

Mapping the Way to Zero Waste

Construction/Demolition Waste Diversion Strategy

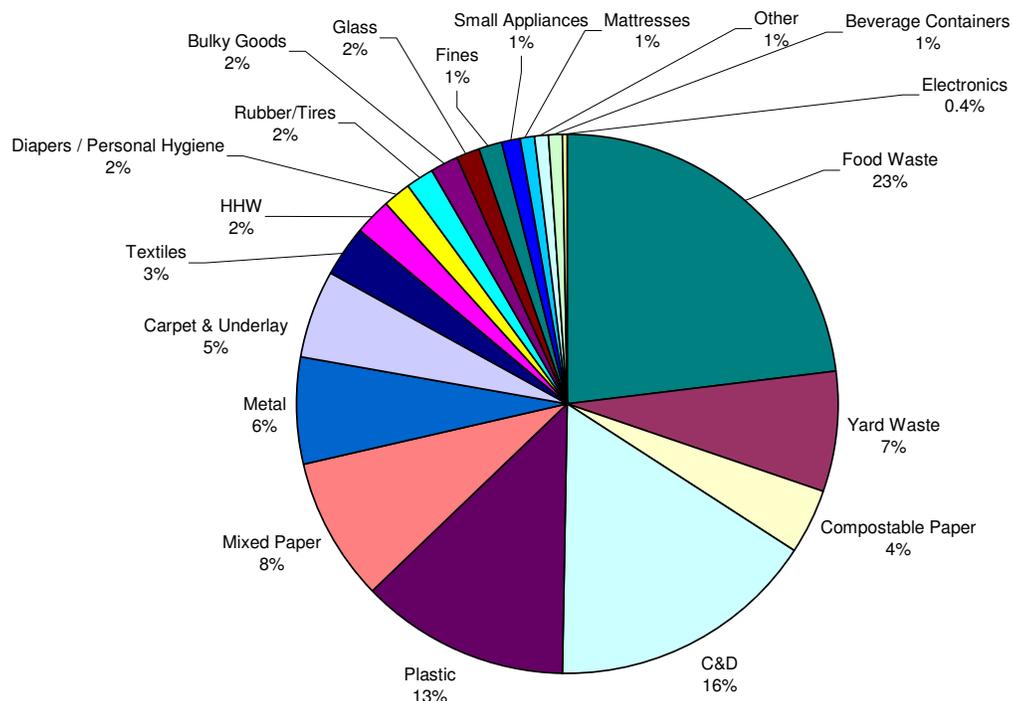
Why Divert Construction/Demolition Waste From Disposal?

It's in the Plan!

When we reduce the amount of waste that goes into the landfill or other disposal sites, we save resources, reduce costs and minimize our footprint on the environment. That's why the RDN adopted the Zero Waste diversion target in 2002 as its long-term goal. Zero Waste builds on the significant successes of the earlier 3Rs Plan (Reduce, Reuse, Recycle), under which, by 2003, we were diverting 57 percent of our solid waste from the landfill. That was more than the 50 percent target set in 1989 by the provincial environment ministry for all regional districts, but it's still too much. The updated Solid Waste Management Plan (SWMP) approved by the RDN Board in 2004 aims to increase this diversion rate to 75 percent by 2010 by diverting additional materials away from landfill. Construction/Demolition Waste (C/D) diversion is an important element of the RDN Zero Waste plan.

C/D is the Second Largest Component of Solid Waste

The following chart shows that C/D comprises 16% of all waste landfilled in the RDN, and next to compostable organics, C/D is the largest component of landfilled waste in the RDN.



C/D Diversion Leads the Way to Zero Waste

In 2005, the RDN Board approved an organics diversion strategy that, when fully implemented, should divert an additional 15% of the overall waste stream from landfill. That leaves C/D waste as the most significant portion of the overall waste stream in the RDN. In 2006, 11,000 tonnes of C/D was landfilled: about 8,000 tonnes of wood waste and 3,000 tonnes of asphalt shingles. The projected RDN diversion rate of 70% after organics diversion is fully implemented would increase to up to 75% by diverting C/D from disposal.

Economic and Infrastructure Development

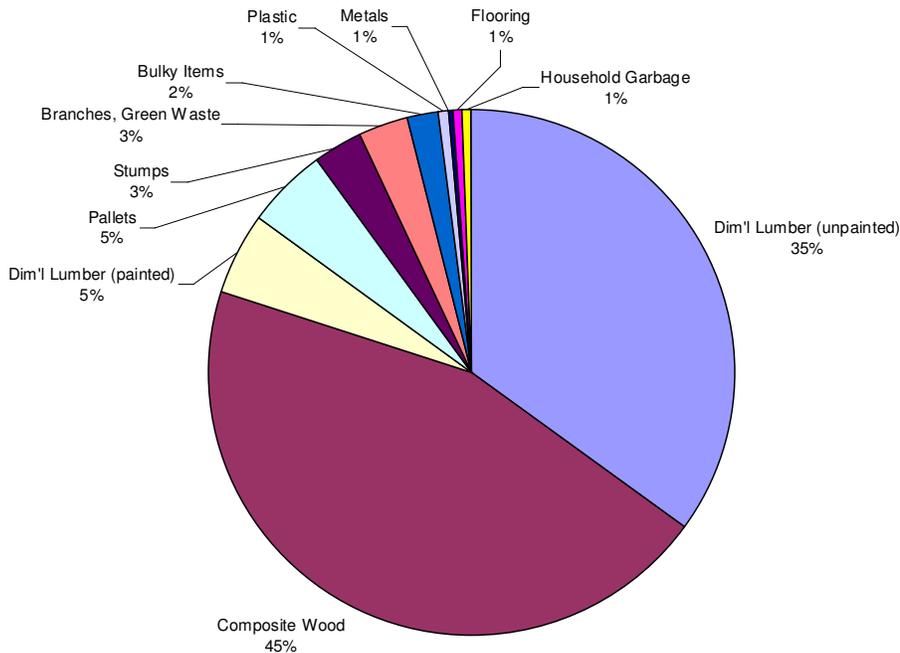
The vision of turning waste into feedstock for a new and beneficial product that creates wealth from waste is a supporting theme of the RDN Zero Waste Plan. That is why the RDN adopted the Waste Stream Management License (WSML) bylaw which not only regulates recycling and waste management facilities but also creates economic activity and jobs.

Diverting C/D to facilities licensed under WSML provides the feedstock to build and maintain sustainable private waste management infrastructure and correctly shifts the financial and physical responsibility for waste away from the public facilities to the generators and receivers of the waste.

What is Construction/Demolition Waste?

Construction/demolition waste (C/D), is wood and mixed waste from demolition and construction activities. It can contain many different types of materials including clean, treated and painted wood waste, plastics and vinyl, carpet, brick and rubble, glass, metal, asphalt roofing and any other material that may be found in construction and demolition.

In terms of C/D received at RDN solid waste facilities, the chart below shows that it is mainly wood waste. Wood waste can be used for a number of other purposes from providing an alternative fuel for pulp mill boilers to a bulking agent for composting and soil manufacture.



The Current Situation for Managing C/D

There are currently two facilities in the RDN that can manage the wood waste component of C/D, one in School District 69, near the Church Road Transfer Station and one at Duke Point in Nanaimo. Two additional facilities under development in Nanaimo will be able to manage C/D in the near future. All of the current and planned facilities in the RDN are recycling wood waste into boiler fuel for heat generation in pulp mills. There is a facility in the Cowichan Valley Regional District that is recycling asphalt shingles into a material that can be used as a supplement in traditional asphalt production.

Clean wood waste is also accepted at the Regional Landfill and is ground, at considerable expense to the RDN, and mixed with soil for landfill operations. The wood waste consumes limited space available at the landfill and the grinding presents safety and liability considerations due to the large numbers of commercial and residential customers in relatively close proximity to the grinding operation. There is a need for some ground wood waste at the landfill, however the supply greatly exceeds the demand.

As the prices of natural gas and hog fuel increase, pulp and paper mills are increasingly interested in C/D as fuel. The market for C/D is expected to strengthen as lumber companies close and consolidate sawmills across BC, eliminating the traditional sources of hog fuel. The price of natural gas is not expected to drop for a sustained period, further strengthening the C/D market over time.

Who Would Divert C/D?

C/D is delivered to the landfill and transfer station from three main sources, commercial haulers hauling for the construction industry, small to medium-sized construction contractors hauling their own waste and residential self-haul customers. Approximately 63% of C/D comes from commercial haulers and 27% from miscellaneous self-haulers, including residential and commercial customers.

The commercial haulers generally deliver larger, homogenous loads of C/D. The construction contractors usually bring pick up loads of C/D while the self-haul customer usually brings a mixed load of waste and recyclables, with C/D comprising a small portion of the load.

How Will We Divert C/D?

For the purposes of developing an effective C/D diversion strategy, the individual components of the C/D waste stream must be dealt with separately. There are facilities available licensed to receive and process wood waste and asphalt roofing material. No open burning of waste is allowed in the SWMP. Most of the materials in C/D can be recycled. With licensed facilities in place, diversion of C/D from the landfill is simply a matter of banning C/D from disposal. When this occurs, the majority of C/D will be processed for recycling and other beneficial uses such as energy production.

What is the Plan?

Tipping Fees

Setting the disposal tipping fees to insure full cost recovery and encourage use of alternate facilities creates a powerful incentive to divert C/D from RDN facilities.

Disposal Bans

Banning C/D from disposal has two parts. The first is to ban large commercial loads (larger than a pick up truck) and commercial customers that haul waste in pick up trucks that are frequent users of the RDN disposal facilities and cumulatively, dispose of large quantities of C/D. The purpose of the large loads and commercial ban is to divert the largest, continuous C/D waste stream to private licensed facilities.

To allow residential customers with small loads of C/D to continue to enjoy the convenience of using the RDN facilities, C/D will continue to be received from these customers. Some of this C/D can be utilized for operational purposes at the landfill. Contracts with licensed facilities can be established to manage any C/D in excess of operational needs.

There are no facilities in the RDN licensed to recycle asphalt roofing, therefore the RDN would continue to receive asphalt roofing, keep it separated and, pending an acceptable contract price, ship it to the asphalt roofing recycling facility in the CVRD.

Next Steps and Implementation

2007

- Commence information campaign to make C/D waste generators and haulers aware of alternate facilities.
- Amend Solid Waste Facilities Bylaw 1428 to include C/D disposal bans and to adjust the tipping fees to insure full cost recovery and encourage use of alternate facilities.
- Establish contracts with licensed, private facilities to accept and process C/D received by the RDN that cannot be utilized for operational purposes at RDN facilities.
- Implement bans.

2008

- Analyze diversion resulting from strategy, adjust strategy as required.
- Analyze cost recovery for program, adjust fees as required.