

Advanced Recycling Technology for the Shoalhaven



Resource Recovery Facility
West Nowra



An Australian First in Waste Management

In collaboration with



Bioelektra Group

The Shoalhaven is running out of space. Within 10 years our West Nowra landfill facility will reach capacity.

As a result, Shoalhaven City Council has undergone an extensive process of consulting with industry experts to find an economically and environmentally sound solution to a waste problem that faces local governments across Australia.

The **Resource Recovery Facility (RRF)** will be constructed on Council owned land, adjacent to the current West Nowra landfill site. Works will commence in 2022 with the facility expected to be fully operational in 2023.

RRF will be a giant leap forward for how Shoalhaven manages waste that would normally end up in landfill. The additional good news is there will be no changes to your kerbside collection.



Advanced Recycling Technology for the Shoalhaven

All of the Shoalhaven's household mixed-waste (red lid bins) will soon be processed at the new Resource Recovery Facility (RRF) in West Nowra.

Everything that can be reused or recycled will be extracted in one process.

This state-of-the-art facility will be Australia's first Advanced Waste Treatment plant capable of diverting over 90% of Mixed Waste from landfill.

The process involves sterilising and drying the waste to eliminate odours. The dry material is then sorted through a series of screens into its separate recyclable components.

What is unique about this technology?

Its simplicity and innovation.

The **upfront sterilisation process is new and innovative.** The remaining process uses traditional sorting methods found in most Materials Recovery Facilities throughout the country.

Council is conscious of the risk that can be associated with being 'first in the field' with state-of-the-art technology, which is why a lengthy, thorough and robust investigation was conducted for this new facility.

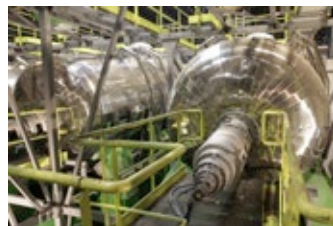
What are the environmental benefits?

- Increased resource recovery
- Further opportunities to increase the amount and diversity of recycling
- Sterilised waste is free of odour or biological activity
- Clean recyclable materials are separated
- The unrecyclable reject material returned to landfill is inert, significantly reducing the landfill environmental risk

- Projected landfill life is extended from 10 years to more than 50 years
- Everything the householder places into the red lid waste bin that can be recycled will be recycled
- The whole process is enclosed in a building
- No additional kerbside collection vehicles are required
- RRF has the potential to process material from neighbouring Councils, reducing waste to landfill across the region. This is at no cost to Shoalhaven City Council.

What are the benefits to the Shoalhaven community and ratepayers?

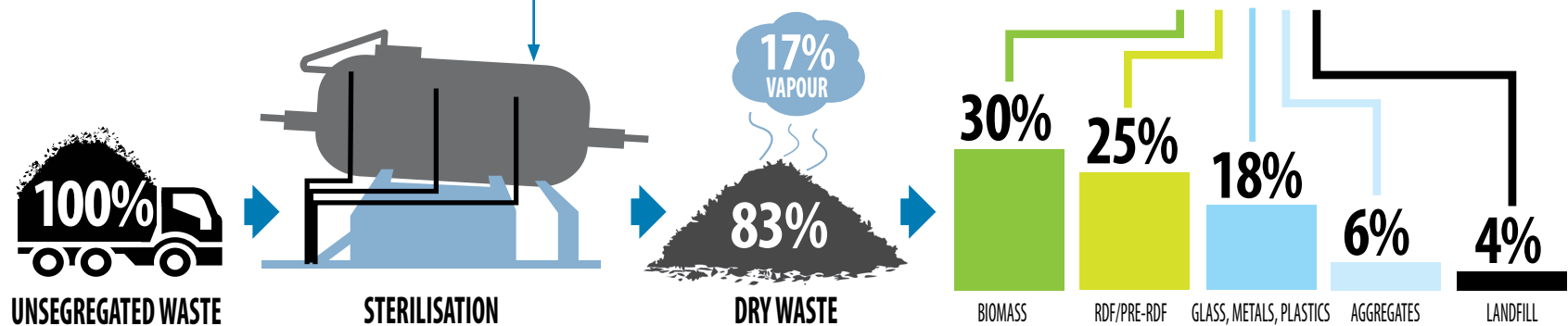
- No change to managing waste at home
- No changes to the annual domestic waste charge
- Ongoing job opportunities expected for over 30 people
- 200 job opportunities during construction
- Landfill waste reduction is projected to reduce Council's levy bill to the NSW Government in the vicinity of \$7-8 million per year.



Autoclave (Sterilization Unit)



Autoclave being loaded



How is it funded?

- RRF will be funded, built and operated by Bioelektra Australia. Council will assist with the initial infrastructure
- Council will pay Bioelektra a fee for each tonne of domestic waste deposited at the facility.

What happens to the products?

Plastic, glass, metals, and organics are all separated and recycled into various products including construction aggregate, bricks, render and glass wool.

The "Biomass" or sterilised organic matter is to be used in the manufacture of brick, as an additive to render and has the potential to be used as fuel for energy recovery.

Why this process?

- Simple, yet innovative technology
- Proven superior diversion from landfill
- Proven superior separation of materials for recycling
- Innovative use of recyclable materials
- Sterilised material is biologically inactive
- Minimum impact on the environment.
- Minimal odour
- Affordable

For more detailed information and a video of this technology in action go to getinvolved.shoalhaven.nsw.gov.au

Yellow bins are here to stay.

When the RRF is operational, households will still continue with the current 2 bin collection system. There will be no change to the current collection and sorting of your yellow lid bin.



If this new facility recycles everything from the red lid (mixed-waste) bin, why do we still need a yellow lid recycling bin?

As there is less contamination in the contents of the yellow lid bin, the sorting process is simpler and less costly, and produces a potentially cleaner and superior recycled product.

Australia is a world leader in waste segregation. Removing the yellow lid bin would be a giant step backwards in our recycling process.

Shoalhaven residents have adopted great recycling habits and continue to improve on them every year.

While the RRF is going to relieve pressure on our landfill capacity it is only one part of the Waste Management journey. We urge all residents to continue to be good environmental citizens by avoiding waste in the first place and to reuse and recycle whenever possible.



WASTE \ REDUCE \ REUSE \ RECYCLE

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For more information and a video of the
Advanced Recycling Technology in action go to
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