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ENVIRONMENTAL SERVICES COMMITTEE

Notice of a Special Meeting on **Tuesday, June 24, 2014, at 1:30 pm**
Board Room, 6th floor, 625 Fisgard Street, Victoria, BC

N. Jensen (Chair)
V. Derman
W. McIntyre

J. Mendum (Vice Chair)
B. Desjardins
A. Bryson (Board Chair,
ex-officio)

D. Blackwell
C. Hamilton

J. Brownoff
B. Isitt

With Invited Guests: Capital Regional District Board

AGENDA

1. Approval of Agenda
2. Chair's Remarks
3. Presentations/Delegations
4. Workshop Agenda
5. Adjournment



Making a difference...together

**Workshop Agenda
Environmental Services Committee
& Invited Board Members**

INTEGRATED SOLID WASTE & RESOURCE MANAGEMENT PLAN

Tuesday, June 24, 2014 at 1:30 to 4 p.m.

Session Objectives

- Inform Committee and Board on status of planning activities
- Present key assumptions which summarize findings in waste management areas
- Obtain confirmation of direction for development of strategies

TIME	TOPIC AREAS
1:30 p.m.	Welcome and Introductions <ul style="list-style-type: none"> • Opening and introductions • Review of session objectives (of this meeting) • Review the agenda and guidelines for the session
1:40 p.m.	Presentation <ul style="list-style-type: none"> • Status of solid waste management in the Capital Regional District (CRD) (summary of Stage 1) • Introduction to seven Technical Memorandums presented and discussed by the Public and Technical Advisory Committee (PTAC)
1:55 p.m.	Facilitated Roundtable Discussion <ul style="list-style-type: none"> • Reduce, Reuse and Extended Producer Responsibility • Recycling – Collection Services and End Uses • Construction & Demolition Materials • Residual Management • Resource Recovery • Regulatory & Community Issues • Financial Management
3:50 p.m.	Next Steps <ul style="list-style-type: none"> • Proposed next steps • Action items from this meeting
3:55 p.m.	Session Closing



TO: Environmental Services Committee & CRD Board

FROM: Russ Smith
Senior Manager, Environmental Resource Management

DATE: June 24, 2014 **FILE:** 0360-20

**SUBJECT: INTEGRATED SOLID WASTE AND RESOURCE MANAGEMENT PLAN –
BACKGROUND INFORMATION FOR JUNE 24, 2014 WORKSHOP**

The Capital Regional District (CRD) is developing a new Integrated Solid Waste and Resource Management Plan (ISWRMP). A solid waste management plan is a legally binding regulatory document mandated and approved by the Province of British Columbia. As per the Ministry of Environment's *Guide to the Preparation of Regional Solid Waste Management Plans*, development of the plan involves three stages:

Stage 1: Analysis of Existing Systems and Identification of Issues
Stage 2: Development and Evaluation of Options and Strategies
Stage 3: Plan Consultation and Adoption

The Environmental Services Committee (ESC) acts as the Steering Committee for the new plan. As part of the public review and consultation process, the Ministry requires the involvement of a Public and Technical Advisory Committee (PTAC) with representation from a diversity of sectors within the regional community and one elected official who acts as liaison to the Steering Committee.

Appendix A provides a high level overview of the three stages and an overview of work to date.

Stage 1

Stage 1 was completed in 2012. It consisted of an existing systems report ([Stage 1 Report](#)), a public survey ([summary of survey results](#)) and a list of issues/challenges to be discussed for the development of the new plan. The report concluded that the activities in the Capital Region are reflective of a complex and mature solid waste management system and that one of the most significant challenges for the CRD in the future will be the funding of diversion programs. The public survey received 755 responses. Respondents appeared to be well informed and satisfied with the services provided. There was demand for increased organics collection services and education.

A list of [36 issues/challenges](#) was put together as a result of stakeholder interviews, site visits, public survey responses, the most recent waste composition study and a review of staff reports between 2010 and 2012. The issues were grouped according to the 5R waste management hierarchy and were addressed in subsequent technical memorandums in Stage 2.

Stage 2

Stage 2 work to date consists of seven memorandums that will form the basis for the development of a new waste reduction target and goals for the new ISWRMP. Appendix B

provides a summary of each of the seven memorandums and discussion points made by the Public and Technical Advisory Committee. Copies of the full memorandums are available upon request and are posted on the CRD public website at <https://www.crd.bc.ca/service/waste-recycling/solid-waste-management/management-plan>.

Purpose of Workshop

To date, the development of the new plan has consisted of information gathering and a review of solid waste management topics with the PTAC. The purpose of the workshop is to present the key assumptions made and obtain confirmation of direction from the Steering Committee and Board members prior to starting work on drafting strategies for the new plan.

Appendix C provides an overview of the 36 issues/challenges identified during Stage 1 and the work accomplished during Stage 2, based on the following assumptions:

- There is general support for education & Extended Producer Responsibility (EPR) programs
- The CRD will not get involved in garbage collection in the region
- There is a general shift of recycling programs to EPR
- A long term kitchen scraps processing strategy will be in place by 2015
- The private sector will continue to play a major role in Construction & Demolition (C&D) materials diversion
- Waste to energy (WTE) will only be considered conceptually in this ISWRMP
- The new proposed diversion goal is 70% by 2020
- The goal is to never have another landfill in the region
- There is support in principle to expand Hartland landfill as required
- Waste flow management will be considered as part of the ISWRMP
- The solid waste function requires new funding mechanisms

The ISWRMP consultants will facilitate a discussion of the above assumptions.

Next Steps

Staff will use the direction obtained from this workshop to develop a detailed list of strategies which will be evaluated based on economic, environmental, social and technical criteria. This information will be presented at another special meeting of the Environmental Services committee in the fall, date to be determined.

Once the key strategies have been confirmed at the fall workshop, staff will prepare the draft ISWRMP. The draft plan and a public consultation plan are expected to be presented to the Steering Committee and Board early in 2015. If approved, public input will be sought in the spring of 2015.

The new ISWRMP will build upon the existing mature solid waste management system in the Capital Region. Hartland landfill is being recognized as an important regional asset and preservation of its valuable airspace will continue to drive waste reduction and recycling programs. The new plan is expected to transition the CRD to 70% diversion when opportunities for additional resource recovery approaches can be considered. A sustainable funding model will be developed with public input that will help prioritize the types of programs our residents would like to see and are willing to support.

Attachments: 3

AB:dd

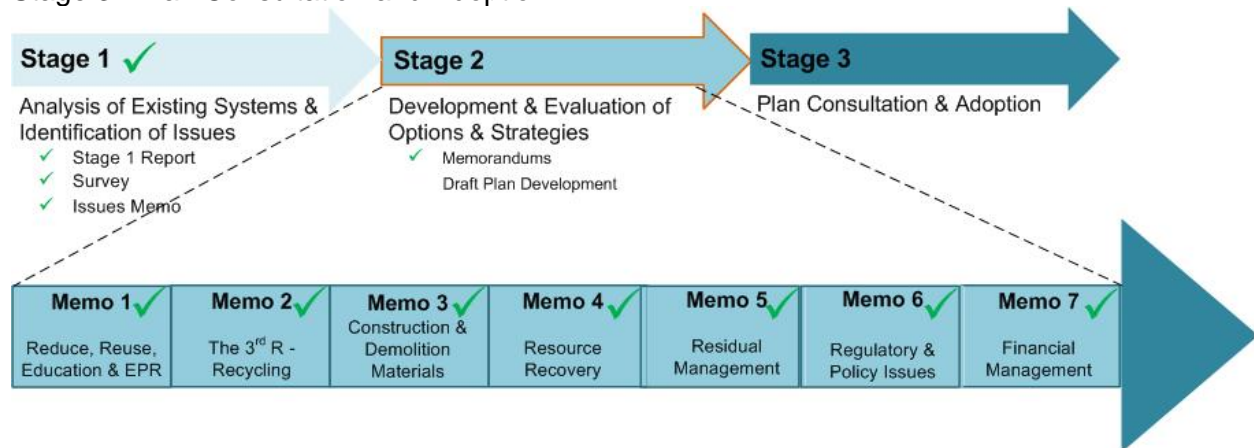
INTEGRATED SOLID WASTE AND RESOURCE MANAGEMENT PLAN STAGES AND OVERVIEW OF WORK TO DATE

The Ministry of Environment's *Guide to the Preparation of Regional Solid Waste Management Plans* outlines the following three stages for the development of a new plan:

Stage 1: Analysis of Existing Systems and Identification of Issues

Stage 2: Development and Evaluation of Options and Strategies

Stage 3: Plan Consultation and Adoption



Stage 1

The Stage 1 report was presented to the Environmental Services Committee (ESC) at its October 24, 2012 meeting and included an overview of the existing solid waste management system, results of a public survey and a list of 36 issues to be discussed during Stage 2.

Stage 2

At its July 24, 2013 meeting, the ESC received an update on the first three memorandum topics discussed by PTAC:

- Memo 1: Reduce, Reuse and Extended Producer Responsibility
- Memo 2: The 3rd R: Recycling – Collection Services and End Uses
- Memo 3: Construction and Demolition Materials

At its March 26, 2014 meeting, the ESC received an update on memos four to six:

- Memo 4: Resource Recovery
- Memo 5: Residual Management
- Memo 6: Regulatory & Community Issues

At its April 23, 2014 meeting, the ESC received the final memo on Financial Management.

Following the completion of the memorandums, work will begin on drafting the plan, which will include a new diversion target, guiding principles, goals and strategies and provide links to other CRD plans as well as provincial and federal policies and initiatives. The draft plan will have to be approved by the ESC and CRD Board in conjunction with a public consultation plan.

Stage 3

Public consultation on the draft plan is expected to take place in the spring of 2015. Staff anticipate that the new ISWRMP will be ready for adoption by the Board in the fall of 2015.

TECHNICAL MEMORANDUMS

MEMORANDUM 1

Reduce, Reuse and Extended Producer Responsibility

The main challenges related to waste reduction and reuse are the dominant culture of consumption and the design and manufacture of consumer goods. Capital Regional District (CRD) efforts to date primarily focus on educating residents and businesses and supporting Extended Producer Responsibility (EPR) programs by hosting a variety of stewardship programs at the Hartland recycling facility and advocating for stronger EPR. PTAC expressed strong support to continue with existing programs, increase education efforts and advocate for more EPR programs.

TOPICS	PTAC DISCUSSION
Reduce & Reuse	<ul style="list-style-type: none"> • Continue to provide grants to non-profit repair and reuse organizations • Encourage the practice of reuse, renting, sharing and repairing • Continue to operate a reusable goods marshalling area at Hartland • Maximize salvaging opportunities in the region • Continue to provide funding to the Greater Victoria Compost Education Centre
Education	<ul style="list-style-type: none"> • Continue to provide education programs to residents about waste diversion programs • Use a variety of communication and education tools to encourage behaviour change related to waste reduction and reuse • Expand waste reduction outreach to the multi-family and business sector • Provide recognition for environmental excellence in solid waste and resource management • Promote recycling at festivals and events • Provide integrated education materials that connect a range of green lifestyle behaviours • Develop partnerships with the private and public sector to share education materials • Provide opportunities for public involvement in the development and implementation of solid waste and resource management issues in line with the CRD's public involvement framework
Extended Producer Responsibility	<ul style="list-style-type: none"> • Advocate for design of environment principles and sustainable manufacturing • Advocate for minimum post-consumer recycled content requirements for consumer goods • Advocate for more products to be covered under the BC Recycling Regulation • Work with stewardship agencies to develop a permanent eco depot system in the region to provide "one stop drop" services • Ban materials covered under the BC Recycling Regulation from Hartland landfill • Fund residual household hazardous waste collection until EPR programs become available

MEMORANDUM 2

The 3rd R: Recycling - Collection Services and End Uses

Strategies and practices related to collection and end uses of garbage and recyclables are well established and accepted in the region. The responsibility for funding residential and multi-family recycling programs will shift to industry stewards in May 2014. Organics management has recently been addressed by the approval of the regional kitchen scraps strategy, which includes a ban on the disposal of kitchen scraps as of January 1, 2015. PTAC supported the continuation of existing programs and discussed ways to harmonize or expand collection options.

TOPICS	PTAC DISCUSSION
Garbage	<ul style="list-style-type: none"> • Continue user pay model for garbage collection • Continue private service provision to the commercial and multi-family sector • Facilitate standardization of municipal garbage collection • Facilitate implementation of region-wide garbage can limits • Provide CRD garbage collection in electoral areas • Encourage municipalities to offer garbage collection to commercial sector • Implement true user pay in municipalities that provide curbside garbage collection • Aim for the goal of zero waste
Recycling	<ul style="list-style-type: none"> • Continue existing recycling programs until May 2014 when the new Packaging and Printed Paper (PPP) EPR program starts • CRD to continue recycling education services past 2014 • Develop CRD model bylaw to require recycling services in multi-family buildings • Develop CRD model bylaw to require solid waste data reporting by multi-family and commercial generators • Develop CRD model bylaw to require recycling space in new multi-family buildings • Advocate for PPP EPR for the commercial sector • Facilitate the establishment of depots to collect non-PPP EPR materials • Advocate phasing out difficult to recycle materials such as Styrofoam • Link apartment recycling program funding to multi-family reporting requirements • CRD to prepare a community plan amendment template for zoning of eco-depots • CRD to enact bylaw to require private sector recycling data
Organics	<ul style="list-style-type: none"> • Continue yard waste ban • Continue yard waste drop-off sites • Review composting bylaw as required • Continue private sector organics processing • Encourage standardization of kitchen scraps/yard waste collection • Encourage standardization of burning bylaws • Facilitate distribution of onsite digesters in areas with no curbside service • Facilitate kitchen scraps drop off for multi-family buildings

MEMORANDUM 3

Construction & Demolition Materials (including Land-Clearing Materials)

The private sector plays a major role in the reuse and recycling of Construction & Demolition (C&D) materials in the region. C&D materials are disposed of at both the Hartland landfill and the privately-owned Tervita landfill, and some materials are exported. Land-clearing waste is typically handled on site. A new EPR program for C&D materials is scheduled for 2017. PTAC supported existing programs and discussed a variety of policy options for the CRD and municipalities to manage these materials.

TOPICS	PTAC DISCUSSION
Reduce & Reuse	<ul style="list-style-type: none"> • Educate and inform residents/contractors of the benefits of de-construction • Continue to support non-profit organizations engaging in reuse of building materials • CRD to play a coordinating role in the establishment of a building material reuse centre • Investigate how the CRD can facilitate an increase in professional salvage operators recovering materials • Encourage house/building relocations
Recycling	<ul style="list-style-type: none"> • Continue to accept some source-separated C&D materials for recycling at Hartland recycling area • Identify new processors and markets for additional C&D materials • Encourage more private sector C&D recycling through “put or pay” contracts by guaranteeing operators minimum C&D quantities or a fixed price • Develop policies supporting C&D recycling • Facilitate the operation of a collection system (private and municipal) • Develop an educational C&D industry toolkit/campaign • Dedicate staff resources for C&D material management and tracking • Test C&D reuse and recycling strategies on a job site • Provide readily accessible drop-off depots for source-separated C&D materials • Identify or build one or more centralized C&D processing facilities
Policy Options	<ul style="list-style-type: none"> • Continue/expand use of variable tipping fees at Hartland landfill • Consider a reduced tipping fee for C&D materials from deconstruction projects • Continue/expand disposal bans for C&D materials with viable alternative end uses • Classify C&D materials as controlled waste at Hartland landfill • Adopt standards for CRD facilities that emphasize building material reuse • Develop and implement model municipal bylaws • License reuse/recycling/resource recovery facilities • Consider “house in a box” approach • Use wood waste for energy recovery • Develop building/demolition permits • Fast track or lower the cost of permits for projects with a waste management plan • Make deconstruction permit fees cheaper • Prohibit demolition without some element of deconstruction • Make building re-purposing more attractive (e.g., reduced development cost charges) • Standardize burning bylaws

MEMORANDUM 4
The 4th R: Resource Recovery

The memo focuses on the recovery of energy and non-energy solid waste resources at the Hartland landfill. A number of resource recovery technologies and approaches are discussed and compared with information drawn from various feasibility studies conducted over the past years. The scope did not include integration with liquid waste. Three scenarios are identified ranging from enhancing the existing system to potential short term (up to 2020) and long term (beyond 2020) options. The CRD has to meet 70% diversion before waste to energy can be considered as a solid waste management option; therefore WTE is only being considered conceptually during this plan development. Resource recovery will be informed by liquid waste program decisions and be subject to a discussion of the financial model in a future memo.

SCENARIO TOPICS	PTAC DISCUSSION
<p>Enhancement of Existing System</p> <ul style="list-style-type: none"> • Optimize landfill management • Increase landfill gas recovery • Optimize aggregate management • Mechanical separation of recyclables (metals, glass) at a material recovery facility 	<ul style="list-style-type: none"> • Landfilling is the lowest cost per tonne alternative. • There will never be another landfill – we need to do whatever it takes to keep Hartland. The ISWRMP needs to be reframed within this context. • Continue to maximize landfill gas recovery towards the goal of 75% recovery by 2016. • Excavate as much rock as possible to create disposal capacity as a resource for future generations. • Commingling of recyclables will not maximize the first 3 R's, result in lower quality materials, higher contamination & can be costly for what is recovered. There are uncertainties (e.g. MMBC plans) and quantities may not justify more than one facility. • Leave it to the private sector. Or consider partnership opportunities with other regions or First Nations.
<p>Short-Term Options – to 2020</p> <ul style="list-style-type: none"> • Potential anaerobic digestion • Mechanical biological treatment (MBT) with refuse derived fuel (RDF) • Conventional waste to energy (WTE) 	<ul style="list-style-type: none"> • Sludge and food waste have to be processed separately • Limited to traditional systems – only traditional systems are proven to date • Chosen technology will be 'locked' in for 25 years • Could consider other emerging technologies • One WTE facility could serve all of Vancouver Island
<p>Long-Term Options – beyond 2020</p> <ul style="list-style-type: none"> • Advanced thermal recovery with ash recycling 	<ul style="list-style-type: none"> • Promise of highest resource recovery and landfill life • At least 10 years needed for these technologies to develop to commercial scale and be proven • Need to start thinking about new resource management approaches prior to 2020

MEMORANDUM 5
The 5th R: Residual Management

Residuals management in the Capital Region consists of disposal of municipal solid waste at Hartland landfill, owned and operated by the CRD, and disposal of construction and demolition waste at the Highest Waste facility, owned and operated by Tervita. Hartland’s most important asset is its airspace which makes it paramount to extend the life of the landfill for as long as possible. Options for increasing capacity are the optimization of diversion, operations and airspace. The current fill design provides 36 years of landfill life. Two fill design concepts are identified that could increase landfill life to 70 years and 127 years respectively. These concepts need to be explored further in conjunction with a landfill capacity study planned for 2014 and in the context of the financial model as the current method of funding the solid waste function through tipping fees is unsustainable.

AIRSPACE TOPICS	PTAC DISCUSSION
<p>Optimize Diversion</p> <ul style="list-style-type: none"> • EPR • Organics • Construction & Demolition Materials 	<ul style="list-style-type: none"> • General support to optimize diversion • Diversion should be a priority • Appreciate looking at residual management holistically (including diversion and operations)
<p>Optimize Operations</p> <ul style="list-style-type: none"> • Compaction • Waste to cover ratio • Gas collection/utilization 	<ul style="list-style-type: none"> • General support to optimize operations
<p>Optimize Airspace</p> <ul style="list-style-type: none"> • 2007 Baseline Original Fill Design – 36 years landfill life Needs to be updated • Updated Fill Design Concept Approx. 70 years landfill life Up to 10 m high (no walls) • Hartland 2100 Fill Design Concept Approx. 127 years landfill life Up to 30 m high (with walls) 	<ul style="list-style-type: none"> • Support for using the term ‘managing airspace’. Need to define the term for public consultation. • Provide visuals of what vertical expansion would look like. • What is the tipping point in the tipping fee – when will haulers export residuals off island? • Privately and publicly owned landfills operate on a different fee structure. When comparing costs, figure in true landfilling costs. • How will Metro Vancouver’s flow management strategy affect Vancouver Island? • Need for a cost comparison of all options (Note: this will be part of the financial analysis). • Hartland 2100 option provides certainty and time to investigate emerging technologies.

MEMORANDUM 6
Regulatory & Community Issues

The memorandum addresses several regulatory and community issues that were identified during Stage 1, including lack of data for the commercial sector and waste import/export, lack of community planning for waste management facilities and ongoing concerns about illegal dumping. Regional districts have the authority under the BC Environmental Management Act to regulate the solid waste industry to ensure diversion, prevent abandonment of materials, track movement of waste, and protect the public interest by managing waste flow to ensure financial sustainability. The memo discusses several approaches to regulation of waste facilities and haulers. It identifies the importance of integrating considerations for waste management facilities into long range planning/OCPs as well as coordinated approaches to illegal dumping.

TOPICS	PTAC DISCUSSION
<p>Regulation of Solid Waste Facilities</p> <ul style="list-style-type: none"> • Waste stream management licensing <ul style="list-style-type: none"> - applies to all facilities - level playing field for all - site specific terms - significant staff resources • Facility authorization process <ul style="list-style-type: none"> - for new facilities only - not a level playing field - some staffing resources • Code of practice bylaws <ul style="list-style-type: none"> - for types of facilities (e.g. composting facilities, transfer stations) - level playing field for those facilities - some staffing resources 	<ul style="list-style-type: none"> • Why do you need data? <ul style="list-style-type: none"> - For performance monitoring & measurement; diversion rate calculation. • Have there been incidents of concern in the CRD that necessitate regulations? <ul style="list-style-type: none"> - There have been abandoned facilities in the past, there are no current concerns. Licensing of facilities has resolved issues in other regional districts. • Municipalities are interested in consistency and minimum standards. The key point is to have surety to conduct clean-up and enforcement capabilities. • Consultation is crucial for licensing of facilities and haulers. • Issues include: legalities of locations, overlapping jurisdictions &/or authorities, limitations of planning process. • There is a role for CRD bylaws. • The Islands Trust for North Pender Island has requested consideration of a transfer station bylaw as part of the new ISWRMP
<p>Regulation of Haulers (Waste Flow Management)</p> <ul style="list-style-type: none"> • Example: Metro Vancouver waste flow management bylaw 	<ul style="list-style-type: none"> • Ensures pay equity and level playing • An important tool to support the financial sustainability of solid waste services (will be discussed in financial memo)
<p>Community Issues</p> <ul style="list-style-type: none"> • Land use planning <ul style="list-style-type: none"> - dedicated zoning - sample zoning language • Illegal dumping 	<ul style="list-style-type: none"> • Importance of long range planning/OCPs • CRD has developed a comprehensive approach. Could develop bylaws, increase enforcement, involve stakeholder groups.

MEMORANDUM 7
Financial Management

A sustainable financial business model is essential for the provision of solid waste services. The majority of funding for the CRD function is currently drawn from Hartland tipping fees. Since 2012, expenses are exceeding revenues with the deficit being funded by a sustainability reserve fund. The memorandum identifies three mechanisms to bring future finances in balance: decrease spending, increase tipping fees and tax requisition. An interactive model was developed to test various assumptions and combinations.

FUNDING MECHANISMS	PTAC DISCUSSION
<p>Decrease Spending</p> <ul style="list-style-type: none"> • Core Services • Non-Core Services (value added) 	<ul style="list-style-type: none"> • There is limited room for efficiencies to cut costs – what would be the impact on consumers? • Non-core services are a valued part of the community. • Diversion is expensive but also has value to the economy through jobs and services. • More Extended Producer Responsibility programs will reduce burden of local government. They should be on a full cost recovery basis. • Advocate for design for environment. • There is a lack of knowledge and awareness of cost of diversion programs. • Private sector has solutions – at a cost. • Sometimes there are no other alternatives for materials – role for CRD to provide them. • There is too much food waste – we need more education.
<p>Increase Tipping Fee</p> <ul style="list-style-type: none"> • May require flow management 	<ul style="list-style-type: none"> • There is a tipping point for the tipping fee – where is the balance? • Industry has concerns about waste flow management. • Strong public support to manage waste in region. It would be contradictory to save landfill space in region by sending it to landfills out of region.
<p>Tax Requisition</p> <ul style="list-style-type: none"> • Could be utility/user fee 	<ul style="list-style-type: none"> • User pay would make consumers responsible for their choices and help change consumer behaviour. • User fees do not always cover the cost of managing items. • Requisition would help socialize costs. • There is no such thing as a free lunch – businesses have to pay for services; residents should pay their share.
<p>Other</p> <ul style="list-style-type: none"> • Combination of Options • Other Comments 	<ul style="list-style-type: none"> • There was general support for a blended financial model. • Use creativity to explore alternate funding sources. • What is the public tolerance level for paying for services? • There is an ‘awareness deficit’ for of the costs of diversion. We need more education. • Doing the right thing is often more expensive. • What is a realistic diversion goal? Do we need to get to 70% diversion and at what cost? • We could learn from other countries that are willing to pay for the protection of their natural resources and environments.

ISWRMP – TOPICS, CHALLENGES & ASSUMPTIONS/STRATEGIES

MEMORANDUM TOPIC	CHALLENGES/ISSUES (IDENTIFIED IN 2012)	ASSUMPTIONS/PROPOSED STRATEGIES
<p>Reduce, Reuse and Extended Producer Responsibility</p> <ul style="list-style-type: none"> • High consumption levels are the biggest barrier to reducing & reusing • EPR is meant to encourage greener material design – there is need for improvement 	<p>Challenges 1 to 5</p> <ol style="list-style-type: none"> 1. Encouraging behaviours that move ‘up the hierarchy’ 2. Sustainable product design 3. Lack of awareness/confusion about EPR programs 4. Uncertainty about impact of PPP EPR 5. Uncertainty about future new EPR programs 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> • <i>There is general support for education & EPR programs</i> <p>Status</p> <ul style="list-style-type: none"> • Decision about CRD involvement in PPP EPR to be determined by 2015 • CRD has limited input into future EPR programs <p>Proposed Strategies</p> <ul style="list-style-type: none"> • Continue with existing reduce & reuse programs • Increase education efforts to change behaviours and inform about EPR • Advocate for more EPR programs with full cost recovery and a focus on re-design
<p>The 3rd R: Recycling – Collection Services and End Uses</p> <ul style="list-style-type: none"> • Garbage collection programs are established • Recycling is shifting to PPP EPR • Organics programs are developing 	<p>Challenges 6 to 18</p> <ol style="list-style-type: none"> 6. Multiplicity of service providers creates confusion 7. Increase diversion as many recyclables still end up in the garbage 8. Lack of residential kitchen scraps collection programs 9. Limited local capacity for processing kitchen scraps 10. Past planning challenges for kitchen scraps 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> • <i>The CRD will not get involved in garbage collection in the region</i> • <i>There is a general shift of recycling programs to EPR</i> • <i>A long term kitchen scraps processing strategy will be in place by 2015</i> <p>Status</p> <ul style="list-style-type: none"> • Status quo for garbage collection • No new EPR programs announced • PPP EPR is managing film plastic and glass • Gulf Islands depot funding TBD

MEMORANDUM TOPIC	CHALLENGES/ISSUES (IDENTIFIED IN 2012)	ASSUMPTIONS/PROPOSED STRATEGIES
	<ul style="list-style-type: none"> 11. How to comply with 2015 kitchen scraps ban 12. Need for long-term planning beyond 2015 13. Sourcing feedstock for processing kitchen scraps 14. Stable funding for Gulf Islands recycling depots 15. Lack of full cost recovery for EPR programs 16. Need for increased diversion of commercial waste 17. Film plastic contamination 18. Limited markets for post-consumer glass 	<p>Proposed Strategies</p> <ul style="list-style-type: none"> • Standardize/harmonize garbage collection • Advocate for full cost recovery for EPR programs • Advocate for PPP EPR to be extended to commercial sector?
<p>Construction & Demolition (C&D) Materials</p> <ul style="list-style-type: none"> • Private sector plays a major role 	<p>Challenges 19 to 23</p> <ul style="list-style-type: none"> 19. Diversion of wood and asphalt shingles 20. Lack of data for private sector C&D recycling 21. Uncertainty about EPR for C&D materials 22. Uncertain outlook for wood waste market 23. Unknown existing quantities of wood waste managed by private sector 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> • <i>Private sector will continue to play major role in C&D diversion</i> <p>Status</p> <ul style="list-style-type: none"> • Status quo for existing programs • Tervita landfill will reach capacity in six years <p>Proposed Strategies</p> <ul style="list-style-type: none"> • Continue support for existing programs • Investigate CRD and municipal policy options
<p>Resource Recovery</p> <ul style="list-style-type: none"> • CRD has to meet 70% diversion goal before considering waste to energy (WTE) • Integration with liquid 	<p>Challenges 24 to 25</p> <ul style="list-style-type: none"> 24. When and how to implement resource recovery 25. Integration with liquid waste plans and programs 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> • <i>WTE will be considered conceptually only in this ISWRMP</i> • <i>The new proposed diversion goal is 70% by 2020</i> <p>Status</p> <ul style="list-style-type: none"> • 2013 diversion rate is 52%

MEMORANDUM TOPIC	CHALLENGES/ISSUES (IDENTIFIED IN 2012)	ASSUMPTIONS/PROPOSED STRATEGIES
<p>waste programs was not included in scope of memo</p>		<ul style="list-style-type: none"> 2013 landfill gas recovery is 50% <p>Proposed Strategies</p> <ul style="list-style-type: none"> Maximize existing resource recovery Continue to investigate new opportunities
<p>Residual Management</p> <ul style="list-style-type: none"> Hartland's most important asset is airspace New fill design concepts can expand the life to over 100 years 	<p>Challenges 26 to 27</p> <ul style="list-style-type: none"> 26. Maximizing Hartland's life 27. Understanding and recognition of Hartland's potential as an asset 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> <i>The goal is to never have another landfill in the region</i> <i>There is support in principle to expand Hartland landfill as required</i> <p>Status</p> <ul style="list-style-type: none"> Hartland's current life expectancy is 36 years <p>Proposed Strategies</p> <ul style="list-style-type: none"> Optimize diversion Maximize air space Investigate options to increase life of landfill (vertical & horizontal expansion)
<p>Regulatory & Community Issues</p> <ul style="list-style-type: none"> There are several approaches to regulating waste facilities and haulers Importance of long range planning/OCPs Successful illegal dumping campaigns involve the community 	<p>Challenges 28 to 35</p> <ul style="list-style-type: none"> 28. Tackling illegal dumping 29. Incomplete commercial and C&D data 30. Lack of capacity to track waste managed by private sector 31. Lack of regional waste import and export data 32. Unknown effectiveness of waste reduction efforts in multi-family sector 	<p><i>Assumption</i></p> <ul style="list-style-type: none"> <i>Waste flow management will be considered as part of the ISWRMP</i> <p>Status</p> <ul style="list-style-type: none"> Lack of data from private sector due to lack of respective regulations Phase 1 of illegal dumping campaign was successfully completed in 2013 Multi-family recycling for PPP has shifted to MMBC; kitchen scraps will be collected by private haulers

MEMORANDUM TOPIC	CHALLENGES/ISSUES (IDENTIFIED IN 2012)	ASSUMPTIONS/PROPOSED STRATEGIES
	<p>33. Public resistance to the siting of waste management facilities</p> <p>34. Community planning for waste management facilities</p> <p>35. Overlapping jurisdictions and regulations for waste management facilities</p>	<p>Proposed Strategies</p> <ul style="list-style-type: none"> • Explore waste flow management • Work with municipalities & communities on zoning and planning for new facilities • Continue/enhance illegal dumping campaign
<p>Financial Management</p> <ul style="list-style-type: none"> • The current financial model of funding the SW function from tipping fees is unsustainable. • The memo identifies three funding mechanisms: decrease spending, increase tipping fees and tax requisition/utility fees 	<p>Challenge 36</p> <p>36. Unsustainable financial model</p>	<p><i>ASSUMPTION</i></p> <ul style="list-style-type: none"> • <i>New funding mechanisms for the solid waste function are required</i> <p>Status</p> <ul style="list-style-type: none"> • The sustainability fund will be exhausted by 2017 <p>Proposed Strategies</p> <ul style="list-style-type: none"> • Review program cost efficiencies • Consider impact of increasing tipping fees, including need for waste flow management • Examine user pay/taxation for solid waste services • Investigate a blended financial model using several mechanisms