bottles into ground level hoppers.

The glass bottles are processed to achieve the following:

- Separation by colour; and
- Size reduced down to what has the appearance of coarse sand. Figure 1-1 is a diagrammatical representation of the sorting of crushed collected glass.

This is described as cullet. The cullet would then be transferred from finished product hoppers inside the plant to the external bunkers using mobile equipment. Trucks would be loaded by mobile equipment and the cullet transported across to the Owens Illinois plant and reused in the production of glass bottles.

Figure 1-1: Sorting of Crushed Collected Glass



Source: "Glass Recycling with Mogensen Sorting and Screening Systems (2005)

Figure 1-1 is a schematic of the crushed collected glass sorting process. The crushed collected glass is fed into the machine on an integrated vibrating conveyor (1) and flows onto an inclined glass chute (2). The glass then passes a line camera (3) with colour image processing that classifies the glass by true colour. Signal processor technology (4) allows the processing of 30 million measuring points. An all metal detector (5) enables detection of unwanted ferrous and non-ferrous metals.

Particles are separated by means of compressed air impulses and the pass stream (6) and reject stream (7) are discharged separately. (Mogensen Sorting and Screening Systems, 2005)

Figure 1-2: Site Location

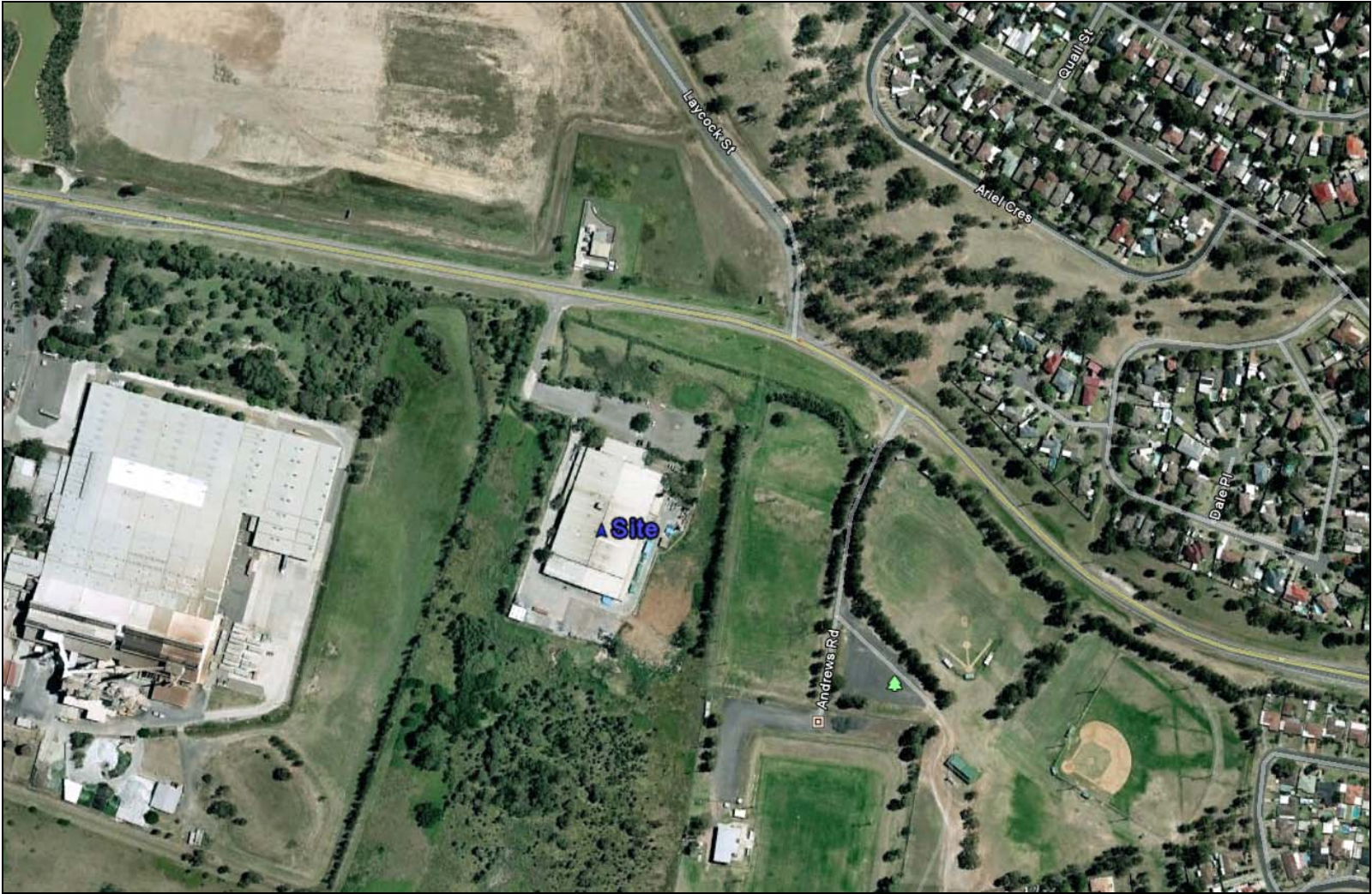


Figure 1-3: Area Map



Source: Six Viewer ©

Figure 1-4: Site Layout

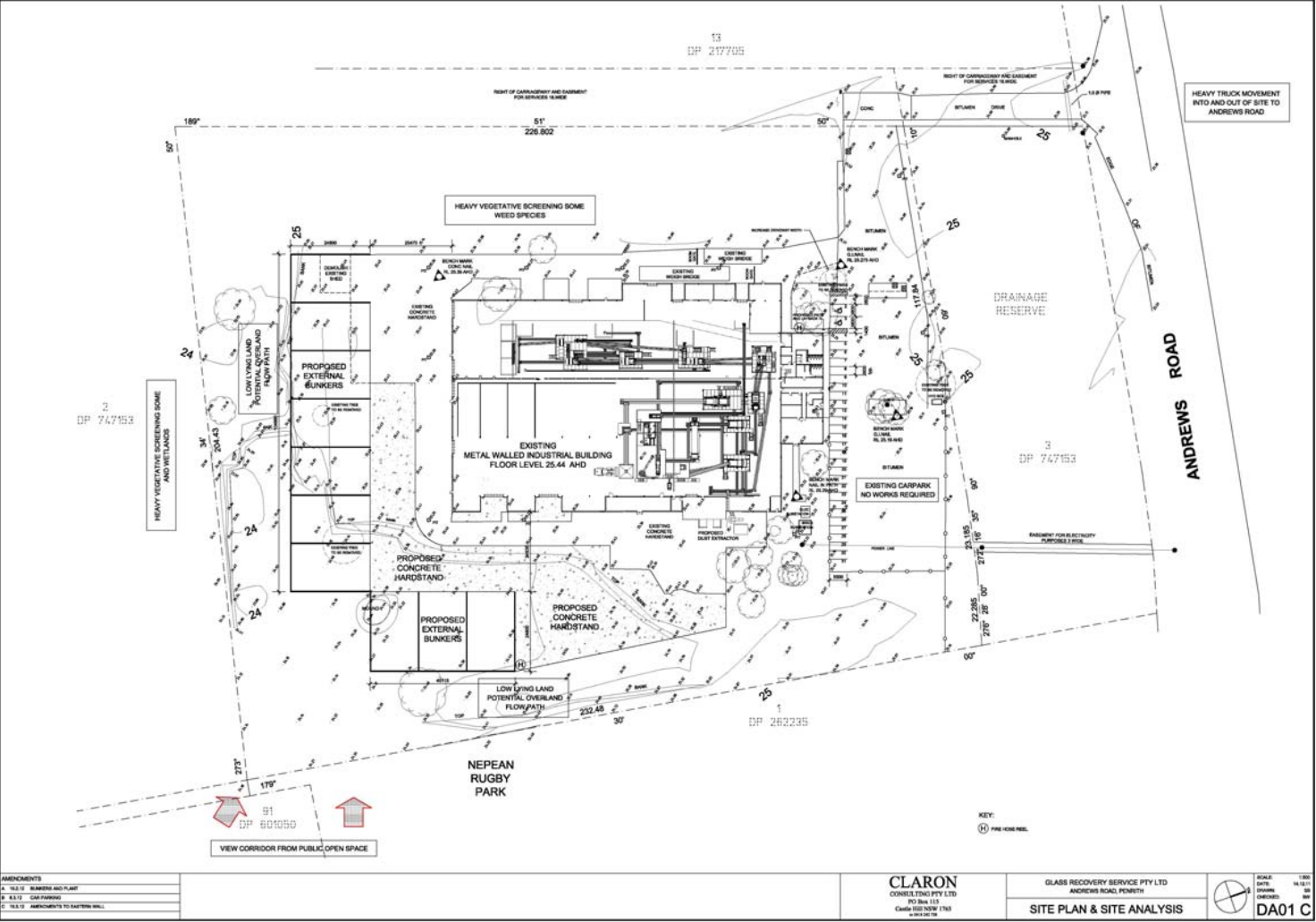
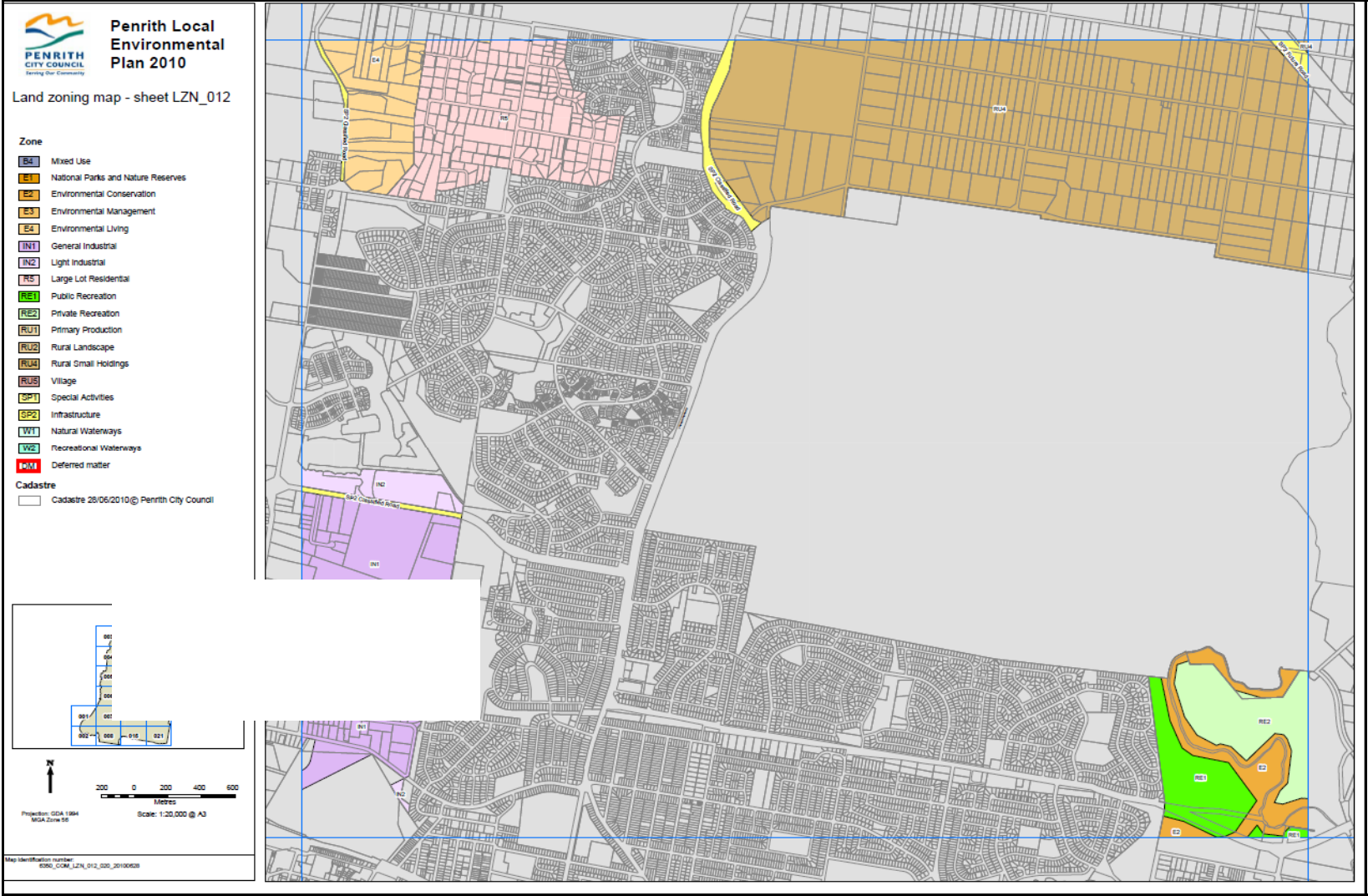


Figure 1-5: Land Zoning Map





1.2 STATUTORY CONTROLS

1.2.1 Environmental Planning & Assessment Act, 1979 – State Significant Development

The proposed development constitutes state significant development under Clause 89C(2) of the *Environmental Planning and Assessment Act, 1979*.

1.2.2 Protection of the Environment Operations Act 1997

The site would need to hold an Environment Protection Licence for the scheduled activities.

1.2.3 Development Control Plans

Development control plans that would apply would be the Penrith City Council and the proposed development would satisfy the requirements of the relevant sections of the DCP documents.

1.2.4 State Environmental Planning Policy Guidelines

The proposed development is classified as State Significant Development under Clause 23(2) of Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011. The clause states that "*development for the purpose of waste or resource transfer stations in metropolitan areas of the Sydney region that handle more than 100,000 tonnes per year of waste*" is considered state significant.

There would be no amount of chemicals and dangerous goods on site as a result of the proposed development and would not trigger the thresholds listed in SEPP 33 – Hazardous and Offensive Development.

The proposed development would involve construction or excavation works and would be assessable under SEPP 55 – Remediation of Land.

1.3 DESCRIPTION OF THE AREA

A location plan (Figure 1-2) and an aerial view (Figure 1-3) show the general nature of the surrounding lands.

The site is flat and the developed area has been filled to elevate it slightly above the surrounding land form. The site has a single access on the western side of the site with a double width driveway.

The car parking is provided at the front of the site, the car park is sealed as are all trafficked areas.

The site has rear access along the western side of the large stand alone industrial building. There are two weighbridges at the north western corner of the site adjacent to the building. At the rear of the site is a relatively large concreted and asphalted yard area, ideally suited for truck manoeuvring.



A roadway continues partially around the eastern side of the site stopping at the front of the industrial building.

Offices are built over two levels.

The electrical substation is adjacent to the north east corner of the site. It was free of any visible staining.

The current LEP is shown as Figure 1-5. This shows the land to the rear of the site as being General Industrial IA.

It shows no easements for the surface water overland flow which indicates the land could be further developed and this is being discussed with Penrith City Council.

Opposite the site to the north the land is undeveloped and will be used for commercial and light industrial use. Further to the north is suburban land that is slightly elevated to the site. Other residential areas are more distant to the east and south east.

The site is located on the southern side of Andrews Road in an industrial area. To the north will be future industrial/commercial premises and further north is a new residential estate developed by Stockland Holdings.

To the east is a sport and recreational area and the residential areas.

The overland water flow occurs along its eastern side. This water flow drains the flat land to the south of the site. There would be no disturbance of this land and no construction activities required in this flow path. Bunkers to hold the crushed glass would be erected and discussions with officers of Penrith City Council have been fruitful in developing a satisfactory solution to preventing flood waters from reaching these bunkers.

Potential effects to the nearest catchment, stormwater run-off and the use of water in the proposed development would be discussed in the EIS.

1.4 HOURS OF OPERATION

The site would seek approval to operate 24 hours a day and 7 days per week.

Transport activities would be assessed as to acceptable hours of operation based on the routes to be used. A detailed traffic noise assessment would be conducted.



2. REASONS FOR SELECTING THIS SITE

This site has been selected for several reasons:

- Adjacent to the glass plant.
- The site has ample room available to cater for the proposed operation.
- The site is located in a well established industrial area with adequate services.
- The site is not in a sensitive land use area.
- The development is a permitted use with consent.
- The development is a beneficial use as it would minimise the distance and amount of traffic movements required when compared to having to establish the site elsewhere. This would minimise transport costs and would achieve the principles of ecologically sustainable development (which is to be encouraged).
- The development will generate additional local employment.
- The development supports the principles of ecologically sustainable development as the conversion of glass bottles into colour separated cullet will provide the adjacent glass bottle plant with energy savings as well as reduced use of raw materials.

2.1 POTENTIAL ENVIRONMENTAL IMPACTS

The proposed operations would have the potential to generate the following environmental impacts:

- Noise - site generated and road transport;
- Air - particulates;
- Stormwater run-off;
- Energy;
- Traffic;
- Waste;
- Ecological Sustainable Development (ESD);
- Visual; and
- Fire Safety.

The proposed development would be measured against the principles of ESD and the energy efficiency of the types of processes to be adopted would be examined. The proposed processes would be benchmarked against the world's best practice.

The EIS would include a summary of environmental safeguards and a statement of commitments signed by the Directors.

3. CONSULTATION

A project of this type requires a detailed consultation programme with the various stakeholders:

- Nearest Identified Residents to the Site;
- Stockland Holdings;
- Adjoining Industrial Premises;
- Penrith City Council;
- Adjacent Rugby Union Club;
- NSW EPA;
- Service Providers;
- Roads and Traffic Authority, NSW (RTA); and
- NSW Office of Water.



4. CONCLUDING REMARKS

The proposed development has been described in the previous sections.

Benbow Environmental would like to seek for the Director General's requirements applicable to the described proposed development.

This concludes the concepts report.

Prepared by:

Duke Ismael
Team Leader (Air Group)

Linda Zanotto
Senior Environmental Engineer

R T Benbow
Principal Consultant



5. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use by Glass Recovery Service as per our agreement for providing environmental assessment services. Although all due care has been taken in the preparation of this study, no warranty is given, nor liability accepted (except that required by law) in relation to the information contained within this document.

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