

SWMP Level of Service Considerations from RSWAC

Topic Area	Service	Scope	RSWAC interest in pursuing concept	Implications			
				Operations	Convenience	Diversion Estimate	Financial
				Type of service discussed	Describe potential implementation process	High, Medium or Low	Briefly describe operations
Residential Curbside	Consider collecting non-deposit glass container as part of residential curbside service	Collection trucks required for dedicated glass collection only service. Staff scoped service for triannual collection (three collections per year) to all RDN-served homes (not City of Nanaimo).	Medium	Likely to impact existing depot collection network (reduced revenue stream for them). Would require MMBC approval to change current collector contract(s). May require change to current curbside collection contract(s) to deploy dedicated glass collection vehicles.	For those who will hold glass for 4 months between pickups = High. For the rest = Insignificant to Low.	0.5%	Capital: nil Operating: \$190,000/year to add triannual service to current RDN contract. Approx. extra \$7 added to residential annual utility bill.
Residential Curbside	Explore options to collect residential yard & garden waste at the curb	Collection trucks required for dedicated yard waste collection service. Previous contract RFPs (RDN program not City of Nanaimo) provide level of background costing information based on bi-weekly nine month service. City considering implications as they phase in automated collection over next three years.	Medium	Dedicated collection vehicles required, along with the ability for a processing facility to receive and process the material. Currently Y&G handled through range of facilities - curbside collection will impact them. May be possible to co-mingle food and yard. Possibly better suited to automated collection with standard sized totes.	Varies but likely medium to high. Past surveys have shown 40-60% support for a Y&G waste collection however this drops when cost to collect is known.	0.3 % based on amount of Y&G currently in the curbside stream. Approx. 12,000 tonnes of Y&G is currently handled outside of the RDN system - if collection was set up a portion of this will be captured at curb thereby boosting waste generation and diversion numbers.	Capital: nil Operating: Additional \$50/year added to utility bills for home (RDN customers) based on past studies
Residential Curbside	Compliance and Enforcement to Improve Diversion (Curbside Collection Programs)	Continue employing outreach and education as primary tool to encourage effective use of curbside program; consider applying and actively enforcing bans on materials at the curb (i.e., enforce use of food waste collection).	Medium	Minimal additional staffing required to continue previous education efforts. Introducing disposal bans at the curb and enforcing them requires additional resources.	Low (potential for High inconvenience)	1 - 3 % range for additional outreach and for enforcing use of food waste collection.	Capital: nil. Curbside Enforcement Staffing: \$27,000, Education & outreach efforts: \$36,000, Administration: \$12,000. This excludes cost for City of Nanaimo. implement residential disposal bans for curbside materials.

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				Briefly describe operations	How would it impact convenience	% for total waste stream	Include capital and operating costs
Regional Facilities	Provision of Share Sheds at Regional Facilities	Construct and operate "share sheds" which give customers the opportunity to donate items in good condition for re-use by others instead of landfilling.	Low	Siting of a building to accommodate this service; considerations for traffic flow and safety; staffing to ensure materials left to be shared do meet a minimum standards (and the shed does not become a cheaper disposal alternative for end-of-life items).	Low to Medium. Customers have expressed a level of interest to have share shed or donation opportunities co-located where they take their landfill items. There are numerous not-for-profit and for profit examples locally where re-usable items can be donated.	0.3 % - 0.5 %	Capital: \$13,000 to \$56,000 (for a shed at each facility - cost depends on type and size of shed) Operations: \$190,000/yr. for staffing at both locations
Regional Facilities	EPR Stewardship depots established at Regional Facilities	Become a "take back" location of stewardship items. There are currently 17 Stewardship Agencies in BC for items such as paint and paint products, household lighting and fixtures, thermostats, cell phones, small appliances, batteries, tires, and smoke alarms tanks. The RDN currently does not provide services for EPR type materials as the 2004 Zero Waste Plan identified this is best provided by the private sector.	Low	The Stewards determine the site requirements, which may include secure storage, protection from weather, supervised collection, and paved surfaces for easy pickup of large bins. The Stewards work with the facility to set up and train staff to identify which items are accepted or not accepted. RDN may not be picked up by some EPR programs if they determine that coverage for their items is sufficient in this region.	High. Facilities are compensated by some of the EPR programs for the recycling they collect; therefore, a drop-off fee can not be charged. EPR drop-off areas must be separate from garbage and other non-EPR recycling areas to appropriately track disposal. This may limit the convenience for traffic through the facilities, given the current site layouts.	0.25% - 0.5 %	Capital: \$248,000 (dependent on number of stewardship programs signing RDN as a location; and on their site requirements). Operations: \$384,000/yr. staffing costs
Regional Facilities	Complimentary Drop Off Days	Allowance for a "no-charge" drop off day at regional facilities where the cost is covered through taxation	Low	Reintroduction of "Complimentary Disposal" service at RDN Solid Waste Facilities.	High	Decrease in waste diversion. High customer traffic means less time for screening for attendants.	Approximately \$42,500 per day in lost revenue and additional staffing requirements.
Regional Facilities	Household Hazardous Waste	The Regional District to fund drop off events for non-stewarded residential HHW.	Further discussion required	RDN to run annual drop off events for non-stewarded HHW.	High	<1%	Operations: \$80,000-\$100,000 to run annual Non-stewarded HHW drop off events.

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ICI	Industrial, Commercial, Institutional (ICI) & Multi-Family Diversion	Increased enforcement and education of existing landfill bans and a relaunch of Commercial Organics Diversion Strategy and Multi-Family Diversion Strategy	High	The RDN continues to work within the current regulatory authorities under the existing SWMP to improve ICI organics and recycling diversion which may include increased education and awareness and/or increased enforcement of current landfill bans at the landfill and transfer station.	Low (potential for High inconvenience)	3.1%	1 new FTE or equivalent at \$80,000/year including benefits to oversee the new ICI diversion strategy. \$20,000/year in administrative costs to run the program. \$100,000/year for increased enforcement.
		Introduction of economic and regulatory tools that encourage diversion. Through the SWMP the RDN requests additional authorities to further drive diversion of recycling and organics within the ICI and Multi-Family sectors which could include Mandatory Waste Collection, Waste Hauler Franchising, Waste Haulers as Agents, or Waste Source Control.	Low support for Franchising	Varies depending on the type of regulatory tools implemented.	Low (potential for High inconvenience)	7.9%-11% Includes 3.1% from education & enforcement	No Financial estimate available at this time as cost projections are dependent on the type of additional regulatory authority granted.
ICI	Construction, Demolition Waste	Enhanced education and communication	High	Improve and reintroduce education and communication regarding C&D waste in the region.	Low	1%	\$20,000 Education
		Enhanced regulation within existing authorities	High	Enhanced regulation would be carried out in conjunction with increased education.	Moderate	2%	\$20,000 for Education \$20,000 Regulation
		Additional Regulatory Authority	High	Varies depending on the types of regulatory tools implemented.	Moderate	4%	Unknown at this time

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Zero Waste	RDN Zero Waste Plan	Education	High	Enhanced public education regarding solid waste management in the region in addition to existing education programs.	High	Not quantifiable	\$20,000-\$40,000 in administrative costs
		Advocacy	High	The RDN continues to advocate for greater waste diversion in region by engaging with federal, provincial and local government agencies as well as BC stewardship groups such as MMBC.	N/A	Not quantifiable	Variable
		RDN Purchasing Policy	High	RDN to establish a sustainable purchasing policy for internal operations which would include best management practices for source separation.	Nominal	Minimal	Minimal
		Zero Waste Definition	High	Adopt Zero Waste International Alliance zero waste definition	N/A	Not quantifiable	N/A

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Residual Management	Residual Management	Landfill	Medium	Continue to operate a regional landfill for residual disposal.	N/A	N/A	Variable
		Waste Export	Medium	Consider waste export when the life span of the current landfill is complete.	N/A	N/A	Variable
	New and Emerging Technologies	Anaerobic Digestion (AD)	Low	Anaerobic Digestion (AD)	N/A	N/A (Estimated 82% Diversion achievable overall)	\$24 M - Capital costs. O&M Cost per year: \$3.6 M net revenue Net Cost per tonne: \$90
		Conventional combustion (Mass Burn)	Low	Conventional combustion (Mass Burn)	N/A	N/A (Estimated 93% Diversion achievable overall)	\$74 M - Capital Costs O&M Cost per year: \$4.5 M net revenue Net Cost per tonne: \$85
		Gasification/Pyrolysis	Low	Gasification/Pyrolysis	N/A	N/A (Estimated 97% Diversion achievable overall)	\$90 M - Capital Costs. O&M Cost per year: \$6.4 M net revenue Net Cost per tonne: \$120
		RDF	Low	RDF	N/A	N/A (Estimated 97% Diversion achievable overall)	\$14 M -Capital Costs. O&M Cost per year: \$1.3 M net revenue , Net Cost per tonne: \$25
		Material Recovery Facility (MRF)	Medium	Material Recovery Facility (MRF)	N/A	N/A (Estimated 85% Diversion achievable overall)	\$16 M - Capital Costs. O&M Cost per year: \$2.1 M net revenue , Net Cost per tonne: \$40