



Bullsbrook Recycling Centre

Works Approval: Supporting Information

Alterations to Bullsbrook Recycling Centre



Bullsbrook Recycling Centre

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Bullsbrook Recycling Centre

Introduction

The City of Swan currently has two Recycling Centres, one in Malaga and another in Bullsbrook. Bullsbrook Recycling Centre opened in 2017 to assist residents to increase their ability to recycle waste and reduce landfill. The facility is in need of some renewal and upgrading works to improve safety, operational efficiency, handling and containment of recycling materials on the site.

Applicant Details

The applicant and owner of the site is:

City of Swan, 2 Midland Square, Midland, WA 6056. Phone (08) 9267 9267.

City of Swan Contact:

██████████, Email ██████████

Site Location

Bullsbrook Recycling Centre is located on 121 Stock Road, Bullsbrook, 6084. Outlined below in figure 1 indicated in green is the footprint of the existing facility.

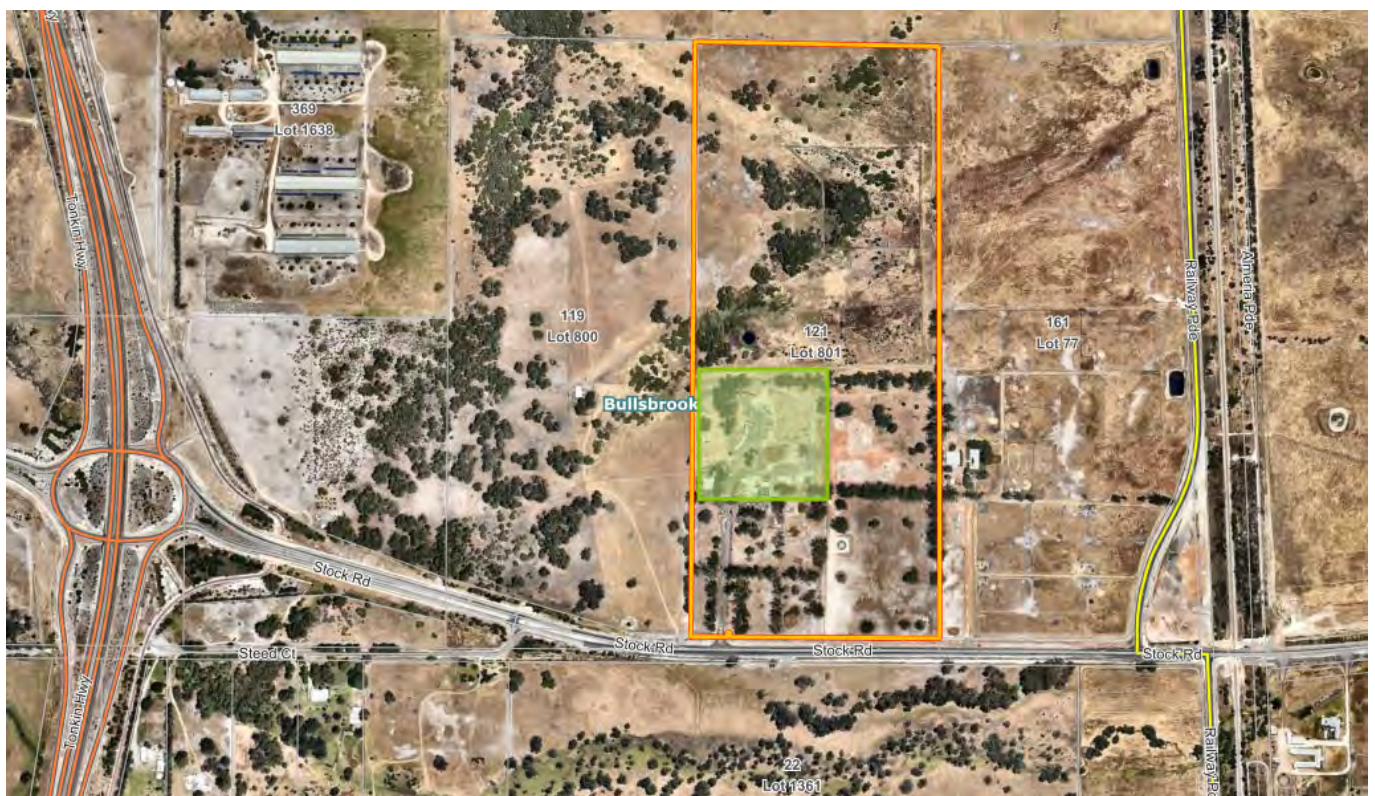


Figure 1 – Site Location

Bullsbrook Recycling Centre

Bullsbrook Recycling Centre aerial view of the existing facility illustrated below in figure 2.



Figure 2 – Site Aerial

Existing Facility Licence Information (Stage 1)

The current facility has a licence, No. L9055/2017/1 – File Number DER2017/000668

Under Category 61A – Solid waste facility & Category 62 – Solid Waste Depot.

Trading Hours

The trading hours will not be altered with this application following completion of the facility upgrades.

The facility is open to the public:

Thursday – Sunday: 8:30am – 4:30pm

Monday – Wednesday: Closed

Closed Good Friday, Easter Sunday, Christmas Day and New Years Day.

The facility is in periodic use during closed days by city staff for operational uses.

Existing Licence - Primary Activity

Primary Activity	Premises production capacity
<i>Category 61A – Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.</i>	<i>7,000 tonnes per year</i>
<i>Category 62 – Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use.</i>	<i>10,000 tonnes per year</i>

Existing Facility Activity

The facility services the northern community of the City of Swan. The facility is open to receive waste from the public from 8:30am – 4.30pm, Thursday to Sunday but will undertake handle / load and process wastes on weekdays (6:00am to 4:30pm).

The operations at the site include the following activities and infrastructure:

- Materials recovery facility for the acceptance of recyclables, construction and demolition inert waste and green waste, short term stockpiling of recycled commodities including paper, cardboard, metals and aluminium cans;

- Approximately 7,000 tonnes of green waste and timber (annually) for downsizing (chipping / shredding) purposes.
- 10,000 tonnes of solid waste (recyclables, construction and demolition waste) annually.
- Dry bulk material storage including:
 - E-waste and peripherals.
 - Bottles, containers (glass and plastic), cardboard and paper, small batteries, mobile phones, spray cans, fluorescent tubes and compact fluorescent lights.
 - Large Batteries.
 - White goods.
 - Brick and rubble.
 - Green waste.
 - Timber and office furniture.
 - Metals and alloys (steel, aluminium, copper).
 - Mattresses.
 - Tyres.
 - Polystyrene.

- Self-bunded oil shed used to collect used oil.
- Clothing bins provided for local charities.
- Green waste material received at the site will be placed on a hardstand, chipped, downsized and removed from the site by City of Swan staff, residents and contractors.
- Resource recovery for dry bulk materials accepted at the facility through several recognised recycling companies.

All existing functions will be retained in stage 2, but locations will be rearranged to allow the site to function better and safer.

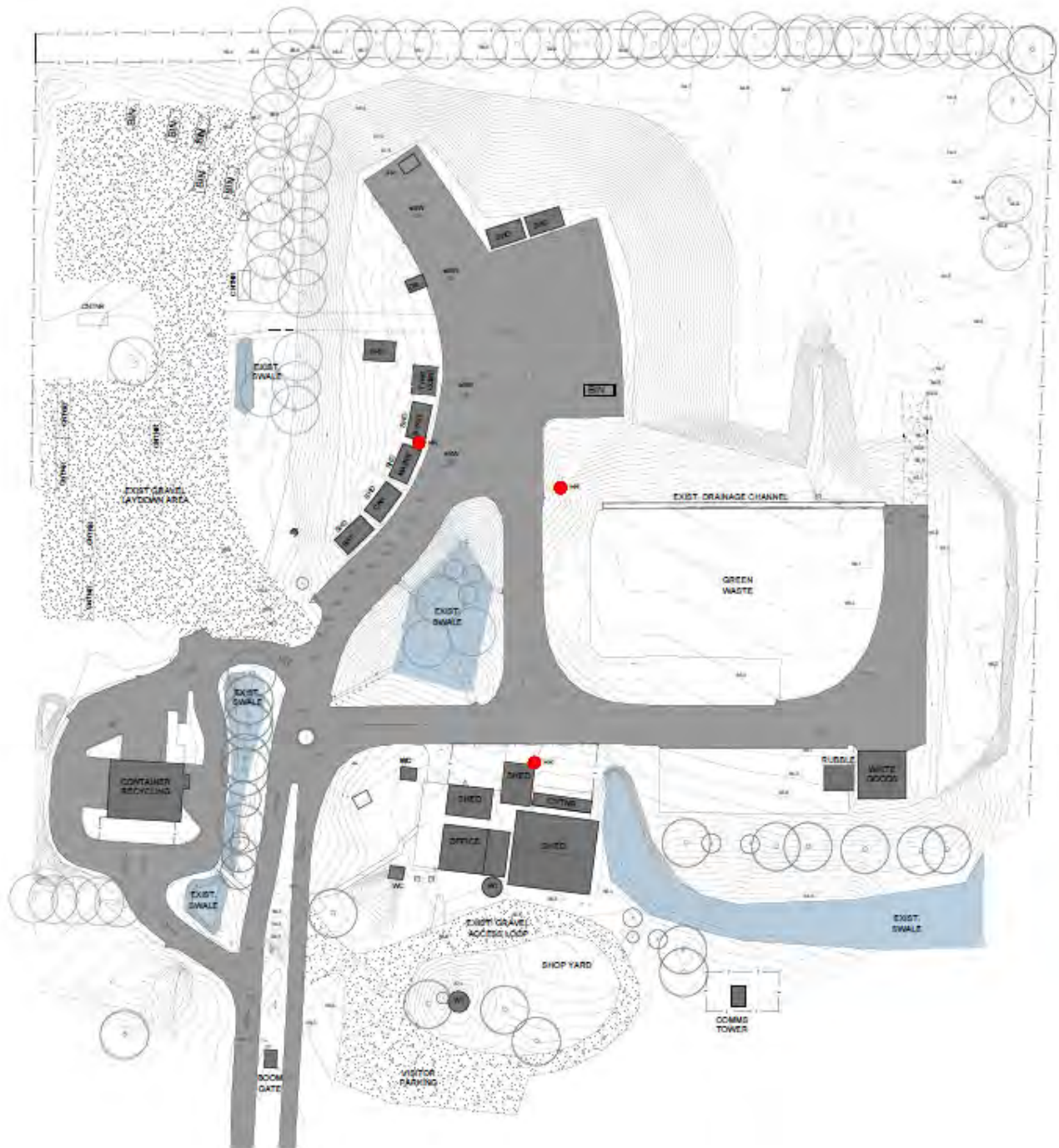
Stage 2 - Proposed works

The scope of works for Stage 2:

- (a) Add circulation to the facility to separate public and operational works further for safety.
- (b) Relocate existing facilities to suit new circulation paths forming more efficient drop off and sorting of materials.
- (c) Introduction of a drop wall with compactors to contain materials better and compact, creating more efficient operational facility.
- (d) Additional drainage pond to collect run off from site and contain on site.
- (e) Improved public / staff toilet facilities from existing.
- (f) Add in Paint collection station on site in bunded sea container with bunded collection pod in sea container for management by on site staff.
- (g) New polystyrene compactor to reduce down bulk polystyrene on to compacted pallets.
- (h) Improved staff facilities at sorting area to assist and overview sorting of materials dropped off.
- (i) Staff parking area.
- (j) New planting around the facility of native trees and shrubs to increase screening of the facility.

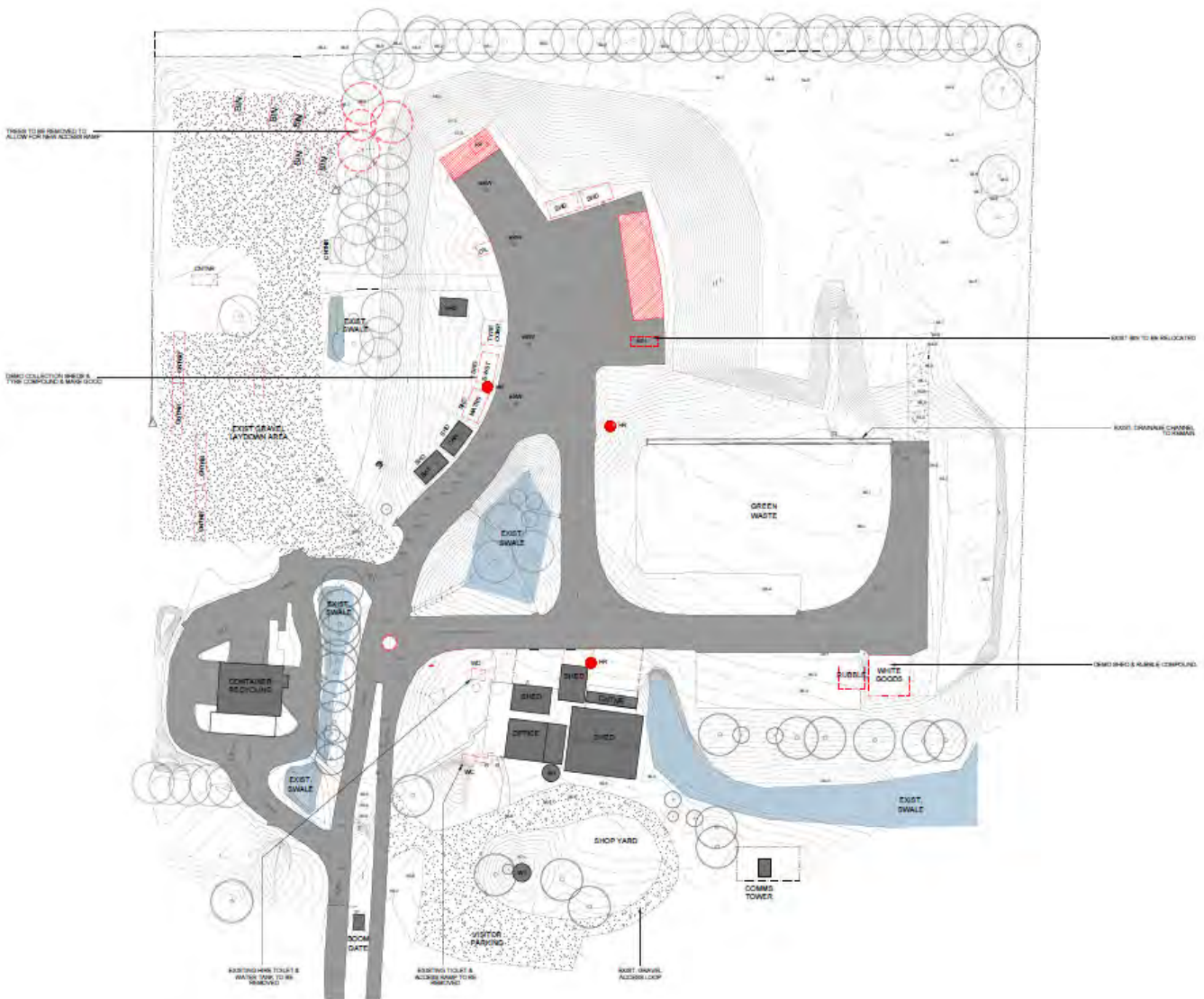
Supporting drawings of the existing, demolition and proposed plans will be attached in the appendix.

Existing Layout Plan



Stage 1 – Existing Facility Layout Plan

Proposed demolition plan



- Removal and relocation of existing collection facilities to work with new layout.
- Removal of 4 planted non-native trees.
- Alterations to existing road layout.

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Proposed plan of alterations and additions

- Relocate **rubble collection compound, tyre collection compound and White Goods Collection shed**. New compounds will be built in new locations to replicate the size and form of the existing ones on site.
- The two new sheds for **Small Item collection & Mattresses** will be similar in size and form to the existing sheds in new locations, enclosed on three sides with a concrete base. The Small Item collection shed will house smaller sulo bins separating out bottles, containers (glass and plastic), small dry cell batteries, mobile phones, fluorescent tubes and compact fluorescent lights.



Existing collection shed example – Bullsbrook.

- Two new bundled sea containers will accommodate collection of **Paint & larger Car / Motorcycle Batteries**. The Paint will be collected on bundled pallets and sorted by city staff in to the right bundled containment units for recycling as per the procedures followed at the Red Hill EMRC facility. The same procedure will be followed for collection of car batteries on a bundled pallet and

sorted by city staff in the bunded sea container for decommissioning as per the procedures followed at the Red Hill EMRC facility.



Example; Red Hill - Paint Collection bunded sea container with bunded pallet for laydown.

Battery collection per above bunded sea container with bunded pallets for battery collection will be used per above image of Battery Rescue units being used on the site presently.

- **Paint collection.** The used spray cans and empty paint cans will be collected in suitable receptacles similar to the images below from the Red Hill facility.



Empty paint cans in a metal bin with replaceable liner.



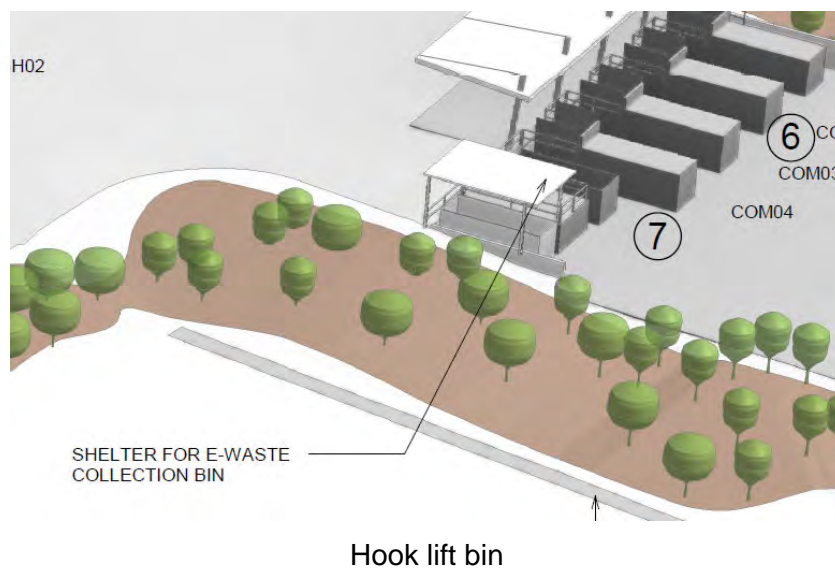
Aerosol spray paint cans collected in a metal bin.

- The old **Oil collection** shed will be replaced with a new collection unit like the new one that was built at our Malaga Recycling Facility (image below as indicative example). The new shed will contain a bunded oil collection tank sitting in a concrete bunded base to give several layers of protection from any potential leaks.



Malaga Recycling Centre – Oil Collection Shed.

- A new **E-waste** collection point by Hook lift bin from new drop wall location with a metal covered roof constructed over.

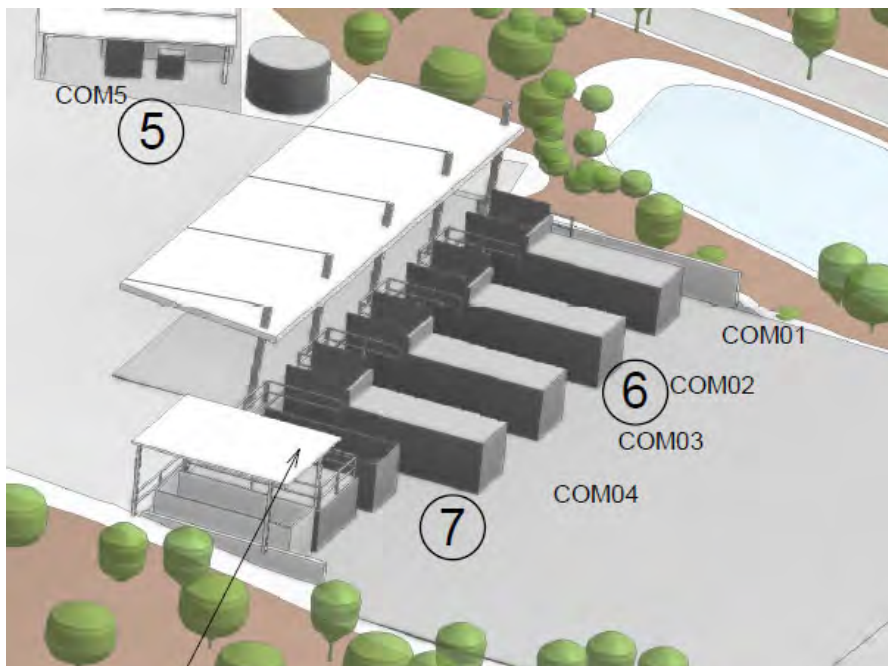


- Collection of the **General Waste, Cardboard and Timbers** will move from the open hook lift bin collection to new compactor-based collection with hoppers. This will condense the loads requiring less trips to the end facilities be it landfill or recycling. The compactors will limit any spill over and contain the materials much better than the current collection method, keeping the site cleaner.

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Existing collection method.



Proposed Compactor collection method.

Polystyrene Compactor – At present polystyrene is collected by 1 Tonne bags, loaded in to hook lift bins and taken away to be recycled. The proposal for stage 2 is to collect the polystyrene in a 1500ltr Sulo bin with lid and install a new polystyrene compactor next to the site office under shade structure cover to process the material in to condensed cylinders stacked on pallets to be loaded into a Hook lift bin. This will drastically reduce the number of trips for the materials to be taken off site and processed for recycling.



Collection bin 1500ltr Sulo



Polystyrene compactor

- **Metal collection** will still be dropped in to hook lift bin (similar to the system used at Red Hill) but will be changed from the current collection system of a staircase up the bin, to a drop wall set up to make it safer for the public to use.

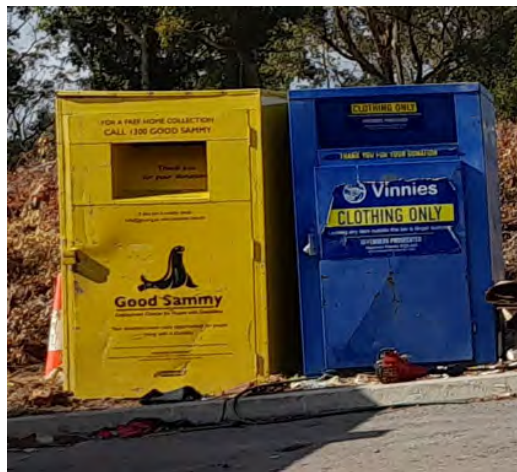


Existing collection method.



Proposed drop wall for Metal collection.

- **Recycled clothes** - will continue to be collected by charity bins as existing.



- The existing **fuel bowser** and pump will be relocated to the east side of the site on the operational side out of the public realm. The unit and cage will be mounted on a new concrete bund sized to suit.



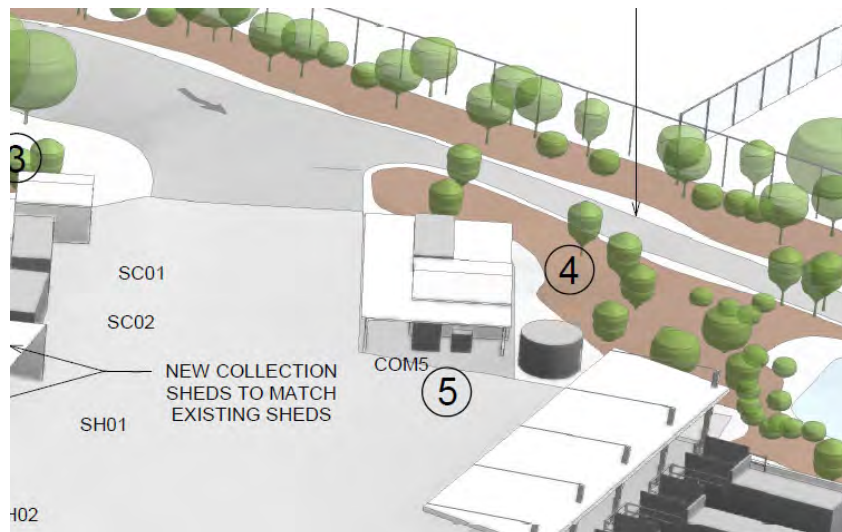
Existing fuel bowser and enclosure.

New Staff Facilities

Stage 2 proposes to upgrade the staff facilities at the sorting area of the facility. At present there are two shade structures.



Existing shade structures.



Proposed new Staff office and Workshop.

The proposed new site office, workshop and shade structure. Facilities to improve welfare of staff operating the sorting area of the site. A new potable water tank will be fitted (filled by the site water tanker) to supply the site office.

Proposed Fire Strategy for Stage 2

Attached is the existing fire management strategy for the site, this will be updated to include the new layout, but the principals remain the same.

Fire fighting facilities on site

First step of staff to any fire emergency is call 000 and make sure staff and people are clear of the area.

Staff will be based permanently at the top end sorting facility during operations to monitor sorting and raise alarm should a fire begin.




The site has several fire hose reels located around the site; multiple fire extinguishers located through the site with emergency signage.

A water truck is based at the site for operations but is also be used as back up mobile water supply with spraying capability.

A mound of clay/soil will be kept near the hardstand hooklift bins for the incident a hooklift bin does catch fire the front-end loader can drop the soil on the bin to put out the fire.



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