

**REGIONAL DISTRICT  
OF  
CENTRAL KOOTENAY**



**REGIONAL RESOURCE RECOVERY PLAN**

**(Solid Waste Management Plan)**

**October 2010  
Revised March 2011**

Approved by the RDCK Board of Directors December 9, 2010  
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Approved by the BC Ministry of Environment [insert approval date]

## Table of Contents

Message from the RDCK Board Chair	i
Acknowledgements	ii
1.0 Plan Background	1
1.1 Introduction.....	1
1.2 Plan Area and Resource Recovery System Structure .....	1
1.3 Background to Development of the Resource Recovery Plan.....	4
1.4 Zero Waste .....	5
1.5 Guiding Principles .....	6
1.6 Resource Recovery Plan Objectives .....	7
1.6.1 Improved Service to the RDCK public .....	7
1.6.2 Compliance with Regulations and Best Practices.....	7
1.6.3 Achieve Financial Sustainability .....	7
1.6.4 Alignment with Zero Waste Goals .....	8
1.6.5 Reduce Greenhouse Gas Emissions.....	8
1.7 Waste Generation .....	8
1.8 Waste Reduction Targets .....	9
2.0 Plan Implementation	11
2.1 Harmonization across the Sub-regions.....	11
2.2 Policy Development .....	12
2.2.1 Bylaw 2174 – Draft Waste Disposal Regulatory Bylaw .....	12
2.2.2 Extended Producer Responsibility (EPR) .....	12
2.2.3 Subsidized Tipping Fee Program .....	13
2.3 Outreach & Education Programming .....	14
2.4 Reuse .....	16
2.5 Recycling Programs.....	16
2.6 Organic Waste Management.....	17
2.6.1 Yard & Garden Waste.....	18
2.6.2 Wood Waste .....	18
2.6.3 Food Waste .....	19
2.6.4 Municipal biosolids .....	20
2.6.5 Septage .....	21
2.7 Construction and Demolition (C&D) Debris .....	21
2.8 Contaminated Soil Management .....	21
2.9 Waste Transfer Systems .....	23
2.9.1 General Upgrades to Waste Transfer Stations.....	23
2.9.2 Multi-Point Pickup system – West and Central sub-regions.....	23
2.9.3 Compaction System – East sub-region.....	24
2.9.4 Contracted Waste Transfer Services .....	24
2.9.5 Transfer Station Relocation.....	25
2.10 Residual Waste Disposal.....	25
2.10.1 RDCK Landfills .....	25
2.10.1.1 Ootischenia Landfill.....	26
2.10.1.2 Nakusp Landfill.....	27

2.10.1.3	Central Landfill .....	27
2.10.1.4	Creston Valley Sub-regional Landfill.....	27
2.10.2	Long term Landfill Capacity .....	28
2.10.3	Landfill Gas.....	29
2.10.4	Environmental Monitoring.....	29
2.10.5	Operational Certificates.....	29
2.10.6	Historic Landfill Sites .....	30
2.10.7	Waste to Energy .....	30
2.11	Reduction in Greenhouse Gas Emissions .....	30
2.12	Resource Recovery System Funding .....	31
2.12.1	User Fees.....	31
2.13	Resources Recovery System Staffing.....	32
3.0	Capital Projects Implementation Schedules	33
4.0	Plan Monitoring	36
4.1	RDCK Committees.....	36
4.2	Plan Monitoring Advisory Committee.....	36
4.3	Plan Amendments .....	36
4.4	Minor Plan Amendments.....	36
4.5	Major Plan Amendments .....	37
5.0	Appendices	38
	Appendix 5.1 - 5 year Financial Plan by sub-region.....	39
	Appendix 5.2 - Public Consultation Report .....	42

## Message from the RDCK Board Chair



Environmental sustainability and striving to achieve Zero Waste are important goals for the RDCK; however financial sustainability and ensuring that community resources are used in the most effective and efficient way possible are critical to achieving these goals. This Resource Recovery Plan will help us to achieve the balance between these goals and guide the Regional District to refining Resource Recovery Services in this region.

The RDCK Board endorsed the concept of Zero Waste in 2005. Since that time we have taken a number of significant steps to improving Resource Recovery Services on the Zero Waste path. With the establishment of Reuse Centers at waste facilities, improving recycling programs and charging variable rate user fees; these Zero Waste programs have not only diverted valuable resources from landfills but have also brought awareness to the importance of waste reduction. By expanding on these types of initiatives over the next five years we can divert even more resources from landfills and generate additional benefits for our community. To this end the Regional District will develop bylaws, facilities, programs and policies that support the Zero Waste goal.

Our impact on the environment is a significant one and this Plan recognizes that there are many areas where we can improve our existing management system. That's why a full systems review and financial analysis has been incorporated into the Plan. Our Regional District is committed to improving service to the RDCK public, maintaining compliance with regulations and best practices, achieving financial sustainability for resource recovery services, aligning with zero waste goals and finally to reducing greenhouse gas emissions by implementing this Plan over the next five years. All infrastructure upgrades, programs, and policy development related to implementation of the Resource Recovery Plan are intended to improve the RDCK's capacity to deliver on the promise of improved service.

This Plan was a collaborative effort and I would like to thank staff, consultants and the Regional Waste Management Technical Advisory Committee for their hard work and commitment to this innovative and environmentally sustainable Resource Recovery Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Wright". The signature is fluid and cursive, written over a light-colored background.

Gary Wright  
Board Chair, Regional District of Central Kootenay

## **Acknowledgements**

The RDCK Resource Recovery Plan represents the culmination of several years of effort by the RDCK Board, RDCK staff, consulting engineers, BC Ministry of Environment, and the RDCK public with the singular purpose of ensuring that waste and resource management in the RDCK continues to move towards a sustainable future. While all contributions to this process have been invaluable the RDCK gratefully acknowledges the technical assistance and guidance provided by the following consultants, without whose assistance, completion of this Plan would not have been possible:

Chris Bullock, P. Eng	SNC Lavalin Environment
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Dr. Tony Sperling, P.Eng	Sperling Hansen Associates

Plan development was overseen by the RDCK's Regional Waste Management Technical Advisory Committee:

Gary Wright	RDCK Board Chair, Mayor, Village of New Denver
Gordon Zaitsoff	Director RDCK Electoral Area J
Ron Mickel	Director RDCK Electoral Area F
Larry Binks	Director RDCK Electoral Area C
Chris Stroich	Ministry of Environment
Roshan D'Souza	Ministry of Environment

## **1.0 Plan Background**

### **1.1 Introduction**

In accordance with the BC *Environmental Management Act*, the Province of British Columbia requires that all regional districts develop a **Solid Waste Management Plan** (SWMP) and that these Plans be revised every five years. In order to better reflect the changing nature of waste resource management and the RDCK focus on waste reduction this SWMP is herein referred to as a **Resource Recovery Plan** (the Plan).

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

The RDCK Resource Recovery Plan focuses on renewal of our infrastructure for managing waste resources, investments in efficiency, and continued pursuit of the Zero Waste goal. This Plan Amendment sets the foundation for how Resource Recovery services will be delivered over the next 25 year period. The Plan has inherent linkages to other planning processes and broader community sustainability initiatives undertaken in the Region, including the Carbon Neutral Kootenays project and local Official Community Plans.

### **1.2 Plan Area and Resource Recovery System Structure**

The RDCK covers 23,000 km<sup>2</sup> and has a population of approximately 60,651 people (BC statistics, 2006). The RDCK extends from the headwaters of the Duncan River at the north to the international border just south of Fruitvale and extends from the area east of Creston to the mountains west of the Arrow Lakes.

Resource Recovery services are delivered through three established sub-regional service areas. These are:

**West sub-region** - RDCK Electoral Areas H, I, J & K and City of Castlegar, Village of New Denver, Village of Silverton, Village of Nakusp and Village of Slocan

**Central sub-region** - RDCK Electoral Areas D, E, F & G and City of Nelson, Village of Salmo, and Village of Kaslo

**East sub-region** - RDCK Electoral Areas A, B & C, Lower Kootenay Indian Band and Town of Creston

**Table 1: RDCK Population**

Population per Community or Area	2001	2006	
	Residents	Residents	Number of Occupied Dwellings
<b>Central Kootenay Regional District</b>	<b>57,019</b>	<b>60,651</b>	<b>24,680</b>
Under-coverage (i.e. adjustment factor for persons missed)	-	4,768	-
Castlegar	7,002	7,259	3,062
Electoral Area A	2,125	2,041	986
Electoral Area B	4,658	4,575	1,808
Electoral Area C	1,371	1,284	534
Electoral Area D	1,500	1,525	709
Electoral Area E	3,531	3,716	1,625
Electoral Area F	3,907	3,730	1,587
Electoral Area G	1,354	1,605	740
Electoral Area H	4,482	4,319	1,952
Electoral Area I	2,436	2,415	1,013
Electoral Area J	3,513	2,792	1,175
Electoral Area K	1,979	1,800	820
Creston	4,795	4,826	2,360
Kaslo	1,032	1,072	480
Nakusp	1,698	1,524	679
Nelson	9,298	9,258	4,160
New Denver	538	512	243
Salmo	1,120	1,007	458
Silverton	222	185	103
Slocan	336	314	146
Indian reserves	122	124	40
<i>Source: BC Statistics, 2006 (census 2006).</i>			

Each sub-region is operated as a completely independent service with separate waste transfer and disposal facilities, recycling programs, and mix of contracted and in-house service provisions. Annual budgets and tax requisition are entirely separate for each sub-region and governance is provided by three sub-regional Resource Recovery Committees which are Committees of the RDCK Board. The three sub-regions draw upon a

professional staff based in the RDCK Environmental Services Department comprised of technical, managerial and administrative personnel.

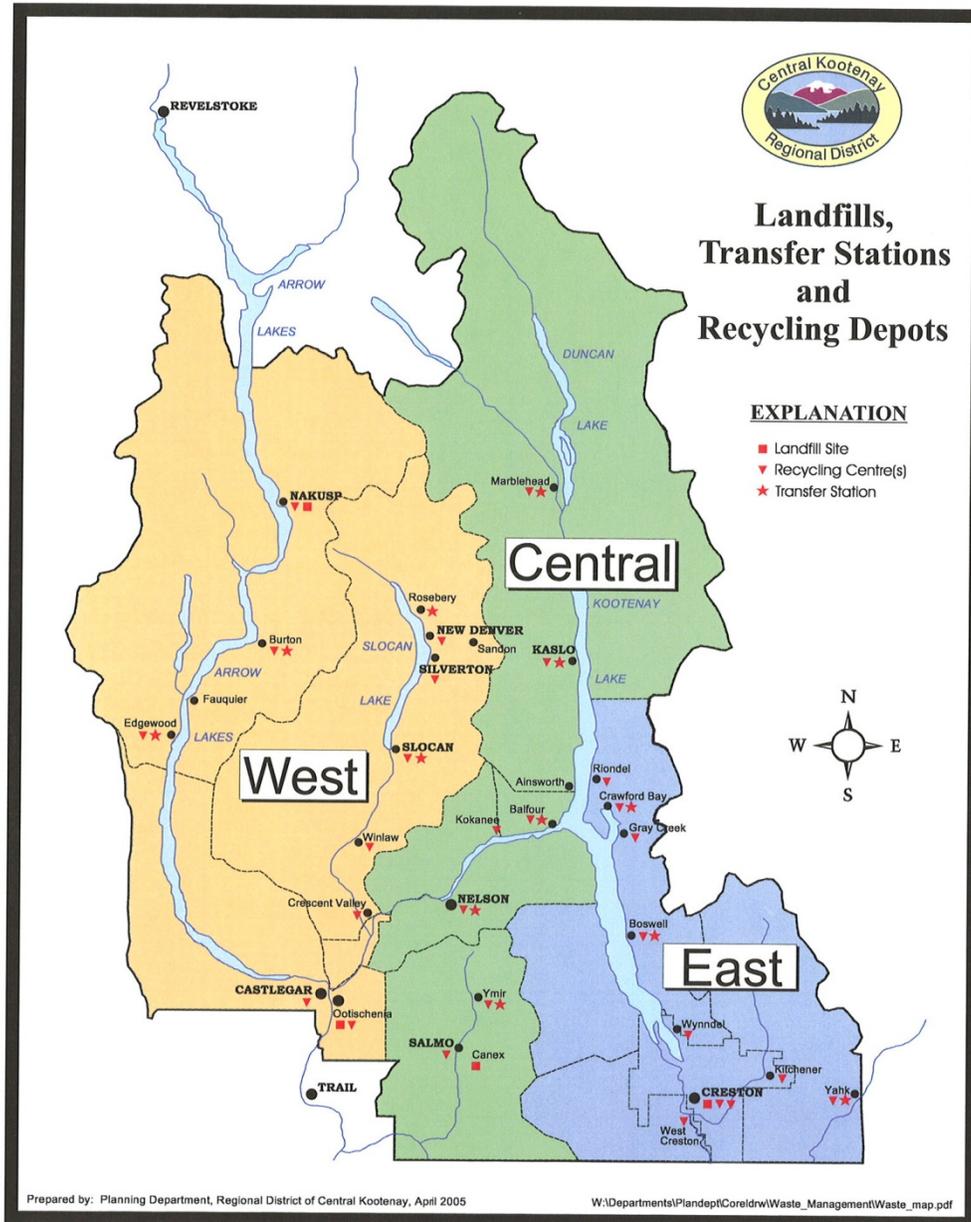


Figure 1: RDCK Waste Sub-region map

### **1.3 Background to Development of the Resource Recovery Plan**

In 1995, the RDCK developed its first Solid Waste Management Plan (SWMP) which incorporated the Province's goal for all regions to reduce the total volume of waste being buried at area landfills by at least 50% by the year 2000. A major focus of the 1996 Plan was on the closure of non-compliant community dump sites and the introduction of programs and facilities to help achieve the provincial waste reduction targets. The RDCK successfully achieved the goal of 50% waste reduction in 1997. Successes of implementing the 1996 Plan are summarized as follows:

- User fees were introduced for materials brought to RDCK facilities.
- Controlled access was implemented at all RDCK facilities.
- Landfills in Edgewood, Burton, Rosebery, Slocan, Marblehead, Kaslo, Yahk and Boswell were closed and replaced with transfer stations.
- Design and Operations Plans were prepared for the four remaining RDCK landfills in Nakusp, Ootischenia, Salmo, and Creston. These four landfills are covered under appropriate authorizations from the Ministry of Environment.
- Environmental monitoring programs were established at open and retired landfills.
- The open burning of waste was eliminated at all RDCK facilities.
- Electric fencing was installed at Nakusp, Ootischenia and Central landfills to control animal access.
- Reuse Centres were established at several RDCK facilities.
- Positive working relationships and partnerships were established with a number of regional community groups, and other non-profits organizations.
- The number of recycling depots in the region increased; thus expanding the opportunities for the public to recycle.
- Curbside recycling programs were introduced in Nelson, Castlegar and parts of Electoral Areas H, I, J &K.
- The variety of products and materials that are accepted in regional recycling programs increased.
- A program to find beneficial use for land-clearing, wood products, and yard & garden waste was introduced across the region.
- Regional District staff lobbied higher levels of government for stronger legislation and enforcement, through participation in the BC Product Stewardship Council (BCPSC)
- The RDCK established a number of waste reduction outreach and education initiatives including workshops, composter sales, school programs and advertising campaigns.

In 2005 the RDCK initiated a process to revise the existing Solid Waste Management Plan by incorporating a goal that strives to achieve Zero Waste. The SWMP was reframed as the Resource Recovery Plan to reflect the new focus on waste diversion and recovery of resources from landfill waste streams. A draft of the Plan was completed in July 2008 and extensive public consultation was undertaken which affirmed the direction that the RDCK wished to take with Resource Recovery.

In January 2009 the RDCK Board directed staff to incorporate a full systems review into the completion of the Resource Recovery Plan. The focus of this systems review, undertaken in 2009-2010, was on identifying the means for achieving financial and environmental sustainability within the Resource Recovery services and laying a strong foundation for the ongoing shift in focus away from waste disposal to one focused on resource recovery and waste diversion.

The RDCK retained SNC-Lavalin Environment to support the Plan development process with technical options evaluation, financial modeling, and infrastructure planning assistance. The financial modeling evaluated the cost of eight different operational scenarios over a twenty five year period, including the option of making no changes to the system.

The modeling showed that the no-change or “status quo” option would be the most costly option for the RDCK in the long term. The financial modeling work established a strong business case for undertaking upgrades to our operational systems, and forms the basis for actions outlined for implementation during the Plan period.

## **1.4 Zero Waste**

In 2005 the RDCK committed to pursuing Zero Waste<sup>1</sup> and directed staff to incorporate Zero Waste principles into completion of the Resource Recovery Plan. Zero Waste is defined as follows:

*“Zero Waste is a concept that embraces social, economic, and environmental considerations. When it is achieved, Zero Waste relieves pressure on the natural environment, reduces the financial burden placed on local taxpayers, as well as decreases the amount of liability shouldered by local governments. Zero Waste promotes moving beyond the traditional five R’s hierarchy and instead adopts a more holistic approach to the traditional linear flow of*

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<sup>1</sup> March 19, 2005 Board Resolution # 238/05 - WHEREAS the Regional District of Central Kootenay is ranked second in the province for waste reduction per capita; AND WHEREAS the Regional District of Central Kootenay has a goal towards further waste reduction; NOW THEREFORE the Regional District of Central Kootenay aspires to adopt Zero Waste and Zero Pollution concepts; AND FURTHER that these concepts be included in, and form the foundation of the amended Solid Waste Management Plan; AND FURTHER that the RDCK sees achieving these goals in partnership with senior governments with their support in the form of effective deposit return and environmental levies policies and the targeting of income from these on an equitable basis and equitable service levels to all regions of the Province.

*resources. Zero Waste encourages the full integration of raw materials with the aim of eliminating the idea that waste is a necessary part of the economic formula. Zero Waste represents closing the loop on the manufacturing process by eliminating the production of residual materials, as well as promoting a reduction in overall material consumption. In essence, Zero Waste exemplifies a complete shift away from the traditional societal ideology which embraces a disposable lifestyle as well as the continuous production of residual products. Zero Waste represents the recycling of all materials back into the marketplace or natural environment and in a manner that protects human and ecological health”.*<sup>2</sup>

While recognizing that the Zero Waste goal is not an immediately achievable objective, the RDCK intends to accomplish steady, incremental gains towards this goal by continually integrating Zero Waste principles into regional Resource Recovery system planning. In pursuit of the Zero Waste goal the five 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 in accordance with the five R’s hierarchy.

## **1.5 Guiding Principles**

Planning for delivery of RDCK Resource Recovery services will be based around the following principles that will guide decision making and the formulation of strategies to achieve stated goals.

- The RDCK will support a shift away from the traditional mindset surrounding waste and recycling and will move towards a new paradigm that focuses on maximum resource recovery to the greatest extent feasible.
- To support ecological sustainability, the consumption of natural resources shall be minimized. Resources will be managed in a manner that avoids exceeding the capability or capacity of the natural environment to mitigate the negative impacts that can result from resource recovery and residual management activities.
- The regional solid waste stream shall be reduced to the extent practically possible, in accordance with the five R’s hierarchy of Reduce, Reuse, Recycle, Recover and Residuals management. The RDCK will continually strive towards a higher “R” in waste management practice.
- Reduction, reuse, recycling and disposal policies & strategies shall be developed through public consultation and must be socially acceptable, cost effective, and environmentally sustainable.

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<sup>2</sup> Adapted from Zero Waste America. Retrieved on November 20, 2006 from [www.zerowasteamerica.org](http://www.zerowasteamerica.org)

- Greenhouse gas emissions associated with resource recovery and residual waste management activities shall be minimized wherever possible.
- Public education and outreach are integral components to the success of the Plan.
- Provision of service shall be consistent throughout the RDCK to the greatest extent possible.
- The promotion of the user pay principle shall be incorporated into RDCK programming where feasible in order to reduce the portion of Resource Recovery system funding coming from tax requisition.
- Development of community partnerships is essential to achieving Plan objectives. RDCK municipalities, community groups, the private sector, and First Nations all have critical roles to play in Plan implementation.
- The RDCK will advocate for the expansion of Extended Producer Responsibility (EPR) programs as an effective means of reducing the waste stream.

## **1.6 Resource Recovery Plan Objectives**

### **1.6.1 Improved Service to the RDCK public**

The core function of the RDCK Resource Recovery system is to deliver essential services funded by and in support of RDCK residents. The RDCK aims to provide excellent service and to develop a Resource Recovery system reflecting quality and value for taxpayer money spent on these services. All infrastructure upgrades, programs, and policy development related to implementation of the Resource Recovery Plan are intended to improve the RDCK's capacity to deliver continually improving services.

### **1.6.2 Compliance with Regulations and Best Practices**

RDCK Resource Recovery operations have the potential for ecological and human health impacts due to the nature of the materials handled at our sites. The RDCK is legally obliged to comply with all regulations governing our operations, and this forms a core responsibility for RDCK staff operating and managing our sites. Regulations governing waste management activities will likely become more restrictive over time, which must be considered in our system planning. Actions to be undertaken within the Plan are designed to maintain ongoing compliance with regulations, and in many cases align Resource Recovery operations with industry best practices.

### **1.6.3 Achieve Financial Sustainability**

Resource Recovery services comprise roughly \$6 million in annual operational expenditures. In recent years costs for delivering these services have risen

significantly as fuel and contract costs have increased and new services have been added to Resource Recovery programming. At the same time, required work at RDCK facilities and new equipment purchases were deferred further into the future pending completion of the Plan.

This Plan outlines an operational scenario for integrated systems that will achieve more efficient operations and allow for renewal of vital infrastructure, while simultaneously laying the foundation for greater cost certainty and financial sustainability.

#### **1.6.4 Alignment with Zero Waste Goals**

In March 2005 the RDCK Board passed a resolution committing the RDCK to pursue the goal of achieving Zero Waste. This broad, overarching goal outlines a long term direction for the RDCK to work towards. As this Plan is the RDCK's first since committing to the Zero Waste goal, strategies for aligning RDCK operations and services with the Zero Waste goal have been incorporated throughout this document.

In addition to Plan commitments to improve services for composting and wood waste management, the Plan reflects an approach to utilizing resources within RDCK operations consistent with the Zero Waste philosophy. Use of fossil fuels will be reduced significantly through efficiency improvements and new equipment. Most importantly the Plan represents the RDCK's important first steps in the shift away from our historic focus on landfill disposal.

#### **1.6.5 Reduce Greenhouse Gas Emissions**

The RDCK is a signatory to the British Columbia Climate Action Charter. In signing the Charter, the Regional District formally acknowledges the threats presented by climate change and has subsequently agreed to move towards achieving the goal of carbon neutral operations. Given the current and future impacts presented by climate change, the Regional District acknowledges the contributions that the RDCK Resource Recovery services make towards the overall corporate greenhouse gas (GHG) emissions. Strategies for reducing GHG emissions by improving material hauling efficiencies and consolidating landfill operations form a central component of the Plan.

### **1.7 Waste Generation**

Generation of residual solid waste within the RDCK fluctuates annually but is roughly within the range of 30,000 tonnes per year. 2009 waste generation is detailed as follows:

### ***Central Sub-region***

The population of the Central sub-region is estimated to be 21,913 (BC Stats 2006 Census). Approximately 10,775 tonnes of waste was landfilled in the Central sub-region (Salmo Landfill) in 2009, while 5,315 tonnes of recyclables were collected and shipped to market for recycling. This data includes curbside recycling and depot recycling programs. Recyclables collected by the private sector and by Product Stewardship Programs are considerable in quantity but are not included in these figures.

### ***East Sub-region***

The population of the East sub-region is estimated to be 12,850 (BC Stats 2006 Census). Approximately 7,762 tonnes of waste was landfilled in the East sub-region (Creston Landfill) in 2009, while 3,352 tonnes of recyclables were collected and shipped to market for recycling. This data includes depot recycling programs. Recyclables collected by the private sector and by Product Stewardship Programs are considerable in quantity but are not included in these figures.

### ***West Sub-region***

The population of the West sub-region is estimated to be 21,120 (Stats 2006 Census). Approximately 13,078 tonnes of waste was landfilled in the West sub-region (Ootischenia Landfill and Nakusp Landfill) in 2009, while 4,845 tonnes of recyclables were collected and shipped to market for recycling. This data includes curbside recycling and depot recycling programs. Recyclables collected by the private sector and by Product Stewardship Programs are considerable in quantity but are not included in these figures.

## ***1.8 Waste Reduction Targets***

Historically waste reduction targets in the RDCK were easily achieved because prior to the Solid Waste Management Plan (SWMP) waste diversion programs were minimal or non-existent. Previous targets as outlined in the SWMP were achieved by setting up programs to divert the “low-hanging fruit”. Today, with mature recycling programs set up throughout the region, incremental gains in waste diversion are more difficult and costly to achieve.

While Zero Waste remains a long term goal, within the Plan period the RDCK intends to achieve a minimum of 20% reduction of per capita waste being generated for landfill disposal that will be measured against 2009 baseline data. To achieve the 20% diversion target progress must be made in reducing waste in many areas such as improvements to curbside and depot recycling programs, increasing diversion of household organics through composting efforts and greater diversion of EPR products. These can be achieved if RDCK

residents, businesses, industry, as well as municipalities and the provincial government - commit to finding better waste management solutions.

To this end, the RDCK will work to instil a greater sense of public responsibility to achieve waste diversion targets. This will be done through public education and outreach programs that encourage source reduction and a continued effort to promote the Five R's and home composting. It is important to note that during the Plan period the RDCK will endeavour not only to increase the *quantity* of waste diverted from landfill, but will also focus on improving the *quality* of waste diversion. Where feasible the highest and best end-uses for materials will be pursued. This may mean seeking out alternative markets for some materials where maximum value can be extracted from recyclable streams.

## **2.0 Plan Implementation**

Once this Plan is approved by the Minister of Environment it becomes a statutory document and the RDCK will have the legal authority to proceed with projects outlined within the Plan. Implementation of the Plan will take time, active participation and cooperation from a multi-stakeholder community, financial support, and, most importantly, leadership from the RDCK.

The Plan outlines a significant number of projects to be completed within a five year time frame. Timing for delivery of these projects may be affected by factors beyond the RDCK's control. It is anticipated that all projects will adhere as closely to the proposed time frame as possible. Due to the integrated nature of some projects, delays in one project may affect the overall timeline for Plan implementation.

### ***2.1 Harmonization across the Sub-regions***

The operation of three distinct sub-regional Resource Recovery services within the RDCK can, in some circumstances, pose economic and administrative challenges to optimal service delivery. Historically there has been limited overlap in service delivery between the sub-regions, resulting in less efficiency and consistency between the sub-regions than is desirable.

While the RDCK will retain the three distinct sub-regions through the Plan period, the RDCK will endeavour to standardize policies, procedures and service levels across the three sub-regions. Where feasible and where mutual benefit can be established between sub-regions the RDCK will endeavour to create shared service delivery models between sub-regions in order to achieve improved economies of scale and reduce administrative costs.

Implementation of the Plan will see considerable cooperation on service delivery between the West and Central sub-regions. While the two sub-regions will remain as separate RDCK services through the Plan implementation period, it is anticipated that efficiencies realized through ongoing sharing of services will result in eventual amalgamation of the two service areas. At this time there is not a strong economic justification for sharing of landfill and waste transfer services between the East subregion and the West and Central sub-regions, therefore limited integration of the East sub-region with the others will occur in this Plan period.

## **2.2 Policy Development**

Policies that encourage waste diversion and responsible management of materials are integral to the success of the Plan. Education and awareness programs that support RDCK policy are instrumental in communicating throughout the implementation process.

### **2.2.1 Bylaw 2174 – Draft Waste Disposal Regulatory Bylaw**

The RDCK will undertake a comprehensive revision of the existing Solid Waste Bylaw (Solid Waste Management Facilities Regulatory Bylaw No. 1750). This revision of the bylaw and fee schedule, to be undertaken in 2010/2011, will provide a systematic regulatory framework that facilitates consistency and control of what is being disposed of and thereby reduces the environmental impact of disposal activities.

The new bylaw will clarify disposal policy and serve as a comprehensive tool for RDCK staff to regulate site activities and promote waste diversion. The bylaw will introduce disposal bans for recyclable items, establish a fee schedule with differential tipping fees for recyclable materials, and outline penalties to be applied to residual waste loads containing banned recyclable materials.

Implementation of the new disposal bylaw will take a phased-in approach including bylaw enforcement: written warnings, refusal of loads containing prohibited materials. Public education and awareness resources will accompany the implementation of the bylaw aiming to correct problems at the point of generation in lieu of implementing fines or other penalties.

The bylaw will be reviewed on an annual basis and amended as required to update user fees, refine material definitions, and implement new disposal bans as may be necessary.

### **2.2.2 Extended Producer Responsibility (EPR)**

The concept of Extended Producer Responsibility (EPR) is based on the principle that suppliers, manufacturers, and consumers share the responsibility to minimize environmental impact in a system that manages the cradle-to-cradle life cycle of the products they make, sell and use. Ultimately these programs reduce the amount of waste that requires end-of-life management by local government.

Currently the RDCK participates as a collection site for several of the products regulated by stewardship programs these include: tires, batteries, paints, and household hazardous waste. This approach has the benefit of providing service

to the public where no other collection facility exists however it is detrimental to overall objective of full EPR because there is no incentive for stewards to improve services to our Region. RDCK participation in these programs allows product stewards to continue burdening local government with the cost of managing their products at end of life.

As directed by the RDCK Board<sup>3</sup> all Product Stewardship programs hosted at RDCK facilities will be evaluated and the RDCK will discontinue hosting Product Stewardship programs that do not allow the RDCK to recover costs. In the Plan period the RDCK will only manage EPR programs that provide full cost-recovery to the RDCK. As EPR programs are phased out and a cost-recovery strategy is implemented impacts may be felt at RDCK sites. To mitigate this, the RDCK will develop an implementation plan that will outline how to minimize these impacts in the short term. This will also be supported by public education and awareness programs. The RDCK will continue to lobby Product Stewards to focus their attention on improving service levels to our region. Where possible the RDCK will lobby with other Regional Districts and groups such as the BC Product Stewardship Council to improve EPR programs and services.

As more materials are included in provincial or industry-led programs the RDCK will consider banning those materials from the list of items considered acceptable at Regional District resource management facilities.

Furthermore the RDCK will:

1. Support the continuation and expansion of EPR programs;
2. Support EPR initiatives that encourage or regulate manufacturers to use recyclable and recycled materials and discourage excessive packaging; and
3. Continue to participate in the BC Product Stewardship Council.

During the transition to full EPR, and in circumstances where RDCK communities are adequately serviced by a particular EPR program, the RDCK will implement progressive disposal bans on products covered under EPR programs.

### **2.2.3 Subsidized Tipping Fee Program**

The RDCK is fortunate to have many community groups and non-profit organizations that engage in community clean up or other activities that benefit the community at large. The cost of disposal at RDCK facilities for these programs is most often covered by the participating groups. Current RDCK

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<sup>3</sup> Board Resolution #477/10 - The RDCK Board direct staff to evaluate Product Stewardship programs hosted at RDCK facilities and to discontinue hosting Product Stewardship programs that do not allow the RDCK to recover costs; AND FURTHER that staff incorporate these strategies into the Resource Recovery Plan.

Board policy states that disposal fees are not waived under any circumstances and requests for subsidized disposal be referred to the local Area Director for discretionary grant funding<sup>4</sup>. It is recognized that existing policy does not provide sufficient incentives for community groups to engage in waste management activities that provide community benefits.

During the Plan period the RDCK will develop a policy to allow subsidized disposal by community groups and non profits, whereby upon approved application, free or subsidized disposal of waste at an RDCK facility will be permitted for non-profit community groups. The RDCK will also investigate the development of a policy to allow subsidized disposal for non-native (invasive) plant disposal. The RDCK may consider providing financial incentives for community non-profit groups to undertake clean up of public lands prone to illegal disposal.

### **2.3 Outreach & Education Programming**

The RDCK recognizes that the promotion of waste reduction through public education and social marketing activities is an essential component of the Plan. Educational initiatives will be encouraged by the Regional District intended to inform the public about local resource recovery and residual waste management programs and operations as well as the potential social, economic and environmental benefits associated with achieving Zero Waste. The RDCK is committed to supporting a comprehensive and holistic educational approach to waste reduction. Brochures and radio / newspaper / television adverts are regularly employed to promote desirable habits, describe recycling programs and provide updates to operations. These tools will continue to be used for public outreach.

In the future the RDCK will, where applicable, implement specific policy tools to support public education initiatives. All of the elements of the Plan will include an integral educational component and the RDCK shall promote the importance of personal responsibility and environmental stewardship in the context of waste reduction.

Current and ongoing RDCK waste reduction initiatives include:

- Promotion of the Zero Waste philosophy and Zero Waste concepts within the region.
- Commitment to maintaining membership in the Recycling Council of BC (RCBC) and support for RCBC's efforts to further Zero Waste and other waste reduction initiatives.
- Provision of the “Beyond Recycling” environmental education program through contract with a non-profit environmental organization. This

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<sup>4</sup> Board Policy #172/99 - Requests for subsidization of user fees at Regional District landfills/transfer stations be referred to individual Directors for consideration.

program is currently offered to schools within the RDCK and is curriculum-based environmental education program for Grades 5 - 7 students.

- Collaboration with neighbouring Regional District's for development and delivery of waste reduction education programs through local media.
- Promotion of material and product recycling, reuse and repair opportunities available within the RDCK through our website and the Recycling Council of BC Recycling Hotline.
- Implementing and promoting public events that encourage waste reduction including but not limited to Trash-to-Treasure events.
- Support for community groups incorporating recycling or 'Zero Waste' into public events (i.e. music festivals, trade shows, etc.).

During the Plan period the RDCK shall investigate environmental education programs that include but are not limited to:

- Publication and distribution of a Recycling Directory or Calendar and other media included but not limited to print material, newspaper, television, and radio.
- Provision of RDCK staff assistance to non-profit, institutional, commercial, and industrial (ICI) waste generators in developing waste reduction plans and activities.
- Implementation of programs internally that shall minimize the amount of waste generated by internal RDCK operations.
- Investigation and implementation of social media tools to improve awareness of waste diversion programs, including but not limited to Facebook, Twitter and YouTube.
- Implementation of outreach and education efforts focused around diverting food waste from the residential and commercial residual waste streams.
- Focus on organics diversion through the implementation of composting education and awareness initiatives including but not limited to Master Composter programs, educational seminars, public events and community gardens.
- Implementation of initiatives that discourage illegal dumping activities.
- Participation in public events and activities to promote waste reduction programs and initiatives.
- Development of website and media to promote environmental stewardship.
- Optimization of public participation in curbside and depot recycling programs.
- Provision of a multi-year environmental education program that is curriculum based. The current environmental education program encourages the reduction of waste and energy use through changes in lifestyle and consumer habits. Lessons are enhanced with field trips to the local landfill and transfer station, audits of school and home waste

and energy use, and creation of school-wide waste and energy reduction plan.

## **2.4 Reuse**

The RDCK recognizes reuse of materials as an essential component of achieving reduction in the volume of waste going to landfills. Facilities for the public to drop off reusable items for others to take exist at the majority of RDCK landfills and transfer stations, and will continue through the Plan period. Planned initiatives regarding reuse during the Plan period include:

- Incorporate expansion or refurbishment of reuse centres as part of site redevelopment planned for transfer stations.
- Review and refine site policies for reuse centres on a periodic basis.
- Work with non-profit organizations to support reuse activities and programs.
- Continue to host and promote Trash-to-Treasure events.

## **2.5 Recycling Programs**

Recycling programs in the RDCK are divided into three sub-regional programs. These are currently comprised of:

- Central sub-region** - A blue bag curb-side recycling program (Nelson) and drop-off recycling depots for blue bag program (sub-region wide).
- East sub-region** - Recycling depots that accept co-mingled recyclables.
- West sub-region** - A blue bag/clear bag curb-side recycling program (Castlegar & area) and drop-off recycling depots for comingled materials (sub-region wide)

Recycled materials accepted in all programs include:

- Mixed paper
- Newspaper
- Cardboard
- Metal food & beverage cans and containers
- Mixed Plastics (plastic types accepted varies by sub-region)
- Glass Containers

*Note that glass containers are not accepted in the Central sub-region blue bag program. Glass containers are accepted at recycling depots.*

On-going improvements to recycling programs and recycling facilities over the past few years have had a significant impact on waste diversion through

improved access to depot sites and development of curbside collection programs. The RDCK will continue to seek improvements to recycling programs through the Plan period.

Presently each sub-region has a different recycling program and independent contracts to transport and process the materials collected. In order to improve oversight by RDCK staff and to lower overall cost of service for RDCK residents the RDCK will work towards streamlining these programs and improving efficiency by evaluating the feasibility of a unified, comprehensive recycling program involving all three sub-regions. This will occur in 2013 prior to the expiry of existing recycling contracts.

Recycling depot locations, curbside programs and operations will be reviewed by the RDCK for their cost effectiveness, environmental benefit, and efficiency. Commodity value rebate incentives will be developed for all processing of recyclable materials where possible. The purpose of the commodity value rebate (currently in place in the Central and East sub-region contracts) is that the contractor and the RDCK share in the risks and benefits of marketing the recycled product. With the goal of waste diversion in mind the RDCK will continue to improve recycling program access and consistency throughout the region. Other planned initiatives for recycling programs through the Plan period include:

- Review materials accepted through the programs and expanding or contracting the list of materials based on marketability of materials and options for processing.
- Possible imposition of disposal bans for recyclable materials.
- Possible expansion of curbside collection programs where community interest exists.

## **2.6 Organic Waste Management**

Diversion of organic waste represents the 'next frontier' for waste diversion in the RDCK. The organic waste category is comprised of wood waste, yard & garden waste, food waste, municipal biosolids, and domestic septage<sup>5</sup>. Keeping these materials out of Regional District landfills provides a number of environmental, social, and economic benefits including:

- Conserved landfill space
- Reduction in greenhouse gas emissions
- Production of usable compost
- Reduction in generation of landfill leachate

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<sup>5</sup> Septage means solids from septic tank clean outs.

The Organics Management Strategy completed as part of the Plan development outlined the following objectives for organic waste management in the RDCK.

1. Develop higher value end uses for recycled organics;
2. Upgrade organics management infrastructure at RDCK facilities; and
3. Reduce transportation costs by developing on site management options for yard & garden waste and wood waste where feasible.

Current management practices and specific actions to be undertaken within the Plan for each organic material managed are as follows:

### **2.6.1 Yard & Garden Waste**

At most RDCK facilities yard & garden waste is managed as regular wood waste and contamination with the less clean wood waste precludes the development of higher value end uses for these materials. The exception is the current Nelson transfer station facility, where yard & garden waste has historically been kept separated on site but no specific end use has been developed for this material.

During the Plan period the RDCK will start to manage yard & garden waste separately from wood waste where feasible with the intention of creating higher value end-uses. Simple static pile compost processing facilities will be developed at key RDCK sites throughout the region. These may be located at:

- Crawford Bay
- Creston
- Salmo
- Kaslo
- Ootischenia
- Nakusp

Yard & garden waste from other sites may be consolidated at these sites. Where possible the transfer of yard & garden waste from one site to another will be done as a backhaul for another material to minimize transportation costs.

### **2.6.2 Wood Waste**

Wood waste accepted at RDCK landfills and transfer stations is currently stockpiled for grinding. Beneficial uses for wood waste employed at RDCK sites including blending for use as landfill daily cover material or blending with septage and biosolids for composting to produce topsoil to establish vegetation as part of landfill final cover projects.

Contamination of waste wood with other materials often prevents consideration of other alternative beneficial end uses. During the Plan period the RDCK intends to undertake measures to limit contamination of wood waste so that higher value end-uses can be introduced. Specifically, material quality will be improved so that a fuel product can be created for biomass energy systems. The definition of wood waste within Bylaw 2174 will be modified to support the required improvement in material quality. This will include exploring partnership opportunities with local pulp mills within the RDCK, but may also include other community based biomass energy systems that may come on-line during the Plan period. Portions of the wood waste stream will continue to be blended with municipal biosolids<sup>6</sup> and septage to create topsoil to be used in landfill closure projects.

### **2.6.3 Food Waste**

Food waste currently represents the largest untapped recoverable resource within the RDCK system. No commercial facilities for large scale composting of food waste currently exist within the RDCK. In 2004 the RDCK partnered with the Regional District of Kootenay Boundary (RDKB) to complete a feasibility study for a centralized composting facility to service the Nelson–Castlegar–Trail corridor. While the study indicated that such a facility could be feasible under specific conditions, the necessary conditions are not yet in place to enable this project to move forward.

While the RDCK does not intend to pursue a large scale food waste composting facility to service the Nelson-Castlegar area within the Plan period, it is intended that the improvements to basic composting infrastructure at RDCK facilities taking place within this period will lay a strong operational foundation for this to be considered in the future. Such a facility will be considered for inclusion the next amendment to the Plan, scheduled to commence in 2015. To this end, the RDCK will continue to pursue partnerships with other Regional Districts in particular RDKB to determine feasibility of centralized organics management. Further, the RDCK will complete an updated feasibility study for a centralized composting facility in 2014.

The RDCK strategy for diversion of food waste during the Plan period is as follows:

#### ***i. Expanded support for home-scale composting***

Management of organic wastes at the source is recognized as the most sustainable option for these resources, and home composting is currently well established in many communities within the region. The RDCK will support diversion of organics on the home scale through development and delivery of a

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<sup>6</sup> Biosolids means *solid or semisolid material obtained from treated municipal wastewater*

Master Composter program. This program will employ a community based social marketing approach to encouraging more widespread home composting within RDCK communities. The program will be funded and delivered through the RDCK Zero Waste budget.

***ii. Support for community-scale composting***

Municipalities within the RDCK have expressed interest in pursuing smaller scale, community-based models for food waste composting in partnership with the RDCK and other private sector and non-profit organizations. Community-based composting models may be a viable solution due to long travel distances from outlying communities to a centralized facility, concentration of available feedstocks, and tie-ins to existing municipal collection systems. RDCK participation in partnerships for innovative community scale composting will be considered by the RDCK Board on a case by case basis and may include the following depending on the availability of RDCK resources:

- provision of operational area at RDCK facilities;
- provision of amendment feedstocks such as clean wood waste or yard & garden waste;
- provision of technical support and project planning assistance;
- project funding.

The RDCK will evaluate participation in a minimum of one community-based composting pilot project within the Plan period. The pilot project may serve as a model for projects in other communities if successful.

***iii. Support for composting of agricultural and food processing wastes***

Areas within the RDCK, in particular the Creston Valley, have high concentrations of agricultural operations and food processing industries. Groups within the agricultural sector and local First Nations have expressed interest in partnering with the RDCK on opportunities to divert organic materials currently going to landfills. The RDCK will evaluate opportunities to pursue these partnerships and endeavour to accommodate composting of agricultural wastes within yard & garden waste composting infrastructure planned for the Creston landfill.

**2.6.4 Municipal biosolids**

While management of biosolids generated from municipal wastewater treatment plants is not a mandated RDCK responsibility, the RDCK has historically accepted these materials at RDCK landfills at the request of municipalities due to a shortage of feasible and permitted management

options. Where feasible, the RDCK may continue to accept municipal biosolids with the preferred management option being to blend with wood waste and compost for use in landfill final cover systems.

### **2.6.5 Septage**

The Nakusp, Central, and Ootischenia landfills have authorized facilities for receiving septage. The RDCK will continue to operate septage facilities at these sites through the Plan period. The septage facilities will receive minor upgrades to reflect best management practices.

The RDCK also partners with the Town of Creston in the operation of a septage facility at the Town's wastewater treatment plant. During the Plan period the RDCK will continue to work with the Town and other interested stakeholders on a long term solution to septage management in the Creston Valley.

During the Plan period the RDCK will develop designated areas for composting septage residuals at all RDCK landfill sites.

## **2.7 Construction and Demolition (C&D) Debris**

Currently the RDCK provides opportunities to divert source-separated components of the construction and demolition (C&D) debris such as clean wood and scrap metal. Tipping fees at RDCK facilities for mixed C&D debris are structured to encourage separation of recyclable materials at the point of generation.

During the Plan period the RDCK will continue to evaluate the effectiveness of existing policies regarding C&D waste. The RDCK may consider developing programs for mechanical separation of recyclable materials from the mixed C&D debris at select facilities, subject to Board approval and available resources.

## **2.8 Contaminated Soil Management**

The RDCK currently accepts waste contaminated soil at RDCK landfills for direct disposal and or remediation depending on the type and level of contamination. The RDCK currently contracts hydrocarbon contaminated soils management at all four landfills which includes treatment in on site bio-remediation cells. Soils accepted at RDCK landfills with levels of contamination below prescribed thresholds are used as daily or intermediate cover in landfill operations.

The Regional District will continue to accept and, if required, remediate contaminated soils through the Plan period at select landfills according to

protocol described in the Contaminated Sites Regulation (CSR) (Schedule 7) as well as those details described in section 41.1 of the Hazardous Waste Regulation (HWR).

The Regional District will prepare a Contaminated Soil Acceptance Policy and a comprehensive guidance manual outlining the acceptance criteria and on-site management of contaminated soils. The Policy will require that detailed applications be submitted to the RDCK prior to soil acceptance, that applications involve review by Qualified Professional who must provide written assurances that the material meets Regional District acceptance criteria.

## **2.9 Waste Transfer Systems**

The RDCK operates twelve local transfer stations where waste is consolidated from residential and commercial generators prior to being transferred to landfills for disposal. RDCK transfer stations also in most instances function as convenient drop off depots for wood waste, yard & garden waste, scrap metal, and other household recyclables.

Transportation of waste and recyclables from transfer stations represents a major operational cost within the three Resource Recovery sub-regions. Currently the transfer systems are based on hauling of loose, un-compacted waste in roll off containers except in Balfour, Nelson and Slocan where a portion of waste is compacted prior to transfer. The current mixed roll off bin system is inefficient and generates an excessive amount of heavy truck traffic.

### **2.9.1 General Upgrades to Waste Transfer Stations**

As of 2010 most RDCK transfer stations and public drop off areas at landfills have aged infrastructure and require general upgrades to improve operational efficiency, enhance the customer experience, and enable greater opportunities for Resource Recovery. The goal of planned upgrades is to achieve higher standard levels of services across the region, and to improve convenience, safety, and tidiness at RDCK sites. These improvements to the public perception of front-line services offered by the RDCK are considered essential to achieving the shift in public attitudes from one of waste management to one of Resource Recovery and Zero Waste. Incremental improvements to our site operations are ongoing and will continue through the Plan period.

### **2.9.2 Multi-Point Pickup system – West and Central sub-regions**

During the options evaluation stage for the Resource Recovery Plan alternatives to the existing mixed roll off system were evaluated. The financial and operations modeling clearly demonstrated that for the West and Central sub-regions implementing a multi-point pickup waste transfer system would result in substantial savings and reduced greenhouse gas emissions from waste transfer operations.

The multi-point pickup system utilizes stationary waste containers at each site that are emptied into large capacity waste transfer tractor trailer units via the tractor's hydraulic system. The trailer unit has on-board compaction systems which increase load densities for optimal efficiency. Contrasted with the 'dump and return' inefficiencies of the roll off bin system, multi-point pickup systems will allow for servicing of up to five transfer stations on a single trip and the integration of material backhauls.

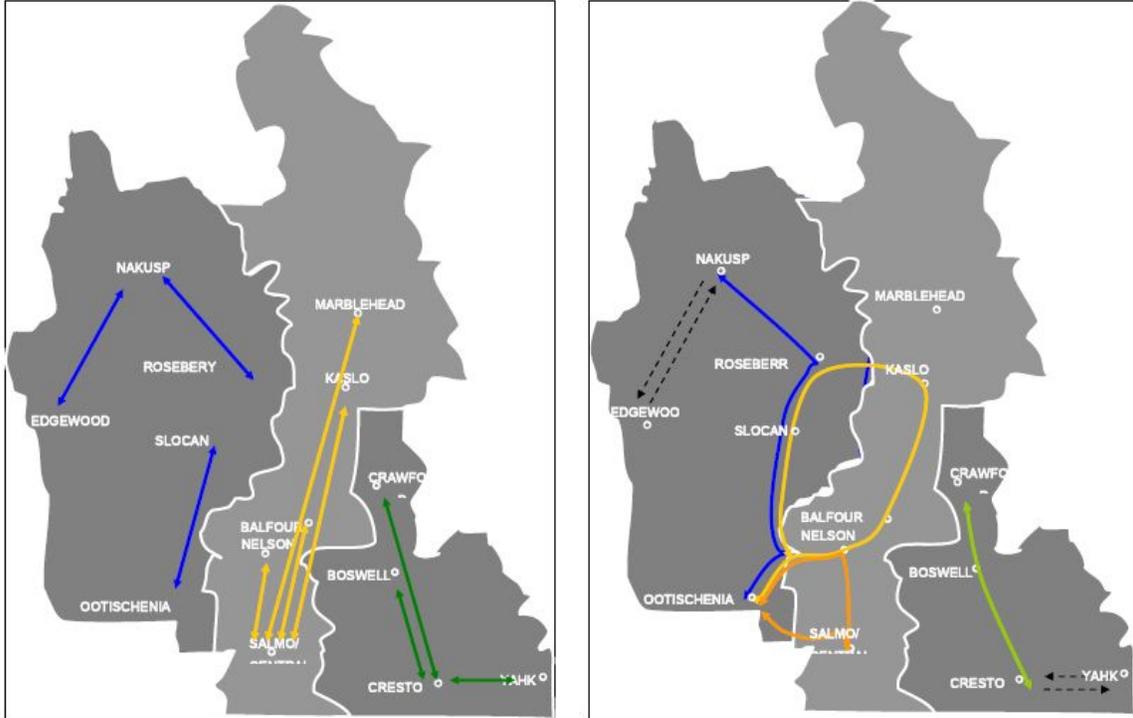


Figure 1-1 Comparison of Current Roll-Off Bin Routing with Fully Integrated Multi-Point Pick-Up System Routing<sup>7</sup>

### 2.9.3 Compaction System – East sub-region

For the East sub-region the options evaluation indicated that the multi-point pickup system was not feasible due to limited waste transfer operations with this sub-region. For the Crawford Bay transfer station greater hauling efficiency can be gained by installation of a stationary compaction system. Therefore a stationary compactor will be installed at the Crawford Bay transfer station during the Plan period.

### 2.9.4 Contracted Waste Transfer Services

The RDCK currently has contracts with private and non-profit operators for the operation of transfer stations in Yahk, Burton and Edgewood.

Given the limited use of the Ymir transfer station, proximity of this site to facilities in Salmo and Nelson, and the lack of options for upgrading this site in 2011 the RDCK will evaluate alternative service delivery models to the current RDCK transfer operation in Ymir. This includes evaluation of curbside collection and private operation of the transfer station. If a suitable service alternative to the Ymir transfer station is identified, the RDCK may pursue this option. The RDCK will continue to work with other levels of government to find solutions to these issues.

<sup>7</sup> Source: RDCK Resource Recovery Plan Landfill Consolidation and Waste Transfer Station Financial Modeling prepared by SNC-Lavalin dated March 1, 2010

## **2.9.5 Transfer Station Relocation**

### **Kaslo**

The RDCK will undertake a detailed evaluation of alternative sites for the Kaslo transfer station in 2011. A detailed site selection process may follow. If the results of these processes indicate that developing an alternate site is the preferred option then public consultation processes will be completed prior to a final decision on transfer station relocation by the RDCK Board.

### **Nelson**

In 2010 and 2011 the RDCK evaluated potential alternative sites for the Nelson transfer station. This process resulted in a decision by the RDCK Board to develop a new transfer station site on Insight Drive, 5 km west of Nelson. Following the completion of the new transfer station the RDCK will permanently close the existing transfer station located on Lakeside Drive.

### **Marblehead**

The RDCK will undertake a detailed evaluation of alternative sites for the Marblehead transfer station in 2013. If the results of this process indicate that developing an alternate site is the preferred option then a public consultation processes will be completed prior to a final decision on transfer station relocation by the RDCK Board.

## **2.10 Residual Waste Disposal**

### **2.10.1 RDCK Landfills**

Implementation of the 1996 Solid Waste Management Plan saw the number of actively operating landfills in the RDCK reduced from twelve to four. Implementation of this Plan will see this number drop further to two operating landfills accepting mixed residual waste for disposal.

While landfill operations are a core function of the Resource Recovery services and essential community infrastructure, the RDCK is also working to reduce the overall residual waste stream and over time work to eliminate the need for landfills. This shift will occur over a long period of time; however the first important steps in our change in direction will be taken within the Plan period.

A major focus of the Plan development was evaluating financial and other operational impacts for reducing the number of active landfills operated by the RDCK. Evaluation of reducing the number of operating landfills was undertaken for the following reasons:

1. Due to high fixed cost of landfill operations small landfill sites do not achieve adequate economies of scale and are not optimally cost effective to operate. Operating fewer larger landfill sites lowers the overall cost of residual waste disposal for RDCK residents. By reducing the fixed system costs of landfill operations the RDCK will create stronger economic incentives for waste diversion and the pursuit of Zero Waste.
2. Fewer operating landfill sites will allow for improved management oversight over operating landfills, while freeing up staff time to pursue projects related to waste diversion and resource recovery.
3. The RDCK currently has approximately fifty years of landfill capacity within our permitted landfill space, with available land reserve to expand. Therefore there are no constraints on landfill capacity that would limit the consolidation of current landfills into larger, more efficient operations within the three sub-regions.

The RDCK will within the Plan implementation period cease active filling operations at two of the four currently operating landfills. Specific plans for each landfill are outlined below:

#### ***2.10.1.1 Ootischenia Landfill***

The Ootischenia landfill will become a regional landfill servicing residual waste disposal needs for both the West and Central sub-regions. The site will continue to be developed and operated in accordance with the Ootischenia Landfill Design and Operations Plan prepared in 2008.

Recognizing that the Ootischenia landfill is located within a developing residential area the RDCK will take care to minimize existing and future impacts of landfill operations to the Ootischenia neighborhood. This will be achieved through the following:

- Acquire additional land to buffer landfill operations from neighbouring land uses. As of September 2010 the RDCK has an outstanding application filed with the Integrated Land Management Bureau to acquire additional Crown land adjacent to the landfill.
- Evaluate the feasibility of developing an alternate access route into the landfill site which re-routes landfill traffic away from residential areas. Pre planning will commence in 2011, with the feasibility study to be completed in 2012. If feasibility of an alternate route into the landfill can be established, the RDCK will pursue a Plan Amendment to secure required funding for this project.
- Implement a host community fee levied on each tonne of waste originating from outside of the West sub-region. The purpose of this

fee will be to provide funding for strategies to mitigate local impacts in the vicinity of the landfill (i.e. traffic, litter etc.).

When the Ootischia landfill starts to accept waste from the Central sub-region and Nakusp area, the RDCK will consider renaming the site to reflect its use as a regional landfill.

#### **2.10.1.2 Nakusp Landfill**

The Nakusp landfill is the smallest landfill currently operated by the RDCK and has high per tonne operating costs due to the relatively low volumes of waste received at the site. During the Plan period the RDCK will cease active daily fill operations for mixed municipal solid waste at the Nakusp landfill, with this waste subsequently being transferred to the Ootischia landfill. All of the material drop off facilities will still be in place at the Nakusp landfill, with the addition of a composting facility.

Filled portions of the site will receive final cover and capping in accordance with Ministry of Environment requirements. While the site will no longer accept mixed residual waste for active fill operations, the Operational Certificate will remain in place for the site. The site will continue to be used for disposal of other approved wastes in accordance with the site Design and Operations Plan, such as soil, biosolids, septage and concrete & asphalt.

#### **2.10.1.3 Central Landfill**

The Central landfill in Salmo is the largest landfill currently operated by the RDCK but is not cost effective for the RDCK to operate two landfills within a one hours drive of each other. During the Plan period the RDCK will cease active daily fill operations at the Central landfill, with the waste subsequently being transferred to the Ootischia landfill. All of the material drop off facilities and staging areas will remain in use at the Central landfill, with the addition of expanded composting infrastructure. A new waste transfer system based on the Multi-Point pickup equipment will be developed at the site to facilitate transfer operations.

Filled portions of the site will receive final cover and capping in accordance with Ministry of Environment requirements. While the site will no longer accept residual waste for active fill operations, the Operational Certificate will remain in place for the site. The site will continue to be used for disposal of other approved wastes in accordance with the site Design and Operations Plan, such as soil, biosolids, septage and concrete & asphalt.

#### **2.10.1.4 Creston Valley Sub-regional Landfill**

The Creston landfill services the disposal needs for the East sub-region. The RDCK has documented impacts from landfill leachate generated at this site migrating onto neighbouring properties. While leachate impacts are considered to be relatively minor, they may impact the RDCK's ability to continue to operate the site as a natural attenuation landfill<sup>8</sup>.

During the Plan period the RDCK will continue to operate the Creston landfill throughout the Plan period as a natural attenuation site under the following conditions:

1. Undertake additional investigation to determine extent of off-site impacts, which will include additional monitoring wells (to be installed in 2010) biological assessments, and additional surface water sampling.
2. Establish trigger levels for groundwater quality which if exceeded would require the RDCK to install a liner and leachate treatment system for subsequent landfill development.
3. Complete in stages, final cover and capping of the western slope of the landfill from 2011 - 2013 to limit leachate production and improve groundwater quality in the landfill vicinity.
4. Develop a new Design and Operations Plan for the landfill that reflects the size of active operational area being significantly reduced in order to limit leachate production. Progressive closure and capping will be undertaken for each landfill stage as it is completed.

### **2.10.2 Long term Landfill Capacity**

Long term trends suggest that in the future with the eventuality of improved resource recovery options such as food waste composting and expanded product stewardship programs that residual waste generation will decline and the RDCK will require proportionally less landfill capacity than we currently do. However, for planning purposes our long term disposal needs have been estimated using current per capita waste generation rates. The RDCK has a responsibility to ensure that it has enough landfill capacity to meet our regional disposal needs well into the future.

It is anticipated that even with cessation of daily fill activities at the Nakusp and Central landfills and subsequent consolidation of waste from these sites at the Ootischenia landfill that there is approximately 35 years of remaining fill capacity at the Ootischenia site at the current per capita generation rate. This is sufficient capacity for current planning purposes. To ensure the RDCK has landfill capacity beyond closure of the Ootischenia site the RDCK will maintain active Operational Certificates and updated Design and Operations plans for

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<sup>8</sup> Natural Attenuation means sites do not have impermeable liners and rely on the inherent capacity of the earth to attenuate the potential for off-site contamination

the Central and Nakusp landfills so that fill operations may be resumed at these sites following closure of the Ootischenia Landfill.

### **2.10.3 Landfill Gas**

As required by BC Landfill Gas Regulation, in 2010 the RDCK undertook Landfill Gas Assessments of the Ootischenia, Central, and Creston landfills. Based on the results of these assessments the RDCK will not generate sufficient landfill gas at any landfill to be required to install landfill gas capture systems within the Plan period. The RDCK will undertake supplemental assessment of landfill gas generation in 2014 as required by the regulation.

Implementation of a landfill gas capture system at the Ootischenia landfill has the potential to offset the majority of RDCK's corporate greenhouse gas emissions if implemented prior to being required by regulation. Capture of landfill gas could be a major strategy for achieving the RDCK's obligations as signatory to the BC Climate Action Charter. The RDCK will evaluate feasibility of implementing a landfill gas system in 2012 and may pursue development if a business case for cost effective emissions reduction can be established. The RDCK will also consider implementing methane oxidation biocovers for smaller landfills if feasibility for such projects can be established.

### **2.10.4 Environmental Monitoring**

All RDCK landfills are operated as natural attenuation landfill sites. In order to verify that off-site contamination from buried waste does not occur, extensive environmental monitoring programs are in place at all RDCK landfills. Groundwater sampling occurs on a quarterly basis and results are reported to the Ministry of Environment in accordance with Operational Certificate requirements. Groundwater monitoring results are also provided to other interested stakeholders on an ongoing basis.

### **2.10.5 Operational Certificates**

RDCK landfills are authorized under Operational Certificates issued by the Ministry of Environment, except in the case of the Ootischenia landfill which is currently authorized under a Ministry issued Permit. Operational Certificates outline regulatory requirements for landfill operations including standards for environmental controls, engineering design, and involvement of qualified professionals. During the Plan period the RDCK anticipates that all existing Operational Certificates will be updated by the Ministry of Environment and that the existing permit for the Ootischenia landfill will be replaced with an Operational Certificate.

The RDCK will undertake progressive closure of portions of active landfill areas that have reached design capacity in accordance with requirements outlined in

Operational Certificates. During the Plan period the RDCK will undertake significant closure activities at the Creston, Central and Nakusp landfills with the intention of bringing closure activities up to date. Planned closure works will limit RDCK liabilities associated with landfills and improve environmental performance of these sites.

#### **2.10.6 Historic Landfill Sites**

The RDCK has historically operated several small community landfills that are no longer actively used but which have not received proper capping and closure to Ministry of Environment standards. All of these sites do however have acceptable interim cover in place and are not known to have outstanding water quality issues.

Historic landfill sites for which permanent closure remains an outstanding RDCK commitment are located at Nelson, Balfour, Kaslo, Marblehead, Slocan, Rosebery, Burton, Edgewood, Crawford Bay, and Boswell.

Closure plans have been developed for Slocan, Crawford Bay, Marblehead, Boswell, and Kaslo but closure activities have not been fully implemented. Active environmental monitoring of the de-activated landfills at Slocan, Boswell, and Crawford Bay has been initiated. Closure activities will be undertaken during the Plan period on a prioritized basis. Where feasible, closure activities will be incorporated into planned site redevelopment and upgrades.

#### **2.10.7 Waste to Energy**

New technologies for recovery of materials and energy from residual waste streams are in the development stages. These hold the possibility of offering a feasible, cost effective alternative to the current practice of landfill disposal. Currently there are no technologies for recovery of energy from mixed residual waste that are cost effective at the tonnage of materials generated within the RDCK.

In the pursuit of maximizing energy recovery from waste resources, the RDCK will continue to evaluate new technologies for applicability in a local setting on a periodic basis. In 2015 a review of current technologies will be undertaken which will be presented to the RDCK Board for consideration.

### ***2.11 Reduction in Greenhouse Gas Emissions***

The financial modeling undertaken in support of developing the Plan also evaluated greenhouse gas emissions for each operational scenario being

evaluated. Total emissions generated from landfill operation and waste transfer were considered in the analysis.

The modeling showed that over the 25 year modeling period the selected scenario of operating only the Creston and Ootischenia landfills and implementing an efficient multi-point pickup system will result in a net reduction of 43.8% of greenhouse gas emissions from these operations as compared to retaining the existing system of inefficient waste transfer and operation of four landfills.

Further reductions in greenhouse gas emissions will be possible by integrating further material backhauls between RDCK facilities.

## ***2.12 Resource Recovery System Funding***

Currently Resource Recovery programs and services provided by the RDCK are funded primarily through a combination of user fees and tax requisition. A “user pay” system endorses a structure of system funding by which those who generate more garbage should carry more of the system costs for managing wastes. This approach provides incentives for waste diversion and eliminates cross subsidization of activities within the waste management system. The RDCK shall, to as great an extent as possible through the Plan period provide Resource Recovery services that are priced according to the “user pay” principle. Recognizing that a significant portion of system funding will continue to come from tax requisition for the foreseeable future, the RDCK will focus on establishing “user pay” based fee structures using a phased-in approach.

Throughout the Plan period the RDCK will also seek out opportunities to cover the capital costs of Plan projects through grant funding provided by senior levels of government.

### **2.12.1 User Fees**

Public motivation and waste disposal behavior can be greatly influenced by economic incentives. Specifically, increased diversion of materials from disposal can be achieved by modifying disposal fees to encourage or discourage certain behaviour. The RDCK shall where possible introduce pricing mechanisms including implementing differential disposal fees for recyclable materials. Disposal fees shall be reviewed on an annual basis and increased or decreased based on budget requirements or policy objectives. The RDCK will consider the feasibility of a policy for subsidized disposal of yard waste.

To discourage trans-boundary movement of waste the RDCK seeks to maintain the tipping fees charged at RDCK facilities within a range of  $\pm 20\%$  of tipping

fees charged in neighbouring regional districts, most notably with the Regional District of Kootenay Boundary. This effectively creates a limitation on the extent that the RDCK can pursue user-pay approaches for residual waste disposal.

### **2.13 Resources Recovery System Staffing**

Existing management, technical support, and administrative resources associated with Resource Recovery services are as follows:

<b><u>Position</u></b>	<b><u>Full Time Equivalents (FTE) allocation to Resource Recovery Services</u></b>
General Manager of Environmental Services	.5
Resource Recovery Manager	1
Environmental Technologist	1
Environmental Services Coordinator	.5
Administrative Support	.85
<b>Total</b>	<b>3.85</b>

In order to maintain adequate oversight of the Resource Recovery system and deliver on the objectives outlined within this Plan adequate staffing resources levels must be provided. To ensure that implementation of the Plan adheres to the timelines proposed additional staff resources will be required within the Plan period. Approval of new positions is a RDCK Board prerogative and will be considered within the annual budgeting process. Recommended resources are as follows:

**2011** – Add a permanent, full time Resource Recovery Operations Supervisor position.

**2012** – Add a temporary, full-time Project Manager to oversee capital projects for a three year term.

If additional staff resources are not provided the timelines for Plan implementation may be adjusted and projects completed as staff availability allows.

### 3.0 Capital Projects Implementation Schedules

#### West Sub-region

	2012	2013	2014	2015	2016
<b>Ootischenia</b>					
Septage facility upgrade			\$ 40,800		
Clean wood receiving and grinding area			\$101,400		
Yard & garden waste compost area			\$ 71,700		
Site equipment upgrade and replacement		\$619,000			
<b>Slocan</b>					
Site improvement + one multi-point bin installation			\$ 14,820	\$215,880	
Clean wood receiving area			\$ 1,500	\$ 15,000	
Closure of former landfill				\$ 80,000	
<b>Rosebery</b>					
Site improvement turnaround expansion, multi-point bins installation			\$ 14,820	\$215,980	
Clean wood receiving area			\$ 2,220	\$ 21,780	
Closure of former landfill					\$ 80,000
<b>Nakusp</b>					
Public tipping area upgrade			\$ 3,800	\$ 32,000	
Site improvement for two multi-point bins			\$ 33,240	\$484,160	
Septage facility upgrade			\$ 1,900	\$ 19,300	
Clean wood receiving and grinding area			\$ 5,800	\$ 57,900	
Yard & garden waste compost area			\$ 1,900	\$ 19,300	
Landfill cover and capping				\$ 27,300	\$397,200
<b>Burton</b>					
General site upgrade				\$ 87,400	
Clean wood receiving area				\$ 15,700	
Closure of former landfill				\$ 80,000	
<b>Edgewood</b>					
General site upgrade				\$ 87,400	
Clean wood receiving area				\$ 15,700	
Closure of former landfill				\$ 80,000	
<b>TOTAL</b>	<b>\$ -</b>	<b>\$619,000</b>	<b>\$293,900</b>	<b>\$1,554,800</b>	<b>\$477,200</b>

**Notes:**

1. Costs reported above include engineering/project management services and a 10% contingency and have been adjusted from 2009 dollar values using a rate of inflation of 2%.
2. Where costs for a single project are carried out over more than one year, the first year costs reflect engineering efforts for detailed design and cost estimating.

**Project key:**

Transfer station upgrade	Equipment
Landfill Closure	Organics upgrade

**Central Sub-region**

	2012	2013	2014	2015	2016
<b>Central landfill</b>					
General Public receiving area upgrade	\$ 7,020	\$ 73,380			
Transfer site development for two multi-point bins	\$ 31,280	\$330,920			
Septage facility upgrade	\$ 2,600	\$ 37,500			
Biosolid/septage compost area	\$ 8,100	\$118,100			
Clean wood receiving and grinding area	\$ 6,500	\$ 94,200			
Yard & garden waste compost area	\$ 6,200	\$ 90,800			
Landfill cover and capping	\$158,640	\$2,308,760			
<b>Nelson</b>					
Site reconfiguration or relocation (including four multi-point bins installation)	\$2,636,100				
Clean wood receiving area	\$ 21,300				
Closure of former landfill		\$150,000			
<b>Balfour</b>					
General site upgrade and single multi-point bin installation		\$ 14,520	\$211,680		
Yard & garden waste compost area		\$ 1,500	\$ 15,300		
Clean wood receiving area		\$ 2,100	\$ 21,200		
Closure of former landfill					\$ 80,000
<b>Kaslo</b>					
Transfer site development for two multi-point bins			\$351,700		
Road, power, fencing or site relocation		\$333,800			
Clean wood receiving and grinding area			\$ 67,900		
Yard & garden waste compost area			\$ 53,100		
Closure of former landfill			\$ 80,000		
<b>Marblehead</b>					
Site relocation or upgrade and bin replacement					\$377,400
Clean wood receiving area					\$ 15,700
Closure of former landfill					\$ 80,000
<b>Ymir</b>					
Convenience site preparation					\$ 70,600
<b>Rolling Stock upgrades</b>					
Bin refurbishing for wood waste	\$ 31,800	\$ 32,500	\$ 33,100	\$ 33,800	\$ 34,500
Tractor and compactor trailers (2 plus backup)		\$714,000		\$364,000	
Loader at Nelson Transfer Site	\$350,000				
<b>TOTAL</b>	<b>\$3,259,540</b>	<b>\$4,302,080</b>	<b>\$833,980</b>	<b>\$397,800</b>	<b>\$658,200</b>

**Notes:**

1. Costs reported above include engineering/project management services and a 10% contingency and have been adjusted from 2009 dollar values using a rate of inflation of 2%.
2. Where costs for a single project are carried out over more than one year, the first year costs reflect engineering efforts for detailed design and cost estimating.

**Project key:**

Transfer station upgrade	Equipment
Landfill Closure	Organics upgrade

**East Sub-region**

	2012	2013	2014	2015	2016
<b><i>Creston landfill</i></b>					
General site upgrade	\$ 33,600				
Septage facility upgrade	\$130,700				
Biosolid/septage compost area	\$125,900				
Clean wood receiving and grinding area	\$ 97,400				
Yard & garden waste compost area	\$ 77,200				
Landfill improvements (Closure Phase 1B)	\$1,136,055				
Landfill improvements (Closure Phase 1C+ toe stabilization)	\$ 42,767	\$937,067			
<b><i>Boswell</i></b>					
Closure of former landfill					\$ 80,000
<b><i>Crawford Bay</i></b>					
Site improvement (expanded tipping area, new roads) plus bin wall and bins	\$365,000				
Clean wood receiving, grinding, and yard & garden waste compost area	\$ 53,500				
Closure of former landfill					\$ 80,000
<b>TOTAL</b>	<b>\$2,062,122</b>	<b>\$937,067</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$160,000</b>

**Notes:**

1. Costs reported above include engineering/project management services and a 10% contingency and have been adjusted from 2009 dollar values using a rate of inflation of 2%.
2. Where costs for a single project are carried out over more than one year, the first year costs reflect engineering efforts for detailed design and cost estimating.

**Project key:**

Transfer station upgrade	Equipment
Landfill Closure	Organics upgrade

## **4.0 Plan Monitoring**

### **4.1 RDCK Committees**

Oversight of the Resource Recovery system is provided by the West, Central and East Resource Recovery Committees. These Committees of the RDCK Board meet as required throughout the year to set policy, approve budgets, and oversee programming and service delivery within their respective sub-regions. Resource Recovery issues and programs with a regional scope and importance are overseen by the Joint Resource Recovery Committee, which is comprised of the entire RDCK Board.

### **4.2 Plan Monitoring Advisory Committee**

In the first year of following approval of the Plan, the RDCK will establish a Resource Recovery Plan Advisory Committee to act as the RDCK's Plan Monitoring Advisory Committee and to advise the RDCK on matters concerning Plan implementation. To capitalize on experience gained in development of the Plan, the Resource Recovery Plan Advisory Committee will continue the membership of the Regional Waste Management Technical Advisory Committee, which the RDCK board of directors will dissolve along with establishment of the Resource Recovery Plan Advisory Committee. To promote public participation in resource recovery planning, the RDCK will invite identified stakeholders and members of the general public to join the Resource Recovery Plan Advisory Committee. Meetings of the committee will also be open to the public.

### **4.3 Plan Amendments**

In order for the Plan to be successful in achieving its overall goals, the document should be adaptive and flexible in order to keep up with constantly changing environmental, social, and economic conditions. Changes in factors such as market conditions, waste generation or composition, resource availability, demographic changes; technology, etc. may make deviation from the approved Resource Recovery Plan desirable and/or necessary. The Ministry of Environment, in consultation with the RDCK will determine whether a particular deviation from the Plan requires a major or minor amendment, or any amendments at all.

### **4.4 Minor Plan Amendments**

The RDCK will make minor amendments to the Plan by documenting the changes in consultation with appropriate stakeholders, the Ministry of

Environment and the Resource Recovery Plan Advisory Committee. The documented amendment would then be submitted to the Ministry for approval.

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

The RDCK may request major amendments to the Plan by discussing the changed conditions and proposed amendments with:

- Appropriate stakeholders
- Member municipalities and adjacent Regional Districts
- First Nations
- Ministry of Environment
- The Resource Recovery Plan Advisory Committee
- The general public

RDCK staff will consider the responses from the other groups, and work with the Joint Resource Recovery Committee to finalize the proposed amendments for approval by the RDCK Board of Directors. The documented and Board approved amendment would then be submitted to the Ministry of Environment for approval.

## **5.0 Appendices**

- 5.1 5 year Financial Plan by Sub-region
  - 5.1.1 Central Sub-region
  - 5.1.2 West Sub-region
  - 5.1.3 East Sub-region
  
- 5.2 Public Consultation Report

## Appendix 5.1 - 5 year Financial Plan by sub-region

### 5.1.1 CENTRAL SUB-REGION RESOURCE RECOVERY FIVE YEAR FINANCIAL PLAN

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
<b>Revenue</b>					
GRANTS IN LIEU OF TAXES	( 16,076)	( 16,398)	( 16,726)	( 17,060)	( 17,401)
MISCELLANEOUS REVENUE	( 39,060)	( 39,841)	( 40,638)	( 41,450)	( 42,279)
KASLO REFUSE USER FEES	( 66,021)	( 67,342)	( 68,688)	( 70,062)	( 71,464)
MARBLEHEAD REFUSE USER FEES	( 22,294)	( 22,740)	( 23,194)	( 23,658)	( 24,132)
BALFOUR REFUSE USER FEES	( 80,846)	( 82,463)	( 84,112)	( 85,794)	( 87,510)
NELSON REFUSE USER FEES	(819,993)	(836,393)	(853,121)	(870,183)	(887,587)
SALMO REFUSE USER FEES	(341,164)	(170,582)	(173,993)	(177,473)	(181,023)
YMIR REFUSE USER FEES	(471)	(481)	(490)	(500)	(510)
SEPTAGE REVENUE	( 29,919)	( 30,518)	( 31,128)	( 31,750)	( 32,385)
PROCEEDS FROM BORROWING	(2,859,540)	(3,902,080)	(833,980)	(397,800)	(658,200)
<b>Total Revenue</b>	<b>(4,275,384)</b>	<b>(5,168,835)</b>	<b>(2,126,071)</b>	<b>(1,715,732)</b>	<b>(2,002,491)</b>
<b>Expense</b>					
ADMINISTRATION	63,477	39,443	40,232	41,037	41,857
GATE ATTENDANT WAGES, BENEFITS AND TRAINING	163,369	166,637	169,969	173,369	176,836
COMMITTEE EXPENSES	15,300	15,606	15,918	16,236	16,561
OPERATIONS BLUE BAG RECYCLING	384,827	392,523	314,019	320,299	326,705
OPERATIONS - YMIR SITE	7,269	7,414	7,562	7,713	7,868
OPERATIONS - KASLO SITE	33,228	33,892	34,570	35,261	35,967
OPERATIONS - MARBLEHEAD SITE	7,269	7,414	7,562	7,713	7,868
OPERATIONS - BALFOUR SITE	25,922	26,441	26,970	27,509	28,059
OPERATIONS - NELSON SITE	207,383	157,383	160,530	163,741	167,016
OPERATIONS - HB MINE TAILINGS	41,534	42,365	43,212	44,077	44,958
OPERATIONS - CENTRAL LANDFILL/ TRANSFER STATION	322,604	143,190	146,054	146,054	148,975
OPERATIONS- CONTRIBUTION TO OOTISCHENIA LANDFILL		283,565	289,236	295,021	300,921
OPERATIONS - WASTE HAULING	383,232	304,407	315,540	250,202	254,350
EQUIPMENT REPAIR AND MAINTENANCE	51,458	27,000	27,300	27,606	28,158
CAPITAL PROJECTS	3,259,540	4,302,080	833,980	397,800	658,200
RDCK ADMINISTRATION, IT, AND ENVIRONMENTAL SERVICES	424,313	432,799	441,455	450,284	459,290
PROVISION FOR LANDFILL CLOSURE/POST CLOSURE CARE	36,210	15,000	15,300	15,606	15,918
REPAYMENT OF LONG TERM DEBT	196,000	422,464	731,488	797,524	829,024
AMORTIZATION	164,612	164,612	164,612	164,612	164,612
GROUND WATER MONITORING	46,726	47,661	48,614	49,586	50,578
ENGINEERING SERVICES	40,000	40,800	41,616	42,448	43,297
<b>Total Expense</b>	<b>5,874,271</b>	<b>7,072,695</b>	<b>3,875,739</b>	<b>3,473,699</b>	<b>3,834,936</b>
<b>REQUIRED TAX REQUISITION</b>	<b>1,598,887</b>	<b>1,903,859</b>	<b>1,749,669</b>	<b>1,757,966</b>	<b>1,832,445</b>

### 5.1.2 WEST SUB-REGION RESOURCE RECOVERY FIVE YEAR FINANCIAL PLAN

	2012	2013	2014	2015	2016
<b>Revenue</b>					
GRANTS IN LIEU OF TAXES	(785)	(801)	(817)	(833)	(850)
MISCELLANEOUS	(11,628)	(11,861)	(12,098)	(12,340)	(12,587)
CASTLEGAR REFUSE USER FEES	(878,488)	(1,070,050)	(1,265,444)	(1,290,753)	(1,316,568)
SLOCAN REFUSE USER FEES	(60,709)	(61,923)	(63,161)	(64,425)	(65,713)
ROSEBERY REFUSE USER FEES	(63,735)	(65,010)	(66,310)	(67,636)	(68,989)
NAKUSP REFUSE USER FEES	(149,197)	(152,181)	(155,224)	(158,329)	(161,496)
CONTRIBUTION FROM CENTRAL SUB-REGION		(283,565)	(289,236)	(295,021)	(300,921)
CONTRIBUTION FROM WEST SEPTAGE	(81,600)	(83,232)	(84,897)	(86,595)	(88,326)
PROCEEDS FROM BORROWING	-	(619,000)	(93,000)	(1,354,800)	(277,200)
TRANSFER FROM RESERVES	(300,000)				
<b>Total Revenue</b>	<b>(1,546,927)</b>	<b>(2,347,623)</b>	<b>(2,030,188)</b>	<b>(3,330,732)</b>	<b>(2,292,650)</b>
<b>Expense</b>					
ADMINISTRATION	11,730	11,965	12,204	12,448	12,697
GATE ATTENDANT WAGES, BENEFITS AND TRAINING	106,080	108,202	110,366	112,573	114,824
COMMITTEE EXPENSE	16,320	16,646	16,979	17,319	17,665
INSURANCE	878	896	914	932	951
CAPITAL PROJECTS	-	619,000	293,900	1,554,800	477,200
RDCK ADMINISTRATION, IT AND ENVIRONMENTAL SERVICES	278,432	284,001	289,681	295,475	301,384
PROVISION FOR LANDFILL CLOSURE/POST CLOSURE	80,000	81,600	83,232	84,897	86,595
REPAYMENT OF DEBT	231,150	231,150	309,930	317,286	424,578
AMORTIZATION	32,400	32,400	32,400	32,400	32,400
GROUND WATER MONITORING	20,400	20,808	21,224	21,649	22,082
OPERATIONS - RECYCLING PROGRAM	673,200	686,664	514,998	525,298	535,804
OPERATIONS - OOTISCHENIA	399,822	567,130	578,473	578,473	590,042
OPERATIONS - SLOCAN	46,177	47,101	48,043	49,004	10,000
OPERATIONS - ROSEBERY	49,753	50,748	51,763	52,798	10,000
OPERATIONS - NAKUSP	198,900	202,878	206,936	80,000	81,600
OPERATIONS - BURTON	23,970	24,449	24,938	25,437	25,946
OPERATIONS - EDGEWOOD	23,500	23,970	24,449	24,938	25,437
OPERATIONS - WASTE HAULING				101,259	103,326
ENGINEERING SERVICES	30,600	31,212	31,836	32,473	33,122
NET CATEGORY 48: CONTRACTS	1,466,322	1,654,960	1,502,660	1,491,329	1,437,359
<b>Total Expense</b>	<b>2,223,313</b>	<b>3,040,819</b>	<b>2,652,265</b>	<b>3,919,458</b>	<b>2,905,653</b>
<b>REQUIRED TAX REQUISITION</b>	<b>678,397</b>	<b>695,210</b>	<b>624,091</b>	<b>590,741</b>	<b>615,018</b>

### 5.1.3 EAST SUB-REGION RESOURCE RECOVERY FIVE YEAR FINANCIAL PLAN

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
<b>Revenue</b>					
GRANTS IN LIEU OF TAXES	(1,300)	(1,300)	(1,300)	(1,300)	(1,300)
MISCELLANEOUS REVENUES	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
CRESTON REFUSE USER FEES	(565,926)	(577,244)	(588,789)	(600,565)	(612,576)
BOSWELL USER FEES	(10,558)	(10,769)	(10,985)	(11,204)	(11,429)
CRAWFORD BAY REFUSE USER FEES	(56,623)	(57,755)	(58,910)	(60,088)	(61,290)
PROCEEDS FROM BORROWING	(1,727,622)	(787,066)			(160,000)
<b>Total Revenue</b>	<b>(2,400,016)</b>	<b>(1,472,122)</b>	<b>(697,970)</b>	<b>(711,143)</b>	<b>(884,579)</b>
<b>Expense</b>					
ADMINISTRATION	22,571	23,022	23,483	23,952	24,432
GATE ATTENDANT WAGES, BENEFITS AND TRAINING	94,280	96,165	98,089	100,050	102,051
COMMITTEE EXPENSES	16,320	16,646	16,979	17,319	17,665
OPERATIONS - RECYCLING PROGRAM	166,138	169,460	172,850	176,307	179,833
CAPITAL PROJECTS	2,062,122	937,066	-	-	160,000
RDCK ADMINISTRATION, IT, AND ENVIRONMENTAL SERVICES	191,104	194,926	198,824	202,801	206,857
PROVISION FOR LANDFILL CLOSURE/POST CLOSURE CARE	68,340	69,707	71,101	72,523	73,973
REPAYMENT OF DEBT	-	152,002	215,158	215,158	215,158
AMORTIZATION	37,609	37,609	37,609	37,609	37,609
ENVIRONMENTAL MONITORING	25,959	26,478	27,008	27,548	28,099
OPERATIONS - YAHK REFUSE SITE	12,460	12,710	12,964	13,223	13,487
OPERATIONS - CRESTON LANDFILL	353,115	360,177	367,381	374,728	382,223
OPERATIONS - CRESTON SITE - MATERIAL PROCESSING	79,111	80,693	82,307	83,953	85,633
OPERATIONS - CRESTON SITE - SEPTAGE HAULING	12,460	12,710	12,964	13,223	13,487
OPERATIONS - BOSWELL	27,257	27,802	28,358	28,925	29,504
OPERATIONS - CRAWFORD BAY	63,236	47,427	48,376	49,343	50,330
ENGINEERING SERVICES	20,767	21,183	21,606	22,038	22,479
<b>Total Expense</b>	<b>3,252,849</b>	<b>2,285,783</b>	<b>1,435,056</b>	<b>1,458,701</b>	<b>1,642,820</b>
<b>REQUIRED TAX REQUISITION</b>	<b>852,833</b>	<b>813,661</b>	<b>737,085</b>	<b>747,559</b>	<b>758,241</b>

*Appendix 5.2 - Public Consultation Report*

**REGIONAL DISTRICT  
OF  
CENTRAL KOOTENAY**



**RESOURCE RECOVERY PLAN  
Consultation Report**

**December 2010**

# Resource Recovery Plan Public Consultation Report

This report outlines the public consultation that was undertaken by the Regional District of Central Kootenay as an integral part of the revision of the RDCK Resource Recovery Plan (RRP). The public consultation plan meets the requirements outlined in the Guide to the Preparation of Regional Solid Waste Management Plans by Regional Districts.

## 1. Background

The objectives of the public consultation were as follows:

1. To provide stakeholders the opportunity to provide feedback on the revised RRP.
2. To ensure that the revised RRP fits within the current reality.
3. To ensure that the revised RRP is aligned with the information gathered during previous consultation processes.

## 2. Stakeholder Consultation

The list below identifies the stakeholders who were invited to participate in the RRP consultation. This list has been revised from the list of stakeholders who were invited to participate in the initial SWMP review process. For consistency and broad inclusion of stakeholders the RDCK followed the same framework in 2010 by inviting the same list of stakeholders to participate (note that the list was revised for accuracy). Each stakeholder received a formal invitation to provide comment on the revised RRP, and was granted a four week timeframe in which to submit feedback. Formal presentations regarding the revised RRP were offered to stakeholders upon request. One formal presentation were requested by the City of Castlegar and General Manager of Environmental Services Uli Wolf gave a PowerPoint presentation.

The 2010 stakeholder list is as follows:

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Yaqaan nu?kiy (Lower Kootenay Band) <sup>9</sup>	Sandra Luke Councillor 830 Simon Road Creston, BC V0B 1G2 Phone: 250-428-4428 Fax: 250-428-7686	First Nations government (Ktunaxa Nation)	A draft RRP was delivered via Greyhound courier to the Band office.
Ktunaxa Nation Council	Ray Warden Director of Land and Resources 7468 Mission Rd, Cranbrook, BC, V1C 7E5 Phone: 250-489-2464 Fax: 250-489-5760 Email: <a href="mailto:info@ktunaxa.org">info@ktunaxa.org</a>	First Nations	A draft RRP was delivered via Greyhound courier to the Council office.

<sup>9</sup> The plan advisory committee structure states that consultation with First Nations will take place “upon request”. However, the RDCK intends on exceeding this requirement by formally inviting First Nations to comment on the draft RRP.

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Westbank First Nation	Chief & Council #301 - 515 Hwy 97 South Kelowna, BC V1Z 3J2 Phone: 250-769-4999 Fax: 250-769-2443 Email: <a href="mailto:mail@wfn.ca">mail@wfn.ca</a>	First Nations	A draft RRP was delivered via Greyhound courier to the Council office.
Okanagan Nation Alliance	Chief & Council 3255C Shannon Lake Road Westbank, BC V4T 1V4 Phone: 250-707-0095 Fax: 250-707-0166	First Nations	A draft RRP was delivered via Greyhound courier to the Council office.
Shuswap Indian Band	Chief & Council c/o Dean Martin, CAO Kinbasket Group of Companies PO Box 2847 Invermere, BC V0A 1K0 Contact Comment: Referrals can be sent to Chief and Council c/o the Kinbasket Group of Companies ( <a href="http://www.kinbasket.net/">http://www.kinbasket.net/</a> ) Phone: 250-341-3678 Fax: 250-341-3683 Email: <a href="mailto:administration@shuswapband.net">administration@shuswapband.net</a>	First Nations	A draft RRP was delivered via Greyhound courier to the Council office.
City of Nelson	#101 - 310 Ward Street Nelson, BC V1L 5S4 Phone: 250-352-5511 <a href="mailto:kcormack@nelson.ca">kcormack@nelson.ca</a> (City Manager)	Local government	The draft RRP was presented to the Chief Administrative Officer (CAO) (or equivalent) for review.
City of Castlegar	460 Columbia Avenue Castlegar, BC V1N 1G7 Phone: 250-365-7227 <a href="mailto:jmalcolm@castlegar.ca">jmalcolm@castlegar.ca</a> (John-CAO)	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Town of Creston	#238 - 10 <sup>th</sup> Avenue N PO Box 1339 Creston, BC V0B 1G0 Phone: 250-428-2214 <a href="mailto:bev.caldwell@creston.ca">bev.caldwell@creston.ca</a>	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Village of Kaslo	Box 576 Kaslo, BC V0G 1M0 (250) 353-2311 <a href="mailto:kasloclerk@netidea.com">kasloclerk@netidea.com</a>	Local government	The draft RRP was presented to the CAO (or equivalent) for review.

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Village of Silverton	Box 14 421 Lake Avenue Silverton, BC V0G 2B0 Phone: 250-358-2472 cao@silverton.ca	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Village of Slocan	503 Slocan Street Box 50 Slocan, BC V0G 2C0 Phone: 250-355-2277 info@villageofslocan.ca	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Village of Salmo	PO Box 1000 Salmo, BC V0G 1Z0 Phone: 250357-9433 salvil@telus.net	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Village of New Denver	115 Slocan Avenue PO Box 40 New Denver, BC V0G 1S0 Phone: 250-358-2316 office@newdenver.ca	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Village of Nakusp	#91 - 1 <sup>st</sup> Street NW PO Box 280 Nakusp, BC V0G 1R0 Phone: 250-265-3689 blasfleur@nakusp.com	Local government	The draft RRP was presented to the CAO (or equivalent) for review.
Celgar Pulp and Paper	PO Box 1000 Castlegar, BC V1N 3H9 250 365 7211 alanh@celgar.com	Industry Castlegar	The draft RRP was mailed to the Operations Manager (or equivalent).
Columbia Brewing Company	1220 Erickson Street Creston, BC V0B 1G0 Phone: 250-428-9344 murray.oswald@lebatt.com	Industry Creston	The draft RRP was mailed to the President (or equivalent).
Wynndel Box and Lumber Company	PO Box 40 Wynndel, BC V0B 2N0	Industry Wynndel	The draft RRP was mailed to the Operations Manager (or equivalent).
Tembec Inc.	220 Cranbrook Street N Cranbrook, BC V1C 3R2 Phone: 250-426-6241	Industry Central Kootenay	The draft RRP was mailed to the Operations Manager (or equivalent).

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Springer Creek Forest Products Ltd.	705 Delany Avenue Slocan, BC V0G 2C0 Phone: 250-355-2100 Email: <a href="mailto:info@springercreek.com">info@springercreek.com</a>	Industry Central Kootenay	The draft RRP was mailed to the Operations Manager (or equivalent).
WildSight	Box 837 Creston, BC V0B 1G0 Phone: 250-428-5246	Environmental non- governmental organization (ENGO)	The draft RRP was mailed to the Executive Director (or equivalent).
Eco-Society	#206 – 507 Baker Street Nelson, BC V1L 4J2 Phone: 250-354-1909	Nelson ENGO	The draft RRP was mailed to the Executive Director (or equivalent).
Earth Matters	#201 - 182 Baker Street Nelson, BC V1L 4H2 Phone: 250-352-6011 ext. 17	Nelson ENGO	The draft RRP was mailed to the Executive Director (or equivalent).
Regional District of East Kootenay	#19 - 24 <sup>th</sup> Avenue S Cranbrook, BC V1C 3H8 Phone: 250-489-2791	Local government	The draft RRP was mailed to the CAO (or equivalent).
Regional District of Kootenay Boundary	#202 - 843 Rossland Avenue Trail, BC V1R 4S8 Phone: 250-368-9148	Local government	The draft RRP was mailed to the CAO (or equivalent).
Creston and District Chamber of Commerce	1607 Canyon Street (Hwy 3) PO Box 268 Creston, BC V0B 1G0 Phone: 250-428-4342	Business Creston	The draft RRP was mailed to the President (or equivalent).
Nelson and District Chamber of Commerce	225 Hall Street Nelson, BC V1L 5X4 Phone: 250-352-3433	Business Nelson	The draft RRP was mailed to the organization's President (or equivalent).
Castlegar and District Chamber of Commerce	#1995 - 6 <sup>th</sup> Avenue Castlegar, BC V1N 4B7 Phone: 250-365-6313	Business Castlegar	The draft RRP was mailed to the President (or equivalent).

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Nakusp Chamber of Commerce	92 - 6th Avenue NW Nakusp, BC V0G 1R0 Phone: 250-265-4234 Fax: 250-265-3808	Business Nakusp	The draft RRP was mailed to the President (or equivalent).
Creston Agricultural Society	Box 67 Creston, BC V0B 1G0	Agriculture Creston	The draft RRP was mailed to the President (or equivalent).
Dahl Haulin' (waste hauler)	Box 4 Silverton, BC V0G 2B0	Business	The draft RRP was mailed to the proprietor.
Ray's Garbage Pick-Up (waste hauler)	Box 1582 Creston, BC V0B 1G0 Phone: 250-428-9887	Business	The draft RRP was mailed to the proprietor.
Doug's Disposal (waste hauler)	#502 - 8 <sup>th</sup> Avenue Castlegar, BC V1N 1N6 Phone: 250-304-8919	Business	The draft RRP was mailed to the proprietor.
Waste Management of Canada (waste hauler)	2000 - 17 <sup>th</sup> Street N Cranbrook, BC V1C 7G2 Phone: 250-426-9092	Business	The draft RRP was mailed to the proprietor.
Kootenay Waste Systems (waste hauler)	#2020 - 622 Front Street Nelson, BC V1L 4B7	Business	The draft RRP was mailed to the proprietor.
Southeast Contracting Ltd. (waste hauler)	1475A Theatre Road Cranbrook, BC V1C 7G3 Phone: 250-417-3607	Business	The draft RRP was mailed to the proprietor.
Yellowhead Road and Bridge Ltd. (highway contractors)	110 Cedar Street Nelson, BC V1L 6H2 Phone: 250-352-3242	Business	The draft RRP was mailed to the Kootenay main office.
Alpine Disposal & Recycling (Interior Division) Ltd.	1045 Dunford Avenue Victoria, BC V9B 2S4 Phone: 250-474-5145	Business	The draft RRP was mailed to the proprietor.
Encorp Pacific	#206 - 2250 Boundary Road Burnaby, BC V5M 3Z3  Phone: 1-800-330-9767 or 604-473-2400	Business	The draft RRP was mailed to the proprietor.
Columbia Recycle (1996) Ltd.	PO Box 334 Genelle, BC V0G 1G0  Phone: 250-693-2207	Business	The draft RRP was mailed to the proprietor.

<b>Stakeholder(s)</b>	<b>Mailing Address</b>	<b>Kind of organization</b>	<b>Method of engagement</b>
Columbia Bottle Recycling	#1 - 1420 Northwest Blvd Creston, BC V0B 1G6 Phone: 250-428-2929	Business	The draft RRP was mailed to the proprietor.
Hazco Environmental Services Ltd.	9195 North Fork Road Grand Forks, BC V0H 1H2 Phone: 250-442-5374	Business	The draft RRP was mailed to the Kootenay coordinator.
Ministry of Forests	1907 Ridgewood Road Nelson, BC V1L 6K1 Phone: 250-825-1100	Provincial government	The draft RRP was mailed to the Nelson Office Manager (or equivalent).
Ministry of Energy, Mines, and Petroleum Resources	2nd Floor, #42 - 8 <sup>th</sup> Avenue S Cranbrook, BC V1C 2K3	Provincial government	The draft RRP was mailed to the Cranbrook Office Manager (or equivalent).
Ministry of Transportation	West Kootenay District 310 Ward Street Nelson, BC V1L 5S4 Phone: 250-354-6400	Provincial government	The draft RRP was mailed to the Nelson Office Manager (or equivalent).

### Stakeholder Feedback

Feedback received from stakeholders via this method was marginal; despite the inclusion of a stamped return envelope only ten of forty recipient's submitted feedback forms. A total of ten Stakeholder Comment Forms were returned. Written Comments were submitted by:

1. Southeast Disposal Ltd.
2. Encorp Pacific- Neil Hastie
3. Regional District of East Kootenay
4. Village of Kaslo
5. Regional District of Kootenay Boundary
6. Wildsight
7. Wynndel Box & Lumber
8. Nelson CARES Society (Earth Matters)
9. BC Ministry of Energy, Mines and Petroleum Resources
10. Tembec Industries

### Summary of Stakeholder Comments:

1. Southeast Disposal Ltd.
  - a. Comprehensive plan.

- b. Inclusion of opportunities of the private sector to contract services for multi-point equipment and hauling or be involved in a public/private partnership.
- 2. Encorp Pacific- Neil Hastie
  - a. Future EPR programs and how they will affect 3<sup>rd</sup> party contracts.
  - b. Public education about EPR programs, in particular beverage container recycling.
- 3. Regional District of East Kootenay
  - a. Support for lobbying BCPSC and other groups to improve EPR programs.
  - b. Alternatives for long term capacity of landfills.
- 4. Village of Kaslo
  - a. Potential concern about widespread home composting as a strategy due to wildlife/bear issues.
  - b. Interest in having opportunity to comment on Draft Bylaw 2174.
- 5. Regional District of Kootenay Boundary
  - a. Suggestion to include language that indicates desire to pursue partnerships with other jurisdictions (RDKB). Partnership in centralized management of organics should be investigated.
- 7. Wildsight
  - a. Concerns about illegal dumping.
  - b. Opposition to waste-to energy incinerator options.
  - c. Would like to see more ambitious targets for disposal bans, not just the “possible” imposition of bans.
- 8. Wynndel Box & Lumber
  - a. Consider co-generation as an option (using hog fuel from local mills) backhauling is possible.
- 9. Nelson CARES Society (Earth Matters)
  - a. Interested in possible implementation of community based initiatives in Nelson for composting.
- 14. BC Ministry of Energy, Mines and Petroleum Resources  
No Comments
- 15. Tembec Industries  
No Comments

#### Additional Letters of Correspondence from Stakeholders

Letters of correspondence were received from the following stakeholders providing feedback on the RRP.

- 1. Hazco Environmental Services
  - a. Interest in having future input on RDCK procedures for contaminated soils.
- 2. Town of Creston
  - a. Specific questions about operational impact of implementation.
  - b. Interest in programs, services and costs to Municipality.
  - c. Potential municipal partnership opportunity to manage septage?
- 3. City of Nelson
  - a. Support lobbying efforts to have ERP program stewards increase levels of service in the RDCK.

- b. Support for subsidized tipping fee program. Could this include yard waste (twice per year?) to discourage burning?
  - c. Support for food waste composting, centralized and community projects in the interim.
  - d. Support the harmonization of RDCK/RDKB user fees.
- 4. City of Castlegar
  - a. Operational concerns about centralizing landfill operations at Ootischenia.
  - b. Interest in partnerships to support municipal composting education.
  - c. Interest in partnerships in aspects of yard waste composting.
- 5. Waste Management
  - b. Anticipate resistance to consolidating operations at Ootischenia.
  - c. Interest in seeing implementation of 1 bag limits in residential curb-side programs.
  - d. Support organics/yard waste management strategy.
  - e. Fee for service model to manage septage/bio solids.
- 6. Creston Airshed Management (C.A.S.M)
  - a. Demonstrating general support for the plan and the zero waste direction of the plan.
  - b. Interest in finding local solutions for recycling services.
  - c. Desire to see an organics program.
  - d. Interest in reuse program for building and renovation materials.
  - e. Unrelated OCP issue about approval for development and affects on air quality.
  - f. Request to include inclusion of airshed management into the plan such that projects, plans and initiatives would not adversely affect the airshed.
- 7. Central Kootenay Invasive Plant Committee
  - a. Implementation of a “no tip” policy for invasive plants in the RDCK.
- 8. RDCK Staff
  - a. Suggestions for operational requirements related to plan implementation.
  - b. Transfer Station relocation should consider winter road conditions.
  - c. Suggestions for number of bins for multi-bin system as well as hauling equipment.
  - d. Consider CP Rail land for Nelson Transfer Station expansion.
  - e. Option to haul compacted recyclables via rail.
  - f. Improve management of reuse sheds (stricter rules).
  - g. Public compliance would be improved if staff are available to assist.
  - h. Need for face to face communications with the public at sites.
- 9. Wayne P. McCrory, RPBio- Upper Slokan Valley Bear Smart Program
  - a. Support for multi-point system, will we also considering on-site collection compactors as an option?
  - b. Consideration for introducing a haul-all bin system for collection-increased number of sites, therefore less distance (fewer GHG's) for the public to travel and better for wildlife proof storage.
  - c. Community composting systems should be bear-proof, home composting education initiatives need to improve (bear-proof).
  - d. Create policy that supports zero waste philosophy.
  - e. Concern about increased illegal dumping if landfill bans are in place, potential bear problems also. Signage and RDCK bylaws to discourage illegal dumping are needed.

- f. Bear proofing of all RDCK facilities is needed.
10. Joanne Siderius, Ph.D., Bear Aware Program Supervisor
- a. Amendment of the Waste bylaw to include a “dawn to dusk” clause for communities that have curbside collection.
  - b. Support the development of a wildlife attractant bylaw.
  - c. Act as a representative on the Human-Bear Conflicts Solutions Committee that will support and promote activities that reduce human-bear conflict in the RDCK.

### **3. Additional Opportunities for Public Input**

Following a successful public consultation process between 2005 and 2007 (Stage 1) the RDCK continued the consultation process (Stage 2) using the same tools and techniques.

#### Media Release

Following Board approval of the draft RRP, the RDCK sent out a formal media release to all the local media outlets with a copy of the draft RRP. This drew interest from the local radio stations; staff responded to interviews with the following stations: Kootenay Co-op radio, KBS radio, Creston Community radio, and Mountain FM.

#### RDCK website

The RDCK website was used as a tool to provide resources to the public. The draft RRP, SNC Lavalin reports, financial modeling and implementation plans were all available to download. Open houses were also advertised. A standardized feedback questionnaire was available for the public to complete and submit and in addition an on-line survey was available (Survey Monkey). The website was monitored and updated on a weekly basis throughout the consultation period. A total of six on-line surveys were completed, traffic monitoring for the RDCK website was unavailable.

#### Mail Out

A mail out to all residential dwellings in the RDCK was distributed two weeks before open houses commenced. The mail out highlighted the RRP purpose and ways in which the public could provide input. Open house dates, times, and locations will also be described.

#### Municipal Council Presentation

At the request of the City of Castlegar, the General Manager of Environmental Services made a presentation about the Resource Recovery Plan to City Council at the November 15, 2010 council meeting.

#### Open house events

In 2008 six Open House events were held in the following communities: Nelson, Castlegar, Kaslo, Creston, Crawford Bay, and New Denver. In 2010 five Open House events were held in Ootischenia (Castlegar), Creston, Salmo, Nakusp and Nelson. Note that the open house event scheduled for First Nations in Creston was cancelled after the RDCK was informed by the Lower Kootenay Band that they could not attend. All open house events were held from 4:00pm to 8:00pm in each location to maximize public participation. Each event was advertised in all local newspapers a minimum of two weeks in advance and for two printings prior to each event. Poster panels were on display at the events describing the draft RRP in an easy to read and comprehensive

format. Hard copies of the draft RRP and a summary (FAQ) document were available for the public to view and take away. A total of 16 surveys were completed by members of the public that attended the open houses. Financial information, maps and implementation strategies were also on display, each were sub-region specific. Each event had a minimum of two Directors (including the Chair from each Resource Recovery sub-region) and a minimum of two RDCK staff, attendance is noted below. At all five open houses, the focus areas, objectives and strategies were presented to the public for their review and comment. Information was presented on display boards, and in one-on-one discussions between the public and RDCK staff, Directors and Consultants (Ootischenia only). Public participation at each of the events was as follows:

**Ootischenia- October 19, 2010**

Directors: Gary Wright  
Ron Mickel  
Gord Zaitsoff  
Hillary Elliott  
Walter Popoff  
Staff: Uli Wolf  
Mike Morrison  
Nicole Ward  
SNC Lavalin: Chris Bullock  
Public: 14

Public comments- issues of concern

1. Impact of increased traffic from access road (noise and litter)- secondary access road idea well received.
2. Noise from landfill (back-up beeper only).
3. Illegal disposal in surrounding areas (possibility to extend current clean-up to end of Columbia Road).
4. Supposedly dust is visible from other side of river- no dust complaints from nearby residents.
5. Fire Chief: wood waste volumes and fire hazard associated with it?
6. Cost to dispose of wood waste and yard waste and incentives for source separating.

**Creston- October 25, 2010**

Directors: Ron Mickel  
Garry Jackman  
John Kettle  
Larry Binks  
Ron Toyota  
Staff: Uli Wolf  
Mike Morrison  
Public: 14

Public comments- issues of concern

1. Recycling questions
  - a. Will there be improvements to the system as a result of the plan?
  - b. Beverage containers purchased in the USA are not accepted at bottle depots for recycling, can the RDCK recycling program accept them- aluminum cans in particular
  - c. General interest in where the commodities are marketed and the recycling process.

2. Interest on tax implications of the RRP.
3. Importance of public education about waste management emphasized.
4. Organics recovery- home composting and centralized composting.

**Salmo- October 27, 2010**

Directors: Ron Mickel  
 Janine Haughton  
 Staff: Uli Wolf  
 Mike Morrison  
 Public: 6

Public comments- issues of concern

1. General interest and satisfaction with closure of disposal portion of the landfill.
2. Interest in composting.
3. Interest in disposal from local area festivals (solid and liquid waste).
4. Potential (current and future) contamination from the landfill.
5. Landfill impact on groundwater, interest in environmental monitoring program.

**Nakusp- November 1, 2010**

Directors: Gary Wright  
 Ron Mickel  
 Carol Bell  
 Hillary Elliott  
 Paul Peterson  
 Staff: Uli Wolf  
 Nicole Ward  
 Public: 14

Public comments- issues of concern

1. Overall very positive comments were heard; many of the residents attended the open house for general interest. All were happy to see the RDCK moving forward with a progressive plan.
2. Landfill closure: when will it happen and what will that mean for our services? How will it change the way we dispose of our garbage? What will be accepted at the landfill after it is closed?
3. General concerns about EPR programs and the lack of availability for recycling of EPR products in the Nakusp area.
4. How can I provide comments and for how long?
5. Problem with garbage piling up at highway pullouts, question about who's responsibility this should be. Currently Highways pays to dispose of it but it is not a budgeted cost.
6. Interest in centralized area wide composting and some ideas for local level composting programs.
7. Disappointment that the landfill closure is still three years away.
8. Need for more industry stewardship.
9. Interest in Waste to Energy program.

**Nelson- November 8, 2010**

Directors: Gary Wright  
 Hans Cunningham  
 Ron Mickel  
 Ramona Faust  
 John Dooley  
 Andrew Shadrack  
 Staff: Uli Wolf

Nicole Ward  
Amy Wilson  
20

Public:

Public comments- issues of concern

1. Overall very positive comments were heard; many of the residents attended the open house for general interest.
2. Interest in Nelson Transfer Station, possible locations, distance, service, and hours of operation.
3. General recycling questions and comments about the need for blue bags. Blue bag alternatives such as transparent bags or blue boxes or depots where no bag is required.
4. Hours of operation at the transfer station and accessibility to recycling. Should be accessible 24/7.
5. High interest in centralized area wide composting and some ideas for local level composting programs.
6. Local business interested in providing woodwaste to supplement our biosolids/septage composting at a similar or lower cost than their current land-filling practice, as well as a preference to see it have a better end use.
7. Interest in the potential for use of our Y&G compost for local business (remediation and slope stabilization).
8. Request to reduce taxes while maintaining services and existing user rates.



Summary of Comments from the Public (including Questionnaire):

**Via E-mail**

“Need for local composting solutions and potentially business opportunities for a regional fertilizer enterprise.”

“Dissatisfaction for the existing blue bag recycling program.”

**Via Mail**

“Reuse program for building materials, composting program and education about reduction.”

**Via Telephone**

“Inclusion of an Executive Summary would be beneficial.” -Former RDCK Director-Josh Smienk

“The RDCK should consider Waste to Energy Technology rather than transporting garbage around.” -Sue Stanger- Member of the public

**Via Survey Monkey (on-line survey)**

“Resource recovery programs should all be user pay or EPR not taxation.”

“Keep the public informed about progress on initiatives.”

“Support food waste composting initiatives.”

“Once closed the Central and Nakusp landfills should not be re-opened.”

**Open House Events**

**Ootischenia**

“More co-operation with the RDCK and the City on separating waste (metal, wood etc.)”

“Access to the landfill via Columbia Rd is unacceptable. This is a residential area that large trucks should not be driving on. Children play along this road.”

“We need to focus on decreasing the amount of litter and increase education about this issue”

“Work with industry to decrease packaging”

“Make disposal of wood waste and yard waste free, make the recycled (chipped) wood available to the public.”

“Recoup more money from recycling and keep it local.”

“Waste should not be transported from one community to another- there is an unfair impact especially when we all pay the same.”

“Traffic to the landfill and unlimited contractor access is a problem. 5:30 am is too early for truck travel on this road”

“Columbia Rd is dangerous for everyone who uses it, especially near dump closing time.”

**Creston**

“Need a composting program for food waste and yard/garden waste.”

“Strong support for recycling education and awareness.”

**Salmo**

No surveys were completed.

***Nakusp***

“Looks like a forward thinking plan...”

“Small communities deserve and also require access to electronic waste recovery/recycling, hazardous waste disposal and used oil recycling services.”

“User pay, extended producer responsibility and provincial responsibility in legislating the ERP programs is the best way to go but if it’s not happening I believe it should be a regional responsibility.”

***Nelson***

“Bring back a recycling depot accessible to the public that does not require the use of blue bags.”

“Transfer Station is not adequate.”

“Poor organics recovery, no kitchen waste diversion and poor end use.”

“Garbage should be in clear bags so that if it contains recyclables it can be refused.”

“Encourage home composting through education and demonstrations.”

“Develop a composting facility and develop a market for end product.”

“Research use of ground wood for heating purposes, crushed glass for construction and biogas utilization from septage facilities.”

**Public Consultation Summary**

The consultation period for the Draft Resource Recovery Plan provided stakeholders and the public with a wide variety of opportunities to provide input and submit feedback. In general the Plan was well received throughout the region. The consultation feedback indicated that the public and stakeholders are supportive of the draft Plan and the commitments therein. There were very few negative comments about the Plan and its objectives; this suggests that the Plan is acceptable and supported throughout the region. Common themes that emerged throughout the consultation process included: strong support for improved composting and yard waste programs; support for an improved system that reduces GHG emissions; support for user-pay systems; support RDCK lobbying efforts to improve service for EPR programs; desire for free disposal for yard waste; and a desire to see community initiatives for composting. Concerns raised by stakeholders and the public that were addressed in the Plan included: sensitivity of rural area residents regarding the level and types of services, specifically EPR programs; interest from the public to implement composting programs, in several instances there were higher expectations ie: to implement a centralized composting program; support for the investigation of waste to energy technology; and support for creating efficiencies in the transportation of waste and reduction of greenhouse gas emissions.

Concerns from stakeholders and the public that were not clearly addressed in the plan included: desire for free disposal of yard waste; and a desire to provide free disposal for invasive plants. These suggestions will be investigated throughout the plan period. Overall, the consultation process affirms that both stakeholders and the public are interested in seeing improvements to the current system that reduce transportation and operating costs, improve efficiency and improve overall environmental performance. The RDCK concludes that the key interests of the public have been addressed in the Plan.