

**SERVICES AND UTILITIES IMPACT ASSESSMENT  
REPORT FOR  
GOW STREET RECYCLING CENTRE  
PROPOSED DEWATERING PLANT**

**Prepared for:** Gow Street Recycling Centre

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*Engineering a Sustainable Future for Our Environment*

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# 1. INTRODUCTION

Benbow Environmental has been engaged by Gow Street Recycling Centre to prepare a Services and Utilities Impact Assessment for a resource recovery facility at 81 Gow Street, Padstow (Lot A DP 103140). This report has been completed as part of an Environmental Impact Statement (EIS) for the proponent, which aims to vary their existing Environmental Protection License (10943) which currently allows them to have a processing capacity of 80,000 tpa, and a maximum storage quantity of 7,300 at any one time.

The proposal will include a staged development. Stage 1 of the development is the focus of this report and includes establishment of a drilling mud processing plant, with a capacity of 250,000 tonnes per year and storage of a maximum of 120,000 tonnes of liquid waste on site at any one time. These operations will take place on site 24/7.

Ausgrid has requested the following in an email attached to the SEARS:

*In consultation with relevant agencies prepare a services and utilities impact assessment which:*

- assesses the capacity of existing services and utilities and identify any upgrades required to facilitate the development*
- assesses the impacts of the proposal on existing utility infrastructure and service provider assets and describe how any potential impacts would be managed*

## 1.1 SCOPE OF WORKS

The scope of this report is limited to the following:

- Assess the capacity of existing services and utilities and identify any upgrades required to facilitate the development; and
- Assess the impacts of the proposal on existing utility infrastructure and service provider assets and describe how any potential impacts would be managed.

## 1.2 OVERVIEW OF PROPOSED DEVELOPMENT

The site is an existing resource recovery facility that processes construction and demolition (C&D) waste. It consists of crushing and screening equipment and areas for truck movements and waste storage. Additionally, the site contains existing amenities and offices.

Stage 1 of the proposed development is for the construction and operation of a drilling mud processing plant that will process and store liquid waste including drilling mud and concrete washout waste. This will require construction of the processing plant within an existing building on site and construction of a new office building, including:

- Upgrading the stormwater infrastructure and containment system;
- Installation of dewatering plant equipment, footings, water containment pits.
- Installation of additional dust controls for the existing construction and demolition waste recycling facility.
- Construction of the proposed office building.



Essentially, wastewater (including site washdown water and stormwater) is treated to remove sediments and heavy material, leaving clean water which will be used for dust suppression and site washdown in the existing C&D recycling plant on site. Any excess water would need to be discharged to tradewaste.

Key utilities discussed in this report include:

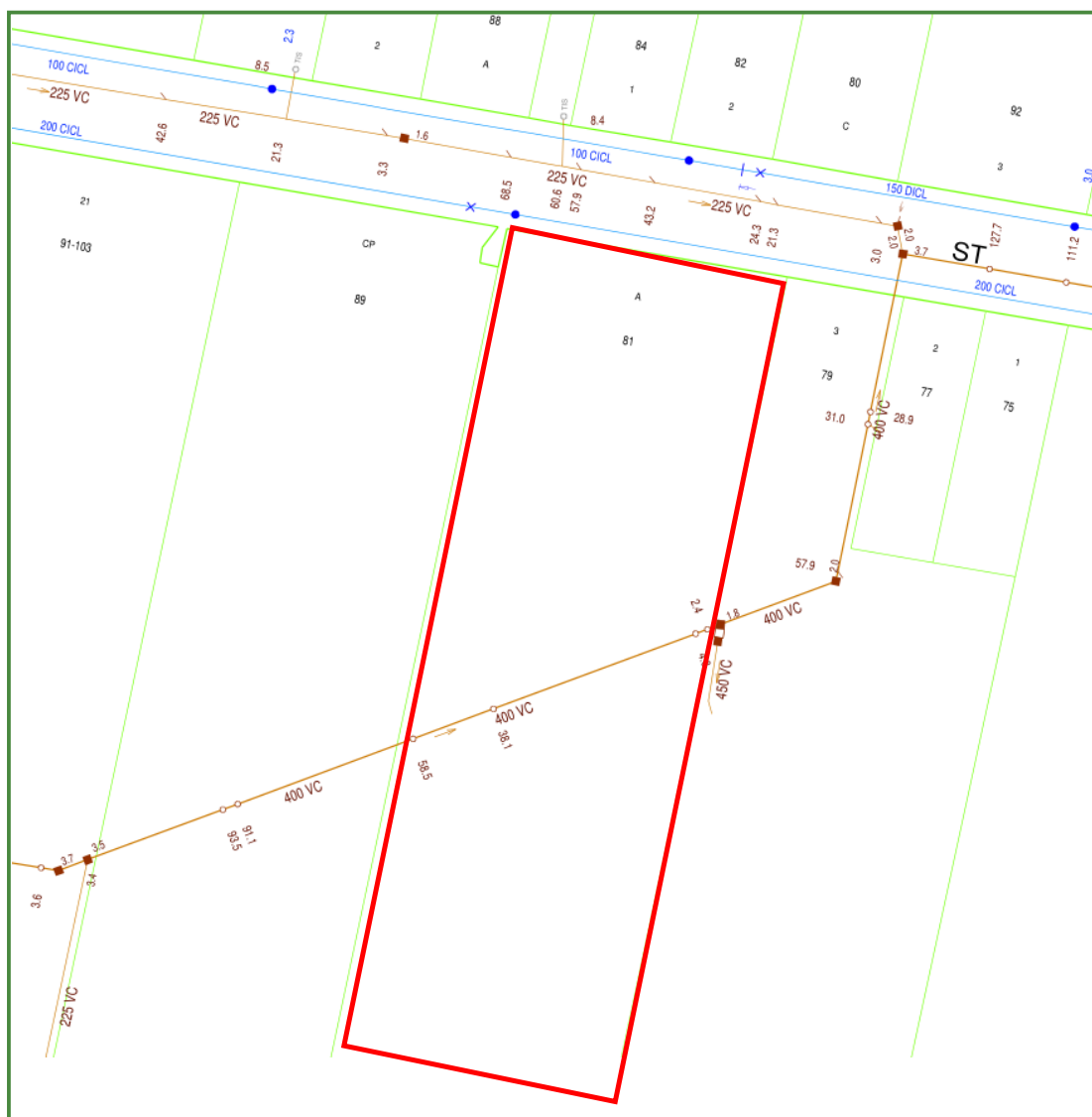
- Stormwater drainage
- Sewer/tradewaste
- Drinking water
- Natural gas
- Telecommunications
- Electricity

## 2. STORMWATER INFRASTRUCTURE

### 2.1 EXISTING STORMWATER INFRASTRUCTURE

Two large (diameter 1500 mm) stormwater drainage pipe lines run underground through the centre of the site. Eight existing onsite stormwater pits connect to these two main lines via 1050mm, 450 mm, 300 mm and 250 mm diameter underground stormwater pipelines. Existing infrastructure is presented in the stormwater concept plans and dial before you dig Sydney water map (Figure 2-1). A stormwater pipe condition & adequacy report has been prepared and included with this development application. There will be no changes to the council's drainage easement/pipes as part of this development, the existing connection will be utilised.

Figure 2-1: Existing Stormwater Infrastructure (Dial Before You Dig, Sydney Water Map)



## **2.2 STORMWATER INFRASTRUCTURE UPGRADES**

The stormwater system will be upgraded as shown in the stormwater concept plans. It involves constructing several new stormwater lines, which all connect to a silt arrestor pit (with gas BCP SAP-400 or other approved equivalent, before entering the 200 KL ROCLA PLASTREAM underground containment. This will be connected to an existing stormwater drainage line that is presently connected to the central drainage pipeline (easement). The other existing drainage lines will be decommissioned so all runoff from the site will go through the proposed silt arrestor pit and underground containment.

The sediment collected in the silt arrestor pit and ROCLA underground containment will be periodically serviced by the proponent and processed through the dewatering plant.



### **3. SEWER/TRADEWASTE**

#### **3.1 EXISTING SEWERAGE INFRASTRUCTURE**

The site typically generates less than 10 kL of wastewater a month as sewerage from office and amenities. The existing office and amenities are connected to sewer.

The existing site does not have a tradewaste agreement with Sydney Water.

#### **3.2 SEWERAGE/TRADEWASTE INFRASTRUCTURE UPGRADES**

No upgrades will be required for connecting office and amenities to the sewerage system.

A tradewaste agreement with Sydney Water will be required in the event that not all water is able to be reused on site. This will be sought following approval. Infrastructure upgrades will be required, including a connection to tradewaste, metering system and sampling system as per Sydney Water's requirements.

## **4. DRINKING WATER**

### **4.1 EXISTING DRINKING WATER INFRASTRUCTURE**

The site is connected to mains water and typically uses 400 kL of water per month. This supplies existing office and amenities and dust suppression of existing C&D recycling facility.

### **4.2 DRINKING WATER INFRASTRUCTURE UPGRADES**

Demand for drinking water is expected to decrease, as the site will reuse water from the dewatering plant for dust suppression. Therefore no upgrades will be required.



## 5. NATURAL GAS

The site does not use natural gas. The site will not use natural gas as part of the proposed development. No upgrades are required.



## 6. TELECOMMUNICATIONS

The site has standard internet and phone line connection to offices. No changes to internet or phone lines are expected to be required.

## **7. ELECTRICITY**

### **7.1 EXISTING ELECTRICITY INFRASTRUCTURE**

The site is located within and connected to the Ausgrid electrical supply network. The existing operation of the site uses approximately 5,600 kwh of electricity per month.

### **7.2 PROPOSED DEVELOPMENT**

The electricity consumption is expected to increase from 5,600 kwh to 48,000 kwh of electricity per month. This will require upgrades to the existing on-site infrastructure. It is likely the dewatering plant will require its own separate connection to the mains supply.

## 8. CONCLUDING REMARKS

Benbow Environmental has been engaged by Gow Street Recycling Centre to prepare a Services and Utilities Impact Assessment for a resource recovery facility at 81 Gow Street, Padstow (Lot A DP 103140). In summary the major infrastructure upgrades include, upgrading the site's stormwater infrastructure, upgrading the electricity supply to the dewatering plant and installing a trade waste connection to the dewatering plant in consultation with Sydney Water.

This concludes the report.

A handwritten signature in blue ink, appearing to read 'Emma'.

Emma Hansma  
Senior Engineer

A handwritten signature in blue ink, appearing to read 'R T Benbow'.

R T Benbow  
Principal Consultant

## 9. 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 of Gow Street Recycling Centre, as per our agreement for providing environmental services. Only Gow Street Recycling Centre is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

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