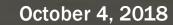


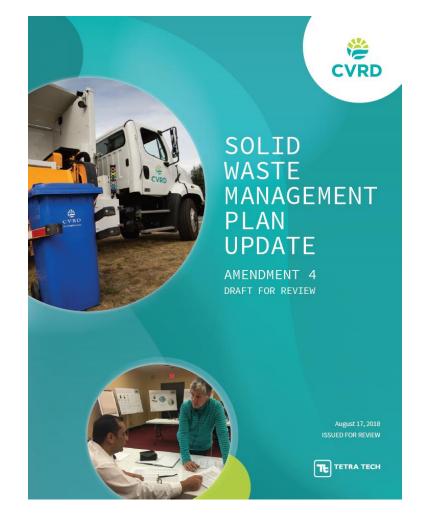
### CVRD Solid Waste Management Plan Update – Meeting 5



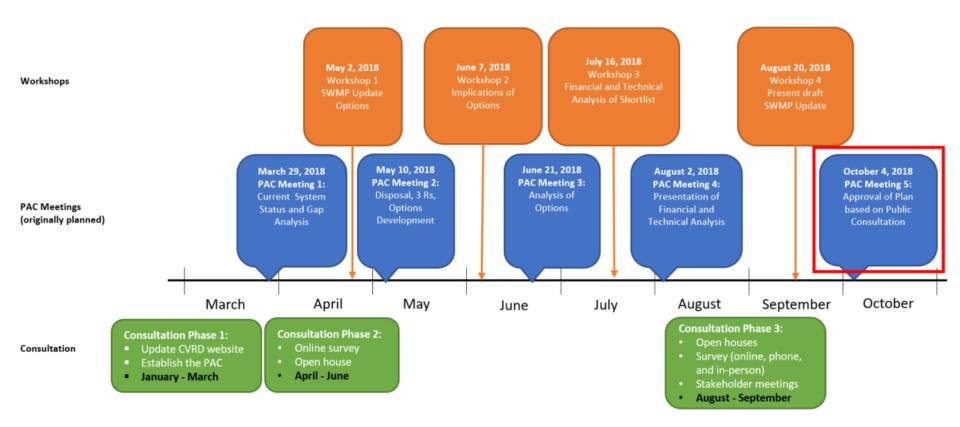
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# Agenda

- Plan and Consultation Context
- Consultation Summary
  - Process Structure Consultation Objectives
  - Plan Initiation
  - Plan Advisory and Oversight Committee
  - Participation
  - Promotion and Advertising
  - Public Consultation Strategies
    - Survey Results
    - Public Feedback on Strategy Options
    - Dotmocracy
  - Plan Implementation
- SWMP Update
- Next Steps and Wrap Up



### **Project Schedule**



### **Consultation Process**

#### Table 4-1: Public Consultation Process

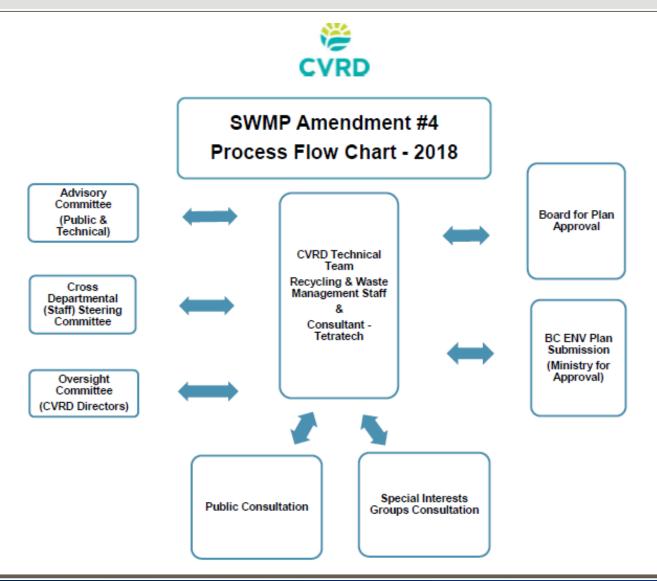
| Consultation Phase                            | Consultation Component                        | Timing Details   | Timeline (2018)    |  |
|---|---|--|--------------------|--|
|   | CVRD Website & PlaceSpeak<br>Launch           |  |                    |  |
| Phase 1<br>Initiation and Notification        | Social Media Promotion                        | Prior to first PAC meeting   | January - March    |  |
| Initiation and Notification                   | PAC Announcement                              |  |                    |  |
|   | First Nations Outreach                        |  |                    |  |
|   | CVRD Website & PlaceSpeak<br>Update           |  |                    |  |
| Phase 2                                       | Social Media Promotion                        | After the first PAC meeting  | April - June       |  |
| Set the Plan Direction                        | Online & In-Person Survey(s)                  | -  |                    |  |
|   | Open House                                    |  |                    |  |
|   | CVRD Website & PlaceSpeak<br>Updates          |  |                    |  |
|   | Social Media Promotion                        |  |                    |  |
| Phase 3                                       | Online and In-Person Survey(s)                | After the SWMP Strategies,   |                    |  |
| Evaluate the Options                          | Open Houses                                   | Budget and Timeline were<br>presented to the PAC                           | August - September |  |
|   | Community Outreach                            |  |                    |  |
|   | First Nations Outreach                        |  |                    |  |
|   | Stakeholder Meetings                          |  |                    |  |
| Dhane 4                                       | Compile and incorporate public<br>feedback    |  |                    |  |
| Phase 4<br>Record and Incorporate<br>Feedback | Compile and incorporate<br>industry feedback  | After Phase 3 is completed,<br>before final PAC meeting September - Octobe |                    |  |
| 1 OGODOR                                      | Present public consultation<br>results to PAC |  |                    |  |



# **Consultation Summary**



### **SWMP Update Process Flow Chart**



### **Consultation Objectives**

- Inform the general public and potentially affected stakeholders about the content of the SWMP Update
- Provide various ways for interested parties to provide input and feedback on the SWMP Update
- Ensure the amended SWMP Update aligns with information gathered during the consultation feedback
- Address public consultation considerations outlined in the Solid Waste Management Planning Guide and meet Ministry requirements under the *Environment Management Act*

### **PAC and Oversight Committee**

| Table 5-1: PAC Membership  |  |  |  |
|--|--|--|--|
| Community Interest   | Interested Party   | Affiliation  | Community  |
| Private Sector Waste Management<br>Industry Service Provider                         | Andrea Davis <sup>1</sup>  | PAN Disposal   | Mill Bay<br>Shawnigan Lake<br>Cobble Hill              |
| Non-Profit Group with an Interest in<br>Solid Waste Management                       | Nathan Harben  | Cowichan Green<br>Community  | Duncan   |
| Large Solid Waste Generator/Institution<br>representative                            | Monroe Grobe   | School District 79   | Regional   |
| Business Representatives/ Private<br>Sector Solid Waste Facility<br>Representatives, | Dan Lazaro   | Vancouver Island<br>Recycling & Waste<br>Industry Coalition                                | Regional   |
|  | Sandy McPherson  | Not applicable/Public  | North Cowichan   |
| Members at Large for the Community   | Kim Barnard  | Not applicable/Public  | Shawnigan Lake   |
|  | Denis Martel   | Wilderness Watch<br>Society/Public   | Lake Cowichan  |
| Regional District Staff  | Tauseef Waraich<br>Harmony Huffman   | Cowichan Valley Regional<br>District   | Regional   |
| Municipal Staff  | Clay Reitsma<br>Geoff Goodall<br>Nagi Rizk <sup>3</sup><br>Len Thew <sup>2</sup> | District of North Cowichan<br>Town of Ladysmith<br>Town of Lake Cowichan<br>City of Duncan | North Cowichan<br>Ladysmith<br>Lake Cowichan<br>Duncan |
| First Nations  | Melissa Tokarek  | Cowichan Tribes  | Cowichan   |
| Provincial Agencies  | Melissa Kriegerfox   | Island Health  | Duncan<br>Ladysmith                                    |

#### Table 3-1: PAC Membership

1. Resigned on August 27, 2018 with one remaining PAC meeting (October 4, 2018)

2. Position previously held by Mr. Emmet McCusker, City of Duncan

 Mr. Nagi Rizk is no longer employed by the Town of Lake Cowichan as of July 27, 2018. No replacement was available, however, the Town's CAO, Mr. Joe Fernandez, has been included in all PAC communications.

#### Table 3-2: Oversight Committee Membership

| Name                  | Affiliation           | Community        |
|-----------------------|-----------------------|------------------|
| Director Ian Morrison | CVRD Board            | Electoral Area F |
| Director Sierra Acton | CVRD Board            | Electoral Area B |
| Mayor Aaron Stone     | CVRD Board            | Ladysmith        |
| Mayor Aaron Stone     | Town of Ladysmith     | Ladysiniun       |
| Councilor Bob K. Day  | CVRD Board            | Lake Cowichan    |
| Councilor Bob K. Day  | Town of Lake Cowichan | Lake Cowichain   |

- 1,599 individuals participated in the public consultation process
  - 21 In-Person participation events were held with 571 people reached
  - Three Web-based participation events (surveys) were held with 960 responses received
  - A total of 439 verbal and written comments were received



### Table 5-1: In-Person Participation - Open Houses

| Date               | Location      | Attendees |
|--------------------|---------------|-----------|
| April 25, 2018     | Duncan        | 19        |
| August 28, 2018    | Lake Cowichan | 12        |
| September 11, 2018 | Cobble Hill   | 242       |
| September 12, 2018 | Saltair       | 35        |
| Total Open He      | 308           |           |

### Table 5-2: In-Person Participation - Stakeholder Meetings

| Name/Organization       | Туре                 | Date            | Location     | Attendees |
|-------------------------|----------------------|-----------------|--------------|-----------|
| Town of Lake Cowichan   | Stakeholder Meeting  | March 7, 2018   | Town of Lake | 1         |
|                         |                      |                 | Cowichan     |           |
| PAN Disposal            | Stakeholder Meeting  | April 11, 2018  | Duncan       | 2         |
| Food Security Coalition | Stakeholder Meeting  | April 19, 2018  | Duncan       | 15        |
| Solid Waste Industry    | Stakeholder Meeting  | July 16, 2018   | Duncan       | 23        |
| Focus Group             |                      |                 |              |           |
| Solid Waste Industry    | Stakeholder Meeting  | August 7, 2018  | Duncan       | 1         |
| Focus Group Meeting     |                      |                 |              |           |
| Elizabeth Compton Burn  | Stakeholder Meeting  | August 21, 2018 | Duncan       | 2         |
| Pit                     |                      | (estimated)     |              |           |
|                         | Total Stakeholder Me | eting Attendees |              | 44        |

### Table 5-3: Web-Based Participation

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

### Table 5-4: First Nations Participation

| Community               | Туре                | Date           | Location      |
|-------------------------|---------------------|----------------|---------------|
| Lake Cowichan First     | Stakeholder Meeting | March 7, 2018  | Lake Cowichan |
| Nation                  |                     |                |               |
| Halalt First Nation     | Stakeholder Meeting | March 14, 2018 | Chemainus     |
| Stz'uminus First Nation | Stakeholder Meeting | March 22, 2018 | Duncan        |

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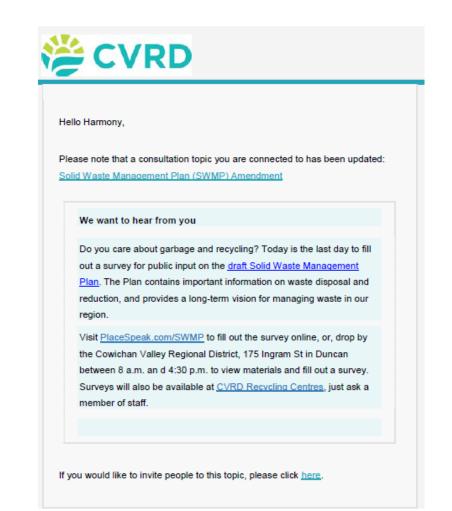
| Organization / Name 🛛 💌    | Email | Letter | Meeting | Phone | Grand Total |
|----------------------------|-------|--------|---------|-------|-------------|
| Cowichan Tribes            | 8     | 9      |         | 1     | 18          |
| Ditidaht First Nation      | 4     | 1      |         | 1     | 6           |
| Halalt First Nation        | 6     | 2      | 1       | 3     | 12          |
| Hul'qumi'num Treaty Group  | 1     |        |         |       | 1           |
| Lake Cowichan First Nation | 5     | 4      | 1       | 4     | 14          |
| Lyackson First Nation      | 2     | 1      |         | 1     | 4           |
| Malahat First Nation       | 4     | 1      |         | 3     | 8           |
| Pacheedaht First Nation    | 3     | 1      |         | 2     | 6           |
| Pauquachin First Nation    | 2     | 3      |         | 1     | 6           |
| Penelakut First Nation     | 5     | 4      |         | 4     | 13          |
| Snuneymuxw First Nation    | 2     |        |         |       | 2           |
| Stz'uminus First Nation    | 4     | 2      | 1       | 5     | 12          |
| Grand Total                | 46    | 28     | 3       | 25    | 102         |

### • Engagement Summary

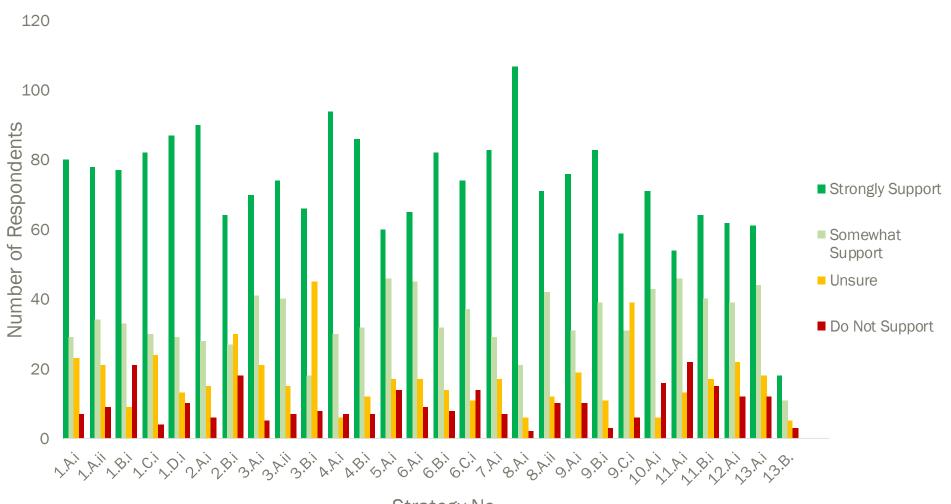
| Type of Engagement              | Method 🗸                  | No. of Items<br>/ Events | Reach  |
|---------------------------------|---------------------------|--------------------------|--------|
| Feedback Received               | Email                     | 86                       | 84     |
|                                 | Letter                    | 5                        | 5      |
|                                 | Facebook Comment          | 4                        | 3      |
| Feedback Received Total         |                           | 95                       | 92     |
|                                 |                           |                          |        |
| Participation (In-Person)       | Meeting                   | 9                        | 47     |
|                                 | Open House                | 4                        | 312    |
|                                 | Staffed information booth | 8                        | 188    |
| Participation (In-Person) Total |                           | 21                       | 547    |
|                                 |                           |                          |        |
| Participation (Web-Based)       | PlaceSpeak                | 5                        | 1,023  |
|                                 | Social Media (Facebook)   | 16                       | 13,192 |
|                                 | Social Media (Twitter)    | 8                        | 4,570  |
|                                 | Survey                    | 3                        | 960    |
|                                 | Website                   | 28                       | 1,115  |
| Participation (Web-Based) Total |                           | 60                       | 20,860 |
|                                 |                           |                          |        |
| Grand Total                     |                           | 176                      | 21,499 |

### **Promotion and Advertising**

- Over 80,000 reached through promotion
  - Newspaper and radio ads across region
  - 3,500 handouts distributed at Recycling Centres
  - E-Newsletter to 1,000+ businesses



### **Consultation Feedback – Survey 2**



| Strategy Options   | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)                      |
|--|--|--|---|
| 1. Enhance Reduce and Reuse Potential  |  |  |   |
| <ul> <li>A. Reduce Wasted Food from Residential and Industrial,<br/>Commercial, and Institutional (ICI) Sectors         <ul> <li>I. Promote residential food waste reduction through<br/>adoption of food waste prevention campaign</li> </ul> </li> </ul> | 78%  | - Support Support cultural shift   |   |
| <ul> <li>A. Reduce Wasted Food from Residential and Industrial,<br/>Commercial, and Institutional (ICI) Sectors         <ul> <li>ii. Support development of food rescue capacity within<br/>region</li> </ul> </li> </ul>                                  | 79%  | <ul> <li>Support: Support cultural shift<br/>towards waste avoidance, interest in<br/>reducing disposable packaging<br/>through regulation and having<br/>manufacturers take responsibility for<br/>end of life management of products</li> <li>Concerns: Difficulty in implementing<br/>cultural shift programs and slower</li> </ul> | <ul> <li>Included. Many community<br/>members support waste<br/>reduction and avoidance as</li> </ul> |
| <ul> <li>B. Enhance and Improve Local Reuse Opportunities         <ul> <li>i. Continue to explore further reduce and reuse<br/>opportunities</li> </ul> </li> </ul>  | 86%  |  | part of a larger cultural shift<br>and want the CVRD to<br>support those efforts                      |
| <ul> <li>C. Support Bans on Single-Use Plastic Bags or Other<br/>Single-Use Items         <ul> <li>i. Adopt single-use plastic reduction policy and share with<br/>member municipal governments and UBCM</li> </ul> </li> </ul>                            | 79%  | return on investment; problem is<br>widespread and 'bigger than the<br>CVRD'   |   |
| <ul> <li>D. Advocate for Expansion of EPR Programs         <ul> <li>i. Continue advocacy work to Provincial government for<br/>expansion of EPR programs</li> </ul> </li> </ul>  | 83%  |  |   |

| Strategy Options  | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)  |
|---|--|--|---|
| 2. Reduce Disposal from ICI and Multi-Family Residential  |  |  |   |
| <ul> <li>A Mandate Source Separation for Multi-family and ICI         <ul> <li>i. Support development of bylaws mandating source<br/>separation for ICI sector and Multi-Family residential</li> </ul> </li> </ul>  | 85%  | <ul> <li>Support: ICI is a large portion of the waste stream so it is an important sector to address with significant potential for diversion</li> <li>Concerns: Complex to implement due to multi-stakeholder and multi-jurisdictional nature, and generally requires some implementation years before significant tonnage results</li> </ul> | <ul> <li>Included. ICI is a significant<br/>part of the waste stream;<br/>businesses will need support<br/>during the transition but are in<br/>a community with many early<br/>adopters, so the additional<br/>regulation will help to build the<br/>momentum</li> </ul> |
| <ul> <li>B Adopt a full organics disposal ban and enhance<br/>enforcement of existing material disposal bans</li> <li>- i. Adopt an organics disposal ban at the CVRD transfer<br/>station, and enhance enforcement of existing material<br/>disposal bans</li> </ul> | 65%  | <ul> <li>Support: Provides impetus for food<br/>scraps collection programs<br/>to be adopted across sectors</li> <li>Concerns: Organics disposal ban<br/>should be implemented after (or in<br/>concert with) implementation of<br/>curbside organics collection.</li> </ul>   | <ul> <li>Included. It was recognized<br/>that services need to be<br/>available across sectors<br/>before a full disposal ban is<br/>put in place and there are<br/>logistics to manage regarding<br/>that transition</li> </ul>  |

| Strategy Options  | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)  |
|---|--|--|---|
| 3. Reduce Disposal from Residential Sector  |  |  |   |
| <ul> <li>A. Assess opportunities for access to recycling programs at<br/>depots         <ul> <li>i. Evaluate opportunities to increase accessibility for public<br/>depots</li> </ul> </li> </ul> | 84%  | <ul> <li>Support: Longer hours of access to<br/>recycling depots are desired.</li> <li>Concerns: Subsidizing public depots<br/>could detract from user-pay system</li> </ul>   | <ul> <li>Included: many residents want<br/>more access to existing<br/>depots</li> </ul>  |
| <ul> <li>A. Assess opportunities for access to recycling programs at<br/>depots         <ul> <li>ii. Continue to assess depot service levels for the south<br/>end</li> </ul> </li> </ul>         | 81%  | <ul> <li>Support: Access is deemed a significant factor compared to drop off costs or whether or not depots are run privately or publicly</li> <li>Concerns: The current depot is working well for many residents at present and there is no need to make any major change (i.e. build a public depot) at present</li> </ul> | <ul> <li>Included. While there are<br/>some disparities re value<br/>compared to public depots<br/>(i.e. less up-front cost to users<br/>at public depots), private<br/>depots in the south end<br/>continue to offer quality<br/>service and are working with<br/>CVRD (e.g. contract to offer<br/>Recycle BC drop off at Fisher<br/>Road Recycling). It is<br/>important to monitor service<br/>levels to ensure that all<br/>residents have equal access<br/>and value to depot services.</li> </ul> |

| Strategy Options   | Level of             | Support and Concerns   | Strategy Decisions  |
|--|----------------------|--|---|
|  | Survey               |  | (rationale for why each option  |
|  | Support <sub>1</sub> |  | was or was not included)  |
| 3. Reduce Disposal from Residential Sector   |                      |  |   |
| <ul> <li>B. Adopt Universal Curbside Collection Services Across the<br/>Region         <ul> <li>i. Adopt Universal Curbside Collection Services Across the<br/>Region</li> </ul> </li> </ul> | 61%                  | <ul> <li>Support: Some electoral areas are not serviced by the current private collector; some residents in these areas desire curbside collection services. Support for waste reduction is prevalent and there is understanding that mandatory collection (including organics collection with foodscraps) actively reduces garbage tonnage and optimizes diversion. Support exists for region wide consistent collection service</li> <li>Concerns: Opt-in service is desirable for many and the current service provider is well-regarded. Residents striving for zero waste lifestyle and seasonal CVRD residents only need garbage collection occasionally and prefer to pay for collection services on an as-needed basis.</li> </ul> | <ul> <li>Included. While significant<br/>concern was expressed about<br/>losing subscription service<br/>(and the current service<br/>provider), this strategy deals<br/>with the level of service and<br/>not the service provider. The<br/>strategy has been retained<br/>because evidence-based<br/>results show 35-40% garbage<br/>reduction with universal three<br/>stream curbside and this<br/>supports a shift and fills<br/>regional service gaps in<br/>CVRD Electoral Areas.<br/>Universal three-stream<br/>collection is also an important<br/>component in the effective<br/>implementation of a full landfill<br/>organics disposal ban<br/>(Strategy 2.B), supports<br/>SWMP goals and targets, and<br/>supports other CVRD and<br/>SWMP initiatives such as<br/>reducing illegal dumping and<br/>burning.</li> </ul> |

| Strategy Options  | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)   |
|---|--|--|--|
| 4. Improve Organics Processing  |  |  |  |
| <ul> <li>A. Ensure Use of Best Management Practices for Odour<br/>Management         <ul> <li>i. Continue to develop Bylaw 2570 to accommodate<br/>current and emerging technologies and ensure bylaw<br/>enforcement</li> </ul> </li> </ul>  | 90%  | <ul> <li>Support: If organics bans occurs<br/>processing infrastructure must be<br/>able to accommodate more<br/>throughput.</li> <li>Concerns: Odour generation of</li> </ul>   | <ul> <li>Included. The community<br/>understands the importance of<br/>viable long-term organics<br/>processing to avoid odour<br/>issues, end market and other<br/>other</li> </ul>                               |
| <ul> <li>B. Ensure Capacity for local Organics Processing         <ul> <li>i. Continue to assess demand &amp; capacity for organics processing, assess and accommodate emerging technologies and ensure effective end markets for final products before residuals disposal</li> </ul> </li> </ul> | 86%  | organics processing facilities is key<br>concern.  | challenges; industry is<br>committed to providing the<br>service   |
| 5. Investigate Processing and Transfer Capacity for Recycl  | ables                                      |  |  |
| <ul> <li>A. Feasibility Assessment for Transfer Capacity for ICI<br/>Recyclables         <ul> <li>i. Assess gaps and recommend further opportunities for<br/>ICI transfer capacity and processing within the CVRD</li> </ul> </li> </ul>  | 77%  | <ul> <li>Support: Save money and add<br/>efficiency by moving material in the<br/>most efficient way</li> <li>Concerns: There may not be enough<br/>tonnage for in-region processing<br/>(e.g., material recovery [MRF]);<br/>CVRD has land use challenges that<br/>need to be overcome through<br/>partnerships and creative solutions</li> </ul> | <ul> <li>Included. How to best manage<br/>ICI recyclables has been<br/>adjusted, based on<br/>stakeholder feedback, to<br/>focus more specifically on ICI<br/>transfer as opposed to<br/>processing/MRF</li> </ul> |

| Strategy Options   | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns  | Strategy Decisions<br>(rationale for why each option<br>was or was not included)  |
|--|--|---|---|
| 6. Improve Management of Construction and Demolition   |  |   |   |
| <ul> <li>A. Monitor C&amp;D Disposal and Recycling Activities in the<br/>Region         <ul> <li>i. Conduct C&amp;D waste system analysis to identify issues,<br/>opportunities and gaps</li> </ul> </li> <li>B. Develop a C&amp;D Waste Management Strategy         <ul> <li>i. Develop a C&amp;D waste management strategy for the<br/>region</li> </ul> </li> </ul> | 81%  | <ul> <li>Support: There is an understanding<br/>that more C&amp;D materials can be<br/>diverted; there is support to address<br/>gaps to improve C&amp;D diversion,<br/>including high disposal costs and lack<br/>of market drivers for wood waste and<br/>other C&amp;D materials</li> <li>Concerns: No significant concerns<br/>noted</li> </ul> | <ul> <li>Included. It is understood that<br/>C&amp;D and related hazardous<br/>components require<br/>accessible disposal options to<br/>prevent or reduce illegal<br/>dumping and environmental<br/>impacts</li> </ul> |
| <ul> <li>C. Reduce Barriers to Disposing Hazardous Materials<br/>(asbestos, gypsum wallboard)</li> <li>i. Assess options and prepare business case for different<br/>residential hazardous waste disposal options, e.g. cost<br/>subsidy for residential gypsum wallboard</li> </ul>   | 81%  | <ul> <li>Support: Proactive way of supporting<br/>residents (smaller generators) for<br/>how to deal with a challenging<br/>material, appreciation that it helps to<br/>reduce illegal dumping</li> <li>Concerns: No significant concerns<br/>noted</li> </ul>  |   |

| Strategy Options   | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)                         |
|--|--|--|--|
| <ul> <li>7. Explore Options for Local Disposal</li> <li>A. Review feasibility of alternative disposal options         <ul> <li>i. Review available alternative local disposal options; if required, do feasibility study on alternative disposal options (e.g. Waste to Energy)</li> </ul> </li> </ul> | 82%  | <ul> <li>Support: General understanding that<br/>shipping garbage internationally<br/>involves managing significant cost<br/>and access risks, and may not be a<br/>sustainable solution</li> </ul>  | <ul> <li>Included. This is an ongoing<br/>priority that is recognized as a<br/>critical issue</li> </ul> |
|  |  | <ul> <li>Concerns: No significant concerns<br/>noted</li> </ul>  |  |
| <ul> <li>B. Explore and Amend Tipping Fee         <ul> <li>i. Review tipping fee in concert with consideration of future disposal options and update if needed.</li> </ul> </li> </ul>   | Not<br>applicable                          | <ul> <li>Support: Evaluate rising cost of<br/>MSW disposal versus tipping fees<br/>due to contract changes and US<br/>exchange rate to consider user pay<br/>and sustainability principles. Also,<br/>evaluate tipping fees as alternate<br/>options of disposal become available.</li> <li>Concerns: Tipping fee has not been<br/>increased since 2012 and net<br/>revenues have declined significantly<br/>in that time, meaning that requisition<br/>rates have increased to maintain a<br/>balanced budget. Increasing tipping<br/>fees as opposed to requisition rates<br/>covers disposal costs incurred<br/>directly and actively supports a user-<br/>pay approach to optimize diversion.</li> </ul> | <ul> <li>For discussion at PAC<br/>Meeting 5.</li> </ul>   |

| Strategy Options  | Level of<br>Survey<br>Support1 | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)  |
|---|--------------------------------|--|---|
| 8. Reduce Illegal Dumping   |                                | •  |   |
| <ul> <li>A. Augment illegal dumping prevention strategies         <ul> <li>i. Continue to assess and track illegal dumping activities,<br/>support volunteers and non-profit organizations for clean-<br/>up activities</li> </ul> </li> </ul>                                      | 94%                            | <ul> <li>Support: Visible problem that<br/>residents want to see handled<br/>effectively</li> <li>Concerns: No significant concerns</li> </ul>                                 | <ul> <li>Included. Illegal dumping is an<br/>ongoing visible issue that the<br/>community wants to see<br/>addressed</li> </ul> |
| <ul> <li>A. Augment illegal dumping prevention strategies         <ul> <li>ii. Implement multi-year illegal dumping education program<br/>using CBSM, and develop reporting program</li> </ul> </li> </ul>  | 84%                            | noted  |   |
| 9. Collection/Drop off For HHW, Bulky Items, and Organics   |                                | •  |   |
| <ul> <li>A. Implement collection program for unlabelled liquid HHW         <ul> <li>i. Develop collection program(s) for residential un-labelled<br/>liquid HHW</li> </ul> </li> </ul>  | 79%                            | <ul> <li>Support: Understanding that toxic<br/>materials shouldn't go into landfill and<br/>need a better solution, will contribute<br/>to reducing illegal dumping</li> </ul> | <ul> <li>Included. Support was shown<br/>for the need to handle these<br/>harder to recycle items</li> </ul>                    |
| <ul> <li>B. Improve recycling opportunities for bulky items</li> <li>i. Assess options to support recycling of bulky items and<br/>prepare business case, e.g. subsidized annual collection<br/>of mattresses at Bings Creek.</li> </ul>  | 90%                            | <ul> <li>Concerns: Cost to implement service<br/>in rural area may be higher than<br/>taxpayers are willing to accommodate</li> </ul>  |   |
| <ul> <li>C. Assess effective ways to reduce open burning of wood<br/>waste         <ul> <li>i. Identify and assess feasibility of options for reducing<br/>open burning of wood waste</li> </ul> </li> </ul>  | 66%                            |  |   |
| 10. Monitor Historic Disposal Sites   |                                |  |   |
| <ul> <li>A Monitor Historic Disposal Sites         <ul> <li>i Continue to monitor closed landfill (including ash landfill) sites as required by the Ministry of Environment; remediate outstanding contamination for CVRD owned or leased sites as necessary</li> </ul> </li> </ul> | 84%                            | <ul> <li>Support: Protecting the environment<br/>is considered a priority</li> <li>Concerns: No significant concerns<br/>noted</li> </ul>                                      | <ul> <li>Included. Required by the<br/>Ministry</li> </ul>  |

| Strategy Options  | Level of<br>Survey<br>Support <sub>1</sub> | Support and Concerns   | Strategy Decisions<br>(rationale for why each option<br>was or was not included)  |
|---|--|--|---|
| 11. Create an Asset Management Plan   |  |  |   |
| <ul> <li>A. Review building and equipment assets and develop an<br/>O&amp;M strategy         <ul> <li>i. Develop Asset Management Plans for Bings, Peerless<br/>and Meade Creek facilities</li> </ul> </li> </ul>   | 74%  | <ul> <li>Support: Residents rely on<br/>infrastructure and want it to work well.</li> <li>Concerns: No significant concerns</li> </ul>   | <ul> <li>Included. Asset management<br/>is an existing CVRD initiative<br/>and important to optimize<br/>infrastructure over time.</li> </ul> |
| <ul> <li>B. Develop Bings Creek Transfer Station 10-Year Plan</li> </ul>  | 76%  | noted  |   |
| <ul> <li>– i. Develop a ten-year site management plan for the Bings<br/>Creek Solid Waste Management facility</li> </ul>  |  |  |   |
| 12. Disaster Debris Management Plan   |  |  |   |
| <ul> <li>A. Develop a Disaster Debris Management Plan         <ul> <li>i. Develop a disaster debris management plan for solid<br/>waste services and infrastructure, as part of the corporate<br/>Disaster Management Plan</li> </ul> </li> </ul>                         | 75%  | <ul> <li>Support: People understand potential challenges if there was a disaster.</li> <li>Concerns: No significant concerns noted.</li> </ul>   | <ul> <li>Included. Support was shown<br/>for disaster debris<br/>management planning</li> </ul>   |
| 13. Education and Behaviour Change Considerations   |  |  |   |
| <ul> <li>A. Consider best management practices for Education and<br/>Behavior Change programs         <ul> <li>i. Continue to assess and incorporate principles of CBSM<br/>into existing and new education and outreach programs as<br/>necessary</li> </ul> </li> </ul> | 78%  | <ul> <li>Support: People understand the<br/>importance of education and behavior<br/>change in encouraging the use of<br/>waste reduction and diversion<br/>approaches and systems</li> <li>Concerns: No significant concerns</li> </ul> | <ul> <li>Included. Support was<br/>consistent for education and<br/>behaviour change efforts to<br/>optimize system use.</li> </ul>           |
| <ul> <li>B. Continue to support and encourage recycling education<br/>through ongoing promotion of Zero Waste Events program</li> </ul>   | 78%  | noted  |   |

### **Dotmocracy**

- By Open House
  - 2- no dots were placed and three written comments were added to the boards
  - 3 631 dots and several written comments were added to the boards
    - 241 participants
    - Dots placed before presentation commenced
  - 4 no dots or comments were placed on the boards



## Appendices

| Appendices | Title  | Appendices | Title   |
|------------|--|------------|---|
| 1-1        | List of Interested Parties                           | 5-1        | Summary of Participation Methods                                  |
| 1-2        | Board Certified Motion 18-27 SWMP Amendment 20180110 | 5-2        | Summary of all written comments received                          |
| 1-3        | Board Certified Motion 18-38.3.1 SWMP PAC 20180124   | 5-3        | Summary of Dotmocracy Responses                                   |
| 1-4        | Board Certified Motion 18-38.3.2 OC 20180124         | 5-4        | Summary of CVRD Community Satisfaction Survey Results (2016)      |
| 1-5        | Notification letter (Ministry)                       | 5-5        | Summary of SWMP Update Survey 1 results                           |
| 1-6        | Notification letter 1 (Stakeholders)                 | 5-6        | Summary of SWMP Update Survey 2 results                           |
| 1-7        | Notification letter 1a (Stakeholders)                | 5-7        | SWMP of written comments received (related to 3.B implementation) |
| 1-7        | Notification letter 2 (Stakeholders)                 | 6-1        | Summary of SWMP Update Promotion Activities                       |
| 2-1        | List of PAC Meetings                                 | 6-2        | Stage 1 Notifications   |
|            |  | 6-3        | Stage 2 Open House Notifications                                  |
| 2-2        | PAC Terms of Reference                               | 6-4        | Stage 2 Survey 1 Notifications                                    |
| 2-3        | PAC Agendas and Minutes Meetings 1-4                 | 6-5        | Stage 3 Handouts  |
| 2-4        | Flow Chart of SWMP Update Committees                 | 6-6        | Stage 3 Media Release   |
| 3-1        | CVRD 2018 SWMP Update Consultation Plan              | 6-7        | Stage 3 Open House Notifications                                  |
| 4-1        | Survey 1   | 6-8        | Stage 3 Placespeak Updates  |
| 4-2        | Open House 1 storyboards                             | 6-9        | Stage 3 Public Consultation Notifications                         |
| 4-3        | Open House 1 presentation                            | 6-10       | Stage 3 Survey and Open House Notifications                       |
| 4-4        | Survey 2   |            |   |
| 4-5        | Open House 2 storyboards                             | -          |   |
| 4-6        | Open House 2 presentation                            | -          |   |
| 4-7        | Open House 3-4 storyboards                           | -          |   |
|            |  | -          |   |

4-8 Open House 3-4 presentation





### **SWMP Update - Targets**

- Interim Target 2023 (5 year)
  - 280 kg/capita disposal rate
    - Implementation of Strategies 1-3 (waste reduction, ICI and residential 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



TE TETRA TECH

# **SWMP Update Proposed Schedule**

|   | 2019       | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|------------|------|------|------|------|------|------|------|------|------|
| 01 Enhance Reduce and Reuse Potential   | •          |      |      |      |      |      |      |      |      |      |
| A Reduce Wasted Food from Residential and Industrial, Commercial, and Institutional (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 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   |            |      |      |      |      |      |      |      |      |      |
|   |            |      |      |      |      |      |      |      |      |      |
| 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 Recyclables                               |            |      |      |      |      |      |      |      |      |      |
| 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                                     |            |      |      |      |      |      |      |      |      |      |
| B Develop a C&D Waste Management Strategy   |            |      |      |      |      |      |      |      |      |      |
| C Reduce Barriers to Disposing Hazardous Materials (asbestos, gypsum wallboard)                   |            |      |      |      |      |      |      |      |      |      |
|   |            |      |      |      |      |      |      |      |      |      |
| 07 Explore Options for Local Disposal   |            |      |      |      |      |      |      |      |      |      |
| A Explore Options for Local Disposal  |            |      |      |      |      |      |      |      |      |      |
| 00 Deduce Illered Downloa   |            |      |      |      |      |      |      |      |      |      |
| 08 Reduce Illegal Dumping   |            |      |      |      |      |      |      |      |      |      |
| A Augment Illegal Dumping Prevention Strategies   |            |      |      |      |      |      |      |      |      |      |
| 09 Implement Collection/Drop off For HHW, Bulky Items, and Organics                               |            |      |      |      |      |      |      |      |      |      |
| A Implement Collection for HHW  | 1          |      |      |      |      |      |      |      |      |      |
| B Improve Recycling Opportunities for Bulky Items   |            |      |      |      |      |      |      |      |      |      |
| C Assess Effective Ways to Reduce Open Burning of Wood Waste                                      |            |      |      |      |      |      |      |      |      |      |
| C Assess Effective ways to Reduce Open Burning of Wood Waste                                      | + +        |      |      |      |      |      |      |      |      |      |
| 10 Monitor Historic Disposal Sites  | 1 1        |      |      |      |      |      |      |      |      |      |
| A Monitor Historic Disposal Sites   |            |      |      |      |      |      |      |      |      |      |
| A Monitor Historie Dispositistes  |            |      |      |      |      |      |      |      |      |      |
| 11 Implement Asset Management Plan  | I          | I    | I    |      |      |      |      |      |      |      |
| A Implement Asset Management Plan   |            |      |      |      |      |      |      |      |      |      |
| B Develop Bings Creek Transfer Station 10-Year Plan   |            |      |      |      |      |      |      |      |      |      |
|   |            |      |      |      |      |      |      |      |      |      |
| 12 Develop a Disaster Debris Management Plan  | · ·        |      | I    |      |      |      |      |      |      |      |
| A Develop a Disaster Debris Management Plan   |            |      |      |      |      |      |      |      |      |      |
| ,   |            |      |      |      |      |      |      |      |      |      |
| 13 Integrate Education and Behaviour Change Best Practices  | - <u> </u> |      | 1    |      |      |      |      |      |      |      |
| A Consider Best Management Practices for Education and Behavior Change Programs                   |            |      |      |      |      |      |      |      |      |      |
| 0   |            |      |      |      |      |      |      |      |      |      |

### **SWMP Update - Budget**

#### Table 5-1: Ten Year Financial Plan

| Mana  |   |              |               | 4             |               | 6             | 7             | 8             | 9             | 10            |
|---|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Year  | 2019                                    | 2 2020       | 3 2021        | 4 2022        | 5<br>2023     | 2024          |               | -             | 9 2027        | 10 2028       |
| CVRD FINANCIAL PLAN REVENUE   | 2019                                    | 2020         | 2021          | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          |
|   |   |              |               |               |               |               |               |               |               |               |
| Debt Proceeds   | · ·                                     |              | s             | \$ 34,302     | 5 34,488      |               | s             |               |               |               |
| Grants  | \$ 33,765                               | \$ 33,940    | \$ 34,119     |               |               | \$ 34,678     | \$ 34,871     | \$ 35,069     | \$ 35,270     | \$ 35,475     |
| Other   | \$ 929,977                              | \$ 943,260   | \$ 956,756    | \$ 970,470    | \$ 984,406    | \$ 998,569    | \$ 1,012,959  | \$ 1,027,582  | \$ 1,042,444  | \$ 1,057,548  |
| Proposed Requisition/Parcel Tax                                     | \$ 4,694,622                            | \$ 4,805,002 | \$ 4,987,643  | \$ 5,245,618  | \$ 5,205,432  | \$ 5,575,274  | \$ 5,493,935  | \$ 5,688,298  | \$ 5,895,110  | \$ 5,937,514  |
| Surplus/(Deficit)   | \$ 340,284                              | \$ 170,855   | 5 -           | \$ ·          | \$ .          | \$ ·          | 5 -           | 5 -           | s -           | 5             |
| Transfer from Capital Reserve                                       | \$ •                                    | s -          | \$ •          | \$ -          | \$ .          | \$ •          | \$ -          | \$ -          | s -           | \$ *          |
| Transfer from Operating Reserve                                     | \$ .                                    | s -          | s -           | \$ .          | \$ .          | \$ .          | \$ .          | \$ .          | s -           | \$ .          |
| User Fee  | \$ 3,964,624                            | \$ 4,012,670 | \$ 6,904,030  | \$ 6,973,792  | \$ 7,045,146  | \$ 7,118,128  | \$ 7,192,770  | \$ 7,269,105  | \$ 7,347,164  | \$ 7,426,984  |
| TOTAL OPERATING REVENUE   | \$ 9,963,272                            | \$ 9,965,727 | \$ 12,882,548 | \$ 13,224,182 | \$ 13,269,472 | \$ 13,726,649 | \$ 13,734,535 | \$ 14,020,054 | \$ 14,319,988 | \$ 14,457,521 |
|   |   |              |               |               |               |               |               |               |               |               |
| EXPENDITURES  |   |              |               |               |               |               |               |               |               |               |
| Existing Operating Expenditures                                     |   |              |               |               |               |               |               |               |               |               |
| Curbside Collection - Garbage                                       | \$ 781,205                              | \$ 796,829   | \$ 812,765    | \$ 829,020    | \$ 845,601    | \$ 862,514    | \$ 879,764    | \$ 897,359    | \$ 915,306    | \$ 933,612    |
| Curbside Collection - Recycling                                     | \$ 376,212                              | \$ 234,964   | \$ 239,663    | \$ 244,456    | \$ 249,344    | \$ 254,330    | \$ 259,419    | \$ 264,610    | \$ 269,902    | \$ 275,300    |
| CVRD Internal Allocations   | \$ 544,066                              | \$ 556,401   | \$ 568,984    | \$ 581,818    | \$ 594,910    | \$ 608,263    | \$ 621,882    | \$ 635,774    | \$ 649,943    | \$ 664,396    |
| Debt  | \$ 786,318                              | \$ 786,318   | \$ 741,228    | \$ 741,228    | \$ 741,228    | \$ 741,228    | \$ 741,228    | \$ 741,228    | \$ 741,228    | \$ 741,228    |
| Garbage Disposal  | \$ 2,455,344                            | \$ 2,504,451 | \$ 2,554,540  | \$ 2,605,631  | \$ 2,657,744  | \$ 2,710,899  | \$ 2,765,117  | \$ 2,820,420  | \$ 2,876,828  | \$ 2,934,365  |
| Legal & Administrative  | \$ 202,113                              | \$ 206,155   | \$ 210,276    | \$ 214,482    | \$ 218,771    | \$ 223,145    | \$ 227,609    | \$ 232,161    | \$ 236,804    | \$ 241,543    |
| Operations - Disposal   | \$ 2,994,462                            | \$ 2,935,359 | \$ 2,992,066  | \$ 3,049,908  | \$ 3,108,908  | \$ 3,169,087  | \$ 3,230,466  | \$ 3,293,076  | \$ 3,356,937  | \$ 3,422,075  |
| Operations - Recycling  | \$ 1,182,591                            | \$ 1,206,244 | \$ 1,230,368  | \$ 1,254,975  | \$ 1,280,076  | \$ 1,305,679  | \$ 1,331,792  | \$ 1,358,428  | \$ 1,385,595  | \$ 1,413,305  |
| Planning, Operations Support, and Execution                         | \$ 117,224                              | \$ 119,568   | \$ 121,960    | \$ 124,399    | \$ 126,887    | \$ 129,424    | \$ 132,012    | \$ 134,652    | \$ 137,345    | \$ 140,090    |
| Reduction and Recycling Programs                                    | \$ 30,015                               | \$ 30,616    | \$ 31,228     | \$ 31,853     | \$ 32,490     | \$ 33,140     | \$ 33,803     | \$ 34,479     | \$ 35,169     | \$ 35,873     |
| Transfer to Reserve   | \$ 320,000                              | \$ 324,000   | \$ 328,080    | \$ 332,242    | \$ 336,487    | \$ 340,817    | \$ 345,233    | \$ 349,738    | \$ 354,333    | \$ 359,020    |
|   | \$ 9,789,550                            |              | \$ 9,831,158  |               | \$ 10,192,446 | \$ 10,378,526 | \$ 10,568,325 |               | \$ 10,959,390 | \$ 11,160,807 |
|   | • |              | • •,•••,•••   |               |               |               |               |               | -             |               |
| Existing Capital Expenditures                                       |   |              |               |               |               |               |               |               |               |               |
| Capital Expenditures  | ۹                                       | د .          | ٤ .           | e .           | ۹             | ۹             | ٤ .           | ۹             | ۹             | e .           |
|   | \$ .                                    | 6            | •             | \$ .          | 6             | 6             | s .           | 6             | 6             | • •           |
| Total Printed Existing Capital Experiorenes                         | •                                       | •            | •             | •             | •             | •             | •             | •             | •             | •             |
| Total Existing Expenditures   | \$ 9,789,550                            | \$ 9,700,905 | \$ 9,831,158  | \$ 10,010,012 | \$ 10,192,446 | \$ 10,378,526 | \$ 10,568,325 | \$ 10,761,925 | \$ 10,959,390 | \$ 11,160,807 |
| Revenue - Expenditures  | s 5,765,550                             | s 5,700,505  | 5 5,051,130   | c 10,010,012  | 5 10,152,440  | \$ 10,376,326 | \$ 10,566,525 | \$ 10,701,525 | s 10,555,550  | c 11,100,007  |
| nevenue - Experiarcares   | •                                       | · ·          | · ·           | *             | •             | • ·           | •             | * ·           | * ·           | •             |
| PROPOSED Operating Expenditures                                     |   |              |               |               |               |               |               |               |               |               |
| 01 Enhance Reduce and Reuse Potential                               | \$ 18.000                               | \$ 36,000    | \$ 21,000     | \$ 3.000      | \$ 3,000      | \$ 20,000     | s .           |               |               |               |
|   |   |              |               | \$ 20,000     | \$ 3,000      | 3 20,000      |               | -             |               | 3 ·           |
| 02 Reduce Disposal from ICI and Multi-Family Residential            | \$ 5,000                                | \$ 27,500    | \$ 45,000     |               | · ·           |               | \$ 2,876,287  | 5             | -             | \$ 3,021,714  |
| 03 Reduce Disposal from Residential Sector                          | 5                                       | 5 ·          | \$ 2,695,348  | \$ 2,739,248  | \$ 2,784,026  | \$ 2,829,700  |               | \$ 2,923,806  | \$ 2,972,275  | \$ 3,021,714  |
| 04 Improve Organics Processing                                      | \$ 15,000                               | 5 .          | 5             | s -           | · ·           | s .           | s -           | s .           | s -           | s .           |
| 05 Investigate Processing and Transfer Capacity for ICI Recyclables |   | \$ 15,000    | 5 .           | 5 .           | 3             | S             | 5 .           | 5 .           | 5 .           | 5 -           |
| 06 Improve Management of Construction and Demolition Material       |   | 5 .          | \$ 100,000    | \$ 115,000    | \$ 115,000    | \$ 100,000    | \$ 100,000    | \$ 100,000    | \$ 100,000    | \$ 100,000    |
| 07 Explore Options for Local Disposal                               | \$ 20,000                               | 5 -          | 5 .           | 5 -           | 5 .           | 5 -           | 5 -           | 5 .           | 5 -           | 5 .           |
| 08 Reduce Illegal Dumping   | 5 -                                     | 5 -          | 5 .           | 5 -           | 5 .           | 5 .           | 5 -           | 5 .           | 5 -           | 5 .           |
| 09 Implement Collection/Drop off For HHW, Bulky Items, and Orga     | 5 -                                     | \$ 175,000   | \$ 175,000    | \$ 175,000    | \$ 175,000    | \$ 175,000    | \$ 175,000    | \$ 175,000    | \$ 175,000    | \$ 175,000    |
| 10 Monitor Historic Disposal Sites                                  | s -                                     | s -          | s -           | s -           | \$ .          | s -           | s -           | s -           | s -           | \$            |
| 11 Implement Asset Management Plan                                  | \$ 115,722                              | \$ 11,322    | \$ 15,042     | \$ 146,922    | \$ .          | \$ 223,423    | \$ 14,923     | \$ 59,323     | \$ 113,323    | \$            |
| 12 Develop a Disaster Debris Management Plan                        | \$ -                                    | s -          | \$ •          | \$ 15,000     | \$ .          | s -           | \$ -          | \$ -          | s -           | \$ *          |
| 13 Integrate Education and Behaviour Change Best Practices          | \$ .                                    | S +          | \$ .          | \$ .          | \$ .          | \$ +          | \$ .          | \$ .          | S +           | \$ +          |
| Total Annual Proposed Operating Expenditures                        | \$ 173,722                              | \$ 264,822   | \$ 3,051,390  | \$ 3,214,170  | \$ 3,077,026  | \$ 3,348,123  | \$ 3,166,210  | \$ 3,258,129  | \$ 3,360,598  | \$ 3,296,714  |
|   |   |              |               |               |               |               |               |               |               |               |
| PROPOSED Capital Expenditures                                       |   |              |               |               |               |               |               |               |               |               |
| No proposed capital expenditures                                    | \$ .                                    | s .          | \$.           | \$ .          | \$ .          | s .           | \$ .          | \$ .          | s -           | ş .           |
| Total Annual Proposed Capital Expenditures                          | \$ .                                    | \$ -         | \$ -          | \$ .          | \$ .          | s -           | \$ .          | \$ -          | \$ .          | \$ .          |
|   |   |              |               |               |               |               |               |               |               |               |
| Total Annual Proposed Expenditures                                  | \$ 173,722                              | \$ 264,822   | \$ 3,051,390  | \$ 3,214,170  | \$ 3,077,026  | \$ 3,348,123  | \$ 3,166,210  | \$ 3,258,129  | \$ 3,360,598  | \$ 3,296,714  |
|   | -                                       |              |               |               |               |               |               |               |               |               |
| TOTAL OPERATING EXPENDITURES  | \$ 9,963,272                            | \$ 9,965,727 | \$ 12,882,548 | \$ 13,224,182 | \$ 13,269,472 | \$ 13,726,649 | \$ 13,734,535 | \$ 14,020,054 | \$ 14,319,988 | \$ 14,457,521 |
| TOTAL CAPITAL EXPENDITURES  | \$                                      | \$           | \$            | \$            | \$            | \$            | \$            | \$            | \$ .          | \$            |
| TOTAL EXPENDITURES  | \$ 9,963,272                            | \$ 9,965,727 | 5 12,882,548  | 5 13,224,182  | \$ 13,269,472 | \$ 13,726,649 | \$ 13,734,535 | \$ 14,020,054 | 5 14,319,988  | \$ 14,457,521 |
|   |   |              |               |               |               |               |               |               |               |               |
| Revenues - Expenses   | s .                                     | s .          | s .           | s .           | s .           | s .           | s .           | s .           | s .           | s .           |
|   |   |              | -             | *             |               |               |               | •             |               | •             |

- Updates
  - Section 1
    - Comparison to other Island RDs
  - Section 2
    - Disposal Projections

### Table 2-7: Disposal Projections<sup>9</sup>

| Year | Population | Annual Disposal<br>Rate<br>(kg/capita) | Total Status<br>Quo Annual<br>Disposal<br>(tonnes) | Adjusted<br>Disposal Rate<br>(kg/capita) | Adjusted<br>Annual<br>Disposal<br>(tonnes) |
|------|------------|--|--|--|--|
| 2016 | 83,739     | 358                                    | 29,979   | 358                                      | 29,979                                     |
| 2020 | 87,217     | 358                                    | 31,224   | 320                                      | 27,909                                     |
| 2025 | 91,368     | 358                                    | 32,710   | 280                                      | 25,583                                     |
| 2030 | 95,199     | 358                                    | 34,081   | 250                                      | 23,800                                     |
| 2035 | 98,475     | 358                                    | 35,254   | 200                                      | 19,695                                     |
| 2040 | 101,074    | 358                                    | 36,184   | 150                                      | 15,161                                     |

### • Strategy 7: Explore Local Options for Disposal

#### Table 3-7: Options for Disposal (Short-Term)

| Option                                | Description  |
|---------------------------------------|--|
| Continue Waste<br>Export              | Currently, waste is placed in shipping containers, barged to the mainland, transported by rail to<br>Southeastern Washington State, and taken to the Roosevelt Regional Landfill for disposal. The<br>empty shipping containers are brought back to the CVRD to be filled with waste again. This disposal<br>program costs approximately \$140 per tonne.<br>Rabanco landfill is available for MSW disposal. |
| Landfill in BC                        | Cache Creek Landfill in Ashcroft will be available for MSW disposal in mid-2019. The feasibility of<br>disposal at this landfill facility should be explored.  |
| Waste to Energy<br>(Private Facility) | It is possible that a new private (or public private partnership) WTE facility may be built on the island.<br>Depending on the permits, the facility may be available within two to three years. The feasibility of<br>disposal at this potential WTE facility should be explored.   |

#### Table 3-8: Options for Disposal (Long-Term)

| Option  | Description  |
|---|--|
| Landfill Disposal<br>on the Island                          | A new landfill was recently opened in Comox Valley. Preliminary conversations have indicated that the Comox Valley Regional District may be open to receiving waste from the Cowichan Valley Regional District.<br>MSW disposal opportunities will continue to be explored as they arise in regional districts with landfills, including (but not limited to) the Alberni Clayoguot Regional District, Mount Waddington Regional District, the Regional District of Nanaimo and the Capital Regional District. |
|   | disposal at available Vancouver Island landfills should be explored.   |
| Waste to Energy<br>(Public Facility)                        | Two recent studies reviewed the feasibility of a Waste to Energy (WTE) facility for southern<br>Vancouver Island. Both studies determined that viable technology exists but is not economically<br>feasible. However, if a new technology becomes available, a feasibility assessment should be carried<br>out to further assess the viability of a business case for a public or P3 partnership WTE facility.   |
| Waste to Energy<br>(Private or owned<br>by others Facility) | It is possible that a new private (or owned by others) WTE facility may be built within the Cowichan<br>Valley. The feasibility of disposal at this potential WTE facility should be explored.   |

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- Strategy 7.B.i. Explore and Amend Tipping Fee
  - Review tipping fee in concert with consideration of future disposal options and update if needed.
    - The CVRD MSW tipping fee has remained unchanged since 2012. The current tipping fee is \$140 per tonne, which does not cover the full cost of processing and disposal. As future disposal options are considered, the tipping fee should be reviewed and updated as needed.

### **Next Steps**

- PAC considerations
- Board approval
- Ministry approval
- Plan Monitoring Advisory
   Commitee





### Wrap up and Questions

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Paint Solvents etc.

Household Hazardous Waste

Vehicle Anti-Filters Freeze