

Detritus processing facility

Pulling product, not pushing waste

Facility snapshot

At Reconomy's detritus processing facility in Rosehill, more of 21,000 tonnes of waste is diverted from landfill annually for repurposing into valuable products and materials for road construction. With a repurposing rate of up to 85 per cent, the facility processes, separates and cleans upwards of 25,000 tonnes of material from waste streams such as street sweepings and gross pollutant traps into individual components that can be readily reused or sold, including:

- organic matter
- aggregate
- sand
- metals

Detritus processing facility



Overview

Reconomy's detritus processing facility creates economic, social and environmental value for local communities by diverting material from landfill and into valuable products for roads.

The facility cost effectively processes, separates and cleans upwards of 25,000 tonnes of material from waste streams such as street sweepings and gross pollutant traps into valuable products and materials, including organic matter, sand, aggregate and metals. With a repurposing rate of up to 85 per cent, the facility is focused on the diversion of materials from landfill and driving them back into the circular economy.

The state-of-the-art facility, which opened in June 2018, is unlike many other recycling plants. It can recycle several different types of materials and Downer has a use for those materials, including asphalt for road construction.



Sustainability credentials

- The facility repurposes up to 85% of incoming material, separating a stream of mixed waste into individual components, which can be reused.
- The facility diverts more than 21,000 tonnes of waste from landfill annually, saving the equivalent of five Olympic swimming pools in airspace each year.
- The facility operates in full compliance with EPA requirements and industry best practices.



Recycled material recovery

- A typical annual volume of 25,000 tonnes of incoming material is processed, separated and cleaned ready for reuse into approximately:
 - 12,300 tonnes of organic material
 - 6,200 tonnes of sand
 - 2,500 tonnes of aggregate
- Recovered sand and aggregate repurposed in asphalt for roads enters the circular economy. Downer has the capability to perpetually recycle these pavements into the future, providing a truly sustainable solution.



Innovative partnerships

- Worked closely with CDEnviro, a world-leading supplier of waste recycling and material recovery plants, to innovatively tailor a waste recycling system for the detritus processing facility in Rosehill.



Improved efficiency

- Located within Sydney's road network and open during street sweeping hours, the facility supports the optimisation of street sweeping operations in metropolitan Sydney, enabling some street sweepers to complete more than one load per shift.
- Reduced downtime in street sweeping operations is achieved with 24-hour processing, with the facility being located next to one of Downer's major asphalt plants in Rosehill.
- Secondary cost and environmental benefits of improved efficiency with sweepers travelling shorter distances to discharge include less fuel consumption, less equipment maintenance and longer equipment working life.



Local procurement

- The waste processed through the facility is sourced from metropolitan Sydney, not only improving efficiency of street sweeping operations but also delivering an avenue for local councils to recycle and repurpose the individual materials in their road assets once separated.
- Creates employment opportunities for up to 12 people, with 6 direct positions and 6 indirect positions through the supply chain for the facility.