



# SOLID WASTE MANAGEMENT PLAN



Duncan – Aerial View

## AMENDMENT NO. 3

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# 1. BACKGROUND TO SOLID WASTE MANAGEMENT IN THE CVRD

## 1.1 PLAN DEVELOPMENT

On November 22, 1995, the CVRD's - Solid Waste Management Plan was approved by the CVRD Board of Directors. A core element of this Plan was the decision to pursue development of the Hill 60 site for a regional landfill.

Amendment No. 1 provided for the CVRD to pursue the development of the Bings Creek Solid Waste Management Complex to provide more convenient residential access and allow for separation of recyclable materials. On June 25, 1997 - Solid Waste Management Plan Amendment No. 1 was approved by the CVRD Board of Directors.

In 2001 the CVRD initiated Plan Amendment No. 2 to address the cancellation of the Hill 60 landfill development and request Ministry approval to continue with waste export while the CVRD evaluated long-term disposal options. On December 24, 2002, the CVRD received approval from the Ministry of Water, Land and Air Protection for the Solid Waste Management Plan (SWMP) Amendment No. 2. In the notice of approval, the following Ministerial requirement was noted:

*“Exploration of Long-term MSW disposal options, and the related SWMP amendment and public consultation, must begin by December 31, 2004, and proceed expeditiously in consultation with the Regional Waste Manager.”*

As outlined within SWMP Amendment No. 2, the CVRD has, over the past five years, engaged in an ongoing investigation of residual disposal alternatives, while continuing to export waste to the Cache Creek Landfill. It was recognized that further investigation would be necessary before the feasibility of a local disposal or processing facility could be established or a more favorable export alternative option could be identified.

On December 8, 2004, the CVRD Board of Directors requested permission to extend the deadline for exploration of long-term MSW disposal options, and the related SWMP amendment and public consultation. On May 19, 2005 the Ministry of Water, Land and Air Protection granted permission to export waste until December 31, 2006, with the requirement that the plan amendment and public consultation process begin by no later than August 31, 2006.

On July 12, 2006, the CVRD Board of Directors voted to undertake a third amendment to the Solid Waste Management Plan, and a related public consultation process, to be completed by December 31, 2006. The CVRD's Roundtable on Environment again adopted the role of Plan Monitoring Committee for the Plan Amendment No. 3.

The CVRD Solid Waste Management Plan Amendment No. 3 was prompted by both Ministerial requirement for an updated plan before the existing plan expires on December 31, 2006, and the need to identify an immediate disposal option following the forthcoming closure of the Cache Creek Landfill. This amendment addresses the need to obtain public approval of both the short-term continuation of waste export and

ongoing exploration of alternative waste management options over the next five to ten years.

This amendment also serves to update the regional SWMP to reflect progress on existing initiatives, such as the pursuit of Zero Waste and implementation of a Waste Stream Management Licensing Bylaw. New CVRD waste initiatives, such as the implementation of a region-wide, residential curbside food-waste collection program, and a bylaw to regulate the open burning of landclearing debris are also introduced. The third amendment also incorporates a new format for the Plan, reflective of the CVRD's commitment to the 5 R's waste management hierarchy.

On August 31, 2006, the CVRD embarked upon a public consultation process for the SWMP Amendment No. 3. The public consultation and review process had the following objectives:

- To provide the public with information regarding various waste management options, practical or applicable within the CVRD.
- To seek public endorsement of the short-term continuation of waste export and ongoing evaluation of residual waste management options.
- To determine public preference regarding criteria for selection of a waste export destination and a long-term waste management option.

Incorporating a region-wide public education and awareness campaign (newspaper, radio and television advertisements, public information packages, a detailed questionnaire, interactive website, and four public open houses), the public review and consultation process resulted in general public endorsement for the directions, policies and initiatives outlined by the SWMP Amendment No. 3.

The following resolution was ratified by the CVRD Board of Directors on December 13, 2006:

***"That the Board approve the Solid Waste Management Plan Amendment No. 3 and the accompanying Public Consultation Report, and submit to the Minister of Environment for approval."***

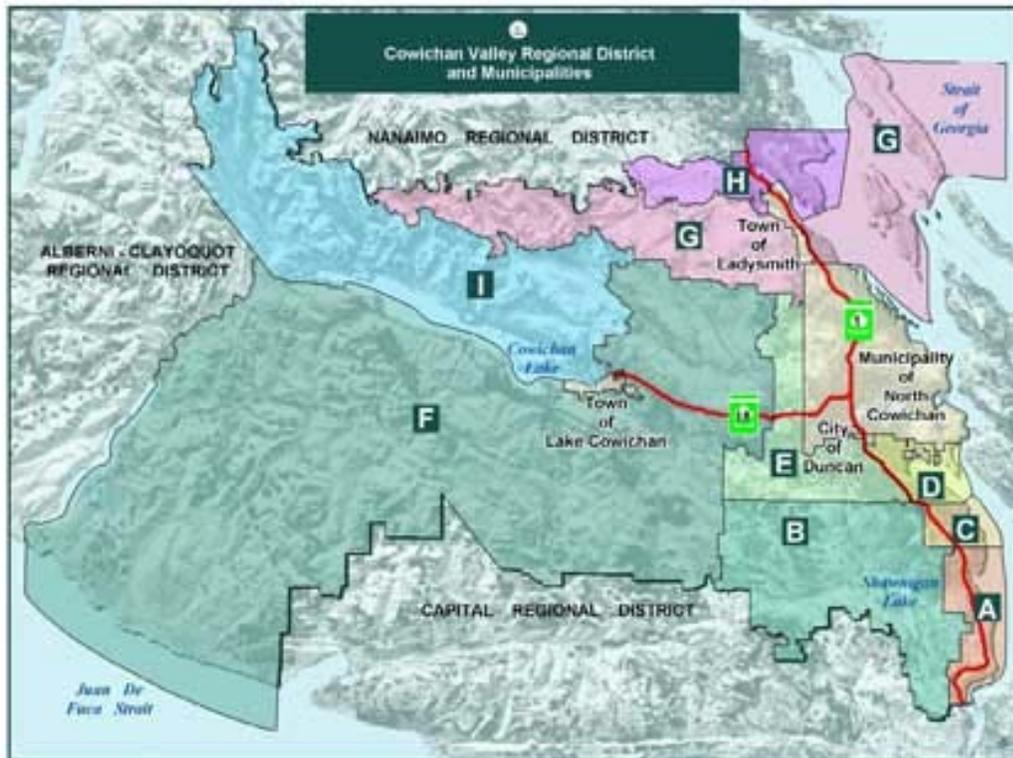
Approval from the Minister was received on June 15, 2007.

## **1.2 PLAN AREA**

The Solid Waste Management Plan serves the entire Cowichan Valley Regional District, which is comprised of the following member Municipalities, and Electoral Areas:

- City of Duncan
- District of North Cowichan
- Town of Ladysmith
- Town of Lake Cowichan
- Cowichan Tribes

- Electoral Area A - Mill Bay/Malahat
- Electoral Area B - Shawnigan Lake
- Electoral Area C - Cobble Hill
- Electoral Area D - Cowichan Bay
- Electoral Area E - Cowichan Station/Sahtlam/Glenora
- Electoral Area F - Cowichan Lake South/Skutz Falls
- Electoral Area G - Saltair/Gulf Islands
- Electoral Area H - North Oyster/Diamond
- Electoral Area I - Youbou/Meade Creek



### 1.3 EXISTING WASTE MANAGEMENT SYSTEM

Functions of the CVRD, local municipalities, and private industry comprise the existing regional waste management system. The general roles and responsibilities of system stakeholders are summarized in Table 1 below. Detailed descriptions of each component of the regional waste management system are included in the relevant sections of the plan.

**Table 1 Description of Stakeholder functions in operation of regional waste management system.**

<b>Organization</b>	<b>Function</b>
CVRD	<ul style="list-style-type: none"> <li>• Regional solid waste planning;</li> <li>• Policy and bylaw development and enforcement;</li> <li>• Solid waste facility licensing;</li> <li>• Development and delivery of waste reduction education and outreach programs;</li> <li>• Administration of contracts for curbside garbage and recycling services in CVRD Electoral Areas;</li> <li>• Operation of Peerless Road, Meade Creek and South-end Recycling Drop-off Depots and Multi Product Neighbourhood Recycling Bin Program;</li> <li>• Operation of Bings Creek Solid Waste Management Complex and management of materials received;</li> <li>• Administration of contracts for long haul trucking and disposal of residual municipal solid waste.</li> </ul>
Local Municipalities	<ul style="list-style-type: none"> <li>• Delivery of curbside garbage and recycling collection services within municipal boundaries;</li> <li>• Delivery of local waste reduction education and outreach programs.</li> </ul>
Local Private Sector Waste Management Companies	<ul style="list-style-type: none"> <li>• Delivery of contracted curbside garbage and recycling collection services in CVRD Electoral Areas and Municipalities;</li> <li>• Operation of Material Recovery Facility;</li> <li>• Operation of facilities for processing Demolition, Landclearing and Construction wastes and recyclable materials;</li> <li>• Operation of facilities for composting organic wastes;</li> <li>• Commercial and Multifamily residential waste collection.</li> </ul>

#### **1.4 PROGRESS TOWARDS PROVINCIAL WASTE REDUCTION TARGETS**

In 1990, the provincial government required all regional districts to develop solid waste management plans, detailing how they would contribute towards the overall goal of a 50 per cent reduction in waste disposal per person by the end of the year 2000, as compared to 1990 levels. The CVRD was able to surpass this goal, achieving a 52.5 per cent reduction in waste disposal per person by the year 2000.

In a previous Plan amendment, the CVRD sought to surpass this achievement by adopting the overall goal of Zero Waste. In a resolution dated November 26, 2001, the CVRD Engineering Services Committee passed the following directive:

*“That it be recommended that the CVRD set itself a goal of working towards “zero waste” in the finalizing of its Solid Waste Management Plan Amendment No. 2”*

Since that time, the CVRD has worked towards the goal of Zero Waste. Increases in per capita disposal rates (Table 1: Column 7) since 2000 can be attributed to a variety of factors, principally: a stronger economy, leading to increased consumerism and waste generation; a recent 'leveling-off' of curbside recycling programs; and improved data collection, which resulted in previously 'undeclared' activities becoming known.

The year 2005, however, marked a return to a decreasing annual per capita disposal rate, the first recorded since the year 2000. This reflects the CVRD's continuing commitment to the goal of Zero Waste, and can be attributed to increased enforcement of disposal bans, implementation of year-round diversion of clean wood waste, and continued education and outreach efforts. Additionally a marked increase in the CVRD recycling rate (Table 2: Column 7) directly contributes to a lower waste disposal rate.

**Table 2 Annual CVRD Waste Reduction Rate**

Year	1 Population	2 Waste disposal to Non-CVRD Facilities (CDW/LCD) (est.)	3 Waste Disposal to CVRD Facilities (Transfer Station / Cache Creek)	4 Total Alternative Waste Disposal (Backyard Burning etc.) (est.)	5 Total Waste Disposal (Cols. 2, 3, 4) (est.)	6 Per Capita Disposal Rate (tonnes/capita) (Cols. 5/1)	7 Per Capita Disposal Rate Decrease Since 1990 (Rate Decrease/ Base Yr.) (Col. 6)
1990	59,059	11,000	29,500	4,975	45,475	0.770	-
1997	72,691	11,249	30,571	0	41,820	0.575	25.3%
1998	73,735	10,500	27,823	0	38,323	0.520	32.5%
1999	76,386	7,747	24,164	0	31,911	0.418	45.7%
2000	76,820	4,675	23,413	0	28,088	0.366	52.5%
2001	71,998	4,919	21,780	0	26,699	0.371	51.8%
2002	73,129	3,060	24,881	0	27,941	0.382	50.4%
2003	74,260	3,275	26,487	0	29,762	0.401	48.0%
2004	75,392	5,125	27,987	0	33,112	0.439	43.0%
2005	76,523	4,225	27,556	0	31,781	0.415	46.1%

**Table 3 Annual CVRD Recycling Rate**

<b>Year</b>	<b>1 Population</b>	<b>2 Total Recycling (Government, non- profit &amp; private sector)</b>	<b>3 Total Managed Waste Disposal (CVRD &amp; non CVRD)</b>	<b>4 Total Alternative Waste Disposal (Backyard Burning etc.)</b>	<b>5 Total Waste Disposal (Managed &amp; Alternative Disposal) (Cols. 3+4)</b>	<b>6 Total Waste Potential (Disposal &amp; Recycling) (Cols. 2+5)</b>	<b>7 Recycling Rate (%) (Recycling/Total Waste Potential) (Cols. 2/6)</b>
1990	59,059	3,661	40,500	4,975	45,475	49,136	<b>7.5%</b>
1997	72,691	18,691	41,820	0	41,820	60,511	<b>30.9%</b>
1998	73,735	20,019	38,323	0	38,323	58,342	<b>34.3%</b>
1999	76,386	23,566	31,911	0	31,911	55,477	<b>42.5%</b>
2000	76,820	26,107	28,088	0	28,088	54,195	<b>48.2%</b>
2001	71,998	29,817	26,699	0	26,699	56,516	<b>52.8%</b>
2002	73,129	33,769	27,941	0	27,941	61,710	<b>54.7%</b>
2003	74,260	37,877	29,762	0	29,762	67,639	<b>56.0%</b>
2004	75,392	41,173	33,112	0	33,112	74,285	<b>55.4%</b>
2005	76,523	46,719	31,781	0	31,781	78,500	<b>59.5%</b>

In 2004 the CVRD recorded its first decline in the recycling rate (Table 2), even though total recycling tonnage increased from the previous year. The cause of the decline can be traced to a higher total waste disposal figure (Table 2: Column 5), which directly affects the recycling rate. However, 2005 figures reflect a return to an increased recycling rate, more consistent with previous years. Reasons for this increase can be traced to new commercial organics transfer capacity at the Bings Creek Solid Waste Management Complex, free tipping of yard and garden waste during April and October 2005, as well as year-round diversion of clean wood waste.

The CVRD's strong recycling rate, in combination with decreasing per capita waste disposal rates, reflects the success of current recycling and waste diversion programs, as well as the CVRD's ongoing commitment to achieving Zero Waste. New and ongoing initiatives aimed at achieving this goal are outlined within the Plan.

## **2. SOLID WASTE MANAGEMENT PLAN**

Regional districts in British Columbia are required by the Provincial *Environmental Management Act* to develop solid waste management plans that comprise short-term and long-term strategies for how each regional district will manage their solid wastes. These Plans are updated on a regular basis to ensure that the Plan reflects the current conditions within the regional district.

This document represents the most recent amendment to the CVRD's Solid Waste Management Plan and, once approved by the Province, it will become the CVRD's new plan and serve to guide solid waste management related activities and policy development in the CVRD.

### **2.1 STATEMENT OF GUIDING PRINCIPLES AND REGIONAL OBJECTIVES**

The objectives of the Cowichan Valley Regional District's (CVRD) Solid Waste Management Plan are the refinement of the regional solid waste management system, the further reduction in the amount of municipal solid waste requiring disposal, and the long-term goal of working towards Zero Waste. This will be done according to the following guiding principles:

1. The consumption of material and energy resources is set at a level that is ecologically sustainable.
2. The regional solid waste stream is reduced to the greatest extent possible, in accordance with the 5 R's hierarchy (reduce, reuse, and recycle, recovery of energy, residuals management) consistent with local resources and the nature of the regional solid waste stream.
3. The goal of environmental policy is to not exceed the capacity of the environment to assimilate waste and to ensure protection of public health. The strategies for achieving this goal are in accordance with the precautionary principle.
4. Individuals and firms are enabled to make environmentally sound choices about consumption of resources and generation of waste through provision of appropriate information, including user-pay and market-based incentives wherever possible.
5. Reduction policies and strategies are developed through an open and effective public consultation process in a cooperative manner between government, private enterprise and community stakeholders. This may entail more flexibility of existing procedures and the establishment of new procedures. The cost effectiveness of any strategy will be based on a full accounting of costs and benefits - both monetary and non-monetary.
6. The strategies and policies promote community development whenever possible, and are sensitive to the social needs of the Region.

7. The overall program is flexible and can be modified to meet changing conditions, such as future demands and new environmental criteria.

## **2.2 CVRD APPROACH TO REGIONAL WASTE MANAGEMENT**

The Statement of Guiding Principles and Regional Objectives provides a broad, general framework for operation of the regional solid waste system. Additionally, the CVRD's approach to planning for the regional waste management system is guided by several considerations that significantly influence how the regional waste system is managed. These considerations are:

### **Zero Waste**

In 2001, the CVRD set itself the goal of working towards "Zero Waste". While recognizing that the Zero Waste goal is not an immediately achievable objective, the CVRD intends to achieve steady, incremental gains towards this goal by continually integrating Zero Waste principles into regional solid waste planning. In pursuit of the Zero Waste goal the 5 R's waste management hierarchy will be followed, with an ongoing emphasis on practical, achievable means of shifting the focus of regional waste management from residual disposal to reducing waste at source, reuse of materials, and recycling.

### **Support for Local Industry**

As a local governing body, the CVRD strives to provide for the growth and support of the local waste management industry through a variety of partnerships and regulatory initiatives. CVRD Bylaw No. 2570 – Waste Stream Management Licensing, for example, creates a more stable investment environment for waste management operators by ensuring that all private facilities must operate to similar standards.

The CVRD recognizes the significant role that is played by private operators in pursuing the Zero Waste goal and seeks to support that role wherever possible. In acknowledgement of the value of a local waste management industry, the CVRD is committed to seeking creative waste management solutions with local businesses, community groups and non-profit organizations.

### **Engagement With Local Municipalities**

Local municipalities participate directly in regional waste management planning through representation on the CVRD Board of Directors. The CVRD facilitates operational and administrative cooperation with municipal staff regarding waste management, coordinates delivery of services, and provides support for local municipalities pursuing new initiatives and expanded roles in local waste management.

### **Engagement With Local First Nations**

Local First Nations, represented by twelve local First Nations bands, comprise a significant proportion of the population within the Plan Area. Residual waste collected from local First Nations is accepted at the Bings Creek Solid Waste Management Complex. Where possible, the CVRD supports sound environmental management on First Nations land and may provide technical assistance in this regard. The Cowichan

Tribes provide input to the solid waste planning process through participation on the CVRD's Roundtable on the Environment.

### **Support For Extended Producer Responsibility Initiatives**

The CVRD recognizes that Zero Waste will not be achieved until a significant share of the municipal waste burden is shifted to the producers of the materials that end up in the municipal waste stream. Extended Producer Responsibility (EPR) and Product Stewardship programs currently provide accessible end-of-life management for beverage containers, lead-acid vehicle batteries, pharmaceuticals, used oil and oil products, and various household hazardous waste products. These programs, which are funded and operated by industry groups, reduce the economic and environmental burden put on local governments to manage these materials.

The CVRD will continue to advocate for expanded EPR and stewardship initiatives through participation on the Local Government Stewardship Council, an organization representing twenty-four Regional Districts in BC. This group was formed to provide comment to the provincial government on the effectiveness of existing stewardship programs and advocate for additional programs. Additional support for EPR initiatives is provided through CVRD participation on the Recycling Council of BC.

### **Use of Economic Instruments for Achieving Waste Diversion**

The CVRD recognizes that public motivation and waste management behaviour is largely shaped by economic incentives. Specifically, diversion of materials from disposal can be achieved by adjusting tipping fees to encourage or discourage certain behaviour. Existing CVRD pricing mechanisms, such as doubling tipping fees for garbage loads containing banned recyclable materials, are intended to encourage waste diversion. The CVRD also rewards efforts to divert waste through offering free tipping of many recyclable materials.

The CVRD will continue to evaluate the use of innovative economic incentives and disincentives to achieve further diversion from the residual solid waste stream. Where appropriate the CVRD will implement new pricing mechanisms.

### **Promotion of User Pay Principle**

The CVRD intends that, to as great an extent as is possible, waste management services provided within the region are priced according to the "user pay" principle, whereby those who receive a service bear the full cost of offering that service. This approach promotes waste diversion and eliminates cross subsidization of activities within the waste management system.

### **Promotion of Sound Environmental Management Practices**

The CVRD pursues sound environmental management and compliance with environmental regulations through policies and practices in place at CVRD facilities. Environmental management at private sector facilities is promoted through required conditions of CVRD Bylaw No. 2570, Waste Stream Management Licensing Bylaw, 2004.

An Environmental Management System (EMS) formalizes an organization's commitment to environmental protection, and provides a systematic framework by which that organization analyzes, controls and reduces the environmental impact of all of its activities.

The CVRD will evaluate the feasibility of implementing an Environmental Management System for all CVRD Engineering Services operations (solid waste management, water supply, wastewater, and drainage). The CVRD will study the need for and the scope of the proposed EMS in 2007. If development of an EMS were approved, the planning and implementation of an EMS would be staged over a 2 to 4 year period.

## **2.3 REGULATION OF SOLID WASTE MANAGEMENT SYSTEM**

### ***Existing Conditions***

The CVRD has adopted bylaws that promote sound environmental management practices regarding the regional solid waste system, and which provide support for the CVRD's waste reduction and diversion goals. Local bylaws relevant to solid waste include:

#### CVRD Bylaw No. 2020 Landclearing Management Regulation Bylaw, 2006 - DRAFT

Bylaw 2020 is intended to prevent pollution from, and consequently mitigate the human health impacts of, open burning of landclearing debris in the Cowichan Valley. This bylaw establishes 'best management practices' for large machine-piled landclearing debris. Developers, or those wishing to burn large quantities of landclearing debris, will be required to use air-curtain burners, which result in a cleaner burning process. Alternatively, such material can be chipped on site or removed to a licensed facility for processing.

#### CVRD Bylaw No. 2570 Waste Stream Management Licensing Bylaw, 2004

Bylaw No. 2570 enables the CVRD to ensure that local waste management facilities meet basic operational and environmental standards through issuance of facility licenses. The CVRD may regulate the types and quantities of waste handled at each site, require measures for environmental protection and monitoring, and take action against non-compliant facilities.

#### CVRD Bylaw No. 2108 Solid Waste Management Charges & Regulations Bylaw, 2000

Bylaw 2108 prohibits residents and businesses from disposing of recyclable items through CVRD facilities. It also establishes a system of charges to be applied for materials accepted in the CVRD system, and allows for doubled tipping fees to be applied to loads containing recyclable materials. A list of banned materials is included in Appendix C.

CVRD Bylaw No. 1958 - Garbage and/or Recyclable Materials Collection Bylaw, 1999  
Bylaw 1958 established the terms and conditions for collection of curbside garbage and recyclable materials from CVRD Electoral Area residents.

The CVRD maintains a staged, progressive approach to bylaw enforcement. Written warnings, refusal of loads containing banned materials and attempts to correct problems at the point of generation may be used in advance of or in lieu of more significant penalties. An Enforcement Policies and Procedures document, specific to CVRD Bylaw No. 2570, details the steps the CVRD will take to address contraventions of this Bylaw.

### ***Planned Initiatives***

The CVRD will proceed with the following initiatives in the 2007 to 2012 period regarding regulation of the solid waste management system:

- Final adoption and implementation of CVRD Bylaw No. 2020 in 2007, with education and enforcement measures to support as required.
- Continued implementation of CVRD Bylaw No. 2570. Subsequent to issuing the majority of licenses for existing waste management facilities by early 2007, the CVRD will direct waste materials to licensed facilities only and proceed with enforcement measures against unlicensed facilities, in accordance with the Enforcement Policies and Procedures document. A list of facilities holding valid waste stream licenses will be maintained on the CVRD website, as will any facilities in non-compliance.
- Sustained, progressive enforcement of the material ban provisions of CVRD Bylaw No. 2108, with targeting of materials and generating sectors to be determined through observation of the incoming residual waste stream.
- Evaluate the impacts of expanding the commercial food waste ban provisions of CVRD Bylaw NO. 2108 to include post-consumer commercial food waste (i.e. restaurant plate scrapings etc.), and de-packaging where feasible, with possible implementation to follow.
- Ongoing evaluation of the effectiveness of the existing regulatory structure in achieving CVRD waste management objectives. Development of new or expanded bylaws may be initiated in response to identified needs.

## 2.4 WASTE REDUCTION

*Reduce is the highest priority in the waste management hierarchy. Waste reduction is defined as decreasing the quantity and toxicity of material that is generated and then thrown away.*

### **Existing Conditions**

The CVRD recognizes that the promotion of waste reduction is an essential component of the regional solid waste management system. Current and ongoing CVRD waste reduction initiatives include:

- Adoption of the Zero Waste goal and promotion of Zero Waste concepts within the region;
- Active membership in the Recycling Council of BC (RCBC) and support for RCBC's efforts to further Zero Waste and other waste reduction initiatives;
- CVRD support for Provincial and Federal government initiatives to reduce the amount of waste being produced (i.e. National Packaging Protocol, Extended Producer Responsibility initiatives etc...)
- Education and encouragement for purchase of recycled products or products made from recycled materials;
- Publication and distribution of the Environmental Guide and Recycling Directory, a comprehensive guide to local opportunities to reduce, reuse, and recycle and protect the local environment. To date, over 30,000 copies of the directory have been distributed;
- Collaboration with local municipalities, First Nations, and private or community organizations for development and delivery of waste reduction education programs;
- Provision of CVRD staff assistance to institutional, commercial, and light industrial (ICI) waste generators in developing plans to reduce the quantity of waste requiring disposal.

### **Planned Initiatives**

The CVRD will continue with existing efforts to reduce waste, as well as pursue the following new initiatives:

- Publish the Environmental Guide and Recycling Directory primarily in an on-line format. The Guide will also be printed and distributed locally on a periodic basis;
- Publication of *Earth Issues, Our Lifestyles and the Environment*, a CVRD- produced environmental education manual targeting Kindergarten to Grade 5 students;

- Continued efforts to minimize the amount of waste generated by internal CVRD operations, which may include development of an Environmental Management System.

## 2.5 REUSE

***Reuse is the second R in the waste management hierarchy. Reuse is defined as the repeated use of a product in the same form, but not necessarily for the same purpose.***

### ***Existing Conditions***

The CVRD encourages the reuse of materials and products wherever possible through the following means:

- Promotion of material and product reuse and repair opportunities available within the Cowichan region through the Environmental Guide and Recycling Directory and CVRD Recycling Hotline;
- Support for the Cowichan Recycling Exchange service offered in partnership with Cowichan News Leader/ Pictorial newspaper and promotion of the RCBC Materials Exchange, and other such waste exchanges;
- Implementing a trial period for 'Free Store' facilities at the Bings Creek Solid Waste Management Complex and the Peerless Road Recycling Drop-off Depot where unwanted, but useable items can be placed for removal and reuse by others.

### ***Planned Initiatives***

The CVRD will continue to promote reuse and repair activities within the region. Due to the success of the 'Free Store' trial period, the CVRD will establish permanent facilities for this purpose at Bings Creek and Peerless Road. The CVRD will also evaluate opportunities to include a 'Free Store' component at Meade Creek and the planned South-end recycling depot.

## 2.6 RECYCLE

***Recycle is the third R in the waste management hierarchy. Recycle is defined as the source separation of products and materials from the solid waste stream that are no longer useable in their present form, and the use of their material content in the manufacture of new products. This includes composting.***

Although the CVRD intends to continue to shift the focus of waste management in the region to reduction and reuse programs, maximizing opportunities for material recycling remains a core function of regional solid waste planning. Recycling of waste materials currently offers the most effective means of diverting waste from disposal in the CVRD.

### **Promotion of Recycling Opportunities**

#### ***Existing Conditions***

The CVRD aims to maximize recycling activity within the region through the following ongoing initiatives to promote recycling:

- Publication and distribution of the Environmental Guide and Recycling Directory;
- Operation of the CVRD Recycling Hotline;
- Support for and/ or partnership with community groups incorporating recycling or 'Zero Waste' into public events (i.e. music festivals, trade shows etc...);
- Support for local municipal initiatives to reduce waste collected at curbside;
- Enforcement of material ban provisions of CVRD Bylaw No. 2108.

#### ***Planned Initiatives***

In addition to continuing with existing efforts to promote recycling in the region, the CVRD will pursue the following initiatives:

- Outreach and education efforts focused around planned CVRD programs diverting food waste from the residential and commercial residual waste streams;
- Promotion of any new opportunities for material recycling at CVRD-operated or privately operated solid waste facilities;
- Evaluate the need for a region-wide initiative to support private haulers and local municipalities in promoting and delivering recycling services to multi-family dwellings;
- Promotion of free yard and garden tipping at CVRD facilities and other alternatives to burning yard waste;
- Focused efforts to optimize participation in curbside recycling programs.

## **Curbside Recycling Collection Programs**

### ***Existing Conditions***

All single-family residences within the CVRD are served with established residential curbside recycling programs. While the programs are contracted and administered separately for each municipality and Electoral Area, the collection service is consistent region-wide. Residents may place unlimited recyclables at curbside in collection bags every other week. The CVRD administers the service for CVRD Electoral Areas, which are based on a mandatory user-pay model.

### ***Planned Initiatives***

- Pending support from member municipalities, the CVRD will evaluate the feasibility of collectively tendering all contracted-out curbside-collection contracts within the region so that the CVRD and local municipalities may benefit from a ‘ buying in bulk ‘ approach.
- The CVRD will evaluate the feasibility of integrating residential food waste collection with existing curbside waste and recycling collection programs within the region. Evaluation will be conducted in partnership with local municipalities, industry stakeholders, and rural and urban residents
- If the feasibility of a food waste collection services can be established, the CVRD will pursue region-wide implementation of residential food waste collection.

## **Multi Product Neighbourhood Recycling Bins**

### ***Existing Conditions***

The CVRD operates the Multi Product Neighborhood Recycling Bin (Multi Bin) Program as an established and convenient Recycling Drop-off option for residential recyclables, (including glass containers). Twelve multi-bins are hosted by local businesses, recreation facilities and at CVRD Recycling Drop-off Depots and are geographically distributed throughout the region. While the multi bins are well used, the equipment is approaching the end of its serviceable life and the sites have significant issues with illegal dumping. The Multi Bin Program was reviewed in 2006, which resulted in several improvements to equipment and sites.

### ***Planned Initiatives***

The CVRD will evaluate phasing-out the Multi Bin Program in the 2008 to 2012 period. If the region-wide program is discontinued, multi bins, or similar equipment, will remain in place at CVRD Recycling Drop-off Depots.

## **Commercial and Multi-family Recycling Collection**

### ***Existing Conditions***

Commercial recycling collection, which includes multi-family housing, is provided through private haulers. Existing recycling collection programs for the commercial and

multi-family sectors are voluntary, paid for by the users, and are promoted to varying degrees by local haulers. The District of North Cowichan distributes the *Recycling Guide for Apartments, Stratas, Businesses and Institutions*.

Although there is currently no direct CVRD involvement in commercial recycling collection, the CVRD has an interest in ensuring that opportunities for commercial recycling are being optimized and that services available to this sector support the CVRD's overall waste diversion objectives

***Planned Initiatives***

The CVRD will pursue the following initiatives related to collection of recyclable materials from the commercial sector and multi-family dwellings:

- Continue to emphasize the existing material ban provisions of CVRD Bylaw No. 2108 to encourage local businesses to make use of recycling opportunities;
- Evaluate the impact on the hauling sector and local business community of expanding the commercial food waste ban to include post-consumer food waste;
- In consultation with local municipalities and local haulers, the CVRD will evaluate the need for new initiatives targeting increased waste diversion from the commercial and multi-family sectors.

**CVRD Recycling Facilities**

***Existing Conditions***

The Cowichan Valley Regional District provides comprehensive recycling opportunities for CVRD residents and businesses through the operation of an integrated network of waste management facilities. Existing CVRD facilities are described in Table 4:

**Table 4 CVRD Waste Management Facilities**

<b><u>Facility</u></b>	<b><u>Functions</u></b>
Bings Creek Solid Waste Management Complex	<ul style="list-style-type: none"> <li>• Residential drop-off area consisting of 16 grade-separated service bays for deposit of recyclable materials and residual waste;</li> <li>• Residual waste tipping floor accepting residential and commercial garbage from municipalities and electoral areas within the CVRD;</li> <li>• Consolidation of residual waste in B-Train trailers for long-haul to landfill.</li> </ul>
Peerless Road Recycling Drop-off Depot	<ul style="list-style-type: none"> <li>• Smaller drop off facility servicing North End residents;</li> <li>• Residential drop off of recyclable materials and residual waste;</li> <li>• Does not accept self-tipping commercial waste collection vehicles;</li> </ul>

Meade Creek Recycling Drop-off Depot	<ul style="list-style-type: none"> <li>• Does not accept some recyclables, e.g. asphalt roofing, drywall, which are accepted at Bings Creek.</li> <li>• Smaller drop off facility servicing Lake Cowichan area residents;</li> <li>• Residential drop off of recyclable materials and residual waste;</li> <li>• Does not accept self-tipping commercial waste collection vehicles;</li> <li>• Does not accept some recyclables, e.g. asphalt roofing, drywall, which are accepted at Bings Creek.</li> </ul>
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The Bings Creek Solid Waste Management Complex opened to the public in June 1998 and has been expanded several times since opening. It serves as the central facility for regional waste management operations and is open 7 days per week. The Peerless Road and Meade Creek sites were converted to Recycling Drop-off Depot use in 1998 from their previous use as CVRD incinerator sites. These sites are each open three days per week (Saturday, Sunday and Wednesdays). All CVRD sites are equipped with scales to weigh inbound and outbound recyclable materials and residual waste.

CVRD recycling facilities offer opportunities to recycle a wide range of waste materials, as detailed in Table 5 below.

**Table 5 Materials accepted at CVRD Solid Waste Facilities**

<b>MATERIALS ACCEPTED AT CVRD SOLID WASTE FACILITIES</b>	
<b><i>Free Recyclables</i></b>	<b><i>Recyclable Materials with Tipping Fees Applied</i></b>
<ul style="list-style-type: none"> <li>✗ Used Motor Oil, Oil Filters and Containers</li> <li>✗ Propane Tanks and Canisters</li> <li>✗ Used Antifreeze</li> <li>✗ Household rechargeable and disposable batteries*</li> <li>✗ Fluorescent light tubes*</li> <li>✗ Refrigerators/Air Conditioners*</li> <li>✗ Scrap Metal</li> <li>✗ Scrap Tires*</li> <li>✗ Cardboard</li> <li>✗ Residential Recyclables</li> <li>✗ Vehicle batteries</li> </ul>	<ul style="list-style-type: none"> <li>✗ Drywall**</li> <li>✗ Asphalt Roofing**</li> <li>✗ Scrap Lumber and Wood Products</li> <li>✗ Yard and Garden Materials</li> </ul>

\* Charges are applied for bulk loads and commercial quantities of these materials.

\*\* Accepted at Bings Creek only.

The CVRD currently maintains contracts with private sector haulers and facilities for transport and processing of most recyclable materials collected through CVRD facilities.

***Facility Development Guiding Principles***

In planning for development and operation of existing and new facilities, the CVRD will be guided by the following principles:

1. **Maximize convenience for users of CVRD solid waste facilities.** This will be achieved through the following approaches:
  - **Support “One Stop Drop” convenience.** The CVRD aims to offer opportunities to recycle as many materials as is feasible at CVRD sites.
  - **Provide local access to facilities.** The CVRD intends that residents of CVRD electoral areas and municipalities have convenient access to waste management facilities within a reasonable distance of their homes.
  - **Reduce waiting time at waste management facilities.** The CVRD will develop and assess measures, including modification of some facilities, to minimize the time residents spend waiting to access CVRD facilities.
2. **Provide a consistent standard for infrastructure at CVRD solid waste facilities.** The CVRD intends to develop a modern, integrated system of facilities that are similar in the type of on-site infrastructure provided, and that have similar waste diversion and disposal opportunities.
3. **Minimize material hauling.** The cost effectiveness of CVRD waste management operations may be compromised by significant increases in fuel prices. Therefore, opportunities for reducing material hauling costs (e.g. through increasing load densities, some on-site sorting/processing, or providing increased storage area) will be considered in new development at CVRD sites.
4. **Facility development supports Zero Waste and other CVRD initiatives.** New opportunities for pursuing Zero Waste and enhancing existing waste diversion programs are key considerations in future development of CVRD sites. Facility development will also support initiatives to improve public and staff safety at CVRD sites as well as reflect sound environmental management principles.
5. **Encourage private sector facilities diverting waste from the CVRD system.** Where a cost effective, local, and licensed private sector option exists for managing a recyclable material, the CVRD will not develop a new, competing facility unless there is a clearly identified public interest in doing so.

### ***Planned Initiatives***

Improvement of CVRD solid waste facilities will occur on an ongoing basis as budget and staff resources allow. The following facility developments to enhance recycling opportunities are planned for the 2007 to 2012 period:

- **Develop "Free Side" and "Paid Side" Traffic Streams.** In order to maximize convenience for residents accessing CVRD recycling facilities, the CVRD will assess the feasibility of modifying traffic flow at CVRD recycling sites to allow residents to drop off free recyclable materials without requiring these materials to cross the scale.
- **Food Waste Tipping and Transfer Area.** In support of upcoming CVRD initiatives targeting diversion of food waste, a dedicated tipping area will be developed at Bings Creek for transfer of large quantities of organic waste. A container for drop off of residential organics will also be provided at Bings Creek.
- **On-site material processing.** Consistent with the CVRD's intention to minimize the cost of hauling recyclable materials collected at CVRD facilities, the CVRD will evaluate the feasibility of providing on-site processing at Bings Creek for some materials. Materials being considered for some on-site processing are wood waste, yard and garden waste, and food waste, amongst others.
- **Develop a South-end Depot.** To ensure that Cobble Hill, Mill Bay, Shawnigan Lake and Cowichan Bay residents have convenient local access to recycling facilities, the CVRD will develop a full-service waste recycling drop-off depot in the southern part of the region.
- **Improved recycling infrastructure** The CVRD plans to re-develop the west side of the residential tipping area at Bings Creek to facilitate recycling. Planned improvements include:
  - Installing a stationary compactor for management of cardboard;
  - Providing a permanent building for the Free Store;
  - Improved enclosures for management of hazardous materials.

### **Multi-Material Recycling**

#### ***Existing Conditions***

Three private waste management facilities operating in the CVRD accept many of the same recyclable items, (paper, plastics, metals, cardboard etc.), as CVRD staffed recycling drop-off depots. These facilities are Harper's Recycling, Vancouver Island Recycling Centre and Active Industrial Waste Management Ltd.

#### ***Planned Initiatives***

The CVRD will continue to promote opportunities for CVRD residents to use licensed private recycling facilities.

## **Materials Recovery Facility**

### ***Existing Conditions***

The majority of recyclable materials collected from curbside programs and the commercial sector within the region are currently hauled to a materials recovery facility operated by Vancouver Island Recycling Centre on Koksilah Road. Recyclable materials are sorted and baled for shipment and sale to various North American and global markets.

### ***Planned Initiatives***

The CVRD will encourage sound environmental management at Vancouver Island Recycling Centre, consistent with the standards in place for licensed facilities.

The CVRD will continue to support private sector materials recovery facilities through the ongoing expansion of recycling programs.

## **Construction and Demolition Waste**

### ***Existing Conditions***

Residential quantities of construction and demolition (C&D) waste, or clean, source-separated components of the C&D waste stream such as wood waste, asphalt roofing, and gypsum wallboard are accepted at CVRD Recycling Drop-off Depots. The CVRD currently maintains contracts with private industry for hauling and processing/recycling of these materials.

Commercial quantities of C&D debris are banned from disposal at CVRD facilities. Three facilities located in the region, Active Industrial, Harpers Recycling and Johel Brothers Construction, accept commercial loads of mixed C&D waste for sorting and recycling. These facilities separate the wood component of the mixed C&D waste stream to produce a hog fuel product for use in industrial boilers. After additional recyclable materials are removed, the residual waste is taken to the CVRD's Bings Creek Solid Waste Management Complex for eventual disposal.

Additionally, some C&D waste is currently trucked out of the Regional District to other areas for disposal. Approved sites currently exist in the Capital Regional District, the Regional District of Nanaimo, and the Lower Mainland.

### ***Planned Initiatives***

- The CVRD will continue to promote opportunities for residents to use licensed private C&D waste processing facilities;
- The CVRD will support licensed C&D recycling facilities through pursuing enforcement measures against unlicensed facilities;

- In co-operation with its member municipalities and the building trades, the CVRD will develop a requirement that construction and demolition projects provide the opportunity for salvage of materials;
- The CVRD will seek agreements with its member municipalities to ensure that specific sorting and waste segregation requirements are applied following material salvage. This agreement would be a condition of all new building construction and demolition permits issued within the CVRD boundaries. The CVRD will develop program guidelines to assist local builders in establishing effective site sorting techniques and waste reduction programs.

## **Landclearing Debris**

### ***Existing Conditions***

Historically, landclearing wastes generated within the region have been managed by burning. Several burn sites for these wastes formerly operated within the CVRD. Only one site, the Elizabeth Compton (PA-12982) site located in the District of North Cowichan is currently permitted. This permit is limited to controlled open burning of up to 1500 m<sup>3</sup>/year of stumps and other land clearing debris. A significant portion of landclearing debris in the region is managed through on-site burning or grinding operations. Additional landclearing debris is handled through local composting facilities.

### ***Planned Initiatives***

In support of ongoing efforts to improve local air quality, the CVRD will promote non-burning management practises, such as mulching and composting, for locally generated landclearing debris. The CVRD will also enforce the provisions of CVRD Bylaw No. 2020, which regulate open burning of landclearing debris.

## **Composting**

### ***Existing Conditions***

The CVRD recognizes that composting plays an essential role in pursuing Zero Waste. Recycling vegetative food waste and yard and garden wastes at the point of generation through home composting is a cost effective and sustainable method of handling these materials. The CVRD subsidizes the purchase of home compost bins in a sale held every two years. To date, nearly 10,000 backyard compost bins have been distributed through this program. Yard and garden materials are also currently accepted at CVRD Recycling Drop-off Depots from the public and small commercial haulers.

Several options for processing organic wastes exist within the CVRD. Central Landscape Supplies, a privately owned firm located in Cobble Hill, processes yard, garden, and land clearing debris into mulch for soil blending.

Fisher Road Recycling operates an in-vessel composting facility located in Cobble Hill. This facility accepts commercial organics/food waste, biosolids, waxed cardboard, as

well as clean wood waste and yard and garden material for processing into marketable compost.

International Composting Corporation, located in the Regional District of Nanaimo, currently accepts residential and commercial organics/food waste generated within the Cowichan Region. The Town of Ladysmith blends yard and garden waste with wastewater biosolids for composting at their public works yard.

Other existing operations will be subject to CVRD Bylaw No. 2570 and may cease operation or purchase a license.

### ***Planned Initiatives***

In pursuit of increased recycling of organic waste, the CVRD will pursue the following:

- Continue to hold a sale of backyard composters every second year with the cost to residents for each unit significantly subsidized by the CVRD;
- Year-round free tipping of yard and garden waste at CVRD Recycling Drop-off depots;
- Support licensed composting facilities through development of curbside food waste collection services. Prior to developing this service, the CVRD will evaluate the capacity of local composting facilities to accept materials collected through this service.
- Enforce CVRD Bylaw No. 2108 prohibitions on disposal of commercial organic waste;
- Improve tipping and transfer of residential and commercial food waste at Bings Creek.

### **Contingency in the Event of Withdrawal of Private Sector Recycling Services**

Development of a materials recovery facility, a composting facility, and a site for processing demolition, landclearing and construction waste was originally planned as part of the Bings Creek Solid Waste Management Complex. These facilities have not been built as management options for these materials were developed by the private sector.

The CVRD maintains contracts with these facilities for processing recyclable materials collected through the CVRD waste management system. These contracts stipulate that, in the event of service interruption, the private facility will bear the cost of alternate disposal or processing. In the event of service withdrawal or significant uncertainty regarding the private sector's ability to provide service, the CVRD may consider developing facilities for managing these materials. However, it is expected that the licensing of waste management facilities will help to ensure a stable recycling industry in this region.

## **Hazardous Materials**

### ***Existing Conditions***

The Cowichan Valley Bottle Depot, in Duncan, is the regional facility for Household Hazardous Wastes (HHW), such as flammable liquids, pesticides and leftover fuels accepted through the Product Care programs. It also accepts all types of leftover paint products, as does the Junction Bottle Depot in Ladysmith. The CVRD offers free drop-off for residents of some hazardous materials (waste oil, oil filters, used oil containers, waste antifreeze, fluorescent light tubes, vehicle batteries, household rechargeable and single-use batteries, and propane tanks), at CVRD facilities.

Ongoing CVRD initiatives related to the management of hazardous materials include:

- Cooperating and assisting with the promotion of provincial initiatives;
- Incorporating household hazardous waste into the overall education and partnership programming;
- Promoting waste exchanges and swap days for materials, such as paint, that are developed by local community groups or provincial manufacturing associations;

### ***Planned Initiatives***

In addition to continuing with ongoing initiatives, the CVRD will take the following actions with regard to household hazardous waste:

- Support industry funded and operated management initiatives by considering disposal bans on specific targeted products;
- Consider provision for collection and disposal of specific items through CVRD Recycling Drop-off Depots on an ongoing or periodically scheduled basis, in partnership with industry stewardship programs;
- Evaluate the feasibility of cooperative CVRD/private sector programs for the collection, recycling, or secure disposal of problematic materials, for which stewardship/return programs do not currently exist or which are not being managed effectively through private sector options alone.

## **2.7. RECOVERY**

***Recovery is the fourth R in the waste management hierarchy. It is defined as the reclamation of energy or recyclable materials from the waste stream by incineration or another method other than composting.***

### ***Existing Conditions***

The recovery of energy value from the CVRD's waste stream is currently limited to the production of hog fuel from source-separated clean wood waste, wood waste separated from mixed C&D waste, and landclearing debris generated within the region. Active Industrial Waste Management Ltd., Harpers Recycling and Johel Brothers Construction process hog fuel. Processed hog fuel is then used to fire boilers at pulp mills on Vancouver Island.

The high costs of continued residual waste export and the historical use of incineration as a waste management option within the CVRD have created political, economic and social conditions that may support the consideration of waste processing technologies, which could recover energy from the CVRD's residual waste stream.

In 2004, the CVRD and Regional District of Nanaimo (RDN) jointly retained a consultant to conduct a preliminary review of existing and emerging residual waste management technologies and their suitability for processing the RDN/CVRD residual waste streams. This review indicated that some waste processing technologies might be technically and economically viable for the combined CVRD/ RDN residual waste streams, but not likely for the CVRD's waste alone.

### ***Planned Initiatives***

As part of the ongoing evaluation of long-term residual waste management options, the CVRD will continue to evaluate the potential of employing new technology for processing the CVRD's residual waste stream. Continuing from the 2004 study, an in-depth CVRD/ RDN evaluation of three types of technology will be completed in 2007. Objectives of this study include:

- To evaluate the feasibility of the three types of technology – Gasification, Refuse Derived Fuel, and Waste-to-Energy processes, considered most likely to be a viable option for managing CVRD / RDN residual waste;
- Evaluate each technology's potential markets for producing fuel, power, steam or other products from the residual waste streams;
- To identify considerations and a time frame for initiating a Request for Proposals process for selecting a specific waste management technology.

The CVRD anticipates that the results of this study will provide the CVRD with significant direction regarding the suitability of using Waste-to-Energy or other technology for residual waste management. Based on the results of this study, the CVRD may pursue one of two general courses of action:

1. If this study indicates that these waste management technologies do not provide a viable waste management option; the CVRD will not proceed with pursuing development of a facility at this time.
2. If development of a joint CVRD / RDN processing facility is deemed to be both viable and desirable, the CVRD will initiate planning processes, including Solid Waste Management Plan amendment processes when appropriate.

The CVRD may also give consideration to exporting waste to a facility outside of the CVRD/ RDN geographic area that employs a processing technology for managing solid waste.

## 2.8 RESIDUAL WASTE MANAGEMENT

***Residual management is the last of the five R's in the waste management hierarchy. It is defined as the disposal of the waste remaining after the application of the other four R's.***

### Residual Waste Collection

#### ***Existing Conditions***

Most of the Plan area residents have access to and are charged for regular collection services, but the use of these services, although mandatory, is not enforced and some elect not to participate. Residential curbside waste collection is provided to single-family units as a municipal function in the City of Duncan, the District of North Cowichan, Town of Lake Cowichan and some local First Nations. The Town of Ladysmith contracts for waste collection for residential customers. Electoral Areas D, E, F, G, and I receive single-family residential curbside waste collection through CVRD contractors.

**Table 6 Residential Residual Waste Collection Services in the CVRD**

<u>Jurisdiction</u>	<u>Single Family Dwellings</u>	<u>Collection Frequency</u>	<u>Collected By</u>
City of Duncan	1 127	Weekly (2 cans)	City of Duncan
District of North Cowichan	8200	Weekly (1 can)	District of North Cowichan
Town of Lake Cowichan	1 386	May-Oct.: weekly (2 cans) Nov.-May: every other week	Town of Lake Cowichan
Town of Ladysmith	2 700	Every other week (1 can)	Private contractor
CVRD Electoral Areas: A, B, C and H	4 372	Weekly routes serviced by private collectors	Private Contractor
CVRD Electoral Areas: D, E, F, G, I	4 575	Every other week (2 cans) (Area I: weekly from June -Oct.)	Private Contractor

Residential service is similar across all member municipalities and participating electoral areas and is based on a user-pay system. This incremental or variable rate user-pay system was established with a common limit of one can of waste per week. Bi-weekly collection allows for two cans every second week. If residents wish to have additional waste collected, separate garbage tickets must be purchased.

Many residents in Electoral Areas A, B, C and H choose to receive waste collection service through private contracts. Residents in Areas A, B, C have the option of having collection service based on monthly contracts or the "*pay-as-you-throw*" model with bag tickets pre-purchased from local stores. The City of Duncan and Town of Lake Cowichan also provide waste collection services to commercial customers. Commercial customers in all other parts of the Plan area are serviced by private haulers.

### ***Planned Initiatives***

Recognizing that the CVRD has limited involvement with residential garbage collection outside of Electoral Areas, the CVRD strategy regarding residential garbage collection will include the following elements:

- Encourage member municipalities to implement further can limits and/or reduced collection frequency;
- Apply enforcement of material bans (i.e. yard waste) to municipal collection crews;
- Support and assist local municipalities in integrating food waste collection into their existing waste collection protocols.

## **Residual Waste Transfer**

### ***Existing Conditions***

The Bings Creek Solid Waste Management Complex serves as the regional transfer station for consolidation of the majority of the region's residual solid waste. Bings Creek receives residual waste from residential and commercial collection services and from the Meade Creek and Peerless Road Recycling Drop-off depots directly on to the main tipping floor. Residential and small commercial self-haul customers deposit residual waste in roll off containers in the residential drop off area, which is then transferred to the tipping floor.

Residual waste received at Bings Creek is loaded by a wheeled loader and compacted with a tracked excavator and deposited via a grade separated tipping floor into 'B' train transport trailers for shipment to the final disposal location.

### ***Planned Initiatives***

- Provide capacity for drop off of self-hauled residual waste at the planned South-end Recycling Drop-off Depot.
- The CVRD will evaluate the feasibility of, and possibly develop, a residual waste tipping area for residential and small commercial self-haul customers adjacent to the main tipping floor;

- The CVRD will evaluate the benefits of cost savings and operational flexibility that may result from purchasing a roll off truck and containers for local materials transfer. If cost savings can be established, the CVRD may proceed with vehicle purchase or lease.

### ***Waste Transfer Contingency Plan***

During periods of required maintenance, upgrades, or other disruptions to the use of the transfer building at Bings Creek, the CVRD will make alternate arrangements for loading Municipal Solid Waste on a temporary basis.

This may include the use of the public drop-off area at Bings Creek where B- train or other transport trailers can be accommodated in existing tipping bays. Under such circumstances, waste would be deposited on an impermeable surface with leachate control measure in place. Waste transfer would occur in an open-air environment, with all efforts made to limit residence time of residual waste on the tipping pad, and all residual waste being removed by the end of each working day.

### **Residual Waste Disposal**

#### ***Background***

From the 1970's to the late 1990's, the CVRD managed most of the region's municipal solid waste locally through incinerators located at Meade Creek, Peerless Road and Koksilah Road. These facilities were decommissioned in 1998. The CVRD-operated Koksilah Road landfill also reached capacity and closed in 1998. Temporary export of solid waste from the CVRD to the Cache Creek landfill, near Kamloops, BC, was approved by the Minister of the Environment in 1998, following the closure of the Koksilah Road landfill. There are currently no approved municipal waste landfill sites operating in the Cowichan Valley. The exporting of the region's residual waste to the Cache Creek landfill continues.

CVRD efforts throughout the 1990's to develop a regional landfill at Hill 60 were not successful. In 1999, the CVRD Board resolved that the CVRD would not pursue development of a regional landfill. Waste export was to continue in the short term while CVRD staff evaluated long-term disposal options. Subsequent investigation of available disposal options did not indicate a viable alternative to waste export for the CVRD. In 2001, the CVRD initiated Solid Waste Management Plan Amendment No.2 whereby permission was requested to continue exporting residual waste from the region until Dec 31, 2006. In 2002, the Minister of Water, Land and Air Protection approved Solid Waste Management Plan Amendment No.2.

The CVRD initiated Solid Waste Management Plan Amendment No.3 in June 2006 to request a continuation of approval of waste export from the region for a further 10-year period. The CVRD has secured export to the Cache Creek landfill until the end of 2007, with a possible extension until the end of 2008. The Cache Creek landfill is scheduled to reach capacity and close in 2010. During the 2007 - 2010 period it is anticipated that

a number of potential disposal alternatives will be developed and become available for CVRD consideration.

### ***Public Consultation***

As part of the process for Amendment No. 3, the CVRD solicited public input on the long-term disposal options that would be reviewed while waste export continued. A range of traditional disposal options was presented, as well as the option to pursue new technologies. The intent of this approach was to obtain public approval for the CVRD to pursue the course of action that would allow the CVRD the greatest flexibility in taking advantage of disposal opportunities as they arise. A survey of public opinions was conducted to solicit the public preferences regarding the criteria (i.e. financial, environmental, geographic etc.) that the CVRD should use to evaluate available options.

As detailed in the *Report on Public Consultation, Solid Waste Management Plan Amendment No. 3*, public responses to the survey are summarized as follows:

- There was no strongly indicated preference for a long-term disposal option to be located within the CVRD boundaries;
- The CVRD public expressed a preference for a disposal option to be located as geographically as close as possible to the CVRD on Vancouver Island;
- The CVRD public expressed a strong preference for environmental protection and long-term viability to be the key criteria used in evaluating disposal options.

Only a very small proportion of CVRD residents responded to the CVRD survey regarding disposal options, despite extensive efforts on the CVRD's part to publicize and facilitate public participation in the Plan Amendment process. The relatively low levels of public interest in the Plan Amendment process is interpreted as overall support for the CVRD's direction for waste management in the region.

### **Residual Waste Management Planning**

The CVRD will continue to export waste for a further ten-year period based upon the following conditions/certainties:

- On a periodic basis throughout the waste exporting period, the CVRD will identify and evaluate emerging waste disposal technologies and opportunities for the region;
- In the ongoing evaluation of disposal options, the CVRD will consider public preferences for the evaluation criteria as determined through the public consultation for Plan Amendment No. 3;
- If ongoing technical evaluation indicates that a CVRD disposal or waste processing facility would be both viable and desirable, pursuing such a facility would trigger a plan amendment/public consultation process at that time;

- A mandatory internal review of the Solid Waste Management Plan will be conducted after five years, with the CVRD Board to determine if, upon completion of the review, a change in overall direction for residual waste management in the CVRD is required;
- Any significant change of direction in regional residual waste management would warrant a plan amendment and public consultation process.

The CVRD will consider the following criteria in evaluating potential disposal options:

- |                            |                        |
|----------------------------|------------------------|
| • Cost                     | • Location             |
| • Long term viability      | • Public Acceptability |
| • Environmental protection | • Security of disposal |

Regardless of whether planning for a CVRD (or CVRD-partnered) disposal or processing facility commences; the CVRD must pursue a short-term disposal option to replace the Cache Creek landfill. If this is required in advance of determining the CVRD's long-term disposal direction, the CVRD may pursue a short-term agreement to export waste. The CVRD will ensure that any facility receiving municipal solid waste exported from the CVRD is authorized under the Environmental Management Act and/or appropriate local enactments.

Although the CVRD is not pursuing the development of a regional landfill at this time, it nonetheless recognizes the potential viability of a local landfill development as a long-term waste management option. Should a Waste-to-Energy pursuit not prove feasible, the CVRD will consider pursuit of a local landfill. During that period, waste export would need to continue.

***Residual Waste Disposal Contingency Plan***

In the event that waste export to the designated disposal facility is interrupted due to circumstances beyond CVRD control the CVRD will, as a contingency, arrange with Rabanco Services to temporarily export waste to their landfill in eastern Washington State. This facility employs advanced environmental controls, and is authorized under appropriate local enactments. Infrastructure to facilitate temporary export to the Rabanco Landfill is already in place in Surrey, BC and shipping could be arranged within the CVRD's current hauling contract with Bobell Trucking. The CVRD has some short term waste storage capacity at the Meade Creek, Peerless Road, and Bings Creek facilities.

**Non-CVRD Residual Disposal**

***Existing Conditions***

Some residual waste generated within the Plan area does not enter the CVRD waste management system. This waste, mostly originating from construction and demolition waste processing facilities, is disposed of at facilities outside the Plan area. The primary CVRD concern is that these facilities may not have adequate environmental

protection or material bans that are at least similar to those of the CVRD. The CVRD does not support private sector use of such facilities.

The CVRD continues to put considerable effort into developing infrastructure, regulation, and supporting programs to facilitate reduction, reuse and recycling of all locally generated solid waste streams. The CVRD intends that all wastes generated within the region, not just those entering CVRD facilities, be managed in accordance with the 5 R's hierarchy. Additionally, the CVRD recognizes that the viability of the CVRD recycling system may be compromised by private sector use of disposal facilities that do not require material separation.

### ***Planned Initiatives***

The CVRD will continue to monitor the flow of residual waste from the region. If ongoing evaluation indicates that the CVRD's overall objectives for management of regional solid waste are compromised by changes in private sector disposal practices, the CVRD will consult with local industry regarding regulatory and non-regulatory approaches to discouraging use of non-CVRD disposal facilities.

### **Disposal of Nuisance Wastes**

Within the CVRD there are a number of nuisance wastes that the CVRD is not currently responsible for managing within the regional solid waste system, but for which the CVRD maintains an interest in ensuring that suitable management options are available locally. These materials include, but are not limited to, locally generated Class B biosolids and animal mortalities. The CVRD will monitor local management options for these materials on an ongoing basis, and, if feasible, may provide for drop off at CVRD facilities if a need is identified.

### **Illegal Residual Waste Disposal**

#### ***Existing Conditions***

Nuisance level illegal disposal, including open burning of unsorted residual waste, has historically occurred in rural areas of the CVRD. With the introduction of significantly different and more costly disposal practices, there have been increased levels of illegal disposal. CVRD educational initiatives target illegal disposal and open burning.

The CVRD also provides financial incentives for individuals and community non-profit groups to clean public lands prone to illegal disposal. The CVRD's free tipping policy, upon approved application, allows for disposal of waste at any of the CVRD's facilities at no charge, provided that all recyclable material is separated for recycling.

The CVRD has identified ten sites in the region historically used as illegal dumps for residential waste. Limited information is available regarding historical users, waste types or volumes of material disposed at these sites. Closure of these sites is an outstanding Plan commitment.

### ***Planned Initiatives***

The CVRD will continue to offer all existing programs to reduce the prevalence of illegal dumping within the CVRD. Following the completed closure of CVRD ash landfills, the CVRD will initiate investigations of the illegal dump sites and develop an overall strategy for their closure.

### **CVRD Facility Closures**

#### ***Existing Conditions***

Prior to 1998, the CVRD operated waste incinerators at Meade Creek, Peerless Road and Koksilah Road, with residual ash from the incinerators being buried at each site. In September 2005, the Ministry of Environment requested that the CVRD develop and submit a closure plan and post closure plan for each ashfill site. Prior to developing the closure plan, Phase One and Phase Two site investigations must be completed for each site.

A Phase One site investigation was completed for Peerless Road in 2002. A negotiated agreement between the CVRD and Land and Water BC to jointly fund the Phase Two investigation and develop a remediation plan for this site has not been implemented to date. Due to the dismantling of Land and Water BC, it is understood that that no further advancement of this agreement will occur. Closure of the Koksilah landfill is complete and this site is monitored on an ongoing basis.

#### ***Planned Initiatives***

The CVRD recognizes that the closure of the ashfills is an outstanding commitment under the Solid Waste Management Plan. Permanent closure of these sites is an emerging priority for the CVRD, and will be overseen by the CVRD's Project Engineer. The CVRD will complete all necessary site investigations, develop closure plans, and undertake any required remediation at the ashfill sites. The Koksilah Road ashfill is currently undergoing a Phase one investigation.

## 2.9 PLAN IMPLEMENTATION

### Implementation Schedule

Implementation of this plan will take place over a five-year period from 2007 through 2012. The focus of the plan will be on continuing and expanding waste reduction programs and laying the framework for more permanent, long-term waste management solutions.

**Table 7 Solid Waste Management Plan Implementation Schedule**

<u>Year</u>	<u>Initiative</u>
<b>2007</b>	<ul style="list-style-type: none"> <li>• Commission report on feasibility of employing new and emerging technology for residual waste stream;</li> <li>• Redevelop west side of tipping area at Bings Creek to accommodate cardboard compactor, free store and hazardous materials;</li> <li>• Develop closure plan for Koksilah Road ash landfill;</li> <li>• Initiate development of South-end depot;</li> <li>• Initiate planning for upgrades to Peerless Road and Meade Creek Depots</li> <li>• Identify replacement disposal facility for Cache Creek landfill.</li> </ul>
<b>2008</b>	<ul style="list-style-type: none"> <li>• Develop closure plan for Peerless Road ash landfill;</li> <li>• Redevelop Peerless Road Recycling Drop-off Depot;</li> <li>• Evaluate feasibility of implementing Environmental Management System;</li> <li>• Phase out Multi Bin program.</li> <li>• Implement residential food waste collection service;</li> <li>• Develop food waste tipping area at Bings Creek.</li> </ul>
<b>2009</b>	<ul style="list-style-type: none"> <li>• Planned upgrades to Meade Creek Recycling Drop-off Depot;</li> <li>• Site upgrades to Bings Creek traffic routing;</li> <li>• Ongoing ash landfill closure.</li> </ul>
<b>2010</b>	<ul style="list-style-type: none"> <li>• Ongoing ash landfill closure and Recycling Drop-off Depot site development work.</li> </ul>
<b>2011</b>	<ul style="list-style-type: none"> <li>• Ongoing ash landfill closure and Recycling Drop-off Depot site development work.</li> </ul>
<b>2012</b>	<ul style="list-style-type: none"> <li>• Conduct mandatory internal review of Solid Waste Management Plan</li> <li>• Develop new Capital works plan for 2012-2017 period</li> </ul>

As part of the mandatory 5-year plan review to be conducted in 2012, the CVRD will identify new solid waste initiatives, programs, and capital works to be implemented in the 2012 to 2017 period.

This implementation plan will be significantly modified if the ongoing evaluation of disposal options indicates that a CVRD-operated or partnered disposal facility is both feasible and desirable. If the CVRD Board decides to pursue such a facility, a new implementation plan will be developed as part of a plan amendment at that time.

## Costs

**Table 8 Solid Waste Management Implementation Schedule**

<b>Projected Costs for Development of CVRD Solid Waste Facilities 2007-2012</b>			
<b>Facility</b>	<b>Proposed Year of Development</b>	<b>Item</b>	<b>Estimated Capital Cost</b>
<b>Bings Creek Solid Waste Management Complex</b>	2008-2009	Develop "free side" and "paid side" tipping areas (bypass traffic lanes and barriers)	\$300,000
	2007	Install cardboard compactor	\$35,000
	2007	Permanent Free Store building and improvements to this area	\$80,000
	2007	Vehicle and equipment purchase (Federal Gas Tax Funding)	\$650,000
	2008	Food waste transfer tipping floor	\$100,000
		<b>Total</b>	<b>\$1,165,000</b>
<b>South-end Depot</b>	2007-2008	Land Purchase	\$300,000
		Site development and equipment	\$350,000
		<b>Total</b>	<b>\$650,000</b>
<b>Peerless Road Recycling Drop-off Depot</b>	2007-2009	Building Upgrades	\$40,000
		Site development and fencing	\$220,000
		<b>Total</b>	<b>\$260,000</b>
<b>Meade Creek Recycling Drop-off Depot</b>	2007-2009	Building Upgrades	\$50,000
		Site development	\$90,000
		<b>Total</b>	<b>\$140,000</b>
<b>Ashfill closure</b>	2007-2010	Peerless Road	\$300,000
		Meade Creek	\$300,000
		Koksilah Road	\$300,000
		<b>Total</b>	<b>\$900,000</b>
<b>Illegal Disposal Site Closure</b>	2010 -2012	Investigation and closure of 10 historical dump sites	<b>\$400,000</b>
<b>Total Facilities Capital Expenditure (2007-2012)</b>			<b>\$3,515,000</b>

Funding priorities for capital projects are established on an ongoing basis through preparation of annual budgets, which are reviewed and approved by the CVRD Board of Directors. Capital works plans may be adjusted to reflect emerging priorities for the CVRD or the availability of new sources of funding (i.e. through the federal New Deal for Cities and Communities program) The proposed schedule for facility development may be accelerated if funding and CVRD staff resources permit.

Operating costs for the regional waste management system are reviewed annually as part of the budgeting process. Opportunities to minimize operating costs are pursued where appropriate.

## **Funding**

Adequate funding will be provided by the CVRD for implementation of the waste management program and services of this Plan. Funds will come from several sources and will be balanced using a method that is generally consistent with the following:

- Costs, which generally benefit all property owners within the Regional District and are not directly related to quantity of wastes generated for disposal or actual use of the system, will be recovered through property tax assessments. Such costs are considered to include a portion of the capital cost of establishing the new system, education and promotion, and general program administration and operation.
- Costs that are related to the level of use will be recovered through user fees such as tipping fees and curbside collection fees.
- Costs that reflect use of the system beyond the standard level of service will be covered through a system of additional fees and surcharges. Examples of such additional fees are for the management of extra bags or cans of refuse during route collection, added services provided by collectors, penalties for inclusion of banned materials as refuse, etc.

To discourage transboundary movement of waste the CVRD seeks to maintain the tipping fees charged at CVRD facilities within a range of  $\pm 20\%$  of tipping fees charged in neighbouring regional districts. This creates limitations on the extent that the CVRD can pursue user pay approaches for residual waste disposal

The CVRD anticipates that costs of residual waste disposal will remain stable in the short term (2007-2008), dependent on the stability of fuel prices. Pursuit of a new disposal option may moderately increase or decrease the CVRD's residual waste disposal costs. The residual disposal component of the CVRD waste management budget is currently funded both through tipping fees and through tax requisition. In funding the disposal of residual waste the CVRD will consider the following:

1. If disposal costs rise, the CVRD will recoup additional costs through tipping fee increases rather than through increasing the tax requisition, subject to trying to maintain fees with  $\pm 20\%$  of adjacent regional districts.
2. If costs decrease with the use of a less expensive disposal option, the CVRD will maintain tipping fees at existing levels and if appropriate, reduce the tax requisition.

## **Anticipated Reduction in Waste Disposal**

Commitment to the Zero Waste goal ensures the CVRD will continue to strive for additional diversion materials from the residual waste stream. While this additional diversion is difficult to project quantitatively, it is anticipated that incremental progress towards the Zero Waste goal will primarily be achieved over the next five years through the following means:

- Targeting compostable organics in both the residential and commercial waste streams for diversion
- Increased convenience for residents accessing CVRD Recycling Drop-off Depots
- Enhancing recycling opportunities for the commercial and multifamily sector
- Expansion of industry stewardship programs and reduced packaging initiatives

### **Plan Monitoring**

The CVRD will track the progress of its Plan by preparing a brief annual report summarizing disposal quantities and waste reduction program activities regarding actual waste diversion. Individual programs will be evaluated periodically by the CVRD to assess their impact and effectiveness. Solid waste quantities, composition, and other characteristics and their impacts on regional and municipal programs will be updated by the CVRD every 5 years. Results of periodic reassessments and updated studies will be included with the annual report.

The CVRD Roundtable on the Environment will act as the Plan Monitoring Committee to monitor CVRD progress in implementing the Plan. This committee includes members from the general public, representatives of First Nations, governmental and non-governmental agencies, and staff personnel. The Committee will report its findings to the CVRD Board of Directors.

### **Plan Amendments**

Changes in factors such as market conditions, waste generation or composition, resource availability, demographic changes; technology, etc. may make deviation from the approved Solid Waste Management Plan desirable and/or necessary. The failure to open, or premature closing, of major facilities may require major plan amendments. Schedule delays, or lesser deviations, will require only minor amendments. It is assumed that the Ministry of Environment will determine whether a particular deviation requires a major or minor amendment, or any amendments at all.

#### ***Minor Plan Amendments***

The CVRD will make minor amendments to the Plan by documenting the changes in consultation with appropriate stakeholders, the Ministry of Environment and the Plan Monitoring Committee. The documented amendment would then be submitted to the Ministry for approval.

### ***Major Plan Amendments***

The CVRD will make major amendments to the Plan by discussing the changed conditions and proposed amendments with:

- Appropriate stakeholders;
- Member municipalities and adjacent Regional Districts;
- Ministry of Environment;
- The Plan Monitoring Committee;
- The general public.

CVRD staff will consider the responses from the other groups, and work with the Roundtable on the Environment and Regional Services Committee to finalize the proposed amendments for approval by the CVRD Board of Directors. The documented and Board approved amendment would then be submitted to the Ministry for approval.

## **3.0 APPENDICES**

## **APPENDIX A**

### **History Of Solid Waste Management Plan Development 1989 - 2003**

The Solid Waste Management Plan was originally developed in three stages. The plan development was consistent with the process identified by the Ministry of Environment, Lands and Parks (now the Ministry of Environment).

#### **Stage 1 and Stage 2**

Stage 1 involved the following:

- Authorization of the planning process by the CVRD Board and the initiation of planning activities through:
  - establishment of the Regional Solid Waste Management Committee, a sub-committee of the Board dealing with solid waste issues.
  - formation of a Local Solid Waste Advisory Committee providing input from interested citizens and representatives from recycling, environmental and other nongovernmental organizations.
  - selection of a consultant, Dayton & Knight Ltd. and associated sub-consultants, to provide technical and administrative support efforts.
- Development of quantitative base information pertaining to the CVRD and existing waste management functions and the projection of population and waste generation values for the planning period.
- Evaluation of a wide range of waste management options including cost estimation of several major alternatives, including both landfill and incineration disposal.
- Conduct public consultation, including open houses and forums allowing public questions and comments.
- Documentation of the Stage 1 process in a published report providing the developed information and recommendations.
- Preparation of terms of reference for Stage 2 work.

The Stage 1 report was accepted by the CVRD Board on October 10, 1990 and received Ministry approval on December 3, 1990.

Stage 2 works continued the planning process in accordance with recommendations and decisions from Stage 1 and in compliance with substantive guideline changes mandated by the Ministry of Environment. In the interim period before initiation of Stage 2 work, District staff and local organizations initiated a number of waste reduction and recycling programs.

Stage 2 work involved the following:

- Existing data and projections were updated to reflect current conditions and separate siting studies for location of a new regional landfill disposal facility were undertaken concurrently with Stage 2 planning.
- Waste reduction measures potentially applicable to achievement of the Ministry of Environment mandated goal of a 50 percent decrease in disposed wastes were developed and evaluated.
- Evaluations were also developed for disposal of the residues remaining after application of waste reduction measures using information characterizing four candidate sites from the parallel landfill siting studies.
- Waste management system recommendations were provided for meeting the intermediate waste reduction goal of 35 percent by the year 2001 and the ultimate goal of 50 percent beginning thereafter.
- Public consultation was provided through the periodic publication of significant information, including location of short-listed sites for a regional solid waste management complex (and associated landfill), and a series of town hall meetings and public consultations to obtain comment. Summaries of the siting studies and the Draft Stage 2 Plan were widely circulated to inform residents about the issues.
- Preparation of final Stage 2 planning documents and a separate landfill siting study report completed Stage 2 work.

The Stage 2 report and landfill siting studies were accepted by the CVRD Board on August 24, 1994. The Board selected Site B for the location of the solid waste management complex and associated landfills for disposal of process residues. The Stage 2 report was approved by the Ministry of Environment on September 29, 1994.

### **Incineration Disposal**

Incineration disposal was initially considered in the Stage 1 planning process and was rejected by the Board in favour of centralized landfill disposal.

In response to continued interest in incineration for residue disposal, the Board action of August 24, 1994 included the following language, *"that as a result of the requests made by members of the Cowichan Valley Regional District Board and by members of the public for more detailed information regarding the relative costs and viability of advanced technology incineration, including co-generation, that upon acceptance of the Solid Waste Management Plan Stage 2 by the Ministry of Environment, Lands and Parks, and in parallel to the acquisition of the selected landfill site, a detailed evaluation of a suitable municipal incinerator, incorporating co-generation of electricity be carried out including a comprehensive financial review of the capital and operating costs of such a facility"*.

Updated costs for centralized facilities, both with and without energy production, were prepared for Board consideration by Dayton & Knight and submitted in December 1994.

The Board reconsidered and again rejected the incineration disposal option on March 7, 1995.

### **Site D-1 (Proposed Hill 60 Sanitary Landfill and Solid Waste Management Complex)**

Opposition, primarily by local area residents, to the selected Site B for the solid waste management complex led the Board to re-evaluate site alternatives and to select a new Site D-1 in May, 1995. The amended Stage 2 Plan incorporating Site D-1 was approved by the Ministry of Environment on June 1, 1995, subject to the completion of favourable hydrogeological investigations and public consultation and review to be undertaken as part of the Stage 3 process.

The Site D-1 hydrogeological investigations were initiated in July 1995. Site D-1 was found to meet or exceed the Ministry of Environment's criteria for landfill disposal and also the additional criteria established in the Stage 2 Solid Waste Management Plan for assessing the suitability of the site for the new Solid Waste Management Complex. It was concluded that Site D-1 was suited for the intended use as the location for the Solid Waste Management Complex. The Phase 1 assessment was submitted as a draft for Committee review on October 11, 1995.

The Committee endorsed the findings of the Phase 1 assessment. Phase 2 was to involve site-specific studies to provide data for detail design of the site facilities and to establish the requirements for monitoring.

### **Stage 3**

Stage 3 work included the following:

- Preparation of the Solid Waste Management Plan in Draft form, consultation with technical and public advisory bodies that sit jointly on the Solid Waste Advisory Committee, and presentation to the Engineering Services Committee for acceptance or modification.
- Concurrent hydrogeological investigation and Phase 1 Assessment of Site D-1.
- Present Draft Plan, including Phase 1 Assessment of Site D-1 to general public at an Open House.
- Finalize Plan for approval by CVRD Board.
- Forward Plan for approval of the Minister of Environment, Lands and Parks.

## **Amendment No. 1**

Concern over the high cost and technical difficulties of developing the Solid Waste Management Complex at the D-1 Site led to consideration of separating the recyclables receiving and processing components of the Solid Waste Management Complex in a separate location closer to Duncan and at a lower elevation. These facilities could be added to the recycling drop-off depot, which was to be located north of Duncan to serve Duncan and the District of North Cowichan.

An investigation of the concept of separating the Solid Waste Management Complex from the proposed Hill 60 landfill site was carried out by Dayton & Knight Ltd., which resulted in a report prepared April 1, 1996. It was found that overall, costs would be marginally decreased, and public accessibility enhanced by such an approach. In addition, the concept of re-establishing growth of harvestable trees on the landfill site was investigated by Polster Environmental Services, in a report prepared in December 1996. It was determined that full return to active forest land was achievable providing a thick soil mix was placed on top of the closed landfill, and pioneering species of vegetation established prior to reforestation.

Potential sites for the Solid Waste Management Complex and drop-off depot were investigated revealing that the only available suitably zoned centrally located properties of sufficient size were within the Highway 18 industrial area.

The following points formed the basis for the amendment and were approved by the CVRD Board of Directors on August 28, 1996.

1. That the Cowichan Valley Regional District Board complete the purchase of the entire 52.6 acre property described as that part of Section 3, Range 2, Somenos District, Title D2159, based on the purchase price of \$950,000.
2. That the Stage 3 Solid Waste Advisory Committee be reconvened to guide the public consultation process for the amendment of the Solid Waste Management Plan.
3. That the Terms of Reference for the Landfill Acquisition Committee be expanded to include:
  - .1 consideration of alternative service delivery arrangements for these facilities.
  - .2 the design, construction and operation of the Materials Recovery Facility Complex.
  - .3 the design, construction and operation of the Hill 60 Landfill Site.

After discussion with the Solid Waste Management Plan - Plan Monitoring Advisory Committee and the public at an Open House, the amended Solid Waste Management Plan was approved by the CVRD Board on June 25, 1997.

## **Amendment No. 2**

The proposed Hill 60 Landfill received approval under the Solid Waste Management Plan in December 1995, but a long-term lease was not obtained until October 1997. A License to Cut timber for developing the first phase of the site was then required from the Ministry of Forests, and was seen as the last outstanding approval required. Although an application for the first phase was made in December 1997, approval was not granted until May 1998. The Ministry of Forests, however, noted in its approval that any further timber cutting permits may not be issued due to possible infringement of Cowichan Tribes' claims involving traditional use of certain areas of Hill 60.

To accommodate the disposal of residual waste after the closing of the Koksilah Road landfill, the CVRD entered into a contract with Wastech Services Ltd. to export up to 7500 tonnes of CVRD solid waste to Cache Creek on an interim basis. Temporary approval for waste export was granted by the Honourable Cathy McGregor, Minister of the Environment, Lands and Parks, on May 21, 1998.

The Ministry of Forests also requested that a Logging Plan for the first phase of the landfill be submitted for approval. The CVRD recognized that if the landfill were limited to the first phase only, it would be less economical to develop. In June 1998, the CVRD submitted a further timber cutting application for the Hill 60 area, which was designed to avoid impact on critical areas in question, and provide for at least a 30-year landfill. To date the Ministry of Forests have not responded to this request, nor issued approval of the Logging Plan for the first phase.

This was followed by the Cowichan Tribes' filing a court injunction to block development of the site due to concerns over potential impacts on traditional land uses in the area.

Given the potential for a lengthy legal challenge and overall lack of certainty surrounding final site acquisition and development of the proposed Hill 60 Landfill, the CVRD Board Chairperson announced on October 14 of 1998 that the CVRD was abandoning its efforts to develop the Hill 60 landfill site, and would proceed with the siting of a new regional landfill according to the following schedule.

- Complete desktop study of potential sites by December 31, 1998
- Complete public consultation process by March 31, 1999
- Complete geological site analysis by June 30, 1999
- Select final site and submit application to the Ministry of Environment for an amendment to the Region's Solid Waste Management Plan by July 31, 1999
- Commence with the detailed design and construction upon Ministry of Environment approval for opening the landfill October 1, 2000

After review of the completed desktop site study, on January 13, 1999, the CVRD Board of Directors further resolved:

- That the CVRD will not proceed with the search for a new landfill site at this time.

- That staff be authorized to actively pursue other options on Vancouver Island for solid waste disposal.

This resolution was just before the receipt of a letter from the Ministry of Environment, approving an extension of the export time frame through the end of 2001, while the CVRD continued its search for a new landfill.

Shortly thereafter, on January 27, 1999, the CVRD Board made the following resolution:

*“That the Cowichan Valley Regional District continue exporting its regional solid waste for the short-term, and pursue options for the medium term for approximately five years for out-of-area disposal while a review of long-term disposal options is investigated.”*

Realizing that export would have to continue beyond 2001 in order for a local disposal facility to be constructed, the CVRD Board resolved on September 22, 1999, to extend the contract with the Greater Vancouver Sewage and Drainage District from the beginning of 2000, through to the end of 2004. The CVRD also requested approval from the Village of Cache Creek and Thompson-Nicola Regional District, and applied to the Ministry for an extension to the export approval through the same period of time.

Although approval was received from the Greater Vancouver Sewage and Drainage District, Village of Cache Creek, and the Thompson-Nicola Regional District, the letter from the Minister of Environment, dated January 18, 2000, concluded:

*“In the absence of information that you are actively pursuing these procedures to amend the plan, it would not be appropriate at this time to approve your request to extend the waste export time period”.*

Faced with the need to continue waste export, at least for the short-term, the CVRD began the process of a plan amendment as required by the Ministry. At a CVRD Committee of the Whole meeting on January 18, 2001, Dr. Jon O’Riordan, Assistant Deputy Minister, Environment and Lands Regions Division and Mr. Dave Brown, Manager of Pollution Prevention, Vancouver Island, Ministry of Environment, Lands and Parks provided guidance as to the scope of the amendment itself, and the public consultation activities required. In short, in order to incorporate the existing practice of waste export into the plan, and seek public acceptance of continuing this practice over the short-term while long-term disposal options are pursued, a relatively simplified plan amendment process was decided upon.

Due to the substantial changes in the waste management practice in the Cowichan Valley resulting from the cancellation of the Hill 60 Landfill, the extended export period necessitated by the time to find and develop a new disposal site, and the Ministry direction provided, the CVRD Board of Directors made the resolution on February 8, 2001 that the following modifications be made to the solid waste management plan:

1. Replace the section describing the Hill 60 Landfill with a section describing continuous waste export for a period of five years.
2. Delete the capital costs related to the development of the Hill 60 Landfill.
3. Delete references to the Hill 60 Landfill in other sections of the plan document and replace with references to export of residual.
4. Add reference to continued investigation of residual disposal alternatives during the next five-year period.

This amendment was initiated in April 2001 with the CVRD Roundtable on the Environment agreeing to act as the Public Advisory Committee for the SWMP amendment process. The primary role of the Committee was to ensure that the following requirement of the Waste management act be met. The Act requires that where the Minister *“is satisfied that there has been adequate public review and consultation with the public with respect to the development, amendment and final content of the waste management plan”*, that the plan may be approved.

At its April 12, 2001 meeting, the following Terms of Reference were adopted by the Roundtable on the Environment for its role as the Public Advisory Committee for the CVRD's Solid Waste Management Plan Amendment No. 2:

1. To provide comment and advice to the CVRD Engineering Services Committee on the design and implementation of the public consultation process component of the CVRD's Solid Waste Management Plan amendment;
2. To receive, consider and report on submissions from the public regarding the amendment;
3. To review and consolidate public response to the DRAFT amendment; and
4. To work with and provide advice to Cowichan Valley Regional District staff assigned to the amendment process.

The committee therefore oversaw the development and implementation of public consultation plans, documents and activities. This included: a detailed newsletter delivered to 32,000 homes and businesses in the community; four open houses held across the district (also attended by Committee members); a detailed questionnaire and interactive website; and several newspaper advertisements.

The result of this process was public endorsement for continued waste export over the short-term (five years through 2006) and continued investigation of residual disposal alternatives by the CVRD over that period. The public also provided comment on long-term disposal alternatives and the issues involved, which will help guide the CVRD's approach to researching such options. Detailed results are contained in the *Public Consultation Report, Solid Waste Management Plan, Amendment #2* that was drafted in August 2001. The report has subsequently been reviewed and endorsed by the CVRD Roundtable on the Environment and is available upon request.

The actual amendment of the plan, to incorporate the changes identified above, proved to be a more involved exercise than originally conceived. Basically, a significant amount of

updating was required to reflect the completion of a number of tasks that were set out in the Plan when it was originally drafted in 1995, and to summarize other, mainly historical, components of the plan in a concise form. These 'housekeeping' amendments did not alter the intent of the Plan, and therefore, were not raised as issues requiring public consultation and are not reflected in the Public Consultation Report previously mentioned. The Public Advisory Committee was made fully aware of all amendments to the Plan during their review of the document.

The CVRD requested a one-year extension to the Minister's waste export approval to December 31, 2002, while the amended plan was being completed. The Minister granted this request in a letter dated November 15, 2001.

During this period, the amended Solid Waste Management Plan was subsequently approved by the CVRD Board and delivered to the Minister of Water, Land and Air Protection for final approval.

## **APPENDIX B**

### **CVRD Roundtable on the Environment Terms of Reference**

#### **Purpose:**

The CVRD Roundtable on the Environment is a community based advisory committee to provide input to the CVRD Board of Directors on environmental issues. The Roundtable evaluates specific environmental issues affecting the community and recommends solutions to the Board. This committee will also act as:

1. The Plan Monitoring Committee for The CVRD's Solid Waste Management Plan and subsequent amendments to:
  - Provide comment and advice to the CVRD Engineering Services Committee on the design and implementation of the public consultation process component of amendments to the CVRD's Solid Waste Management Plan;
  - Receive, consider and report on submissions from the public regarding any amendments;
  - Work with and provide advice to the Cowichan Valley Regional District staff assigned to the amendment process.
  - Monitor CVRD progress in implementing the approved Plan.
2. The Plan Monitoring Committee for the Central Sector Liquid Waste Management Plan, and
3. The Local Advisory Water Protection Committee.

#### **Relationship to the CVRD Board:**

The Roundtable will be chaired by a member of the CVRD Board of Directors as selected by the Board Chair.

The Roundtable is available to the CVRD Board of Directors to undertake specific inquiries aimed at evaluating a major issue or issues affecting the community and recommending solutions.

With prior approval of the Board, the Roundtable may initiate its own business. That is, it may review an issue it deems in the best interest of the community and may make recommendations to the Board.

The Roundtable will report and make recommendations to the CVRD Board, which may refer matters to other appropriate committees prior to consideration by the Board.

#### **Membership:**

The Roundtable membership shall total not more than ten members from the public sector, plus CVRD Board representation as appointed by the CVRD Chair. Public sector members are selected primarily from applicants in response to advertising and will be drawn from the following sectors or organizations:

1. Conservation / Environmental groups
2. Business Community
3. Professional / Labour Associations
4. Academic / Scientific or Research Institutions
5. Youth / Seniors Groups
6. Citizens At Large
7. CVRD Representatives
8. First Nations Representatives

**Term of Office:**

Two years is the recommended term of office. The CVRD Board will appoint members and where possible will represent all regions of the CVRD. Members may be re-appointed at the discretion of the CVRD Chair.

Members will serve without remuneration.

**Roundtable Meetings:**

The Roundtable will meet at the call of the Roundtable Chair, as required. The Roundtable may strike sub-committees as appropriate to deal with particular issues. The rules of procedure of the Cowichan Valley Regional District will apply.

**Budget:**

An annual budget will be available to cover costs related to the administration of the Roundtable.

## APPENDIX C

### Materials Prohibited From Disposal At Cvrld Facilities

- 1) Aggregate
- 2) Asbestos cement
- 3) Asbestos insulation
- 4) Asphalt
- 5) Beverage containers
- 6) Biomedical waste
- 7) Clean soil
- 8) Clean wood waste/land clearing debris
- 9) Commercial quantities of demolition waste
- 10) Concrete
- 11) Confidential files/reports
- 12) Contaminated soil
- 13) Dead animals and parts
- 14) Explosives
- 15) Gas cylinders except as permitted in this bylaw
- 16) Hazardous or reactive chemicals
- 17) Hazardous waste
- 18) Hospital Sharps and Body Tissue or Fluids
- 19) Household hazardous waste
- 20) Industrial waste
- 21) Inflammable materials
- 22) Large bulky or heavy articles
- 23) Liquids or sludges
- 24) Loads containing materials that are smoldering or on fire
- 25) Pharmaceuticals
- 26) Radioactive material
- 27) Rubble
- 28) Special waste
- 29) Sterilized Biomedical waste
- 30) Strong offensive smelling Loads
- 31) Stumps
- 32) Tight-head barrels
- 33) Waste asbestos
- 34) Waste oil or petroleum by-products except as permitted in Bylaw 2108