



CASE STUDY – IMPROVING RESOURCE RECOVERY FACILITIES

Anglesea Waste and Resource Recovery Facility

Overview

The Anglesea Waste and Resource Recovery Facility is located approximately three kilometers north of Anglesea. The site has undergone a number of modifications and upgrades and currently comprises a:

- > Resource recovery facility (established 1995): collects and separates recyclable materials dropped off by customers for resource recovery activities.
- > Resale shed (established 2013): captures and sells reusable items that would have otherwise ended up in landfill.
- > Landfill (established 1974): disposes of household and commercial waste material not suitable for resource recovery.

Recent key upgrades include:

- > 2013: construction of a resale shed.
- > 2015: significant upgrades to reconfigure and reconstruct the bin bays and layout of the resource recovery facility and the construction of an awning to extend the resale shed.

Resource recovery materials accepted

The site does not accept clinical wastes, liquid wastes, grease trap wastes, night soil wastes, used oil filters, asbestos, gas cylinders, chemicals and hazardous and prescribed wastes of any kind.

The site currently accepts the following materials:

Landfill

- > household garbage
- > mixed commercial and industrial waste (C&I)
- > clean fill.

Resource recovery centre

- > household garbage
- > mixed commercial and industrial waste
- > mixed construction and demolition waste
- > clean fill
- > green waste
- > commingled recyclables
- > mattresses
- > concrete/bricks
- > timber
- > metal
- > recyclable plaster
- > e-waste (computers)
- > tyres
- > hard plastics
- > automotive and marine batteries
- > automotive oil (<20l).

SNAPSHOT

PROJECT

Resource recovery centre upgrade

APPROXIMATE TONNES PROCESSED PER ANNUM

Resource recovery facility: 2,409 tonnes to landfill and 924 tonnes recycled.

Landfill: 6,734 tonnes of domestic kerbside waste and 11,611 tonnes of C&I waste to landfill.

NUMBER OF STREAMS RECYCLED 16

TYPE

Resource recovery via saw tooth bin arrangement.

STATUS

Current expenditure of \$1,163,595 (\$200,000 provided by Sustainability Victoria)

OUTCOMES

Improved site layout, which reduces the need for cars to reverse and the risk of traffic incidents; an additional bay to add another resource recovery stream; improved and more user-friendly experience for the community and commercial users of the facility.

KEY LEARNINGS

Where possible, keep new structures clear of any landfilled waste.

NEXT STEPS

Provide wind and rain cover for drop-off areas and further seal roads and area around the resale shed.

Continuous improvements of the resource recovery facility towards best practice

The resource recovery facility is currently undergoing a \$1.9 million upgrade to increase resource recovery activities and improve site access and ease of use for the public. This includes:

- › Stage 1: construction of a 30 metre retaining wall and three concrete bin bays (cost of \$500,000, funded by the Surf Coast Shire).
- › Stage 2: demolition of ageing and poorly laid out bin bays and construction of four new bin bays with associated gates and rails (cost of \$663,595 (excluding design), with \$200,000 funded by Sustainability Victoria).

The upgrades have resulted in the following outcomes:

- › Reconfiguring the site layout has significantly improved traffic flows through the site. The removal of bays located on dead end platforms has eliminated the need for users to reverse unnecessarily, reducing the risk of traffic incidents.
- › The improved layout and additional drop-off bay has provided greater ease of access and the option to add another resource recovery stream to the site. It has also improved site supervision to improve material diversion and reduce contamination and dumping of unacceptable material.
- › The overall upgrades have resulted in a much more effective and user-friendly experience for customers.
- › The settlement of old waste underneath the facility during Stage 1 works led to the development of an improved design and construction method that keeps the new structures clear of the landfilled waste. Although resulting in higher overall costs, these findings eventuated and more stable construction construction process during Stage 2 works.
- › The deliberate staging of these upgrades has assisted in mitigating the upfront costs to council. It has also enabled numerous learning outcomes from each stage to be incorporated into the following stages.

The remaining funds will be used in future upgrades including further improvements to the road surface, wind and rain protection above the drop-off areas and ground sealing around the resale shed.

Resale shed

The Anglesea resale shed is a joint partnership between the Surf Coast Shire and local community groups, which has been successful at both diverting re-useable materials from landfill and delivering profits to support these groups and the community.

The resale shed is the brainchild of the Anglesea and District Men's Shed, namely its recycling facilitator. Development of the shed commenced in 2012, with the Surf Coast Shire providing the space and the shed itself, as well as an awning in late 2015.

The shed was officially opened in May 2013 and originally managed by the Anglesea & District Men's Shed on a trial basis, until May 2014. A competitive expression of interest (EOI) process for management of the shed was then undertaken by council, which was ultimately awarded to the Anglesea Community House, a not-for-profit organisation, which successfully manage the facility today.

The resale shed aims to:

- › capture and sell reusable items that would otherwise end up in landfill.
- › provide an ongoing source of income for local community groups.
- › educate and strengthen the concept of sustainability within the community.
- › complement the second hand sales shops that currently operate in the region.

The diverted goods comprise of approximately:

- › 50% furniture - beds, couches, dressers, tables, chairs, wood heaters, etc.
- › 20% appliances - fridges, washing machines, dishwashers, etc.
- › 10% miscellaneous - bikes, toys, picture frames, canoes, car trailers, surfboards, etc.
- › 10% building materials - window frames, tiles, flooring, timber, roofing, doors, etc.
- › 10% unusual items - jet ski hulls, boat hulls, aircraft luggage containers, spa tubs, etc.

Anglesea Community House conducts regular meetings with the participating community groups to discuss housekeeping, financial matters and volunteer rostering, identify opportunities and resolve any operational challenges. It also runs site safety inductions (e.g. access, safety equipment and clothing, speed limits, emergency and evacuation procedures) and training (sales and cash handling) for volunteers and visitors.

The successful management and operation of the shed is largely due to a number of local site champions, who have a good working relationship with council; frequently engage with the community groups and ensure the shed is staffed effectively.



Image caption

CASE STUDY Anglesea waste and resource recovery facility

Day-to-day operation of the shed involves:

- › Members of the public donate unwanted materials to the resource recovery facility, with the gatehouse operator ensuring the items are in saleable condition.
- › Donated materials are charged a nominal rate (reduced fee) at the gatehouse, in order to cover the cost of disposal of items not sold after a reasonable time.
- › Customers are directed to unload donated items adjacent to the shed, which are then sorted by volunteers and stored within the shed or under the attached awning.
- › A resource recovery facility attendant also has an opportunity to identify suitable items for sale at the drop-off bays and can direct customers to leave these items adjacent to a signed trailer. The resale shed staff regularly review these items, with those considered unsuitable for sale placed into the appropriate bin.
- › The resale shed is open to the public from 10am–2pm on Saturdays and staffed by rostered volunteers from the participating community groups. Volunteers determine the prices of items, usually based on negotiations with members of the public and at a minimum of \$2 per item. Council staff may also conduct sales throughout the week, if requested.
- › Volunteers input all sales through the council's weighbridge software program and provide customers with receipts. The money from each sale goes into a float and is returned to the gatehouse.
- › Unsold items are returned to the resource recovery facility for resource recovery or disposed of to landfill.

Participating community groups include:

- › Anglesea/Aireys Inlet Senior Citizens Club
- › Anglesea Bowling Club
- › Anglesea Community Garden
- › Anglesea Historical Society
- › Anglesea Men's Shed
- › Community Garden 3231
- › Foodlink
- › Motor Yacht Club
- › Platypus
- › Surf Coast Cancer Group
- › Winchelsea Men's Shed.



Benefits of the resale shed

The shed has numerous benefits for the Anglesea community including:

Landfill/resource recovery operations

The diversion of bulky materials assists in extending the operating life of the landfill.

Alternative funding source for community groups

Alternate funding aids the self-sufficiency of community groups and assists council in making community grants more effective.

Affordable items for community members in need

The items sold by the shed are generally in good condition and are purchased by community members for well below the original retail price, being invaluable to community members in need.

Reduced environmental impact

Between April 2015 and April 2016, the shed made 1,020 sales to contribute to a reduction in carbon dioxide emissions from landfill and savings in energy and water usage related to manufacturing new materials.

Distribution of resale shed funding

The Anglesea resale shed operates a unique funding distribution model, which contributes to its ongoing success. Sales are divided between the Surf Coast Shire and participating organisations, thereby ultimately being returned to the community in the form of support services, infrastructure and events. This arrangement aims to assist community groups establish more funding and leverage council-distributed community grants. Having volunteers manage and operate the resale shed also minimizes operational costs.

- › 10% of gross revenue (GST) is retained by council for operating costs.
- › The remainder of funding (after council dividends) is divided up as follows:
 - 5% for direct welfare services to the community.
 - 10% to the Anglesea Community House for managing the operation.
 - 5% to organisations who actively direct large goods to the resale shed (second hand shops).
- › remaining 80% distributed on a pro-rata basis to all participating community groups.



“The resale shed is something the local Anglesea community feel good about”

Jim Tutt, resale shed “Champion” and former Surf Coast Shire Councilor

Continuous improvements to the resale shed

After a number of successful years in operation, several improvements are planned for both the site and its management including:

- › Sealing around the resale shed to enable the transportation of heavier items on trolleys and reduce dust and mud. These improvements will increase the usability and attractiveness of the site, as well as enable increased landfill diversion.
- › Development of a long-term plan for recruiting and mentoring volunteers, with the support of council. This plan will include a process for mentoring younger volunteers in managing the site effectively and keeping the enthusiasm surrounding the shed.

Further information

For more information contact Sustainability Victoria on 03 8626 8700 or visit www.sustainability.vic.gov.au