

Memorandum

Cooperation on Resource Recovery from CRD Waste Streams



Natural Resources
Canada

Ressources naturelles
Canada

Canada

Submitted to:
Premier Gordon Campbell
Honourable Barry Penner, Minister of Environment
Honourable Richard Neufeld, Minister of Energy, Mines and Petroleum Resources
Honourable Gary Lunn, Minister of Natural Resources

Submitted by:
Bob Landell and Stephen Salter, Victoria, BC

The signatories of this memorandum are hereby expressing their willingness to be involved in round table discussions concerning possible involvement with innovative resource recovery practices for sewage treatment in the Capital Regional District.

Background:

- The Capital Regional District is planning a sewage treatment system which will involve significant costs. Once built, this system will operate for decades to come. The opportunity exists now to be forward-thinking, and to ensure the treatment process brings the greatest benefit to the community.
- The CRD's plans consider recovery of resources from sewage, such as reclaimed water and heat¹. We are interested in cooperating with the CRD's planning process to optimize these resource recovery opportunities.
- Canada has set a target to achieve an absolute reduction in GHG emissions between 45% and 65% from 2003 levels by 2050². BC has committed to 33% reductions by 2020³.
- The best peer-reviewed consensus science recommends GHG emission reductions ranging from 50% to 85% below 2000 levels by 2050 to avoid catastrophic climate change.⁴ The developed world, including Canada, may be expected to make greater reductions than the averages shown.
- Sewage contains significant heat energy, which is successfully being recovered through heat pumps in Europe and elsewhere to reduce dependence on fossil fuels. Our sewage contains approximately 2 million GJ/year, enough to heat 1/3 of the region's homes.
- Integrated recovery of resources from sewage and organic solid waste could reduce the region's GHG emissions by approximately 300,000 tonnes per year, which would bring the region's emissions to 10% below 1990 levels.
- In addition to the potential GHG benefits of *sustainable full balance sheet* or *triple bottom line options*, there are long term returns-on-investment associated with:
 - Water reclamation;
 - District heating and district cooling via heat pumps;
 - Biogas production from sludge and solid organic waste;
 - Mineral recovery;Business models, based on the above, are performing successfully in other jurisdictions.

As Victoria professionals who have been involved with sustainability for many years, we are very concerned that the technological and cultural changes required of us as a society will be more difficult to achieve than anticipated. As professionals with responsibilities for local energy plants, we do not want the region to miss this opportunity to show sustainability action and leadership.

¹ *The Path Forward - The Supporting Report to the Response to the Minister of Environment (CRD)*

² <http://www.conservative.ca/EN/1091/56431>

³ BC Gov't Throne Speech, 2007

⁴ Intergovernmental Panel on Climate Change – Working Group 3 – Fourth Assessment Report

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The following are the signatures of representatives of organizations willing to participate in discussions on innovative options for resource recovery.

Organization	Name	Signature
Camosun College	Marian Miszkiel, Director, Physical Resources	
City of Colwood	Michael Baxter PEng, Chief Engineer	
City of Esquimalt	Chris Clement, Mayor	
City of View Royal	Graham Hill, Mayor	
Fairmont Empress Hotel	Andrew Leslie, Chief Engineer	
Natural Resources Canada, CANMET	Ken Church, Manager, Community Planning	
Terasen Energy Services	Gareth Jones PEng Vice President and General Manager	
Vancouver Island Health Authority	Bill Sutherland, Director, FMO	