

Proposal to the Fraser Valley Regional District

Re: Support for Proposed Fraser Valley Organics Conversion Initiative

Request

A \$20,000 grant from the Fraser Valley Regional District (FVRD) to prepare a submission to the Ministry of Environment's Organics Infrastructure Program which outlines:

- The proposed Fraser Valley Organics Conversion Initiative;
- The proposed business approach and governance model;
- The benefits to the Fraser Valley, BC and BC's economy; and
- The opportunity for the Province of BC to resource or partner with the Society and the FVRD to champion the development of the Initiative.

Situational Analysis

- The agrifood and seafood sector is a major part of the Canadian and British Columbia economies and an important employer. The sector supports jobs in many parts of the province, especially rural and coastal communities.
- In Canada, agriculture is a responsibility shared between the federal and provincial governments.
- The sector is not achieving its potential and suffers from a variety of threats (e.g.: food insecurity, environmental impacts, climate change, labor supply, trade issues, etc.) which could be turned into opportunities with planning, cooperation and leadership.
- At present, there is no place or entity accountable for addressing the related challenges.
- The proposed Fraser Valley Organics Conversion Initiative would bring substantial agriculture and agrifoods processing solutions to the FVRD to focus on these challenges.
- The Initiative would support food and energy production, environmental cleanup, technology development, and training.
- It would take advantage on new and emerging technologies to address these challenges by developing practical solutions to address agriculture-related energy opportunities, while addressing environmental impacts (e.g.: water and waste management challenges, environmental impacts). These would lead to new product and market opportunities.
- The Initiative would serve as a physical epicentre of the efforts but would be operated to allow other local, national or international entities to participate through open source technology.
- While the Initiative's focus would be agriculture and the elimination of waste from that industry, a comprehensive approach is warranted.
- This initiative has natural connections to the BC ministries of: Agriculture; Jobs, Trade & Technology; Advanced Education, Skills & Training; Environment & Climate Change Strategy; Energy, Mines & Petroleum Resources; and Forests, Lands, Natural Resource Operations and Rural Development, and the responsibilities outlined in each of those Minister's mandate letter.
- For example, the forestry sector is also a major part of the Canadian and British Columbia economies, an important employer and faces complementary challenges

(e.g.: the industry's impact on greenhouse gas emissions; and the devastating impacts of natural occurrences such as the mountain pine beetle and forest fires.

- While the Initiative focusses on the diversion and useful application of organics, there is a natural synergy between this Initiative and the forest sector.
- In fact, Forests, Lands, Natural Resource Operations and Rural Development provided funds to the Society through the Rural Dividend Fund for a business plan for a digester in Agassiz.
- The Initiative could also include the Government of Canada, First Nations and the non-profit sector.

Challenges and Opportunities

Challenges

- The agriculture and agrifood sector faces several challenges, including: competition for scarce quality farmland; an aging workforce; the industry's impact on greenhouse gas emissions; and the production of significant waste (e.g.: animal manure) which to date has not been effectively managed or redeployed for agricultural, environmental or energy purposes.
- As noted in the report from the POLIS Water Sustainability Project, compromised agricultural practices are a substantive threat to British Columbia, but also provide a substantial opportunity.
- This is most clearly exemplified in the Hullcar aquifer situation in BC's North Okanagan region, where water quality advisories have been in effect since 2014, at least partly due to past agricultural practices. Hullcar is not a unique situation.
- The Fraser Valley has the highest concentrations of animals per acre of any region in Canada.
- It is well-documented that the Fraser Valley has a sensitive airshed that traps and holds much pollution from other areas. A portion of the Fraser valley sits over the unconfined Sumas Aquifer. Much study has been done on the nutrient loading situations.
- The Province is considering sweeping changes to the Agricultural Waste Control Regulation and Organic Matter Recycling Regulations.
- There is growing concern among the public and communities regarding the need to minimize or eliminate the impact of waste products (especially animal waste products) on the scarce agricultural land base.
- The current forecasts for world population indicate the need to diversify and enhance food production in those parts of the world where climate change has not yet destroyed the land's ability to produce food.
- Energy use continues to grow which increases the demand for more energy production and strains the supply of clean energy.
- A growing international effort to address the impacts of climate change require both large scale and local efforts to reduce greenhouse gas emissions and create new and "greener" forms of energy.
- While the challenges are comprehensive and broad, no one entity currently has the responsibility, resources and leadership to develop and implement solutions and create the circumstances for success.

Opportunities

- The Catalyst Agri-Innovations Society was established in 2009 by a consortium of like-minded individuals with a common purpose - to better manage the integration and interaction of food (including the waste by-products), water and energy.
- The goal is to achieve “zero waste agriculture” such that animal and plant waste is used to produce biogas, energy, clean water and fertilizer to enhance food production in a way that is environmentally friendly and economically viable (in fact, profitable).
- The Society is proposing the creation of the Fraser Valley Organics Conversion Initiative, which includes three fixed location components, with site(s) to be decided through a competitive process, based on "hot spots" identified through GIS mapping.
- The Initiative would be a Certified Benefits Corporation, serving as a research and innovation hub and seeking to provide practical solutions to address agriculture-related energy opportunities, environmental considerations, etc.
- The Initiative’s proposed governance structure includes a board of directors, a technical advisory committee and a community advisory board.
- The Fraser Valley enjoys some of the best climate, soil and water for agricultural production in the world.
- Most BC farmland is protected by the Agricultural Land Reserve. While this creates a challenging dynamic between agricultural and other economic uses of ALR land, it also enhances the environment for success.
- Given the situation and opportunities in the Fraser Valley, and the leadership in the FVRD for agricultural production and protection, the FVRD is in an opportune position to partner with the Society to pursue the Initiative and make the Fraser Valley the national leader in achieving sustainable solutions for agriculture and organics management in the valley that will help to solve real world problems.
- The Society is proposing the FVRD assume the placeholder Expression of Interest submitted November 30th by the District of Mission, taking its rightful place of leadership of the interactions of the member municipalities for this important group of actions.
- The total to be requested from the Organics Infrastructure Program is \$15 million of the \$25 million required for the Initiative.
- The Society is proposing that the FVRD assume a leadership role in the development of the Initiative and serve as its champion.
- BC’s technology sector has been an engine of growth for the province and will be an important part of the work of the Initiative and the solutions that are proposed.
- BC’s Organics Infrastructure Program may provide the appropriate avenue to pursue this opportunity.

The Proposal

As noted, there is no one entity with the responsibility, resources and leadership to develop and implement solutions and create the circumstances for success. Similarly, there is no single document that provides a comprehensive look at the challenges and opportunities affiliated with agricultural and forestry production.

The current materials describing the challenges that exist, the Society, the proposed Initiative, the potential opportunity and the related considerations are complicated, technical

and unclear about the benefits to the Fraser Valley, BC, the BC economy, and the proposed government funding agencies.

It is proposed that the FVRD provide the Catalyst Agri-Innovations Society with a \$20,000 grant to prepare a plan for the Initiative for consideration by the Province of BC's Organics Infrastructure Program. All activities would be conducted on behalf of, and in partnership with, the FVRD.

The Society would engage Inner Harbour Consulting Inc. (a BC based management consulting firm with experience in the sector) to undertake that work.

The deliverables from that grant will include:

- Discussions with key involved parties to clarify the intent and understanding of the existing materials.
- Preparation of the material(s) necessary to effectively communicate the context, challenges, opportunities and proposed solution in the context of broader provincial and federal government objectives.
- Simple and accurate materials that are primarily jargon free and demonstrate the linkage between the proposal and relevant provincial and federal government objectives.

The submission will outline:

- The proposed Fraser Valley Organics Conversion Initiative;
- The proposed business approach and governance model;
- The benefits to the Fraser Valley, BC and BC's economy; and
- The opportunity for the Province of BC to resource or partner with the Society and the FVRD to champion the development of the Initiative (through the Organics Infrastructure Program).

In the longer term and if the Province of BC determines it wants to provide leadership and additional financial support to the development of the Initiative, the Society could:

- Draft a strategic business plan for the Initiative;
- Identify the expertise and resources necessary to implement the Initiative;
- Facilitate or support discussions about the Initiative, if and as appropriate;
- Engage the Federal government as a potential funding partner;
- Consult with the agriculture industry and local communities, if and as necessary, to ensure they understand and support the development of the Initiative; and
- Ensure the Initiative is established

Regardless of the result of the proposal for funding from the OIP, the FVRD will have a valuable, high utility tool from this investment that can be used for many opportunities.

Submitted by: Christopher Bush
Catalyst Agri-Innovations Society