

Case Study



Somersby Materials Recycling Facility, NSW

Green File

There are many innovations in relation to the site and collection fleet, these include:

- Auto-sorting of paper, plastics and glass, a first in Australia.
- A 300,000 litre water retention and detention system with stored water used for washing trucks and flushing toilets.
- Power factor correction and low power motors are used throughout the MRF to reduce electricity usage, and movement sensors in the offices ensure lights are turned off when the room is not in use.



Thiess Services was awarded the contract by Gosford City Council and Wyong Shire Council to design, construct and operate the new depot and Material Recycling Facility (MRF) at Somersby.

The MRF is the cornerstone of a \$227 million contract and is the first of its kind in Australia to use near-infrared technology for the automatic sorting of each waste stream, including three kinds of plastic, three kinds of glass, steel, aluminium and paper.

Thiess Services is responsible for the collection of domestic waste, garden vegetation, bulk kerbside waste and civic waste and collection and processing of recyclables for a combined population of 300,000 until 2018. These contracts involve the operation and maintenance of more than 60 collection vehicles, an onsite maintenance workshop, a purpose-built education centre and a team of customer service operators.

Challenges/Unusual Features

The Central Coast MRF incorporates a combination of manual, mechanical and automated sorting and processing technologies to maximise material recovery. Of particular note is the autosort equipment, which was specifically designed into the MRF to ensure product quality.

The MRF is the only facility in Australia with auto sorting for glass, plastics and paper. As an example, to achieve high levels of quality separation, the plant utilises a plastics auto-sort machine, which identifies actual plastic resin type and colour using NIR (near-infrared) sensor technology and full spectrum colour sensors.

Location

Central Coast, NSW

Client

Gosford City Council and Wyong Shire Council

Value

AUD \$ 227 Million

Duration

July 2008 to July 2018

Contract Type

Privately Owned Facility

Referee

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Quantities

The site covers 3.7 hectares, employs 100 staff and has the capacity to process 25 tonnes of recyclables per hour.

Innovations

The Thiess Services Fleet System technology combines GPS and data logger technology, and enables us to manage the collection vehicle fleet to save time and fuel, improve safety levels and provide better service to our customers.



OHSE

The site has its own brake shaker/tester to reduce down time for vehicles, complete with harness cables built into the roof of each truck bay within the workshop, ensuring maintenance staff are safer when working at heights on the top of the trucks.

Community Engagement

The MRF features a purpose-built education centre, which is open to schools and community groups, providing hands-on, environmental experience into waste management and minimisation, with a focus on recycling and the whole waste cycle.