

Regional District of Nanaimo Wood Waste Disposal Ban

Regional District of Nanaimo, BC



Population¹ 151,508

Land Area²: 2,038.1 km²

Density²: 71.9 persons/km²

Median Age²: 49.3

Housing Mix² – Single: Multi-Family – 86:14

2012 Regional District disposal rate³:

354 kg MSW per capita (all sources)

Program Highlights / Summary

A waste composition study completed in 2004 confirmed that 16% of total waste sent to the Regional District of Nanaimo (RDN) landfill was construction, renovation and demolition (CR&D) waste material of which the majority was clean wood. Consequently, in January 2008, in accordance with the RDN's Zero Waste Plan (2004) and the Construction/Demolition Waste Diversion Strategy (2007), the Region introduced a landfill ban on the disposal of clean wood waste. The landfill ban was imposed by means of an amendment to Solid Waste Management Regulation Bylaw No. 1531, which came into effect in January, 2008 and included new definitions for wood waste and CR&D waste.

This ban was developed and implemented in collaboration with waste haulers, wood waste generators and licensed private processing facilities. This collaborative approach ensured that all stakeholders had advance notice of this important zero waste initiative. Enforcement consisted of load inspections and surcharges at disposal facilities by landfill staff as well as on-site education and compliance checks by the RDN's Zero Waste staff.

The wood waste ban provided a cost-effective way for the Region to divert clean wood waste. As a regulator, the Region did not provide any capital investment for the processing of clean wood waste, as these costs were borne by the private sector. In 2008, as a result of the ban, landfill disposal of wood waste was reduced by 87%. In 2008, licensed facilities in the region reported receiving and processing 23,500 tonnes of clean wood waste or 161 kg per capita. Although this amount was reduced in following years due to the economic slow-down, in 2012, licensed facilities still processed 14,898 tonnes or 98 kg per capita.

¹ BC Stats data (<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>)

² Statistics Canada census data
(<http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E&MM>)

³ Environmental Reporting BC
(http://www.env.gov.bc.ca/soe/indicators/waste/municipal_solid_waste.html?WT.ac=LU_Municipal-Waste)

Program Details

CR&D Waste Diversion Strategy

A waste composition study completed in 2004 indicated that CR&D waste, the majority of which was wood, represented 16% of all waste landfilled in the RDN, making it the second largest component of the residual waste stream next to compostable organics. For that reason the Region's Zero Waste Plan, approved in 2004, not only proposed that wood waste be diverted from the landfill by way of a disposal ban but also directed that a Waste Stream Management Licensing system be established to encourage private sector investment in recycling facilities that would process wood waste and organics.

In April 2005, the RDN Board adopted Waste Stream Management Bylaw No. 1386 (WSML). The WSML bylaw, prepared in partnership with the neighbouring Cowichan Valley Regional District, regulates the management of all privately operated municipal solid waste (MSW) and recyclable material processing facilities in the region. The WSML bylaw ensures environmental protection and sets high standards for the operation of recycling facilities, which in turn fosters community economic development.

By the end of 2006, the Region had issued a WSML license to one wood waste processing facility and had three applications in process. Consequently, in February 2007, the RDN Board approved a strategy to divert wood waste from disposal. The CR&D Waste Diversion Strategy included three main initiatives:

- 1) adjusting the tipping fee for clean wood waste at Regional facilities to create financial incentives to use private licensed facilities,
- 2) a disposal ban on commercial loads of clean wood waste, and
- 3) contracts with licensed private facilities to manage clean wood waste received at the RDN's landfill and transfer station from small commercial and residential loads delivered in pick-up trucks.

Regulation

In November 2007, the RDN Board amended their Solid Waste Management Regulation Bylaw No. 1531, to implement the CR&D Waste Diversion Strategy. The amended bylaw, which became effective January 2008, included new definitions for wood waste and CR&D waste, and banned the disposal of wood waste.

Under the bylaw, wood waste means "wood waste from construction and/or demolition that has been separated from other construction / demolition waste. The wood may be painted, but cannot have tile, gypsum, glue, carpet, dirt or soil or other non-wood materials attached". The bylaw then defines construction / demolition waste as "waste produced from the construction, renovation, and demolition of buildings, and other structures, but does not include waste containing or contaminated with asbestos, creosote, PCB treatments, any special waste or wood waste".

The Bylaw categorized wood waste as a recyclable material and prohibited it from disposal in the landfill. However, as a service to self-haul customers, clean wood waste was still accepted at RDN disposal facilities at a fee that covered the cost of transfer and processing to licensed private facilities. Nevertheless, given that the majority of wood waste delivered to Regional disposal facilities came from private hauling companies using roll-off bins, the bylaw was also amended to state that loads of wood waste delivered in roll-off bins would not be accepted for recycling at disposal facilities.

The Bylaw set the recycling fee for source-separated wood waste at \$200 per tonne, which was double the rate for garbage and considerably more than the fee charged at licensed processing facilities. This

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fee encouraged wood waste to be delivered directly to the processing facilities. Mixed loads of CR&D waste containing wood waste was charged at \$300 per tonne to encourage on-site separation of clean wood waste.

Collaboration

Prior to implementing the ban, Regional staff met with commercial waste haulers, construction contractors and operators of licensed processing facilities to request their input on program design details. In general, the private sector waste haulers and construction contractors were supportive of the ban concept since it encouraged local economic development.

Promotion / Education

Regional staff met with stakeholders early in the process to gain input and buy-in. Prior to ban implementation, a full communications package was prepared to ensure that all wood waste generators and haulers were aware of the ban and of alternative facilities.

Enforcement

Prior to the implementation of the wood waste ban in 2008, the RDN had already banned gypsum, land clearing waste, corrugated cardboard, recyclable paper, scrap metal, tires and commercial food waste from disposal in the landfill. Consequently, RDN operations staff at the Region's landfill and transfer station were already charged with visually inspecting loads for prohibited materials and issuing a surcharge of double the tipping fee to the hauler for non-compliance.

However, in 2007, with the addition of yard waste, wood waste, and stewardship materials to the list of prohibited wastes, the RDN created a new position of Zero Waste Compliance Officer to enforce landfill bans and respond to illegal dumping incidents. When prohibited materials such as wood waste are identified at the landfill, this staff person is responsible for contacting haulers and generators to work with them to ensure that wood waste is sent to licensed private processing facilities in the future.

Program Results

Financial Data

The RDN wood waste ban provides cost-effective diversion of clean wood waste for the Region. As a regulator, the Region did not provide any capital investment for the processing of clean wood waste, as these costs were borne by the private sector. The costs associated with implementation of the wood waste strategy were incorporated within existing staffing levels. No additional staff were required at the landfill and transfer station.

The Zero Waste Compliance Officer deals with education and compliance for all solid waste management related issues and is not a cost directly associated with the implementation of the wood waste ban.

Environmental

In 2006, 8,000 tonnes of wood waste was delivered to RDN disposal facilities. In 2008, this amount was reduced by 87% to 1000 tonnes of "dirty" wood waste which was ground and used for landfill cover. However, licensed facilities in the region reported receiving and processing 23,500 tonnes of clean wood

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waste or 161 kg per capita that year. Although this amount was reduced in following years due to the economic slow-down, in 2012, licensed facilities processed 14,898 tonnes or 98 kg per capita.

Social

The long-standing landfill disposal crisis (inability to site a new landfill) served to build community and stakeholder support for aggressive landfill diversion programs. Combined with an open and transparent planning and implementation process (2004 Zero Waste Plan, CR&D 2007 Diversion Strategy, 2008 Disposal Ban), the RDN Wood Waste Ban was embraced by stakeholders who felt it was “the right thing to do”. The ban also contributed to community economic development with respect to employment and innovation associated with collection and processing.

Lessons Learned

- Developing a plan and policy in advance of implementation provided stakeholders with an opportunity to provide input and “buy-in” to the program.
- Prior to banning CR&D materials, ensure that stable markets are available.

Communities with Similar Programs

Similar wood waste disposal bans are in place in the Cowichan Valley Regional District and the Fraser Valley Regional District. Metro Vancouver also plans to ban wood waste from disposal.

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