



REGIONAL DISTRICT OF CENTRAL KOOTENAY

**RESOURCE RECOVERY PLAN
(2010)
Progress Report**

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Executive Summary

Since releasing the Resource Recovery Plan (RRP) in 2010, the RDCK has reduced waste generation per capita in all three sub regions (East – 9.41%, Central – 18.87%, West – 19.38%). New policies and programs have increased public service, reduced green house gas emissions, moved the resource recovery department closer to financial stability and further aligned the RDCK with Zero Waste goals. Moving forward the RDCK will continue to work towards the commitments made in the 2010 RRP and aim to focus on organics waste management & composting.

Introduction

In 2010 the RDCK released a Resource Recovery Plan which set the overall objectives for solid waste management with the Regional District. The RRP focused on five main objectives and detailed how the RDCK would achieve those objectives during the plan period. Those objectives were to;

- Improve service to the RDCK public
- Comply with best practices
- Achieve financial stability
- Align with Zero Waste goals
- Reduce green house gas emissions

The aim of this report is to outline the current progress of those objectives and what commitments still need to be accomplished.

Resource Recovery Plan Commitments

Waste Reduction

Completed

- Reduced overall disposed waste by 19.38% in West Region, 18.87% in Central Region and 9.41% in the East Region from 2009 baseline (Table 1)
- Increased diversion of EPR products by hosting annual Household Hazardous Waste Roundup events in multiple municipalities (ongoing since 2012)
- Created and implemented a waste screening program in the East Sub region (2013)

In Progress

- Complete 20% reduction of per capita disposed waste from 2009 baseline (2015/2016)

For Future Consideration

- Increase diversion of household organics through composting

Harmonization across Regions

Complete

- Standardized Safe Work Procedures for all three sub regions

- Implemented cost sharing agreement between West and Central sub regions for shared use of the Ootischenia Landfill

In Progress

- Creating an agreement for shared trucking fleet between West and Central sub regions (2015)

For Future Consideration

- Secure transistor units for cleanup of historic dump sites on forest service roads

Policy Development

Completed

- Created Memorandum of Understanding with Ministry of Lands, Forests and Natural Resource Operations to provide subsidized tipping fees
- Created a new comprehensive disposal bylaw (*Bylaw no. 2174*) with expanded definitions, an updated and easy to understand fee schedule, clarified disposal policy, regulated waste and disposal bans and regulated site activities (2011)
- Implemented policy to subsidize disposal of invasive plant species at all RDCK Resource Recovery Facilities (2011)
- Created Product Stewardship Interest Statement and Board Workshop(2011)
- Discontinued hosting Product Stewardship programs(*paint, paint plus, Call2recycle battery program*) that do not allow the RDCK to recover costs (2012)

For Future Consideration

- Develop a policy to allow subsidized disposal by community groups and non profits

Outreach & Education Programming

Completed

- Collaborated with neighboring Regional District's for development and delivery of a waste reduction education program (Zero Waste Campaign) through local media (ongoing since 2012)
- Informed residents of changes to Disposal Bylaw with a mail out campaign (2012)
- Provision of a 'Beyond Recycling' environmental education program through contact with the non- profit organization Wildsight (Ongoing since 2013)
- Implemented an advertising campaign to educate residents about the importance of covering loads they are transporting to resource recovery facilities (2014)
- Partnered with the non profit organization EarthMatters to provide compost education at Farmers Markets in the Central Sub-region (2014)

Reuse

Completed

- Promoted Annual 'Trash to Treasure' events that encourage waste reduction (Ongoing since 2012)

Recycling Programs

Completed

- Introduced commodity value rebates for all contracted processing of recyclables (2010)
- Reviewed recycle depot locations, curbside programs, and operations by the RDCK for their cost effectiveness (2013)
- Introduced collection services to Kaslo and Nakusp as part of MMBC agreement (2014)
- Transitioned West Sub-region's depot program to a more efficient front load collection (2012)
- Transitioned RDCK curbside programs in rural Castlegar to Multi Material BC (2014)
- Review of community interest for possible expansion of curbside collection in Central Sub-region(2014)

In Progress

- Evaluate the feasibility of a unified, comprehensive recycling program involving all three Sub-regions (2015)
- Transition Central Sub-region to more efficient front load container collection

For Future Consideration

- Transition full RDCK depot program to MMBC

Organic Waste management

Completed

- Reduced transportation costs by developing onsite management options for yard & garden and wood waste at Nakusp, Ootischenia, Salmo, Central, Kaslo, Balfour, Creston and Crawford Bay (2011-2015)
- Use of stockpiled organic materials in manufactured topsoil for landfill closure projects (ongoing)
- Created a Memorandum of Understanding with the Town of Creston for long term management of septage
- Completed an in depth study for a community based composting program in Creston (2012/2013)

For Future Consideration

- Complete an updated feasibility study for centralized composting facility

Contaminated Soil Management

Completed

- Created and implemented a Contaminated Soil Acceptance Policy and a comprehensive manual outlining acceptance guidelines and onsite management (2011)
- Decommissioned Hazco Treatments cells at RDCK Landfills

- Completion of RFP process for soil treatment facility at Ootischenia and subsequent contraction of new treatment facility

Environmental Monitoring

Completed

- Installation of new environmental monitoring wells at Ootischenia Landfill (2014)
- Central Landfill Hydrological review (2013)
- Established trigger levels for groundwater quality at Creston Landfill
- Completed two phases of sediment analysis and benthic invertebrates studies at Creston Landfill (2011-2013)
- HB Dam Emergency Repair (2012)
- Completed HB Mine Tailings Facility Dam Safety Review (2013)
- Completed HB Reclamation Plan (2013)
- Updated Emergency Preparedness Plan and Operation, Maintenance, and Surveillance Manual for HB Mine Tailings Facility (2014)

For Future Consideration

- Evaluate alternative service delivery models to Ymir
- Evaluate alternative sites for the Marblehead transfer station

Waste Transfer Systems

Completed

- Installed Safety Railings on bin walls at all sites (2010 – 2012)
- Upgraded the entrance area of Ootischenia Landfill (2012)
- Created detailed evaluation of alternative sites for Kaslo Transfer Station (2011)
- Enabled a power supply by adding an electrical generator at Kaslo Transfer Station (2013)
- Resurfaced Kaslo West Road (2014)
- Crawford Bay Transfer Station upgrade and compactor installation (2014)
- Developed Grohman Narrows transfer station including site selection, public consultation, design and construction (2014)

In Progress

- Redevelopment of Balfour and Kaslo Transfer Stations
- RFP process for Kaslo, Slocan and Nakusp Transfer Stations
- Redevelop Slocan and Rosebery Transfer Station

For Future Consideration

- Evaluate alternative service delivery models for Ymir
- Evaluate alternative sites for the Marblehead Transfer Station
- Install transfer station at Nakusp Landfill

Residual waste disposal

Completed

- Implemented new scale software for all Resource Recovery Facilities (2013)
- Upgraded safety 'Call In' program for staff at Resource Recovery Facilities
- Implemented comprehensive site inspection program for facilities
- Developed new JOHS committee for Resource Recovery Services comprised of drivers, operators, attendants, contractors and management
- Attained new Operational Certificates for Central and Ootischenia Landfills
- Created simple static composting sites at Creston, Nakusp, Ootischenia, Salmo, Kaslo, Crawford Bay and Balfour facilities (2011-2015)
- Acquired additional land around Ootischenia Landfill to act as a buffer (2012)
- Evaluated feasibility of alternative access route for Ootischenia Landfill (2012)
- Improved Ootischenia Landfill access road (2014)
- Ceased daily active filling operations at Central Landfill (2014)
- Permanently closed the Lakeside Drive (Nelson) Transfer Station (2014)
- Created a long term agreement with the Village of Kaslo for use of Kaslo West Road (2014)
- Completed crown license agreement for additional property at Crawford Bay Transfer Station
- Relocated Boswell Transfer Station to RDCK owned land and restored Cummings property
- Completed phase 1A closure plans of Creston Landfill (2011)
- Completed phase 1B closure plans of Creston Landfill (2012)
- Installation of electrical fencing at Creston Landfill

In Progress

- Final capping and closure for Central Landfill

For Future Consideration

- Undertake closure plans for historic landfills (Slocan/Crawford Bay/Marblehead/Boswell/Kaslo/nelson/Burton/Roseberry/Edgewood) on a priority basis
- Evaluate new technologies for waste to energy technologies and present a review to the Board
- Cease active filling of Nakusp Landfill and install final capping and closure system

Reduction in greenhouse gas emissions

Completed

- Integrated material backhauls between RDCK facilities, minimizing transportation (ongoing since 2011)
- Implemented a Landfill Gas Management System at Creston Landfill (2014)
- Installed Waste Compactor at Crawford Bay Transfer Station (2014)

In Progress

- Implementing a new compacting waste transfer system in Central Sub-region, which minimizes transportation (2015)

Resource Recovery System Funding

Each of the three sub regions contribute to their respective services through user fees and taxation. The amount of funding and the percentage that comes from user fees or taxation varies between regions and changes each year.

West Sub-region

From 2009 to 2014 the West Sub-region's funding had a higher percentage from user fees than taxes (Figure 1). The RRP estimated that 63% - 71% would come from user fees for the years 2012-2014 and the West Sub-region stayed within 9% of that estimate during that period.

Central Sub-region

From 2009 to 2014 the Central Sub-region's funding had a higher percentage from taxes than user fees (Figure 2). The RRP estimated that 55% - 59% would come from taxes for the years 2012-2014 and the West Sub-region stayed within 11% of that estimate during that period.

East Sub-region

From 2009 to 2014 the East Sub-region's funding had a higher percentage from taxes than user fees (Figure 3). The RRP estimated that 53%-57% would come from taxes for the years 2012-2014 and the East Sub-region stayed within 3% of that estimate during that period.

Resource Recovery System Staffing

Completed

- Added a permanent , FT Resource Recovery Operations Supervisor (2011)
- Added temporary FT Project Manager to oversee capital projects (2014)
- Acquired additional staff resources (HB Tailings Facility Technologist – two year posting) (2015)

Plan Monitoring

Completed

- Created a Resource Recovery Plan Advisory Committee as required by Ministry of Environment (2012)
- Major plan amendment to relocate Nelson Transfer Station to Grohman Narrows (2011)

Tables & Figures

Table 1: Waste per capita reduction between 2009 and 2013

		2009	2010	2011	2012	2013	Reduction
East	Population Served	12850	13,029	13,172	13,275	13,275	9.41%
	Waste Landfilled	7762	8,347	7,387	6,202	7,264	
	Per Capita Waste	0.604047	0.641	0.561	0.467	0.547	
Central	Population Served	21913	22,275	23,162	23,257	23,352	18.87%
	Waste Landfilled	10775	10,736	9,162	9,524	9,063	
	Per Capita Waste	0.491717	0.519	0.414	0.419	0.399	
West	Population Served	21120	21,391	21,992	22,028	22,072	19.38%
	Waste Landfilled	13078	12,183.96	11,056.36	10,938.17	11,019.53	
	Per Capita Waste	0.619223	0.570	0.503	0.497	0.499	

Data referenced from RDCK landfill reports. Waste landfilled includes mixed waste, Construction and Demolition, Controlled Waste, asbestos, and Asphalt/Concrete.

Figure 1: Portion of funding in the West Sub-region that comes from taxes and user fees (2009 – 2014)

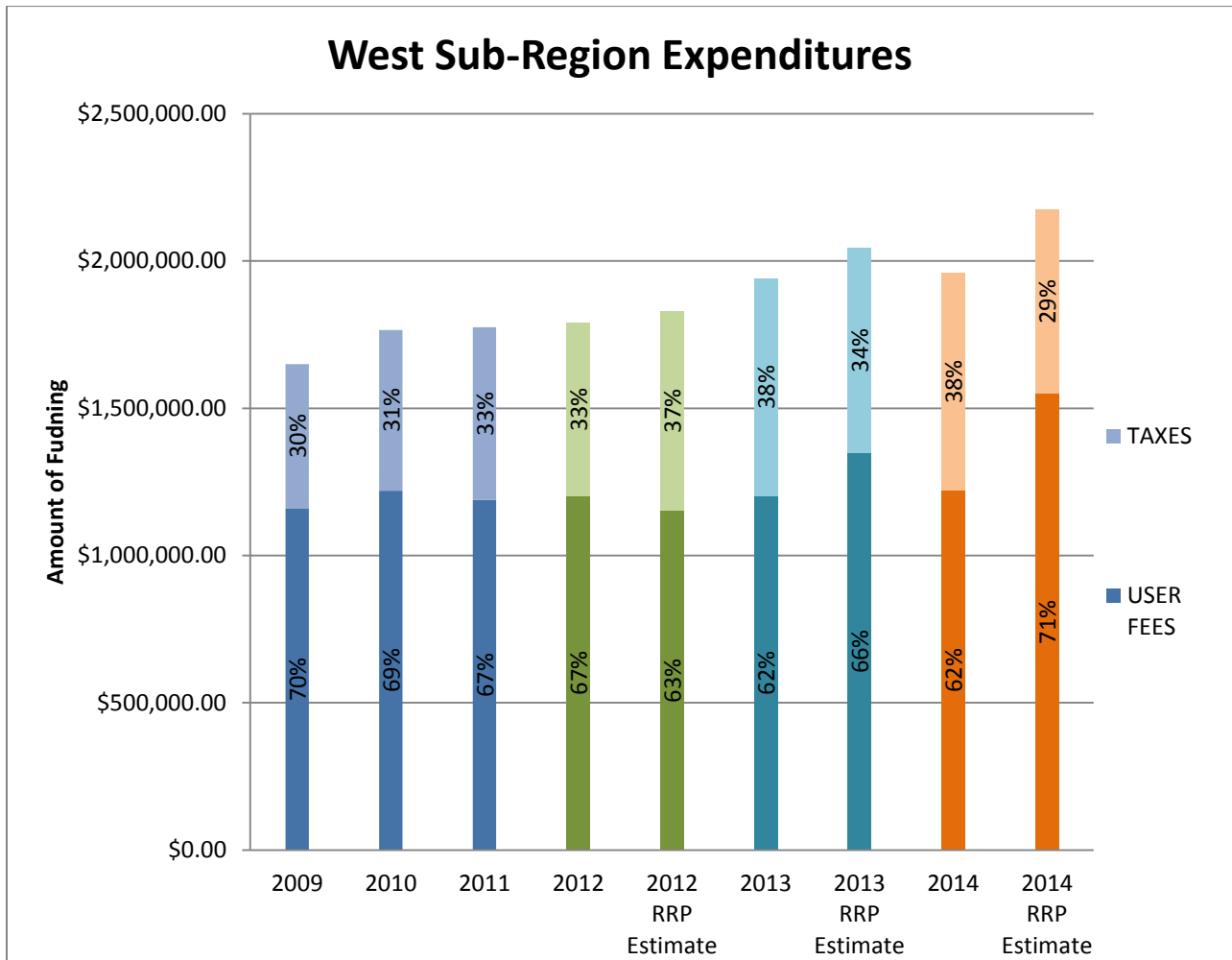


Figure 2: Portion of funding in the Central Sub-region that comes from taxes and user fees (2009 – 2014)

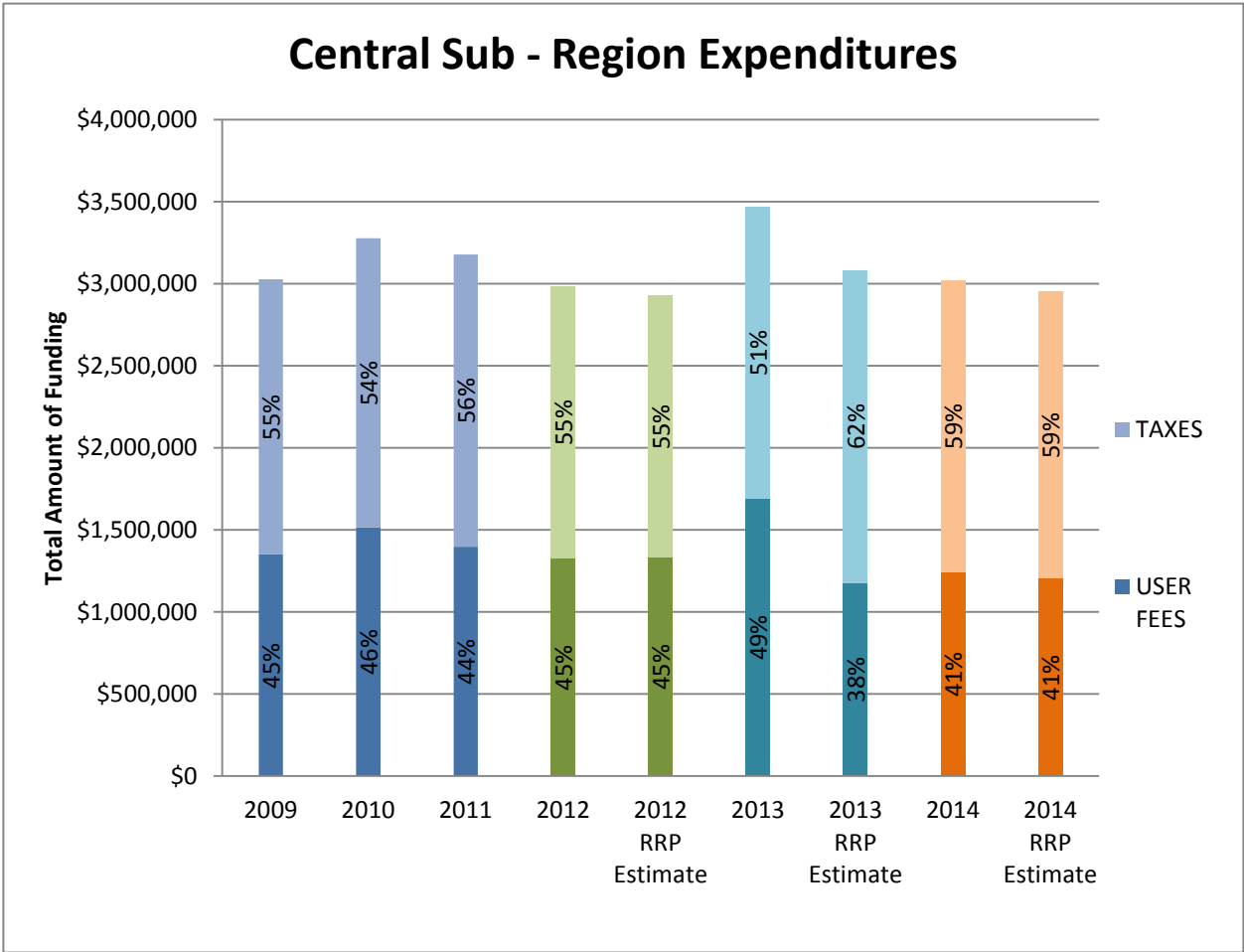


Figure 3: Portion of funding in the East Sub-region that comes from taxes and user fees from 2009 – 2014

