
TO: Committee of the Whole **MEETING:** April 9, 2019
FROM: Meghan Ebueza
Solid Waste Planner **FILE:** 5360-01
SUBJECT: Performance Monitoring of New Waste Technology – Sustane Chester

RECOMMENDATION

The Board partner with the Comox Valley Regional District and the Cowichan Valley Regional District for:

- 1) participation in the performance monitoring program of new waste technology – Sustane Chester;
- 2) contribution of \$7,500 from the Regional District of Nanaimo in the cost sharing of the performance monitoring program; and
- 3) preparation of a staff report to the Board at the conclusion of the performance monitoring program.

SUMMARY

The Comox Valley Regional District (Comox Strathcona Waste Management) Board is pursuing reducing waste disposal volumes and providing cost effective alternatives to landfilling. Comox Strathcona Waste Management is planning to monitor the performance of Sustane Technology Inc.'s newly constructed facility in Chester, Nova Scotia.. The Comox Strathcona Waste Management Board is proposing a partnership with the Cowichan Valley Regional District and the Regional District of Nanaimo (RDN) to share the costs and information related to the performance monitoring program. Information gathered from this performance monitoring program will be used by the RDN as a tool to continue to review alternative disposal technologies and help to identify technologies that are consistent with the RDN Solid Waste Management Plan (SWMP).

BACKGROUND

The Sustane Chester project, a pyrolysis plant designed to convert municipal solid waste into biomass pellets and synthetic diesel fuel, was launched in September 2016 with an agreement between Sustane and the Municipality of Chester, Nova Scotia to divert their landfill destined municipal solid waste to a Sustane Facility.

Performance Monitoring Program

The performance monitoring program as presented in the the Comox Valley Regional District's report titled "Performance Monitoring of Waste Management Technology – Chester, Nova Scotia" (Attachment 1) details the plan for the Comox Strathcona Waste Management Board in

partnership with the RDN and Cowichan Valley Regional District, to observe Sustane Technology Inc.'s progress as the newly constructed facility in Chester, Nova Scotia is commissioned and becomes operational.

The performance monitoring program will monitor the Sustane Chester facility for a period of one year after their start-up. This period of time is recommended to help ensure consistent, continuous operation for measurement of all performance criteria and costs. The following key performance monitoring activities outlined in the plan are:

- Detailed performance monitoring criteria and a performance monitoring timeline;
- Visit to Sustane's facility in Chester, Nova Scotia to witness and observe the facility in operation, to interview operators and maintainers, to interview Chester Solid Waste employees and to meet with Nova Scotia Environment;
- Review all agreements between Chester and Sustane to confirm costs, risks and benefits to the community;
- Identify other financial costs or benefits outside of the contract;
- Review regulatory requirements of the Province of British Columbia;
- Assess local market demand for by-products;
- Identify potential unintended consequences, benefits and risks; and
- Use of qualified professionals will aid staff with legal opinions and performance monitoring.

RDN Long Term Residual Waste Management

The long term goal of the RDN is Zero Waste. Nevertheless, the RDN recognizes that there will still be some necessary long term residual disposal, after the closure of the RDN Landfill, for the foreseeable future. The RDN Solid Waste Management Plan (SWMP), adopted by the RDN Board in June 2018 and waiting approval from the Minister of Environment & Climate Change, commits to continuing to review and consider alternative technologies that are consistent with the Zero Waste Hierarchy and Goal. Participating in the performance monitoring program of Sustane Chester would provide the RDN with independently sourced information to consider as it relates to the implementation of the RDN SWMP.

ALTERNATIVES

1. The Board partner with the Comox Valley Regional District and the Cowichan Valley Regional District for:
 - a. participation in the performance monitoring program of new waste technology – Sustane Chester;
 - b. contribution of \$7,500 from the Regional District of Nanaimo in the cost sharing of the performance monitoring program; and
 - c. preparation of a staff report to the Board at the conclusion of the performance monitoring program.
2. The Board does not approve the request from the Comox Valley Regional District.
3. The Board provide alternate direction to staff.

FINANCIAL IMPLICATIONS

The performance monitoring program including third party consultants to undertake legal reviews and development of draft performance monitoring criteria is budgeted to cost \$20,400. The Comox Valley Regional District has proposed the following cost sharing appropriation (Attachment 2) based on 2018 landfilled waste volumes listed in Table 1.

Regional District	Residual Waste (tonnes) ¹	Share of Cost
Comox Valley	63,074	43% or \$8,800
Nanaimo	53,739	37% or \$7,500
Cowichan Valley	30,092	20% or \$4,100

The RDN would be responsible for its own travel arrangements for a site visit to the Sustane Chester facility.

STRATEGIC PLAN IMPLICATIONS

Focus On Relationships- We Look For Opportunities To Partner With Other Branches Of Government/Community Groups To Advance Our Region

The approval of this request would be a collaborative approach between the Comox Valley Regional District, Cowichan Valley Regional District and the Regional District of Nanaimo to better understand how Sustane's technology performs in Chester, Nova Scotia, which aligns with the RDN's commitment to continue to monitor new alternative waste disposal options as detailed in the RDN SWMP.



Meghan Ebueza
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March 20, 2019

Reviewed by:

- L. Gardner, Manager, Solid Waste Services
- R. Alexander, General Manager, Regional & Community Utilities
- P. Carlyle, Chief Administrative Officer

Attachments:

1. Performance Monitoring of Waste Management Technology – Chester, Nova Scotia
2. Correspondence – Russell Dyson, CAO, Comox Valley Regional District, re Monitoring Sustane Facility – Chester, NS

¹ Based on AVICC solid waste data summary for 2016