



Regional Solid Waste Management Plan Review

June 5th 2019

Advisory Committee Meeting #6

Solid Waste Management Plan – Working Draft

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Agenda

Welcome & Introductions

Key Drivers & Planning Process

Plan Strategies & Actions

Implementation Schedule

Community Engagement & Consultation

Next Steps & Wrap-up



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INTRODUCTIONS



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PLANNING PROCESS

RDEK SWMP UPDATE

Phase 1

1. Assess existing
system
Issues & Opportunities

Establish Technical
Advisory Committee

Phase 2

2. Waste Diversion

3. Residual Waste
Management

4. Policies & Bylaws

5. Financing

6. Draft SWMP

Phase 3

Community &
stakeholder
consultation

Finalize plan



Key Drivers

- Expand Diversion at small transfer stations.
- Consider adding supervision at transfers stations.
- Consider adding a full service transfer station in Invermere or Radium
- Incentivize waste reduction
- Explore opportunities to divert organic waste.
- Maintain financial sustainability.





Survey Feedback

What we heard throughout the process so far:

- Make recycling easy
- Focus on reduction
- Explore organics diversion
- Explore curbside collection of garbage, recycling & organics
- Provide more education on services available
- Prevent illegal dumping
- Ensure ease of use
- Seasonal users are important part of system
- Keep system costs reasonable



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GUIDING PRINCIPLES

BRITISH COLUMBIA MINISTRY OF ENVIRONMENT

BC's Guiding Principles

1.	Aspire to promote zero waste approaches and support a circular economy.
	<i>Encourage a shift in thinking from waste as a residual requiring disposal, to waste as a resource that can be utilized in closed loop systems. Zero waste approaches aim to minimize waste generation and enable the sustainable use and reuse of products and materials.</i>
2.	Promote the first 3 Rs (Reduce, Reuse and Recycle).
	<i>Elevate the importance of waste prevention by prioritizing programming and provision of services for the first 3 Rs in the 5 R hierarchy. Implement programs and services that consider provincial and regional targets for waste reduction and environmental protection. Encourage investments in technology and infrastructure and ensure they occur as high up on the hierarchy as possible.</i>
3.	Maximize use of waste materials and manage residuals appropriately.
	<i>Technology, best practices, and infrastructure investments should continue to develop to recover any remaining materials and energy from the waste stream and to manage residuals for disposal.</i>

BC's Guiding Principles

4.	Support polluter and user-pay approaches and manage incentives to maximize behaviour outcomes.
	<i>Produce and user responsibility for the management of products can be supported through the provision of market-based incentives, disposal restrictions on industry-stewarded products, zoning to support collection facilities, and support for reuse and remanufacturing businesses. Education and behavior change strategies aimed at consumers and businesses will help foster further waste reduction, reuse and recycling.</i>
5.	Prevent organics and recyclables from going in the garbage wherever practical.
	<i>Maintaining a system to prevent organics and recyclables from going into the garbage will provide clean feedstock of greater economic value as well as a potential end product use to the recycling industry, while reinforcing behavior to reduce, reuse and recycle.</i>
6.	Collaborate with other regional districts wherever practical.
	<i>Collaboration on many aspects of solid waste management will support the most efficient and effective overall municipal solid waste system.</i>

BC's Guiding Principles

7.	Develop collaborative partnerships with interested parties to achieve regional targets set in plans.
	<i>Strengthen partnerships with interested parties to achieve regional targets. All waste and recycling sector service providers, associations and environmental organizations, product stewardship producers and agencies, and waste generators are key interested parties in achieving these targets.</i>
8.	Structure the system so that private and public solid waste facilities compete on a level playing field.
	<i>Solid waste management facilities within a given region should be subject to similar requirements. A consistent set of criteria should be used to evaluate the waste management solutions proposed by private sector and by a regional district or municipality.</i>



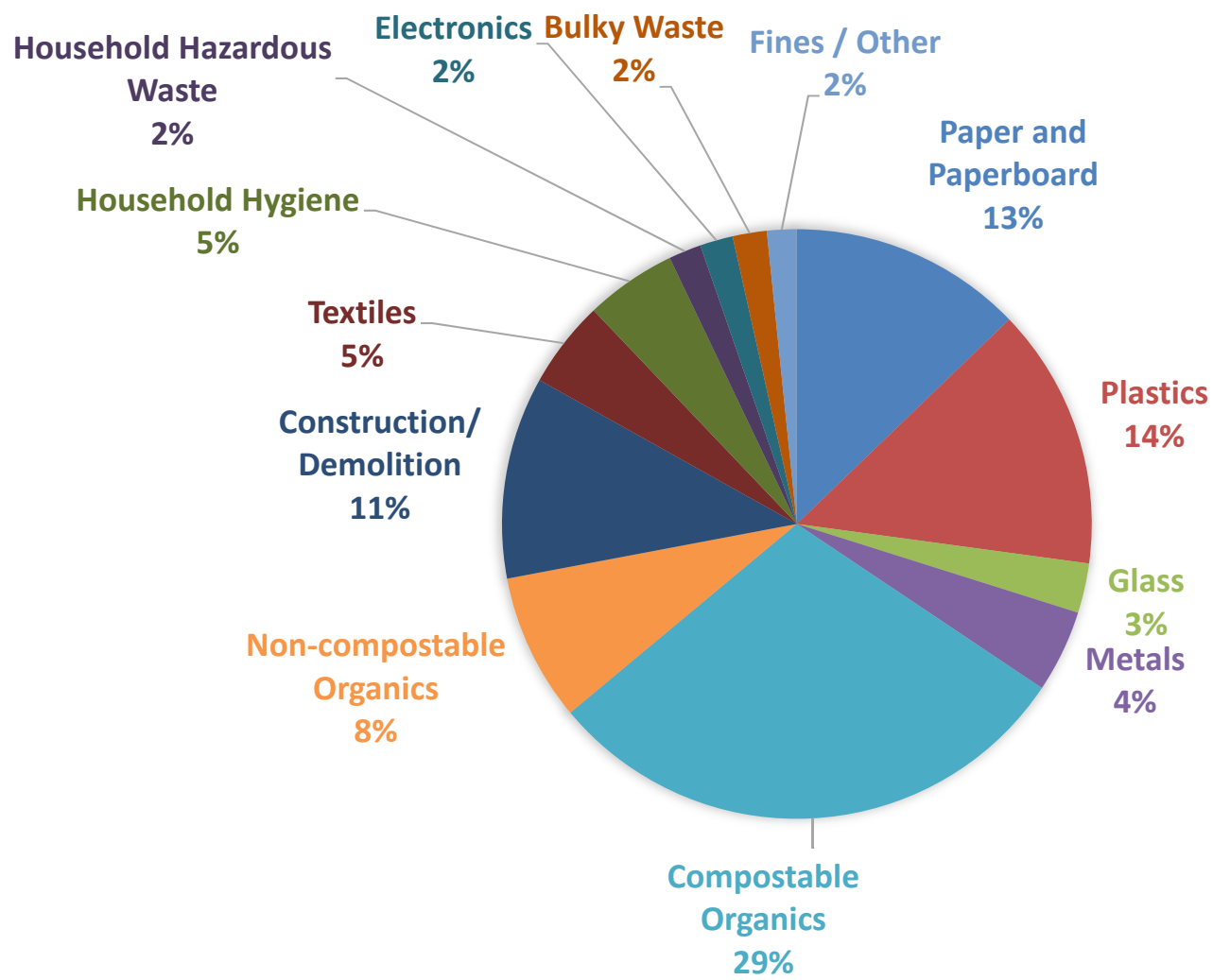
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WASTE GENERATION

RDEK Waste Disposal

- **Waste Disposed (MT) 2017: 42,120 MT**
 - Central – 55%
 - Columbia Valley – 25%
 - Elk Valley – 20%
- **Estimated Waste Sources:**
 - Industrial/Commercial/Institutional – 35%
 - Residential Waste (Urban) – 30%
 - Rural Transfer Stations – 20%
 - Demolition / Land clearing / Construction – 15%

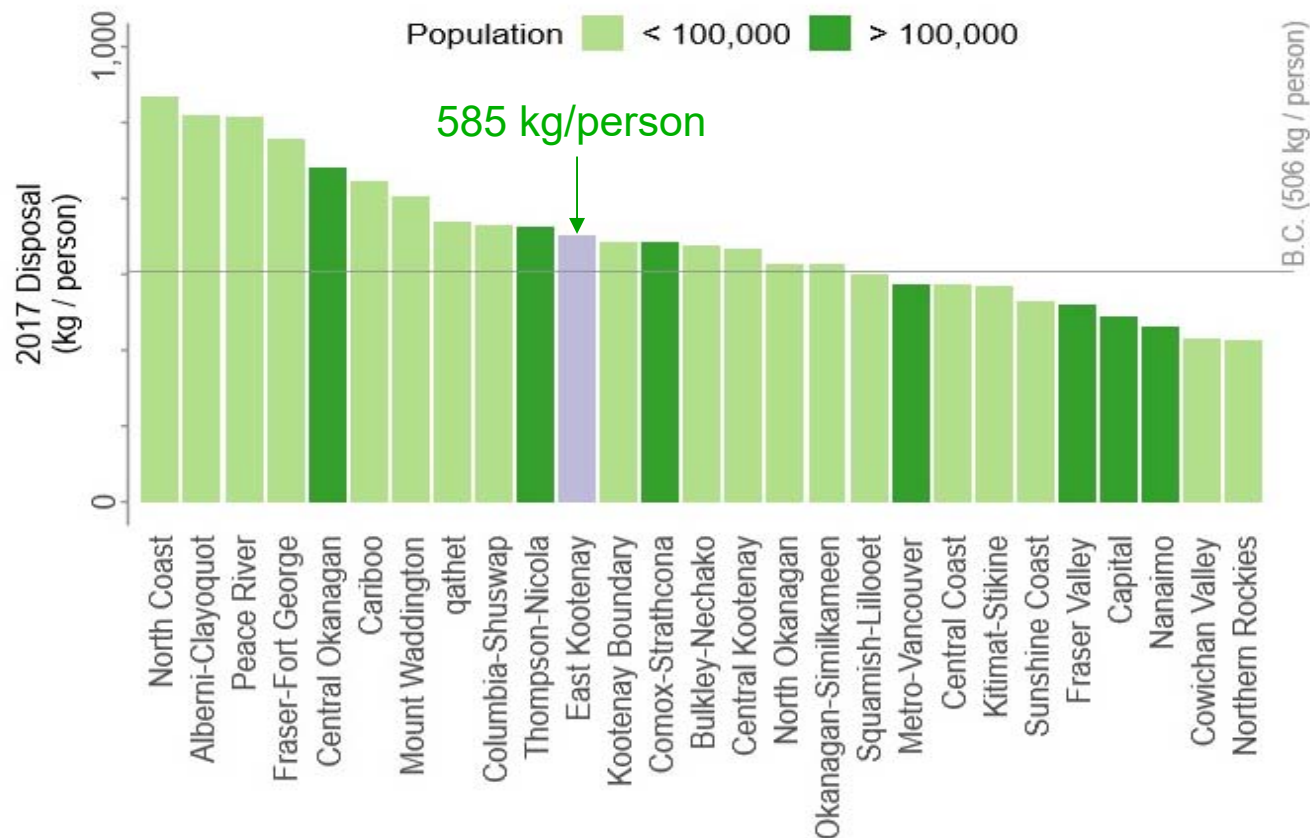
RDEK Waste Composition



Provincial Waste Disposal & Targets

- British Columbia goal: Provincial disposal rate of 350 kg per person by 2020.

2017 BC Waste Disposal Rates



Diversion Potential

Current RDEK Waste Disposal Rate: 585 kg/person/year (2017)

Current Provincial Average: 506 kg/person/year (2017)

The actions and strategies outlined in this plan have the potential to reduce the RDEK waste disposal rate to 498 – 377 kg/person/year



Target: 480 kg/person/year by 2025 & 400 kg/person/year by 2030



Questions & Comments?



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PLAN STRATEGIES

Increase Waste Reduction & Recycling

1. Encourage initiatives that support reuse and recycling in the community

- Example: Columbia Valley Maker Space Society's Repair Café where attendees learn how to repair household items



Columbia Valley Repair Café

(www.cvmakerspace.ca/2017/11/21/repair-cafe-is-back/)

2. Encourage municipalities to develop policies and bylaws that promote waste reduction

- Example: developing policies and enforcement mechanisms for bag limits at the curb, or, material bans on organics, paper, plastic etc.



Increase Waste Reduction & Recycling

3. Expand EPR Product Recycling at major transfer stations

- Offer increased recycling opportunities at transfer stations for lights, paint, electronics etc.
- Lobby senior levels of government to expand EPR programs



4. Expand Diversion Opportunities for wood waste, yard waste, scrap metal etc.

- Provide additional diversion areas and opportunities at transfer stations throughout the RDEK



Increase Waste Reduction & Recycling

5. Ensure consistent signage is used throughout the region

- Provide consistent education on recyclable materials and waste types

6. Develop region-wide strategy for recycling access

- Address Recycle BC Depot requirements, curbside collection feasibility, and ICI sector considerations

7. Establish bylaw that mandates recycling programs in commercial sector

- If changes to Yellow-bin program are introduced, mandate all businesses that generate recyclable materials have an in-house recycling program



Questions & Comments?



Increase Organic Material Diversion

1. Develop food waste reduction education program

- Develop education program and provide workshops. Where possible, collaborate with member municipalities.

2. Encourage community initiatives that focus on food waste reduction

- Encourage community gardens, gleaning, xeriscaping, and other initiatives (such as the Food Recovery Program in Kimberley).

3. Continue to promote and provide education for at-home food waste management

- Encourage at-home food waste management such as backyard composting, bokashi composting, and vermiculture.



Increase Organic Material Diversion

4. Explore feasibility of centralized or subregional compost facilities

- Establish organic waste capacity within the region – through a centralized composting facility or through subregional initiatives
- RDEK is currently working on Organics Infrastructure Program application
- Project vision is to establish three (3) facilities – one in each subregion

Increase Organic Material Diversion

5. Provide additional capacity for yard waste diversion

- Small / rural transfer stations do not provide yard waste diversion opportunities
- Provide additional diversion areas at existing transfer stations and/or establish yard waste drop-off sites

6. Continue to divert wood waste from the landfill

- Continue to divert wood waste from landfill either through existing burn permits or through cogeneration at Skookumchuck Pulp Mill.





Questions & Comments?

Enhance Residual Waste Management

1. Complete Detailed Rural Transfer Station Optimization Study for CV and CEN

- This could include identifying service gaps in rural regions, establishing criteria for travel distances between transfer stations and communities, considering seasonal or full-time staffing of sites, and prioritizing diversion services.

2. Consider feasibility of implementing recommended transfer station upgrades

- Following completion of the optimization study, consider feasibility of upgrading transfer stations to provide more services to users.

Policies & Bylaws

1. Review user-fee structure and update to encourage waste diversion

- RDEK transfer stations and landfills currently follow a user-fee structure; most wastes can be disposed at no charge however hard to manage waste is subject to a fee
- RDEK will continue to review and update fee schedule to encourage proper waste management
- RDEK will strive to maintain compatibility and uniformity of user-fee structures between three subregions

Policies & Bylaws

2. Develop region-wide illegal dumping prevention strategy & allocate clean-up funds

- Develop a region-wide illegal dumping prevention strategy
- This strategy should include collaborating with interested stakeholders such as First Nations, naturalist groups, back-country user-groups, fish and game clubs etc.
- RDEK will continue to support clean-up efforts by waiving user-fees for illegally dumped waste

Promotion & Education

1. Increase P&E for EPR Programs

- Raise awareness of proper end-of life management for materials managed by these stewardship agencies, and, the locations of EPR drop-off's available to RDEK residents.

2. Promote HHW Drop-off in Cranbrook

- Raise awareness for year-round household hazardous waste drop-off located at the Cranbrook transfer station

3. Increase P&E for organics diversion

- Promote new composting facilities that are introduced in RDEK and their requirements

Plan Monitoring & Measurement

- **Establish Plan Monitoring Advisory Committee**
- **Report annually to the BC Waste Disposal Calculator**
- **Five-Year Plan Effectiveness Review**
- **Waste Composition Study Follow-up**



Questions & Comments?



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FINANCIAL SUMMARY

Staffing Implications

- **Additional Staff Resources Required to:**
 - Liaise with stewardship agencies
 - Manage any solid waste policies & bylaws
 - Provide additional support for education programs
 - 0.25 – 1.25 additional full time equivalent staff required
 - Average 1.0 additional staff person per year

Financial Summary (New Proposed Expenditures)

FINANCIAL IMPLICATIONS	2020	2021	2022	2023	2024	2025	2026...*
Waste Reduction & Recycling	-	\$ 35,000	\$ 10,000	\$ 10,000	-	-	\$ 2,500
Organics Diversion	\$ 9,000	\$ 615,000	\$ 452,500	\$ 452,500	\$ 452,500	\$ 452,500	\$ 452,500
Residual Waste Management	-	-	-	\$ 90,000	\$ 3,660,000	\$ 800,000	\$ 800,000
Policies & Bylaws	-	-	-	\$ 15,000	\$ 40,000	\$ 20,000	\$ 20,000
Promotion and Education	\$ 10,000	-	\$ 25,000	\$ 10,000	\$ 10,000	\$ 5,000	-
Plan Monitoring and Measurement	-	-	-	-	-	\$ 20,000	-
New Staffing Costs	\$ 22,500	\$ 45,000	\$ 45,000	\$ 112,500	\$ 112,500	\$ 112,500	\$ 112,500
TOTAL including Staffing (Annual):	\$ 41,500	\$ 695,000	\$ 532,500	\$ 690,000	\$ 4,275,000	\$1,410,000	\$ 1,387,500
Average Annual Expenditure:							\$ 1,323,650
Total 10 year Expenditure:							\$ 13,236,500

* Table 3-1 (Report) shows full 10 year summary

Financial Summary of Proposed Strategies

- **Additional Annual Expenditure (based on proposed):**
 - \$ 41,500 to \$ 4,275,000
 - Average: \$ 1,323,650
 - Total: \$ 13,236,500
- **Estimated Additional Cost per Person per Year:**
 - \$ 0.55 to \$ 54.79
 - Average: \$ 16.75

RDEK Financial Plan

Existing Expenditures (2020-2023 Financial Plan) (March 13th 2019)	2020	2021	2022	2023	2024 (Estimated 1.5% increase)	2025 (Estimated 1.5% increase)	2026 (Estimated 1.5% increase)
Columbia Valley Subregion	\$ 1,841,833	\$ 1,872,150	\$ 1,929,240	\$ 2,019,979	\$ 2,050,279	\$ 2,081,033	\$ 2,112,248
Central Subregion	\$ 4,335,733	\$ 4,414,261	\$ 4,381,288	\$ 4,423,982	\$ 4,490,342	\$ 4,557,697	\$ 4,626,062
Elk Valley Subregion	\$ 2,267,826	\$ 2,275,841	\$ 2,288,548	\$ 2,301,492	\$ 2,336,014	\$ 2,371,055	\$ 2,406,620
Total Existing RDEK Solid Waste Expenditures	\$ 8,445,392	\$ 8,562,252	\$ 8,599,076	\$ 8,745,453	\$ 8,876,635	\$ 9,009,784	\$ 9,144,931
New Proposed Expenditures	\$ 41,500	\$ 695,000	\$ 532,500	\$ 690,000	\$ 4,275,000	\$ 1,410,000	\$ 1,387,500
New Total Existing and Proposed Solid Waste Expenditures	\$ 8,486,892	\$ 9,257,252	\$ 9,131,576	\$ 9,435,453	\$13,151,635	\$10,419,784	\$ 10,532,431

* 2023-2023 Expenditures from RDEK Financial Plan; 2024-2029 are estimates



Questions & Comments?

Implementation Schedule

2020-2021	Waste Reduction and Recycling <ul style="list-style-type: none"> • Encourage initiatives that support reuse and recycling • Encourage municipalities to develop policies and bylaws that promote waste reduction Promotion and Education <ul style="list-style-type: none"> • Increase promotion and education for EPR programs • Promote new HHW Drop-off in Cranbrook
2021-2022	Waste Reduction and Recycling <ul style="list-style-type: none"> • Complete Region-wide strategy for recycling access Organics Diversion <ul style="list-style-type: none"> • Develop food waste reduction education program • Explore feasibility of Centralized Compost Facility
2022-2023	Policies and Bylaws <ul style="list-style-type: none"> • Establish Bylaw to mandate recycling programs in the commercial sector Promotion and Education <ul style="list-style-type: none"> • Increase promotion and education for Organics Diversion
2023-2024	Waste Reduction and Recycling <ul style="list-style-type: none"> • Expand EPR recycling at major transfer stations • Ensure consistent signage is used throughout the region to educate users on recycling Residual Waste Management <ul style="list-style-type: none"> • Complete Detailed Rural Transfer Station Optimization Study • Public and Stakeholder Consultation Policies and Bylaws <ul style="list-style-type: none"> • Develop Region-wide illegal dumping prevention strategy
2024-2025	Waste Reduction and Recycling <ul style="list-style-type: none"> • Expand Diversion Opportunities for wood waste, yard waste and scrap metal Residual Waste Management <ul style="list-style-type: none"> • Consider feasibility of upgrading rural transfer station network, as per recommendations of optimization study Policies and Bylaws <ul style="list-style-type: none"> • Review user-fee structure and update to encourage waste diversion

New Item: Plan Monitoring Advisory Committee Terms of Reference

- **Purpose:** Advise RDEK Board and staff on implementation of the Solid Waste Management Plan
- **Tasks:**
 - Review status of Plan initiatives
 - Review information presented related to implementation of the plan
 - Recommend strategies to increase diversion rates
 - Act in advisory role during each major review of the Plan
 - Recommend to the board concerning public consultation and amendments to the Plan
 - Annually review components of the plan and recommend updates as necessary

New Item: Dispute Resolution Procedure

- Required by ENV for SWMPs
- Applies to:
 - Administrative decisions made by staff
 - Interpretation of a statement, bylaw, policy or provision in the plan
 - The manner in which the plan or facility Operational Certificates is implemented
 - Any other matter not related to a proposed change to the wording of the plan or Operational Certificate

NEXT STEPS

- **Update the draft plan based on Advisory Committee & Board feedback**
 - Present to Board July 2019
- **Prepare for community and stakeholder consultation**
- **Public and Stakeholder Consultation (Summer / Fall 2019)**
- **Report back to the Advisory Committee on the results of the consultation (Fall 2019)**
- **Finalize SWMP for Board Approval (Winter 2019)**



NEXT STEPS

- **Public Consultation will include:**
 - Online engagement
 - News releases and advertising
 - Three open houses (one in each subregion)
 - Meetings with First Nations communities and councils
- **Results of consultation will be summarized and presented to the Advisory Committee along with the Final SWMP in Fall / Winter 2019**



THANK YOU!



***“Engineering Better Solid
Waste Management Systems
Today for a Cleaner
Tomorrow”***

