

Revesby Recycling Facility

State Significant Development Application Report

59915106

Prepared for
Enviro Recycling

23 October 2015



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Appendix A	Waste Streams
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Glossary

ABS	Australian Bureau of Statistics
AHD	Australian Heritage Database
AHIP	Aboriginal Heritage Impact Permit
ASS	Acid Sulfate Soils
Bankstown LEP	<i>Bankstown Local Environmental Plan 2015</i>
BCC	Bankstown City Council
BOM	Bureau of Meteorology
Cardno	Cardno (NSW/ACT) Pty Ltd
C&D	Construction and demolition waste
C&I	Commercial and industrial waste
EIS	Environmental Impact Statement
Enviro Recycling	Enviro Recycling Pty Ltd
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
DCP	Development Control Plan
DP&E	Department of Planning and Environment
DPI	Department of Primary Industries
INP	Industrial Noise Policy
LGA	Local Government Area
OEH	Office of Environment and Heritage
PAC	Planning and Assessment Commission
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SHI	NSW State Heritage Inventory
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development
TRH	Total Recoverable Hydrocarbons
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2001</i>

1 Introduction

This chapter provides an overview of the Project and outlines the purpose of this report.

1.1 Overview

Enviro Recycling Pty Ltd (Enviro Recycling) is seeking approval for a major waste recycling facility in Sydney's south west. The site is located at 51 Violet Street (Lot 168, 169 DP 7866 and Lot 2 DP519053) and 57-67 Violet Street (Lot 1 DP 734866) within the Revesby industrial area, in the Bankstown Local Government Area (LGA) (refer **Figure 1-1**).

The Project proposes a materials recycling facility, for General solid waste (non-putrescible) as defined in Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act), of up to 250,000 tonnes per year. The waste would primarily comprise construction and demolition (C&D) waste, commercial and industrial (C&I) waste, green waste, soils and timber waste. Material would be brought to the site and sorted into recyclables and then sold to the end user or further processing facility. The residual, non-reusable materials would be transferred to a licensed landfill site.

This site was previously used for a range of manufacturing and industrial purposes, including recycling. Prior to acquisition of the site by Enviro Recycling in October 2015, it is understood the site had been unused for a number of years, and existed in a derelict state. On 12 March 2015 Enviro Recycling was granted approval by Bankstown City Council (BCC) for the operation of a small scale recycling operation (30,000 tonnes per year). The facility has been operational at 51 Violet Street since June 2015.

1.2 Statutory Process

Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) provides an approval pathway for State Significant Development (SSD). It applies only to development declared to be SSD by a State Environmental Planning Policy (SEPP) as per Section 89C of the EP&A Act.

Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) outlines development which is considered SSD. The proposed facility is considered SSD as it is *development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste*. The Project would recycle up to 250,000 tonnes of waste per year.

The Minister for Planning is the consent authority for SSD applications. SSD applications are assessed by the Department of Planning and Environment (DP&E). In addition, if an SSD proposal is not supported by the relevant local council(s), or DP&E has received more than 25 public objections, the DP&E recommendation is referred to the independent Planning and Assessment Commission (PAC) for determination.



Regional Location Plan

VIOLET STREET
WASTE FACILITY EA

Legend

 Project Site



FIGURE 1-1

1:4,500 Scale at A4

Metres
0 25 50 100 150



Map Produced by Cardno NSWACT Pty Ltd (2812)
Date: 2015-10-15
Coordinate System: GDA 1994 MGA Zone 56
Project: 59915106
Map: 59915106_GS_001_SiteLocation.mxd 02

1.3 Purpose of this Report

Cardno (NSW/ACT) Pty Ltd (Cardno) has prepared this report to support a SSD application under Part 4 of the EP&A Act.

The proposed waste recycling facility is located on land zoned IN1 General Industrial under the *Bankstown Local Environmental Plan 2015* (Bankstown LEP). The proposed development is classed as development permissible with consent from BCC under the Bankstown LEP land zoning.

The purpose of this report is to assist with the preparation of the Secretary's Environmental Assessment Requirements (SEARs) by DP&E for the consent of a waste recycling facility. This application report does the following:

- > Provides an overview of the proposed Project;
- > Considers the potential environmental issues for the Project; and
- > Identifies key environmental issues for the Project.

This application report and SEARs would inform the preparation of an Environmental Impact Statement (EIS) for the Project. The form and content of the EIS would be in accordance with Clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

2 Background

This chapter describes why the Project is needed, the Project objectives and the process followed to identify the preferred location of the Project.

2.1 Strategic and Planning Context

The Project would be consistent with State and Local Strategic Planning, as documented in the following reports:

- > *NSW 2021: A Plan to Make NSW Number One* (NSW Government, 2011): This is a 10 year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen our local environment and communities. The Project supports the Plan's environment goals to strengthen the local environment through the recycling of approximately 250,000 tonnes of waste per year, and the provision of free recycling for Bankstown Community;
- > *A Plan for Growing Sydney* (DP&E, 2014): The NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years. The Plan provides key directions and actions to guide Sydney's productivity, environmental management, and liveability, including the delivery of housing, employment, infrastructure and open space. The Project supports the direction of managing the impacts of development on the environment under the goal of Sydney's sustainable and resilient environment, by providing an option for recycling of C&D and C&I waste in the Bankstown LGA;
- > *Waste Less, Recycle More* (NSW Government, 2013): The NSW Government produced a Waste and Resource Recovery Initiative, with the aim of meeting recycling targets and conserving valuable landfill space. The Project assists in supporting this initiative with providing a facility to accept the increasing volumes of waste being generated; and
- > *Bankstown Community Plan 2023* (Bankstown City Council, 2013): Bankstown's Community Plan envisages a culture, place, and city of excellence. A main goal is to create a sustainable city that respects its natural environment. The project supports this 'Green' goal, as it promotes recycling, and decreases the likelihood of C&D and C&I waste going to landfill.

2.1.1 NSW Waste Avoidance and Resource Recovery (WARR) Act 2001

The objectives of the *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) include:

- > To encourage the most efficient use of resources;
- > To minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste; and
- > To ensure the industry shares with the community the responsibility for reducing and dealing with waste.

The WARR Act provides a legislative framework for promoting construction and demolition recycling infrastructure and business development for recycling construction and demolition materials. The Project aligns with the objectives of the WARR Act, as it promotes the reuse and recycling of waste, encourages an efficient use of resources, and shares the responsibility for dealing with waste with the Bankstown Community, in particular, through the provision of free recycling.

2.1.2 NSW Waste Avoidance and Resource Recovery Strategy

The *NSW Waste Avoidance and Resource Recovery Strategy* (EPA, 2014) provides a clear framework for waste management over the next seven years and aligns with the NSW Government's waste reforms in *NSW 2021: A Plan to Make NSW Number One* (NSW Government, 2011). The key result areas identified in the Strategy will support investment in much-needed infrastructure, encourage innovation and improve recycling behaviour. They will also promote the development of new markets for recycled materials and reduce litter and illegal dumping.

The outlined objectives and targets for the period of 2014 – 2021, include:

- > Avoid and reduce waste generation;
 - By 2021–22, reduce the rate of waste generation per capita
- > Increase recycling;
 - By 2021–22, increase recycling rates for:
 - Municipal solid waste from 52% (in 2010–11) to 70%,
 - Commercial and industrial waste from 57% (in 2010–11) to 70%,
 - Construction and demolition waste from 75% (in 2010–11) to 80%.
- > Divert more waste from landfill;
 - By 2021–22, increase the waste diverted from landfill from 63% (in 2010–11) to 75%,
- > Manage problem wastes better;
 - By 2021–22, establish or upgrade 86 drop-off facilities or services for managing household problem wastes state wide,
- > Reduce litter;
 - By 2016–17, reduce the number of litter items by 40% compared with 2011–12 levels and then continue to reduce litter items to 2021–22,
- > Reduce illegal dumping;
 - From 2013–14, implement the NSW Illegal Dumping Strategy 2014–16 to reduce the incidence of illegal dumping state wide,
 - As part of this strategy, by 2016–17:
 - Reduce the incidence of illegal dumping in Sydney and the Illawarra, Hunter and Central Coast regions by 30% compared with 2010–11,
 - Establish baseline data to allow target-setting in other parts of the state.

The implementation of the proposed recycling facility aligns with the objectives of the Strategy. The facility results in the diversion of waste from landfill, would assist in promoting the reduction of illegal dumping of such waste, and supports an increase in recycling, particularly in the Bankstown LGA, as free recycling for the community would be provided.

2.1.3 Reducing Waste: Implementation Strategy 2011-2015

The *Reducing Waste: Implementation Strategy 2011-2015* (DECCW, 2011) sets out focus areas to achieve the NSW Government's waste targets. The five areas of focus are:

- > Making it easier for households to separate and recover waste:
- > Making it easier for businesses to separate and recover waste;
- > Reducing or removing problem wastes to improve resource recovery and produce environmentally safe recyclable materials;
- > Facilitating investment in waste infrastructure; and
- > Reducing litter and combating illegal dumping.

The proposed waste recycling facility aims to produce environmentally safe recycled materials through its processes, and remove the likelihood of C&D and C&I waste being sent to landfill.

2.2 Project Need and Justification

Sydney is an iconic global city which is growing in economic output and population. By 2031, Sydney's economic output will almost double to \$565 billion a year and there will be 689,000 new jobs. In the next 20 years, Sydney's population will grow by 1.6 million people, with 900,000 of this population growth occurring in Western Sydney (DP&E, 2014).

The NSW Government (*A Plan for Growing Sydney*, DP&E, 2014) aims to transform the productivity of Western Sydney through growth and investment. To achieve this, new strategic employment corridors along transport infrastructure investments that will service Badgerys Creek Airport will be developed. Economic growth will be directed to a number of enterprise corridors including the Bankstown to Liverpool Enterprise Corridor.

To accommodate the expected increase in population and economic growth in Western Sydney (including construction of Badgerys Creek Airport) there will be a requirement for new infrastructure and revitalisation of existing infrastructure. As a result there will be an increase in C&D waste material and a greater need for recycling facilities. C&I waste volumes are also likely to increase as this growth will result in more offices, retail outlets, restaurants, factories and institutions in the area.

The proposed facility would help to meet the waste requirements of a growing Western Sydney, providing a centrally located recycling facility in an appropriately industrial zoned area with good environmental controls. The facility would help business' comply with all government waste strategies and help the NSW government meet its recycling targets.

2.2.1 C&D and C&I Waste

Construction and demolition (C&D) waste refers to waste produced by demolition and building activities, including road and rail construction, and maintenance and excavation of land associated with construction activities (Hyder Consulting, 2011). Commercial and industrial (C&I) waste is generated from commercial and industrial enterprises and includes wastes such as paper/cardboards, plastics, metals and soils.

C&D and C&I activities are two of the largest producers of waste in Australia. The Australian Bureau of Statistics (ABS) reveals that of the 43.8 million tonnes of solid waste generated in Australia in 2006-2007, C&D waste made up 38% of this, and C&I waste made up 33%. During 2006-2007, nearly half (48%) of all waste was disposed to landfill. Approximately 44% of C&I waste and 43% of C&D waste went into landfill across that period.

The recycling of waste materials reduces the volume of waste which is disposed of in landfills. Landfill has been the customary method for disposal of C&D and C&I waste, but for environmental reasons, and the lack of additional lands for landfill usage, recycling is imperative so that materials may be reused instead of contributing to landfill waste.

2.2.1.1 C&D and C&I Waste in Bankstown LGA

The Bankstown Draft Demolition and Construction Policy outlines the need for the recycling and reuse of materials (Clause 2.16), whereby "demolition procedures must maximise the reuse and recycling of demolished materials in order to reduce the environmental impacts of waste disposal."

The proposed facility would assist in reducing the environmental impacts of waste disposal, as it encourages the recycling and reuse of materials. There are a number of nearby waste recycling facilities (as outlined below in **Section 2.2.2**), however the introduction of a facility with the capacity of 250,000 tonnes would assist in ensuring that the amount of C&D and C&I waste in the area can continue to be recycled and reused in an environmentally sustainable manner.

C&I waste is not reaching its NSW State Government recycling targets and hence an additional facility can only be beneficial.

2.2.1.2 Bankstown Development Control Plan 2005

Bankstown's Development Control Plan (DCP) Section 5 – Site Waste Minimisation and Management outlines objectives and controls for waste minimisation during demolition of buildings or structures (5A), and construction of buildings and structures (5B).

The objectives of Section 5A – Demolition of buildings or structures, are:

- > Optimise adaptive reuse opportunities of existing building/structures;
- > Maximise reuse and recycling of materials;
- > Minimise waste generation;
- > Ensure appropriate storage and collection of waste;
- > Minimise the environmental impacts associated with waste management;
- > Avoid illegal dumping; and
- > Promote improved project management.

The objectives of Section 5B – Construction of buildings or structures, are:

- > Maximise reuse and recycling of materials;

- > Minimise waste generation;
- > Ensure appropriate collection and storage of waste;
- > Minimise the environmental impacts associated with waste management;
- > Avoid illegal dumping;
- > Promote improved project management; and
- > Optimise adaptive reuse opportunities of existing building/structures.

The proposed facility assists in meeting the objectives of the Bankstown DCP, as it is maximising reuse and recycling of materials, whilst minimising waste generation and environmental impacts associated with waste.

2.2.2 Proximity to other waste disposal facilities

The nearest major recycling facility to the proposed Revesby site is approximately 9km to the north east. It is Suez Environment's Chullora Resource Recovery Park, at 70 Anzac Street, Chullora. However, they do not accept C&D materials in any significant volumes.

Nearby recycling facilities which accept C&D and/or C&I waste, as outlined by 'Recycling near You' website, include:

- > Gow Street Recycling, Padstow – 3.6km from the site;
- > Benedict Recycling, Chipping Norton – 5.7km from the site;
- > WasteOp, Chester Hill – 6km from the site (currently not receiving waste);
- > Get Fast Waste Bins, Mortdale – 8.6km away from the site; and
- > JJ Richards and Sons, Chipping Norton – 5.9km from the site.

2.2.3 Benefits of Recycling and Waste Recovery

Existing landfills are filling up, and available land resources allocated to landfill are lessening, thus resulting in the increased need for recycling and waste recovery. Recycling and waste recovery provides many benefits, environmentally and economically. If this process is undertaken, it reduces and minimises the volume of waste which is sent to landfill. With building materials accounting for approximately 40% of the solid waste generated in Australia, it is imperative that it is dealt with in the most environmentally sustainable way. Landfill can have negative effects on the environment such as the production of greenhouse gases, and generation of leachate. Recycling and waste recovery reduces the reliance on raw materials production, offering an economic benefit through the reuse of materials (Veolia 2014).

2.3 Alternatives Considered

The proposed recycling facility at Revesby was selected following consideration of the potential biophysical, social and economic impacts of the project in comparison to alternatives.

The site was selected for operation of a recycling facility for the following reasons:

- > Exceptional access to surrounding areas and growth centres;
- > Cost effective means by which waste material from C&D and C&I projects can be removed and recycled;
- > Consistent with the LEP land zoning objectives at the site;
- > The site is already operating as a recycling facility. The required infrastructure is already in place including weighbridge, concrete hardstand, sheds and water management systems; and
- > The site is located at least 200m from sensitive residential receivers and separated by high level noise bunds along the M5 motorway which allows adequate buffer distances to negate amenity impacts.

Other sites were considered for the facility however, they were either not financially viable due to transport and capital costs, limited growth due to proximity to residential receivers, or were not centrally located.

The processing of C&D and C&I waste materials was chosen as a result of limited destinations for the amount of waste currently and expected to be generated into the future in the Western Sydney area.

2.4 Project Objectives

The mission of the Revesby Waste Recycling Facility is to provide quality disposal opportunities in a convenient and efficient manner for the Sydney-wide community and industry while at the same time reducing the amount of waste disposed to landfill through reuse of waste streams.

The objectives of the Project are to establish a facility that will provide a means of recycling and processing of C&D and C&I waste to service the local Bankstown LGA and the broader Sydney region.

2.5 About Enviro Recycling

Enviro Recycling is a new business in the waste industry based at Revesby. It is backed by people who are passionate in recycling and have a history in the waste industry with a proven track record in achieving leading recycling rates in NSW (<http://www.envirorecycling.com.au/>).

The centre was formally owned by CMA Recycling and was purchased in 2014 by Bruce Fordham, the Managing Director of Enviro Recycling. Bruce, having run an earthmoving business specialising in construction and demotion, commenced the business to continue his passion of recycling these waste streams away from landfill.

With this passion comes investment in state of the art machinery including Leibherr material handlers and loaders. They also have forged a new relationship with Mandalay Technology, providing industry leading weighbridge data and waste management. The site is easily accessed from all the major routes in the South West and, with under cover tipping zones, provides a convenient, weather proof and cost effective location.

Summit Enviro Consulting is a consultancy with experience in the approval of waste management and processing facilities and has been commissioned by Enviro Recycling to provide strategic advice and guidance for the approval process and to assist with recycling process and environmental issues.

3 Project Description

This chapter provides a description of each of the key aspects of the proposed waste recycling facility.

3.1 Existing Operations

On 12 March 2015 Enviro Recycling was granted approval by BCC for the operation of a small scale recycling operation (30,000 tonnes) at 51 Violet Street, Revesby. The facility has been in operation since June 2015 and processes construction and demolition waste.

The existing facility covers an area of approximately 11,200m² which includes processing facilities, stockpile/storage and handling areas, vehicular access and manoeuvring areas (refer **Figure 3-1**).

3.1.1 Existing Infrastructure

The existing infrastructure at the existing facility includes;

- > Entry and exist driveways on Violet Street;
- > Steel floored weighbridge;
- > Site offices;
- > Two open sided process buildings and one covered area;
- > Site services including power, water and sewerage;
- > Stormwater management system; and
- > Dust suppression system.

Existing project components are outlined in **Table 3-1**.

Table 3-1 Existing Project Components

Description	Photograph
Existing Office Area There is one spacious main office building, adjoining the western boundary of the site, containing open plan office space, numerous internal offices and a board room. There is currently phone and internet connection to all offices, and toilet and washroom facilities.	

Description	Photograph
Existing Weighbridge The site has one old steel floored weighbridge located adjacent to the main office. The weighbridge office is spacious and suitable for its intended use. It has ample room for two or more desks and future installation of weighbridge hardware. .	
Building 1 Building 1 has an area of approximately 890m² and is a warehouse with concrete flooring.	
Building 2 This building has an area of approximately 780m² and is a warehouse with concrete flooring. Materials are currently unloaded and sorted in Building 2 and the covered area.	
Covered Area This is a large warehouse area approximately 1,220m² in size. Materials are currently unloaded and sorted in Building 2 and the covered area.	

Description	Photograph
Holding Yards Sorted waste materials are stockpiled in storage bays along the northern boundary of the site. Stockpiles include: > Crushed concrete; > Road base; > Top soil; > Mulch; and > Landscaping materials.	
Car parking Area Car parking is available along the southern boundary of the site which has parking for up to 23 cars.	
Stormwater Management The existing stormwater drainage system for the site comprises: > A three stage sump pit adjacent to the parking spaces on the southern boundary of the site. All stormwater runoff from the southern portion of the site drains to this pit and is then conveyed into the drain along Violet Street; > Stormwater run-off to the north of the site drains into a sediment tank located in the north west corner of the site which discharges to the drain along Violet Street; and > Three large 10,000L tanks collect rainwater from the roof of the covered areas which is then used for dust suppression by water cart. Overflow from the rainwater tanks is piped to the existing stormwater system.	
Dust Suppression The existing site has a number of dust suppression systems including: > Water spray system for the yard storage areas; > Fogging system for the main processing building; and > Mobile water carts for general dust suppression.	



Site Plan Existing Features

VIOLET STREET
WASTE FACILITY EA

Legend

- Existing Operations
- Project Site



FIGURE 3-1

1:1,000 Scale at A4



Map Produced by Cardno NSW/ACT Pty Ltd (2812)
Date: 2015-10-15
Coordinate System: GDA 1994 MGA Zone 56
Project: 59915106
Map: 59915106_GS_002_SitePlan_Existing.mxd 02

3.2 Project Description

The proposed facility would expand operations to the south of the existing site incorporating 57-67 Violet Street. The expanded facility would cover an area of approximately 19,400m² including processing facilities, stockpile/storage and handling areas, vehicular access and manoeuvring areas. A preliminary layout of the proposed facility is provided in **Figure 3-2** and a preliminary plant layout in **Figure 3-3**.

The proposed expanded facility would include the following key components:

- > Material recycling facility to process up to 250,000 tonnes per year of General solid waste (non-putrescible) as defined in Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act);
- > A second weighbridge for better traffic flow;
- > Material Separator Machine to be located along the eastern boundary of the site to separate the materials, all undercover (refer **Figure 3-3**);
- > Demolition of half of Building 1 at 51 Violet Street;
- > Installation of additional processing equipment including screener, shredder and rotochopper;
- > Demolition of existing warehouse and office building at 57-67 Violet Street and likely construction of a replacement building;
- > Provision of additional car parking spaces at 57-67 Violet Street;
- > Provision of additional stockpile areas at 57-67 Violet Street; and
- > Upgrade of stormwater and dust suppression systems at 57-67 Violet Street.

3.2.1 Waste Streams and Processes

The proposed waste recycling facility would process up to 250,000 tonnes per year of General solid waste (non-putrescible) as defined in Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act). The definition is reproduced in Appendix A. However, primarily the facility would accept the following:

- > C&D waste including crushed concrete, road-base materials, soil, bricks, stones, masonry, timber, metal, gyprock, batteries, glass, bottles, paper, cardboard mulch and landscaping materials;
- > C&I waste including paper, cardboard, glass, timber, metals, plastics, whitegoods and other materials from C&I sources;
- > Green waste, soils and timber.

To avoid omission in listing material that would be acceptable to receive and process at the facility, it is proposed to seek approval for all wastes defined as General solid waste (non-putrescible) however, should any of the listed materials in the schedule raise concerns with DP&E or the EPA, or unnecessarily protract the approval process, Enviro Recycling would consider preclusion of these materials and seek DP&E's advice in this regard.

It is not intended to receive any putrescible materials but should these materials be discovered in the incoming waste streams, then the putrescible materials would be placed into a bin dedicated for these materials and be disposed to a facility licensed to accept these materials.

Similarly any noxious, special, hazardous or contaminated material inadvertently arriving at the facility would be appropriately handled and removed to a licenced facility. Measures would be included in the Management Plan for the facility for such materials including methods to be adopted to restrict their occurrences. In particular, the facility's acceptance policy would not allow asbestos waste to be accepted and any load found to contain asbestos would be refused. However, should any such waste be unlawfully left on site, appropriate handling, in accordance with the relevant legislation, would be undertaken.

The waste materials would be screened, sorted and stockpiled into appropriate groups and then on sold to the end user or further processing facility. The operation of the site would be as follows:

- > Waste materials would be transported to the facility (by Truck and Dog Trailers, private vehicles or other means);
- > When trucks enter the site, they would proceed to the weighbridge;
- > The waste would be inspected to verify it meets the acceptance criteria. The waste would be classified and charged in accordance with a number of categories;
- > Trucks would then proceed to Building 2 to be unloaded and waste materials would be put through the separator machine;
- > Soil wastes would be taken to Building 1 to be recycled;
- > Output materials would all be contained under the covered area;
- > Separated materials would then be transported to the stockpile area in the holding yards;
- > Materials from the stockpile area/holding yards would be sold to the public;
- > Metal waste would be taken to a metal recycling plant and aggregate would be sold to the public and commercial customers; and
- > Non reuseable waste would be taken to a licenced waste disposal facility.

Waste material would arrive at the proposed waste recycling facility from a variety of sources, including waste collection contractors, and waste self-hauled by businesses and residents.

Recycled materials would be sold under various NSW EPA General or Specific Exemption orders. Materials would be sold to a number of different companies which may include Sell & Parker (metals), Cardboard King (cardboard), Oil Collection Services (oils), Northern Rivers Timber Recyclers (timber) and WTR Bringelly (green waste). Unwanted waste would then be transported to a licenced waste facility.

3.2.2 Hours of Operation

General hours of operation for the proposed waste recycling facility are proposed as follows:

- > 7am – 6pm Monday to Friday;
- > 7am – 2pm on Saturdays; and
- > No work on Sundays and public holidays.

It is noted that processing of material and maintenance of equipment may occur until 10pm at night. Truck movements, associated with the loading and removal of recycled material from the facility, may be carried out until midnight on occasions.

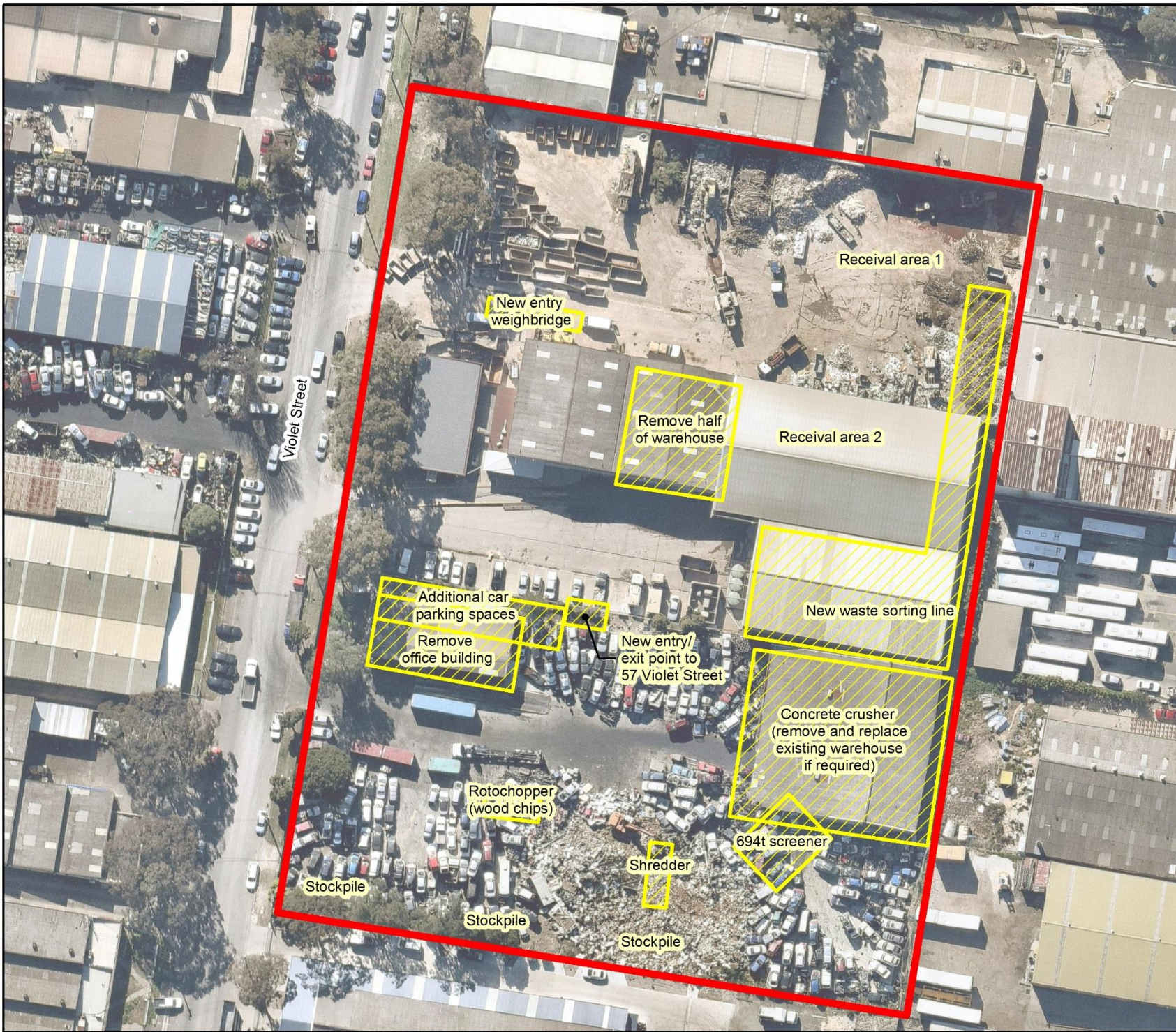
3.2.3 Construction Methodology

The construction stages of the proposed waste recycling facility may be generally summarised as follows:

- > Site establishment – installation of site fencing, environmental controls and traffic management;
- > Site demolition – removal of warehouse and offices at 57-67 Violet Street;
- > Site construction – construction of building to replace the existing warehouse at 57-61 Violet Street and any water management measures;
- > Site fit-out – fit-out of the buildings and structures including installation and assembly of the materials separation machine; and
- > Site restoration – removal of all construction materials and equipment from the site, removal of temporary works, restoration and landscaping as required.

All of the proposed construction works would be undertaken during standard working hours (Monday to Friday 7am to 6pm, Saturdays 8am to 1pm with no work on Sundays or Public Holidays).

A Construction Environmental Management Plan (CEMP) would likely be a Condition of Consent for the proposed development. The CEMP would detail appropriate mitigation measures for a range of construction activities and would address spill management, dust suppression, construction noise and vibration and waste management (as a minimum).



Site Plan Proposed Features

VIOLET STREET
WASTE FACILITY EA

Legend

-  Proposed Works
-  Project Site



FIGURE 3-2

1:1,000 Scale at A4



Map Produced by Cardno NSW/ACT Pty Ltd (2304)
Date: 2015-10-22
Coordinate System: GDA 1994 MGA Zone 56
Project: 59915106
Map: 59915106_GS_003_SitePlan_Proposed.mxd 02

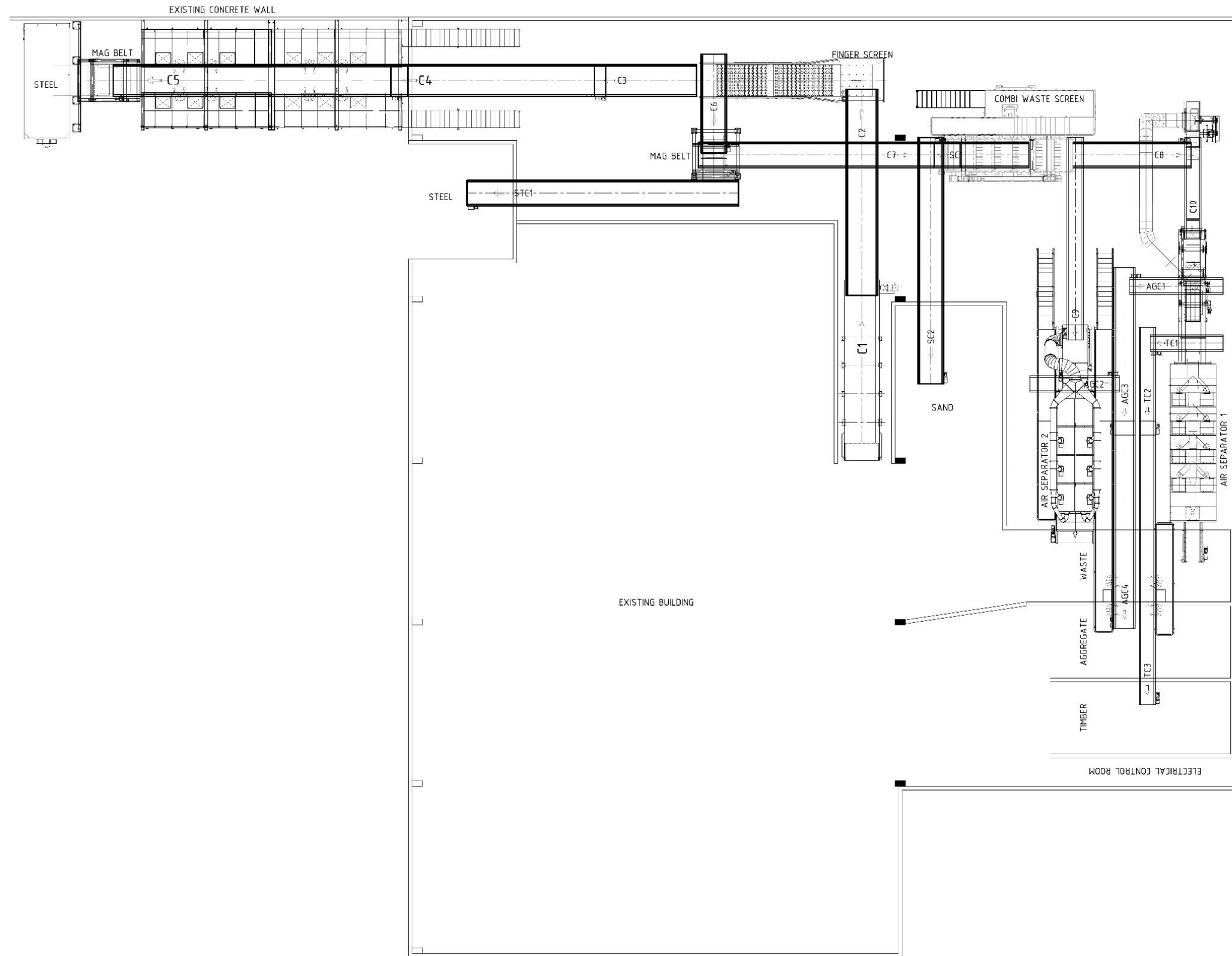


FIGURE 3-3
SORTING LINE

ARRANGEMENT ON ENVIRO C&D RECOVERY FACILITY

PROPOSAL

				GENERAL NOTES								R ESOURCE R ECOVERY				C O-ENVIRONMENT				DRAWING TITLE			
				★ ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.				★ ALL HOLES TO BE Ø22 mm UNLESS OTHERWISE SPECIFIED.				★ FLAME CUT SURFACES TO BE UNIFORM & CLEAN BEFORE WELDING.				C&D RECOVERY FACILITY				DRAWING NO.			
D				DRAWING REVISED				13/08/15				S.M.				PROJECT				PRELIMINARY PLANT LAYOUT			
C				DRAWING REVISED				24/07/15				D.B.				DESIGN (AUST) PTY LTD.				ARRANGEMENT			
B				AIR SEPARATOR 1 CHANGED				23/07/15				D.B.				PROJECT				PRELIMINARY PLANT LAYOUT			
A				PROPOSAL				22/07/15				D.B.				PROJECT				PRELIMINARY PLANT LAYOUT			
No				ISSUE DESCRIPTION				DATE				BY				PROJECT				PRELIMINARY PLANT LAYOUT			

4 Key Environmental Issues

4.1 Overview

Preliminary environmental assessments suggest the following key environmental issues may require further investigation and possibly specific mitigation measures during operation of the proposed waste recycling facility:

- > Waste management;
- > Traffic and access;
- > Noise and vibration;
- > Water management; and
- > Climate and air quality.

This preliminary assessment was carried out through a review of existing information, a comprehensive search of relevant databases and through observations from site inspections conducted in January and August 2015.

Several other environmental issues have also been identified and are outlined in **Section 5**. Considering the scope of the Project and existing environmental conditions at the Project site, these issues are thought to have a relatively low potential to impact the environment.

4.2 Waste Management

4.2.1 Overview

The proposed waste recycling facility, would generate waste during both construction and operation. General solid waste (non-putrescible) as defined in Schedule 1 of the *Protection of the Environment Operations Act 1997* would be delivered to the facility for processing. Waste would primarily comprise C&D waste, C&I, green waste, timber and soils. The C&D waste would include crushed concrete, road-base materials, soil, sand, bricks, stones, masonry, timber, metal, gyprock, and landscaping materials. The C&I waste would include paper, cardboard, glass, timber, batteries, bottles, metals, plastics, whitegoods and other materials from C&I sources.

Incoming waste would be screened, sorted and stockpiled into appropriate groups and then on sold to the end user (refer **Section 3.2**). In addition to recycled resources produced, various wastes would be generated during both the proposed upgrades and while the facility is operational, including:

- > General solid waste;
- > Demolition waste from removal of site office and warehouse on 57-67 Violet Street; and
- > Non re-useable/un recyclable materials (following sorting of the incoming waste streams).

Although the site waste acceptance policy would not permit the acceptance of hazardous materials (including asbestos), the site would maintain hazardous waste management procedures for the event that such materials are found on site as well as any putrescible waste that may arrive within the C&I waste.

4.2.2 Summary of Issues

The proposed facility would create solid waste as outlined in **Section 4.2.1**. The types and volumes of recycled products and waste is dependent on the volumes and types of waste delivered to the facility during operation.

4.2.3 Proposed Further Assessments

Enviro Recycling will assess the resource and waste management impacts of the proposed recycling facility. This assessment will:

- > Identify the likely or potential source, quantities and classifications of waste to be received and recycled;

- > Identify the waste that would be produced from the Project as part of the recycling operation;
- > Identify the location and size of stockpiles of unprocessed and processed/recycled waste at the premises at key points in the development and operation of the facility;
- > Identify the waste handling processes that would be used to manage the wastes produced;
- > Identify suitably licenced waste disposal facilities which are capable of accepting all the types of waste which will be generated; and
- > Assess whether any mitigation measures should be implemented for resource and waste management for the proposed development, incorporating the principles of the waste hierarchy in accordance with the WARR Act and *NSW Waste Avoidance and Resource Recovery Strategy 2007*.

4.3 Traffic and Access

4.3.1 Overview

The existing road network in the vicinity of the site is summarised as follows:

- > Violet Street – a single unmarked carriageway which runs in a north south direction from Milperra Road to Gordon Parker Street. Violet Street is 10 to 12m wide and is suitable for trucks, trailers and semi-trailers. The street has a posted speed limit of 50 km/hr;
- > Milperra Road – is a major arterial road and in the vicinity of the site. The road is 3 lanes in each direction and has a posted speed limit of 70 km/hr. There is a public bus route which travels along this road;
- > South Western Motorway (M5 Motorway) – six laned motorway which runs from Prestons to Beverly Hills;
- > Queen Street – Runs in a north south direction from Milperra Road to Gordon Parker Street. The road has two lanes in each direction and has a posted speed limit of 60km/hr; and
- > Marigold Street - a single unmarked carriageway providing access to industrial premises. The street has a posted speed limit of 60 km/hr.

It is estimated that 30% of customer vehicles to the facility would be truck and dog type configuration or semi-trailers, while the remaining 30% would be of the smaller skip bin type truck configuration. In addition a small number of small personal vehicles would access the site. When operating at maximum capacity, there would be approximately 28 vehicle movements per hour expected at the facility.

Access and departure from the proposed facility is via the entry and exit points off Violet Street where there is wide street frontage and good visibility. A turning bay and pull-in zone would be established during the detailed design phase of the Project to facilitate circulation of traffic within the facility.

4.3.2 Summary of Issues

It is anticipated that, during construction, the Project would have a minimal impact on the surrounding road network. The key impact would be a slight increase in the number of heavy vehicles, construction equipment and construction personnel accessing the site.

The potential impacts of the additional operational traffic from the proposed development on the surrounding road network may include:

- > Increased heavy and light vehicle traffic may impact traffic movement;
- > Alterations to local intersection performance;
- > Potential for limited queuing traffic outside the site access point;
- > Alterations to road safety; and
- > Alterations to public transport, pedestrian and cycle access.

4.3.3 Proposed Further Assessments

Enviro Recycling will conduct a more detailed assessment of the traffic and access impacts of the proposed works. This will include:

- > Traffic surveys at the following five intersections:
 - Milperra Road (A34) / Marigold Street (signalised intersection);
 - Milperra Road (A34) / Violet Street (priority controlled intersection);
 - Milperra Road (A34) / Queen Street (signalised intersection);
 - Queen Street / Gordon Parker Street (priority controlled intersection); and
 - Marigold Street / Carrington Street / Green Street (priority controlled intersection).
- > Trip generation, trip distribution and traffic assignment analysis for the proposed recycling facility;
- > Transport analysis for the following scenarios:
 - 2015 No Development Weekday AM/PM;
 - Future Opening Year – No Development Weekday AM/PM (Baseline scenario); and
 - Future Opening Year – With Development Weekday AM/PM (Baseline plus Development scenario).
- > SIDRA modelling of the nominated five intersections;
- > Swept path analysis for the design vehicle (19m Semi-Trailer) for the proposed access point/s, on-site operation and Violet Street intersections;
- > Review of on/off street parking requirements; and
- > Review of the public transport and active transport context of the site, in regards to trips generated by staff.

4.4 Noise and Vibration

4.4.1 Overview

The noise environment at the site is typical of an industrial area. The background noise levels are largely influenced by the surrounding industries, Bankstown Airport and traffic on the Western Motorway and Milperra Road.

The closest residential receivers to the proposed facility are located approximately 200m south of the site on Carrington Street, Greenway Parade and Alliance Avenue. However, these residential receivers are on the southern side of the Western Motorway and sheltered by the motorway noise bund walls.

A noise assessment developed for the approved 30,000 tonne C&D recycling facility at the site was reviewed (Muller Acoustic Consulting, 2015). It is noted this assessment was undertaken for a smaller scale, however can be used to provide context for this project. A summary of the noise assessment report is as follows:

- > The EPA's Industrial Noise Policy (INP, 2000) provides noise criteria for industrial facilities. The INP amenity criteria for industrial receivers (when in use) is 70dBA (acceptable) and 75dBA (recommended maximum);
- > The Bankstown City Council (BCC) approval specifies that noise levels will be less than 70 dB(A) at boundaries;
- > Proposed mobile equipment to be used on site includes a material handler, loader, sweeper, water cart and truck and dog;
- > Noise assessment was undertake for 2 scenarios; individual plant operation and combined plant operation; and
- > Results for both scenarios demonstrate compliance with the relevant INP and BCC boundary noise criteria of 70dBA.

The NSW OEH provides guidance for assessing construction noise impacts in the document Interim Construction Noise Guideline (ICNG) (DECC, 2009). Generally, the noise impact mitigation measures are determined by the timing and duration of the noise emissions and the perceived impact of the noise above existing background noise levels. For industrial receivers, the noise affected level is 75dBA.

4.4.2 Summary of Issues

During the construction phase of the Project a number of receivers may be impacted by operation of construction plant and equipment and construction traffic. The extent of impact would vary according to the relationship of the construction works to the receiver location, intervening structures and the type of construction works.

Once the project is operational there is potential that some receivers may be impacted by the ongoing sorting, processing, crushing and traffic movements at the site.

4.4.3 Proposed Further Assessments

Enviro Recycling will carry out an assessment of the construction and operational noise and vibration impacts of the Project during development of the EIS. The assessment will:

- > Describe the existing noise environment at the site and within the surrounding area including baseline road traffic and background noise levels (this will include noise monitoring for 7 days at up to three locations within the study area);
- > Assess noise and vibration impacts during construction and operation, on the identified receivers. Computer noise modelling would be undertaken to determine the potential noise impacts generated during full operation of the facility, and would be carried out in accordance with the INP. The construction noise and vibration assessment will be carried out in accordance with the ICNG, and Assessing Vibration: A technical guideline; and
- > Identify feasible and reasonable noise mitigation measures to address noise exceedances at receivers, if required.

4.5 Water Management

4.5.1 Overview

The study area is located in the Milperra drainage catchment which drains to the Georges River via a piped drainage network, open channels and overland flow routes. The Georges River continues to flow south west and eventually discharges into Botany Bay. The site is located in close proximity to Milperra Drain, which runs to the north of the site in an east to north-west direction.

The site is relatively flat, sloping gently from east to west towards Violet Street which is located along the western boundary of the site. The site is almost all sealed with concrete hardstand apart from the landscaping buffer zone along Violet Street. Stormwater from the study area is conveyed into Council's stormwater system.

The existing stormwater drainage system for the site would be supplemented, where required, to accommodate the proposed waste facility and to ensure discharges are within generally agreed expectations of Council.

4.5.1.1 Water Quality

Waste recycling facilities have the potential to generate ground water and/or surface water contamination due to mishandling of wastes or inadequate stormwater treatment devices. Contaminates can migrate to surface waters through stormwater runoff which may lead to degradation of receiving waters.

In general, ground water contamination is not anticipated due to the majority of the site being sealed with concrete hardstand.

4.5.1.2 Flooding

Bankstown City Council (BCC) has prepared a Draft Flood Study Update for the Milperra catchment (BMT WBM, 2013). As part of the study, areas of the catchment were mapped as having high, medium or low flood risk. These flood risk precincts, in the vicinity of Violet Street, are presented in **Figure 4-1**.

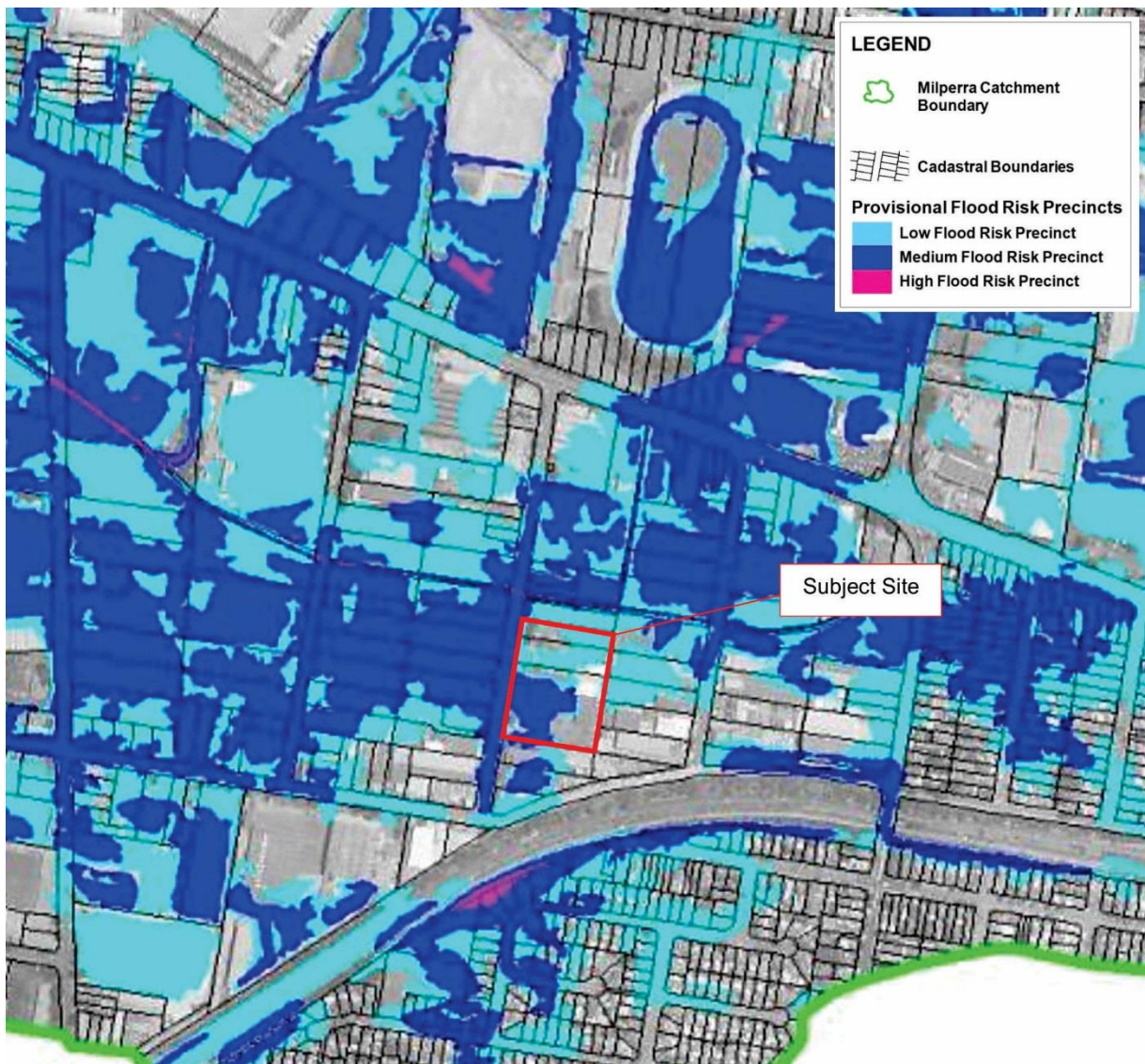


Figure 4-1 Flood Risk Precincts (BMT WBM, 2013)

It is concluded from **Figure 4-1** that, while the site is partially covered by the medium flood risk precinct along the western boundary (i.e. inundation in a 100 year ARI event), this does not appear to be due to overland flow along an active flow path but rather due to ponding in a low lying area. Hence flooding appears to be a low risk issue for the site.

4.5.2 Summary of Issues

The proposed facility has the potential to alter the existing hydrology at the site, however as minimal changes to existing ground levels and structures are proposed significant impacts are not anticipated.

During construction potential for water quality impacts may arise from the accidental spill of materials (including chemicals) during construction, and runoff from unclean surfaces. During operation, water quality could be affected by runoff from waste stockpiles, spills and vehicle pollutants, however this would be controlled by the storm water control system. There will be mitigation measures in place to ensure such discharges are within generally agreed expectations of Council (e.g. existing oil/water separator, bunding).

4.5.3 Proposed Further Assessments

A qualitative assessment of the site drainage and flooding issues would include the following:

- > Description of the existing site drainage and proposed modifications to ensure there is adequate capacity for the proposed works and adequate treatment of stormwater prior to discharge off-site; and
- > Assess the current flood risks and any impacts of planned re-development at the site.

4.6 Climate and Air Quality

4.6.1 Overview

A search of the Bureau of Meteorology (BOM) Climate Database was carried out on 6 February 2015 to determine the temperature, rainfall and wind characteristics in the vicinity of the site.

The closest BOM automatic weather station to the site is at Bankstown Airport (station number 066137). BOM (2014) climate statistics indicate that average daily maximum temperatures in this location range from 17.2°C in July to 28.2°C in January, whilst average daily minimum temperatures range from 5.1°C in July to 18.1°C in January and February. The wettest period for the area is between January and April, with the highest average monthly rainfall recorded in February (107.0mm). The driest period of the year on average is between July and October, with the lowest average monthly rainfall recorded in September (43.8mm). Wind data indicates that average wind speeds in the afternoon (3pm) are higher than the morning (9am). Average afternoon wind speeds tend to be higher in the spring and summer months (>19.9km/h).

A search of EPA Air Quality Data for the Liverpool location (the closest available location to the proposed works) indicates that there are some air quality issues within the region with exceedances of the standard for ozone, PM₁₀ and PM_{2.5}.

Searches of the POEO Licence Register and the National Pollutant Inventory Database were conducted to ascertain the history of pollutants in the vicinity of the proposed works and the pollutants currently being emitted from nearby industries.

A POEO Licence was previously issued for the site of the proposed works and surrounding sites during the period when it was occupied by CMA Recycling Australia Pty Ltd (37-67 Violet Street). This licence was surrendered in August 2003, although a variation was issued in February 2005. Between August 2000 and December 2008, a POEO Licence and nine variations were issued to Bituminous Products Pty Ltd which occupies 33 Violet Street.

There were 15 facilities identified within the Bankstown LGA that were listed on the National Pollutant Inventory Database, five of which were located in Revesby (including the existing industry at 33 Violet Street). The industries listed in the Bankstown LGA were found to emit 36 and transfer 16 different substances.

4.6.2 Summary of Issues

The proposed works are not anticipated to significantly affect the climate or air quality within the local surrounds or the wider area. However, there is some potential for a slight local decline in air quality during operations due to dust generation and emissions from earthworks, vehicle movements, plant and equipment.

During operation of the proposed waste recycling facility, potential impacts would result from the use of vehicles, plants and equipment on site to sort, transfer and process waste materials, and if not adequately controlled there is some potential for the emission of particulate matter from the site.

4.6.3 Proposed Further Assessments

Considering the site is situated within an industrial area, it is likely that the contribution of pollutants and the degree of impact on air quality associated with the recycling of waste material would be minimal. However, Enviro Recycling will undertake an assessment of the air quality impacts associated with operation of the proposed facility in accordance with EPA guidelines. This assessment will involve:

- > A review of all operating processes of the facility related to the emission of dust and any other pollutants;
- > Review the available local meteorological data, local climate and existing local air quality in the area;
- > List of all sources (and emission rates where possible) in relation to the generation of dust and any other pollutants;
- > A review of site operating plan/schedules including hours of operation;
- > Assessment of potential air quality impacts; and
- > Identification of feasible and reasonable mitigation measures to be implemented.

5 Other Environmental Issues

Other environmental issues described in this section are considered to present a low risk to the environment considering the scope of the Project and the existing environment. The other environmental issues identified include:

- > Soils and contamination;
- > Flora and fauna;
- > Heritage; and
- > Landscape and visual amenity.

5.1 Soils and Contamination

5.1.1 Overview

To ascertain the presence of Acid Sulfate Soils (ASS) and history or current occurrence of contamination in the area, a search of the Environment Protection Authority (EPA) Contaminated Land Record and List of NSW contaminated sites notified to EPA were undertaken.

5.1.1.1 *Soil*

It is noted that the majority of the site is hardstand concrete, with the exception of the landscaping buffer along Violet Street.

5.1.1.2 *Acid Sulphate Soil*

The subject site is classified as having ASS of Class 4 and Class 5 based on the Bankstown LEP 2015 as shown on **Figure 5-1**. Clause 6.1 of the Bankstown LEP provides that development consent is required for the carrying out of works when the following conditions are met:

- > Class 4 - works more than 2 metres below the natural ground surface. Works by which the water table is likely to be lowered more than 2 metres below the natural ground surface; and
- > Class 5 - works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the water table is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

The proposed works would not involve any disturbance of the ground surface at the site during construction or operation and the presence of potential ASS are therefore not anticipated to have any impact.

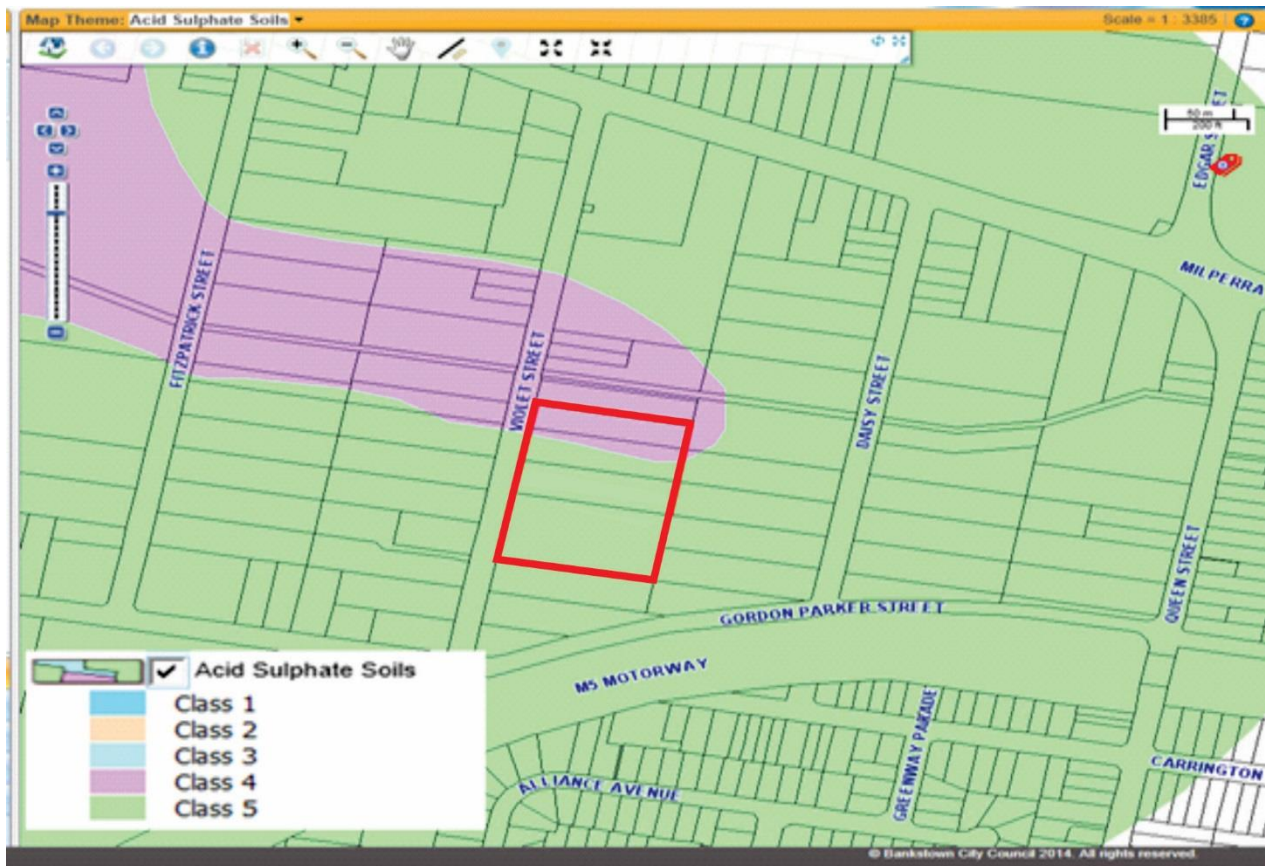


Figure 5-1 Acid Sulphate Soils Map (Bankstown LEP 2015)

5.1.1.3 Contamination

A search of the EPA Contaminated Land Record for Revesby returned the following results:

- > Bituminous Products Pty Ltd – 33 Violet Street, Revesby (2 current and 1 former); and
- > Mirotone Pty Ltd – 21 Marigold Street, Revesby (2 current).

A further four sites in Revesby were on the List of NSW contaminated sites notified to EPA, the nearest of which was Bituminous Products mentioned above, which is currently regulated under the *Contaminated Land Management Act 1997*.

The proposed site has a history of some contamination as follows:

- > Stockpiled soils on site were assessed for the purpose of waste classification and disposal, in accordance with the *DECCW Waste Classification Guidelines (Part 1 Classifying Waste)*. The assessment identified a minor quantity of Hazardous waste (5 tonnes) and a significant portion of restricted solid waste (1237 tonnes), which were transported and disposed of at appropriately licenced facilities (DLA, 2011); and
- > Footprint sampling of the stockpile area indicated that the underlying soils contained similar concentrations of contaminants to the stockpiled soil. Total Recoverable Hydrocarbons (TRH) and lead concentrations were in exceedance of the guidelines at the time of reporting (DLA, 2011).

As the site is fully concreted except for the site landscape buffer zone along the roadway, it is not expected that there are any contamination issues that will affect the proposed operation.

5.1.2 Summary of Issues

The construction and operation of the project are not anticipated to have any significant impacts on the soils of the area.

5.1.3 Proposed Further Assessments

A qualitative assessment of impacts on soils and contamination will be undertaken as follows:

- > Review any previous hydrogeological and geotechnical investigations undertaken;
- > Review of previous contamination and remediation reports;
- > Review the following databases / information sources:
 - Obtain and review historical land title information for the site;
 - Review geological maps of the area;
 - Review ASS Risk Maps for the area; and
 - Review Salinity Hazard Maps for the area.
- > Based on the information collected above, describe the existing environment, potential impacts and proposed mitigation measures, noting that this will consider both the risk of future pollution at the site, and the risk of historical contamination which may have occurred due to historic land use of the site and previous use of underground storage tanks.

Depending on findings more detailed investigations may be required and would be undertaken.

5.2 Flora and Fauna

5.2.1 Overview

A site inspection at the proposed facility was undertaken in January 2015 and August 2015 to identify potential ecological constraints in the vicinity of the site. Limited vegetation was identified and consisted of:

- > A row of trees (approximately 15 trees) and shrubs running parallel to Violet Street along the western boundary of the site (refer **Figure 5-2**); and
- > A row of trees between the boundary of 51 and 57-67 Violet Street.

No fauna was sighted during the site inspection.



Figure 5-2 Vegetation running parallel to Violet Street (a) looking north east (b) looking north

Searches of the OEH BioNet Database, OEH Spatial data, EPBC Database and DPI NSW Threatened Species Database were undertaken on 4 February 2015 to determine the presence of threatened fauna and flora at and in the vicinity of the proposed development.

Seventy species were listed by the OEH BioNet search for Revesby and the surrounding area (encompassing an approximate 10 km x 10 km block around the site). The closest sightings to the proposed development were of the Downy Wattle (*Acacia pubescens*) and the Green and Gold Bell Frog (*Litoria aurea*) which were recorded approximately 800m and 1.2km respectively from the site.

The EPBC Database search (within an approximate 1 km buffer zone from the site) returned (refer **Table 5-1**):

- > Two threatened ecological communities: the Shale Sandstone Transition Forest of the Sydney Basin Bioregion and the Western Sydney Dry Rainforest and Moist Woodland on Shale, both are critically endangered;
- > Twenty seven listed threatened species were identified including: six bird species, three frog species, six mammal species, 11 plant species and one species of reptile; and
- > Twenty two listed migratory species were also noted, all of which were birds, identified as marine, terrestrial or wetland species.

Table 5-1 Threatened flora and fauna species (EPBC Database)

Scientific Name	Common Name	Commonwealth Status	Type of Presence
<i>Anthochaera phrygia</i>	Regent Honeyeater	Endangered	Species or species habitat known to occur within area
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Endangered	Species or species habitat known to occur within area
<i>Dasyornis brachypterus</i>	Eastern Bristlebird	Endangered	Species or species habitat may occur within area
<i>Lathamus discolor</i>	Swift Parrot	Endangered	Species or species habitat may occur within area
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered	Species or species habitat may occur within area
<i>Heleioporus australiacus</i>	Giant Burrowing Frog	Vulnerable	Species or species habitat likely to occur
<i>Litoria aurea</i>	Green and Golden Bell Frog	Vulnerable	Species or species habitat may occur within area
<i>Litoria raniformis</i>	Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog	Vulnerable	Species or species habitat may occur within area
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat	Vulnerable	Species or species habitat likely to occur within area
<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	Endangered	Species or species habitat likely to occur within area
<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	Vulnerable	Species or species habitat may occur within area
<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	Vulnerable	Species or species habitat known to occur within area
<i>Pseudomys novaehollandiae</i>	New Holland Mouse, Pookila	Vulnerable	Species or species habitat likely to occur within area
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<i>Acacia pubescens</i>	Downy Wattle, Hairy Stemmed Wattle	Vulnerable	Species or species habitat likely to occur within area
<i>Allocasuarina glareicola</i>	--	Endangered	Species or species habitat may occur within area
<i>Caladenia tessellata</i>	Thick-lipped Spider-orchid, Daddy Long-legs	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Common Name	Commonwealth Status	Type of Presence
<i>Deyeuxia appressa</i>	--	Endangered	Species or species habitat likely to occur within area
<i>Genoplesium baueri</i>	Yellow Gnat-orchid	Endangered	Species or species habitat likely to occur within area
<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	Small-flower Grevillea	Vulnerable	Species or species habitat likely to occur within area
<i>Hibbertia puberula</i> subsp. <i>glabrescens</i>	--	Critically Endangered	Species or species habitat likely to occur within area
<i>Persoonia nutans</i>	Nodding Geebung	Endangered	Species or species habitat likely to occur within area
<i>Pimelea spicata</i>	Spiked Rice-flower	Endangered	Species or species habitat likely to occur within area
<i>Pterostylis saxicola</i>	Sydney Plains Greenhood	Endangered	Species or species habitat likely to occur within area
<i>Streblus pendulinus</i>	Siah's Backbone, Sia's Backbone, Isaac Wood	Endangered	Species or species habitat likely to occur within area

A search of the DPI NSW Threatened Species Database also returned Adam's Emerald Dragonfly (*Archaeophya adamsi*), which is listed as an endangered species in NSW. Although sightings of this species are few, it could potentially occur in the greater Sydney Region, including the Revesby area.

According to OEH (2013), mapping of the Sydney Metropolitan Area, no endangered ecological communities are present within close proximity to the site. The closest mapped vegetation patches are approximately 120m to the south and west of the site. These patches are classified as Urban Exotic/Native and are likely to comprise a mixture of planted native and exotic species.

5.2.2 Potential Impacts

Noting that there are several threatened species potentially present in the vicinity of the proposed facility, known sightings of these species were recorded at a distance where they would not be impacted by development or operations at the site. Further, none of these species were observed during the site inspection and the limited vegetation clearing at the site would be undertaken. The vegetation along the boundary with Violet Street would be retained however it is noted that a small number of trees (less than ten) located between the boundary of 51 and 57 Violet Street (in the centre of the site) would be removed. No significant ecological impacts are expected as a result of the proposed works. Although considered unlikely, potential impacts may include:

- > Vegetation outside the works footprint may be accidentally damaged during the course of construction works;
- > Animals at the site may be accidentally injured during the course of construction works; and
- > Indirect impacts (e.g. hydrological changes) to the adjacent vegetation.

5.2.3 Proposed Further Assessments

Enviro Recycling will assess the impacts of the proposed development on the flora and fauna of the site, however a detailed ecological assessment will not be undertaken. The assessment will involve:

- > Update database searches relating to flora and fauna;
- > Assess the potential for the project area to support habitat for threatened species;
- > Assess the impacts on critical habitats, threatened species, populations or ecological communities and their habitats; and
- > Identify feasible and reasonable mitigation measures relevant to the construction and operational stages of the Project.

5.2.4 Mitigation Measures

In order to manage potential impacts to flora and fauna the following mitigation measures should be included in the CEMP for the Project:

- > Tree protection fencing would be installed during construction to protect any trees adjacent to the site or access routes that are being retained, to avoid accidental damage; and
- > If any animals are injured during the course of construction works, in particular threatened or native species, the NSW Wildlife Information, Rescue and Education Service (WIRES) would be contacted immediately.

5.3 Heritage

5.3.1 Overview

To ascertain the presence of Aboriginal heritage items and places within the vicinity of the proposed development, a search of the Australian Heritage Information Management System (AHIMS) and National Native Title Register were undertaken on 4 February 2015. Based on the search of the AHIMS, no Aboriginal sites were recorded or had been declared in or near the site of the proposed works. In addition, no sites in the area were listed on the National Native Title Register.

To ascertain the presence of non-Aboriginal heritage items and places within the vicinity of the proposed works, a search of the Australian Heritage Database (AHD) and the NSW State Heritage Inventory (SHI) were undertaken on 4 February 2015.

A search of the AHD identified one item, Georges River Wetlands, within Revesby. The wetlands are located on Henry Lawson Drive, Padstow Heights over 4km from the proposed site, and are listed on the non-statutory Register of the National Estate.

A search of the NSW SHI returned no heritage sites listed under the NSW *Heritage Act 1977* and two heritage sites listed by State Agencies (Section 170 Registers), in the suburb of Revesby. Three sites were also listed as having local heritage in the suburb of Revesby. These sites are outlined in **Table 5-2** and are all greater than 1km from the site.

Table 5-2 Non-Aboriginal heritage listed sites – NSW State Heritage Inventory

Place Name	Address	Register/List
Cattle Duffers Flat	925 Henry Lawson Drive, Revesby	Local Government/LEP
Electricity Substation No. 1226	21 Doyle Road, Revesby	State Agency s170
Pah, The	4 Thompson Road, Revesby	Local Government/LEP
Revesby Public School	84 The River Road, Revesby	Local Government/LEP
Revesby Railway Station Group	Blamey Street	State Agency s170

5.3.2 Potential Impacts

Given that the site has been heavily disturbed, consists mainly of hardstand and is a considerable distance from the identified items in **Table 5-2**, it is considered highly unlikely that any Aboriginal or non-Aboriginal heritage objects or places are present on the site or in the vicinity.

Considering the highly disturbed nature of the site, it is not thought likely that any Aboriginal heritage issues exist for the site.

5.3.3 Proposed Further Assessments

Enviro Recycling will assess the impacts of the proposed development on heritage of the area, however a detailed heritage assessment will not be undertaken. The assessment will involve:

- > Update database searches relating to heritage;
- > Assess the impacts of the proposed development on heritage items; and

- > Identify feasible and reasonable mitigation measures relevant to the construction and operational stages of the Project.

5.3.4 Mitigation Measures

In order to manage potential impacts on heritage the following mitigation measures would be included in the CEMP for the project:

- > Should any Aboriginal objects/sites be uncovered during the works, all work should cease in the vicinity of the find and Bankstown Council must be notified. If the sites/objects cannot be avoided, an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the *National Parks and Wildlife Act 1974* may be required. If skeletal material is identified then NSW Police also need to be contacted; and
- > In the event that a non-Aboriginal object is uncovered during construction, work is to cease in the vicinity of the find and Bankstown Council must be notified. An excavation permit or an exception notification may be required under the *Heritage Act 1977*.

As there would be no further excavation of the site, it is unlikely that any Aboriginal heritage objects would be found on site.

5.4 Visual Amenity and Aesthetics

5.4.1 Overview

The proposed facility is located on Violet Street in an industrial area of Revesby and is not currently significantly visible in the locality. The site is characterised by large warehouse buildings, open hardstand areas and has a row of mature trees on the western edge of the site along Violet Street and central to the site.

5.4.2 Potential Impacts

The proposed waste recycling facility would be primarily located within the existing buildings and hardstand areas and therefore significant impacts on the landscape or aesthetics at the site are not anticipated. Minor visual impacts of the project may include:

- > Visual impacts with construction activities (plant, machinery and stockpiles) for people travelling along Violet Street; and
- > Additional stockpiles of materials during operation in bays along the northern boundary of the site.

5.4.3 Proposed Further Assessments

Enviro Recycling will qualitatively assess the visual amenity and aesthetics of the proposed development as follows:

- > Describe the existing visual landscape;
- > Review site layout plans to assess visual impacts on the locality; and
- > Identify feasible and reasonable mitigation measures to be implemented.

5.4.4 Mitigation Measures

Given the localised nature of potential visual amenity impacts associated with the proposed works which are in an industrial area, extensive mitigation measures would not be necessary. The following would be undertaken as part of the proposed works or currently exists to minimise the extent of visual impacts during construction and operation:

- > Works would be undertaken in an orderly manner during construction and operation;
- > Stockpiles of sorted waste would be stored in appropriately contained areas; and
- > The western boundary fence has green shade cloth shielding the premises from the roadway.

6 Conclusions

Enviro Recycling is seeking approval for a Waste Recycling Facility at 51 and 57-67 Violet Street, Revesby. It would retain and upgrade the existing facilities on site, however, would not construct any additional buildings other than possible replacement of an existing warehouse with a reconfigured building generally in the same locale. The recycling volumes of the facility are expected to be up to 250,000 tonnes per year.

As the recycling volumes are in excess of 100,000 tonnes of material, the Project will be classified as SSD under the State and Regional Development SEPP. Approval from the Minister for Planning is required for the Project.

The environmental issues identified for the Project include:

- > Waste management;
- > Traffic and access;
- > Noise and vibration;
- > Water management;
- > Climate and air quality;
- > Soils and contamination;
- > Flora and fauna;
- > Heritage; and
- > Visual amenity and aesthetics.

An EIS for the Project will be required, and is expected to include the following:

- > A comprehensive outline of the Project including its components and construction activities;
- > A detailed assessment of the potential impacts on the key issues including a description of the existing environment and an assessment of potential direct and indirect impacts;
- > Description of measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the potential impacts; and
- > Identify and address issues raised by stakeholders.

7 References

Bankstown City Council (2013) *Bankstown Community Plan 2023*. Bankstown City Council. June 2013.

Bankstown Draft Demolition and Construction Policy

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DLA (2011) *Environmental Protection Licence Variation No. 1090907*. DLA Environmental, prepared for CMA Recycling Pty Ltd, 25 May 2011.

DP&E (2014) *A Plan for Growing Sydney*. Department of Planning and Environment, December 2014.

Enviro Recycling (undated). *Business Plan for Enviro Recycling (Waste Recycling Facility) Revesby*.

EPA (2014) *NSW Waste Avoidance and Resource Recovery Strategy*. Environment Protection Authority, December 2014.

Hyder Consulting Pty Ltd (2011) *Construction and Demolition Waste Status Report*.

Muller Acoustic Consulting (2015) *Noise Impact Assessment Materials Recycling Yard, 37-51 Violet Street, Revesby NSW*. Prepared for Enviro Recycling, 27 January 2015.

NSW Government (2011) *NSW 2021. A Plan to Make NSW Number One*. Department of Premier and Cabinet, September 2011.

NSW Government (2013) *Waste Less, Recycle More*. State of NSW and Environment Protection Authority 2013.

Veolia <http://www.veolia.com.au/municipal-residential/recovering-resources-from-waste>

APPENDIX A

WASTE STREAMS

Protection of the Environment Operations Act 1997 No 156

Schedule 1 Scheduled activities

Part 3 Definitions

Division 1 Waste classifications

49 Definitions of waste classifications

(1) In this Schedule:

general solid waste (non-putrescible) means waste (other than special waste, hazardous waste, restricted solid waste, general solid waste (putrescible) or liquid waste) that includes any of the following:

- a) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal,
- b) paper or cardboard,
- c) household waste from municipal clean-up that does not contain food waste,
- d) waste collected by or on behalf of local councils from street sweeping,
- e) grit, sediment, litter and gross pollutants collected in, and removed from, stormwater treatment devices or stormwater management systems, that has been dewatered so that it does not contain free liquids,
- f) grit and screenings from potable water and water reticulation plants that has been dewatered so that it does not contain free liquids,
- g) garden waste,
- h) wood waste,
- i) waste contaminated with lead (including lead paint waste) from residential premises or educational or child care institutions,
- j) containers, having previously contained dangerous goods, from which residues have been removed by washing or vacuuming,
- k) drained oil filters (mechanically crushed), rags and oil absorbent materials that only contain non-volatile petroleum hydrocarbons and do not contain free liquids,
- l) drained motor oil containers that do not contain free liquids,
- m) non-putrescible vegetative waste from agriculture, silviculture or horticulture,
- n) building cavity dust waste removed from residential premises, or educational or child care institutions, being waste that is packaged securely to prevent dust emissions and direct contact,
- o) synthetic fibre waste (from materials such as fibreglass, polyesters and other plastics) being waste that is packaged securely to prevent dust emissions, but excluding asbestos waste,
- p) virgin excavated natural material,
- q) building and demolition waste,
- r) asphalt waste (including asphalt resulting from road construction and waterproofing works),
- s) biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the *Biosolids Guidelines*,
- t) cured concrete waste from a batch plant,
- u) fully cured and set thermosetting polymers and fibre reinforcing resins,
- v) fully cured and dried residues of resins, glues, paints, coatings and inks,
- w) anything that is classified as general solid waste (non-putrescible) pursuant to an EPA Gazettal notice,
- x) anything that is classified as general solid waste (non-putrescible) pursuant to the Waste Classification Guidelines,
- y) any mixture of anything referred to in paragraphs (a)–(x).