

Easy Guide to C&D Resource Recovery – WOOD

TWO pages of the best tips from the 'REBRI Guide to C&D Resource Recovery' series on wood.

The construction and demolition (C&D) industry is one of the largest waste-producing industries in New Zealand. Not only does C&D waste contribute around 17% of waste to landfills in this country, but also the majority of waste to our 'clean' fills.

The C&D industry has taken up the challenge of reducing waste to landfill and cleanfill, and many developers and builders are starting to demand recycling services for materials such as wood, plasterboard, metal and concrete.

The great thing is, there are loads of recycling options for C&D wood waste – so what are you waiting for?

Details can be found in the REBRI 'Wood' guidelines. The REBRI series has been developed to help the resource recovery industry to provide a top service to the C&D industry, develop new skills, provide quality feedstock for recycling and reuse options, and do things in a way that maximises C&D waste diversion from traditional disposal options.

Can't wait for the details? Keep reading for the best tips in the industry.

What is waste wood good for?

Take a look at some of these ideas.

- Waste wood can be reused in building and furniture making. Suitable wood includes native timbers, hardwoods, untreated and treated softwood, fibre and particle board panels, and building parts such as floorboards, doors, window frames and internal joinery.
- Chipped or mulched **untreated** wood can be used for:
 - landscaping mulch, composting
 - boiler fuel (C&D waste wood is considered a 'biofuel', which has less impact on climate change than coal, oil or LPG)
 - fibre or particle board manufacturing
 - wood composite products
 - fire pellets.

What's involved?

- You need to find local sources and markets for wood. This could be easier said than done, but there are some organisations that can help (see the links and resources in the REBRI 'Wood' guidelines).
- Waste wood requires sorting into different types, quality, etc., depending on what the end product requirements are.
- Contamination needs to be sorted from the wood. This often includes removing nails, screws and other metal pieces from timber.
- Wood for reuse needs to be stored under cover, by wood product type.
- Waste wood can be shredded and chipped into chips or mulch. The level of processing depends on the desired end product.
- Waste wood will need to be stockpiled prior to processing, and you will also need to stockpile wood chip or mulch.

Some things to think about

- Don't underestimate the value of sorting – good sorting is the key to quality feedstock for any reuse or recycling option. Make sure you have a good operating system, with well-trained staff. Remember:

- C&D waste wood is always a mixture of wood types, sizes and quality, even from construction sites where you'd think it would all be the same
 - you will always find contamination from such things as nails, paint, treatment chemicals, plastic, etc.
 - treated timber is very hard to identify, but contaminates waste wood for most recycling options. It is best to ask your suppliers to remove it at source. Otherwise, have your staff fully trained.
- Each market will have its own feedstock specifications – it's best to confirm these before you start processing. Getting it wrong can cost you.
 - Using wood-processing equipment is noisy, dusty and can create stormwater pollution issues. It pays to check with your local and regional council about environmental issues before you start. Waiting until there is a problem can cost you money and time under the Resource Management Act 1991.
 - Wood chips and mulch can be damaged if they get too wet during storage. The materials start to rot or compost, which will ruin their resale value. Also, the product can get so heavy that it can add unnecessary transportation costs.
 - Consider the pros and cons of operating mobile plant compared to a stationary operation. Apart from the financial differences, there may be other things such as the volume of wood you will process, the availability of land, whether the mulch could be used for landscaping on-site, and the transportation distances between processing and the end use of the product.
 - Get endorsement from your peers and give your clients confidence! Consider certification by Enviro-Mark® NZ or ISO14001. An authorised third party will check that you're doing all the right things. If that sounds too serious, check your performance against the REBRI 'Wood' guidelines by using the audit sheet. Providing certification or audit information will help clients to feel more confident about your service and win you more business.

Examples from those out there – doing it

Crusaders Landscaping in Christchurch is taking up the challenge of reducing C&D waste wood to landfill and cleanfill. Finding markets was the hard part, but they are now producing a ground cover material for landscaping and vineyards, and boiler fuel for manufacturing.

Each waste wood product requires different waste wood types, and a different level of processing. To make ground cover, MDF and other engineered timber products are chipped with untreated timber up to three times to very small pieces and mixed with compost and other organic materials. Boiler fuel, made up of untreated timber, requires only one round of chipping.



C&D wood waste stockpile at Crusaders Landscaping, Christchurch. This wood is ready for use as boiler fuel.