SOLID WASTE MANAGEMENT PLAN Amendment #4

Regional Services Committee

Presented By: Tamara Shulman, Tetra Tech Tauseef Waraich, Manager – Recycling & Waste Management



October 24, 2018

AGENDA

- Solid Waste Management Plan (SWMP) Amendment Context
- Consultation Overview
- Guiding Principles
- Goals and Targets
- Review of Strategies
- Timeline and Budget
- What's next?





SOLID WASTE MANAGEMENT PLAN UPDATE

AMENDMENT 4

October 17, 2018 ISSUED FOR USE



Community Leadership

- Zero Waste Initiative Since 2002
- Among the first in BC to implement food scraps collection
- Community takes pride in green environment and sustainability
- Carbon neutral status



Problem Statement and Long Term Plan

- No landfill disposal charges on the rise
- Recycle BC Contamination 15% (allowed < 3%)
- Garbage burning, illegal dumping
- Rules and markets changing transitioning market for recycling items
- Do we have systems and programs in place for long term vision (25 years)?

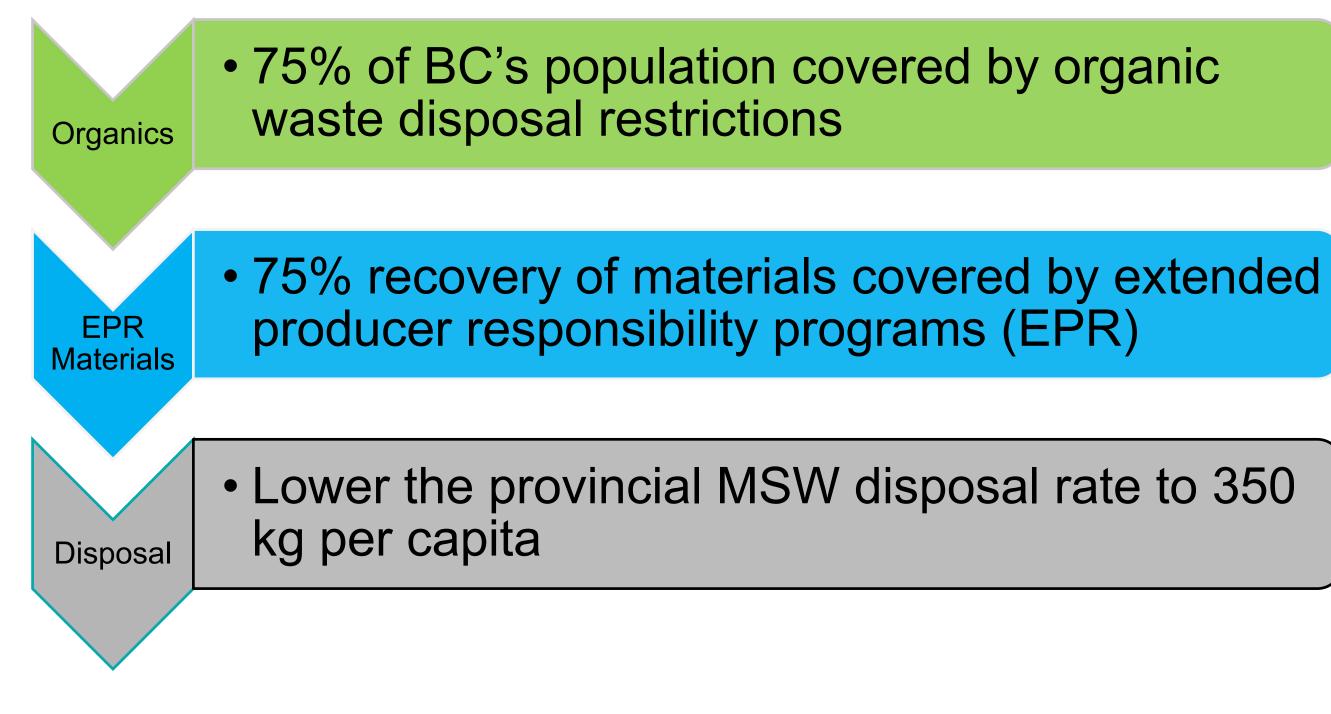


Solid Waste Management Plan – **History and Future**

- Regulatory Requirement to update the SWMP
- Amendment #4 -10 Years Plan -25 Year Vision



Goals and Target Setting Provincial Targets for 2020







SWMP Amendment Process

Plan implementation, monitoring, and reporting

> Step 4: Prepare and adopt the plan



Step 1: Initiate the planning process

Step 2: Set the plan direction

Step 3: Evaluate Options



SWMP Amendment #4 Process Flow Chart - 2018

Advisory Committee (Public & Technical)

Cross Departmental (Staff) Steering Committee

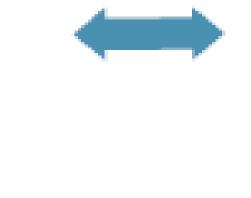
Oversight Committee (CVRD Directors)



CVRD Technical Team Recycling & Waste Management Staff 8 Consultant -

Tetratech

Public Consultation

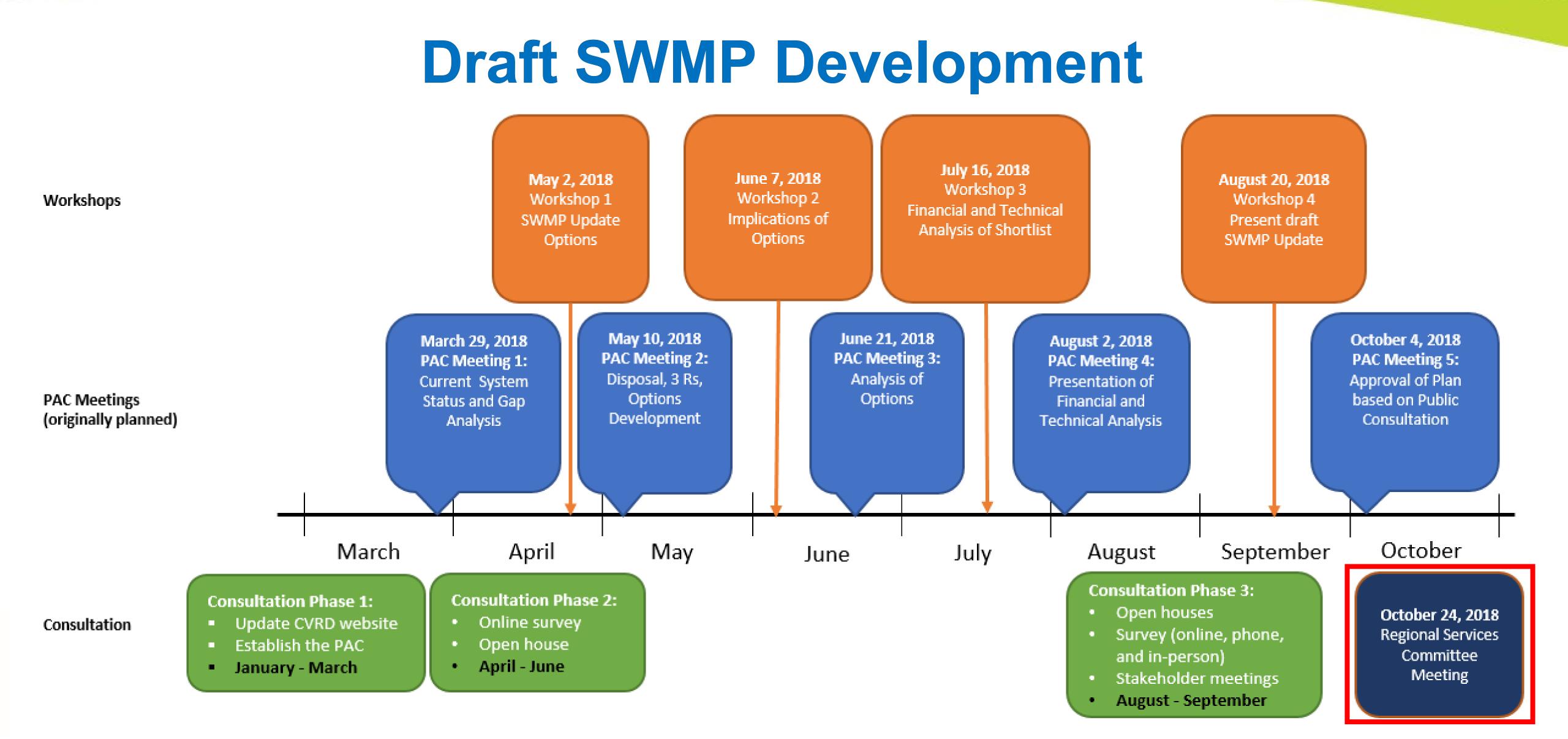




Special Interests Groups Consultation



BC ENV Plan Submission (Ministry for Approval)



Consultation – Web-based Participation

Table 5-3: Web-Based Participation

Туре	Dates Available	Information Provided or Collected	Participation Numbers
CVRD Community Satisfaction Survey (phone and online)	September, 2016	Resident input on quality of life, delivery of programs and services including solid waste and curbside, and communications	700
CVRD website	February 8, 2018 and ongoing	Amendment process, overview, next steps. Background information including current Plan, technical memorandum, PAC meeting information, open house dates etc.	1,115
Social media promotion (Facebook and Twitter)	February 20, 2018 and ongoing	Project website and PAC nominations, open houses and surveys promoted	17,762
PlaceSpeak website	April 25, 2018 and ongoing	Amendment process, overview, next steps. Background information including current Plan, technical memorandum, PAC meeting information, open house dates etc.	1,023
Survey 1	April 25, 2018	Solid Waste System Overview & Satisfaction	118
Survey 2	August 23, 2018	Feedback on Proposed Strategies	142
	Total Web-Based Participat	ion	20,860

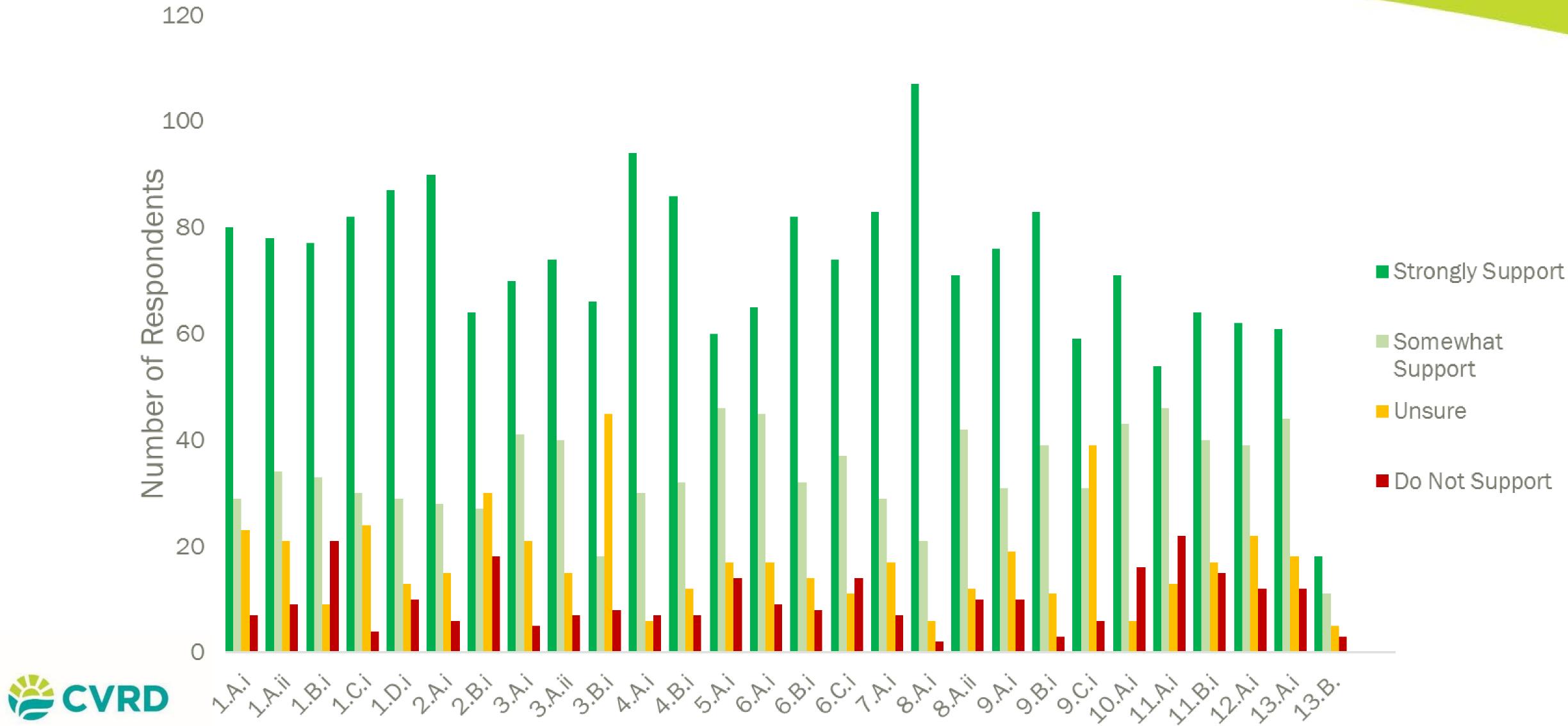


Consultation - Engagement Summary

- More than 21,000 reached during consultation process
- 21 in person participation events with 547 people reached
- 3 surveys with 960 responses received
- More than 440 verbal and written comments received







Strategy No.

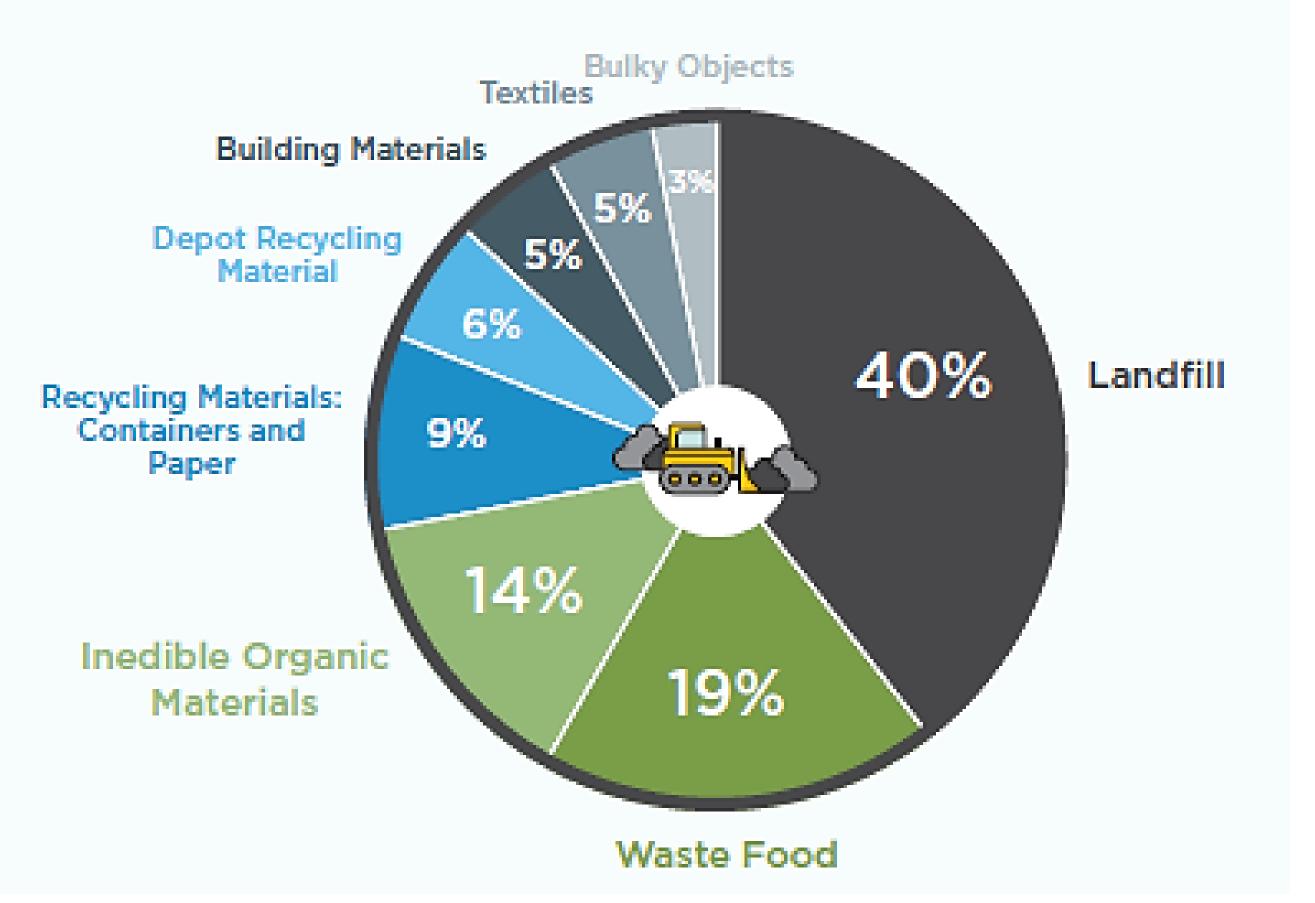
Strategy Feedback – Survey 2





Waste Composition Study

What's going to the landfill?





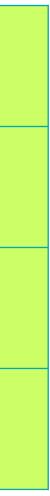
Waste Composition Study Residential Organics

Service Level Description	Areas	Proportion of Organics in Garbage
Mandatory organics collection	All municipalities	23%
Optional organics collection	Electoral Areas A-C	30%
No organics collection	Electoral Areas D-I	36%



Estimated Disposal Rates

	Sector	Percent of Total Disposed Materials (Garbage Only)	Quantity of Disposed Materials (tonnes)	Annual Disposal Rate Per Capita Disposal Rate	30,608 tonnes 358 kg per capita
	Single-Family (Municipalities) Single-Family	10%	3,068	Annual Recycling Rate (partial)	46,080 tonnes
	(Electoral Areas) Multi-Family	9% 8%	2,627 2,379	Per Capita Recycling Rate	525 kg per capita
	Industrial, Commercial, and Institutional	41%	12,469		
	Drop-off	16%	5,083		
	Construction and Demolition	16%	4,991		
CVRD	Total Disposal Rate	100%	30,608		



Guiding

Promote zero waste approaches and support

Promote the first 3 Rs (Reduce, Reuse and Re Recovery before Residuals Management

Maximize beneficial use of discarded material appropriately

Support structural and systemic changes (e.g approaches) and corresponding behaviour ch optimize system changes and promote princi

Prevent organics and recyclables from going practical

Collaborate with other regional districts when

Develop collaborative partnerships with inter regional targets set in plans

Support practical and effective delivery of wa from public and private service providers, an within the region for private and public solid facilities.



Interim Target – 2023 (5 year)

- 280 kg/capita disposal rate
- systems with disposal ban)

Plan Target – 2028 (10 year)

- 250 kg/capita disposal rate
- Optimization of Strategies 1-3 (system usage, disposal ban enforcement, and remaining strategies addressed to ensure system resilience)

Long Term Target – 2040

- 150 kg/capita disposal rate
- Continued system and behaviour change improvements
- Zero Waste Community



Target Setting – Proposed Metrics

Implementation of Strategies 1-3 (waste reduction, ICI and residential



Proposed Strategies Diversion Potential Resource Requirements (Over duration of the 10 year Plan) Timeline





Strategy 1: Reduction and Reuse Opportunities

Components:

- A.Reduce Wasted Food from RES and ICI Sectors
- **B.Explore Reduction and Reuse Opportunities**
- C.Support Bans on Single-Use Items
- D.Advocate for Expansion of EPR Programs

Actions

CVRD Support for above Compone





	Operating Cost	Timeline
ents	\$101,000	2019-2023

Strategy 2: Reduce Disposal from ICI and Multi-Family Residential Sectors

Components:

- A.Mandate source separation for ICI and multi-family residential sector
- B.Adopt organics disposal ban and enhance enforcement of existing disposal bans







Operating Cost	Timeline
\$10,000	2020
\$87,500	2019-2022

Strategy 3: Reduce Disposal from Residential Sector

Components:

- A.Assess opportunities for access to recycling programs at depots
 - i. Evaluate opportunities to increase accessibility for public depots
 - ii. Continue to assess depot service levels for the south end
- B.Adopt universal curbside collection services across the region

Actions	Operating Cost	Timeline
Strategy A	_	2019-2023
Strategy B	\$30,000	2019-2020 (study)
Strategy B	\$22,812,404*	2019-2028





Strategy 4: Improve Organics Processing

Components:

A.Best Management Practices for odour and leachate management

B.Ensure capacity for local organics processing







perating Cost	Timeline
\$15,000	2021
Embedded	2019-2028

Strategy 5: Investigate Processing and Transfer Capacity for Recyclables

Components:

A.Assess gaps and recommend further opportunities for ICI transfer capacity and processing within the CVRD

Actions	Operating Cost	Timeline
Strategy A	\$15,000	2020





Strategy 6: Improve Management of Construction and Demolition (C&D) Materials

Components:

- A.Monitor C&D disposal and recycling activities in the Region
- B.Develop a C&D Waste Management Strategy
- C.Reduce Barriers to Disposing Hazardous Materials (asbestos, gypsum wallboard)







Operating Cost	Timeline
\$30,000	2022-2023
\$800,000	2021-2028

Recovery and Residuals Management





Strategy 7: Residuals Management

Explore Options for Disposal

Short-Term Disposal Options

Option	
Continue Waste	Shipping containers are used to
Export	Rabanco landfill is available for
Landfill in BC	Cache Creek Landfill in Ashcro disposal at this landfill facility sh
Waste to Energy (Private Facility)	It is possible that a new private in two to three years depending

Long-Term Disposal Options

Option	
Landfill Disposal on the Island	A new landfill was recently oper Vancouver Island landfills shou
Waste to Energy (Public Facility)	Two recent studies reviewed th Vancouver Island. Both studies feasible. However, if a new tech out to further assess the viabilit
Waste to Energy (Private or owned by others Facility)	It is possible that a new private Valley. The feasibility of dispos

Actions

Disposal Options Assessment



Description

o transport waste by rail to Washington State for \$140/tonne r MSW disposal.

oft will be available for MSW disposal in mid-2019. The feasibility of hould be explored.

(or public private partnership) WTE facility may be built on the island on permits.

Description

ened in Comox Valley. The feasibility of disposal at available uld be explored.

he feasibility of a Waste to Energy (WTE) facility for southern s determined that viable technology exists but is not economically shnology becomes available, a feasibility assessment should be carried ty of a business case for a public or P3 partnership WTE facility.

e (or owned by others) WTE facility may be built within the Cowichan al at this potential WTE facility should be explored.

Operating Cost	Timeline
\$20,000	2019

Strategy 8: Augment Illegal Dumping **Prevention Strategies**

Components:

- Hillcrest
- A "Free Tipping" policy was implemented in the early 2000s to provide financial incentives to non-profit organizations who clean up public lands
- determine whether changes should be made

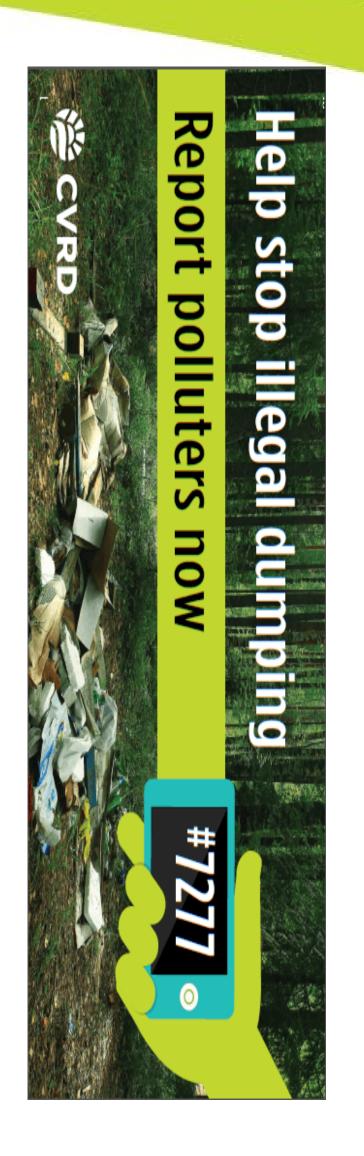




A campaign was conducted in 2016 to reduce illegal dumping in

• CVRD may wish to analyze costs and ubiquity of illegal dumping to

perating Cost	Timeline
Embedded	2019-2028



Strategy 9: Collection/Drop-off for HHW, Bulky Items and Organic Debris

Components:

A. Improve collection for household hazardous waste (HHW)

B. Improve recycling opportunities for bulky items

C.Assess effective ways to reduce open burning of wood waste

Actions Strategies A & B Strategy C





Operating Cost	Timeline
\$1,575,000	2020 - 2028
Embedded	2022

Strategy 10: Monitor Historic Disposal Sites

The CVRD is required to continue monitoring and assessing the state of these historic disposal sites







Operating Cost	Timeline
Embedded	2019 - 2028





Operational Improvements

Strategy 11: Implement Asset Management Plan

A.Implement Asset Management Plans at CVRD solid waste facilities

B.Develop Bings Creek Transfer Station 10-Year Plan







Operating Cost	Timeline
\$690,000	2019-2023
\$10,000	2019

Strategy 12: Disaster Debris Management Plan

Developing a Disaster Debris Management Plan for solid waste services and infrastructure.

Actions

Disaster Management Plan





Operating Cost	Timeline
\$15,000	2022

Strategy 13: Education and Behaviour Change

Continued public outreach and community-based social marketing

Tools

- Commitments
- Prompts
- Norms
- Social Diffusion

- Communication
- Incentives
- Convenience







Est. Operating Cost	Timeline
Embedded	2019 - 2028

Primary Waste Reduction/Diversion

- **Explore Reduce and Reuse Opportunities**
- **Reduce Disposal from ICI** 2. and Multi-Family Residential
- Reduce Disposal from 3. **Residential** Sector

Processing Infrastructure

- Improve Organics Processing 4.
- Investigate Processing and 5. Transfer Capacity for Recyclables
- Improve Management of 6. Construction and Demolition Materials

Summary - Strategies List

Recovery and Residuals Management

- Explore Options for Local Disposal
- 8. Reduce Illegal Dumping
 - Collection/Drop Off for HHW, Bulky 9. Items and Organics
 - 10. Monitor Historic Disposal Sites

Supporting System Resilience

- 11. Implement Asset Management Plan
- 12. Develop Disaster Management Plan
 - 13. Education and Behaviour Change Considerations





Budget Summary

Current Operating Budget

• \$9.83M

Proposed New Budget

- \$195,800 (2019) to \$3.31M (2028)
- Combined Operating Budgets (current and proposed)
- \$9.98M (2019) to \$14.47M (2028)



2018 Budget (Combined)

Curbside Collection - Garbage	\$791,112
Curbside Collection - Recycling	\$534,913
CVRD Internal Allocations	\$584,875
Debt	\$786,318
Garbage Disposal	\$2,491,200
Legal & Administrative	\$208,150
Operations - Disposal	\$2,726,135
Operations - Recycling	\$1,277,550
Planning, Operations Support, and	φ τ, 2 τ τ , 0 0 0
Execution	\$268,000
Reduction and Recycling Programs	\$42,000
Transfer to Reserve	\$120,000
Total Annual Existing Operating	
Expenditures	\$9,830,253



Proposed Budget

Table 5-1: Ten Year Financial Plan

Interest	CVRD FINANCIAL PLAN	2019	2020	2021	2022	2023	2024	2025	2026	2027
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	Additional Requisition Required	\$ 195,800					\$ \$15,500			

Proposed Schedule

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
01 Enhance Reduce and Reuse Potential			I	I						
A Reduce Wasted Food from Residential and Industrial, Commercial, and Inst	itutional (ICI) Sectors									
B Enhance and Improve Local Reuse Opportunities										
C Support Bans on Single-Use Plastic Bags or Other Single-Use Items										
D Advocate for Expansion of EPR Programs										
02 Daduaa Dianaasi fram ICL and Multi Esmilu Daaidantisi										
02 Reduce Disposal from ICI and Multi-Family Residential A Mandate Source Separation for Multi-family and ICI										
B Adopt a Full Organics Disposal Ban and Enhance Enforcement of Existing	Material Disposal Bans									
B Adopt an an organics proposal barrand enhance enforcement of existing	Material Disposar Daris									
03 Reduce Disposal from Residential Sector										
A Assess Opportunities for Access to Recycling Programs at Depots										
B Adopt Universal Curbside Collection Services Across the Region										
04 Improve Organics Processing										
A Ensure Use of Best Management Practices for Odour Management										
B Ensure Capacity for Local Organics Processing										
05 Investigate Processing and Transfer Capacity for ICI Recyclable A Perform a Feasibility Assessment for Development of ICI Transfer Capacity										
06 Improve Management of Construction and Demolition Materials										
A Monitor C&D Disposal and Recycling Activities in the Region					1					
B Develop a C&D Waste Management Strategy										
C Reduce Barriers to Disposing Hazardous Materials (asbestos, gypsum wallb	oard)									
07 Explore Options for Local Disposal					I					
A Explore Options for Local Disposal										
B Explore and Amend Tipping Fee										
08 Reduce Illegal Dumping										
A Augment Illegal Dumping Prevention Strategies										
09 Implement Collection/Drop off For HHW, Bulky Items, and Organ	nics									
A Implement Collection for HHW										
B Improve Recycling Opportunities for Bulky Items										
C Assess Effective Ways to Reduce Open Burning of Wood Waste										
10 Monitor Historic Disposal Sites										
A Monitor Historic Disposal Sites										
11 Implement Asset Management Plan										
A Implement Asset Management Plan										
B Develop Bings Creek Transfer Station 10-Year Plan										
12 Develop a Disaster Debris Management Plan										
A Develop a Disaster Debris Management Plan										
13 Integrate Education and Behaviour Change Best Practices										
A Consider Best Management Practices for Education and Behavior Change F	Programs									
B Continue to support Zero Waste Events Program										

Recommended Resolution

RECOMMENDED RESOLUTION

That it be recommended to the Board:

- 1. That the Solid Waste Management Plan Update Amendment 4 Issued for Use, Dated October 17, 2018, be approved and that following approval the Solid Waste Management Plan Update be submitted to the Ministry of Environment and Climate Change Strategy for approval.
- That the regional district's Solid Waste Management Plan was duly and properly consulted on in accordance with the provisions of the Environmental Management Act section 27(1) and in accordance with the objectives set out in the regional district's applicable consultation process.
- 3. That the Ministry of Environment's requirements and recommendations for the Solid Waste Management Plan content, as defined in the Checklist for Review and Approval of Plans, have been duly met and any requested rationale for decisions be provided to the Ministry of Environment and Climate Change Strategy with the checklist.
- 4. To the best of the knowledge of the Board of Directors, there are no objections to the plan that have not been acknowledged and addressed.













Next Steps





Questions or Comments



