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February 9, 2018

VIA: Email

Mayor Barb Desjardins and Council  
Township of Esquimalt  
1229 Esquimalt Road  
Victoria BC V9A 3P1

CORPORATION OF THE TOWNSHIP OF ESQUIMALT		
For Information:		
<input type="checkbox"/> CAO	<input type="checkbox"/> Mayor/Council	
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<input type="checkbox"/> For Action	<input type="checkbox"/> For Response	<input type="checkbox"/> COTW
<input type="checkbox"/> For Report	<input checked="" type="checkbox"/> Council Agenda	<input type="checkbox"/> IC

Dear Mayor Barb Desjardins and Council:

**Re: Local Integrated Resource Management (IRM) Solution**

As the former Vice Chair of the CRD's IRM Task Force, I have heard from many experts and engineers on the financial and environmental benefits of an IRM solution. Unfortunately the IRM Task Force was disbanded by the CRD Board before we had a chance to fully investigate and evaluate all IRM approaches. Taxpayers in the region deserve to hear options that could reduce costs and greenhouse gas (GHG) emissions. I fully support your initiative to pursue a local IRM solution. I am providing the following list of potential benefits compiled by the IRM Task Force.

**Potential Cost Advantages**

- Reduced, or nearly eliminated, need for new liquid waste conveyancing infrastructure.
- Reduced, or nearly eliminated, property acquisition costs (distributed system).
- Opportunity to utilize a "just on time" approach to infrastructure needs (distributed system).
- Avoidance of future infrastructure costs through the ability of the selected technology to handle multiple waste streams eg: no separate facility for kitchen scraps.
- Increased revenue through the creation of additional marketable resources (crude oil, biodiesel, syngas, biochar, heat and potentially water).
- Opportunity, through siting of distributed plants, to "set the stage" for increased future water re-use. Purple pipe system could be expanded on an "as needed" basis.
- Opportunity to lower costs to taxpayers by transferring existing tipping fee revenues.
- Ability to substantially extend the life of the Hartland Landfill.
- Creation of value in the region through technology and/or job growth.
- Avoided costs to construct new outfalls.

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- Substantially reduced capital costs and virtually eliminated life cycle costs through transfer of existing revenue and creation of new revenue (contractual agreements could transfer revenues to the CRD annually).

#### **Potential Environmental Advantages**

- Very substantially increased GHG mitigation.
- Elimination of the need to handle residual “treated” biosolids. In all cases, very little or no residual material is created.
- Opportunity, if so chosen, to increase levels of recycling through “pre-sorting”.
- Production of very clean tertiary disinfected level effluent suitable for supplementing streams and aquifers and/or for future water re-use.
- Near elimination of emerging chemicals from both liquid wastes and biosolids.
- Ability to meet and exceed all current legislative requirements for discharge and emission regulations.

#### **Potential Process Advantages**

For distributed approaches on the liquid side, an opportunity to substantially avoid re-zoning if publicly owned and zoned sites are utilized eg: existing pump stations. Liquid treatment technology could be underground. It should be noted, however, that several presenters emphasized orally, or in their literature, that maximum benefit will be achieved not just by technology but by a process of overall system design developed **from the outcomes desired**. In other words, cost reduction and environmental gain must become the goals around which a proposed system is designed and built. This allows the marriage of technology, sites and opportunities for resource recovery to be optimized in a manner that an “add- on approach” is unlikely to obtain.

Yours truly,



Ken Williams, Mayor  
District of Highlands