



**INFORMATION REPORT TO THE ENVIRONMENT AND
CORE AREA LIQUID WASTE MANAGEMENT COMMITTEES
MEETING OF WEDNESDAY 24 JUNE 2009**

**SUBJECT CAPITAL REGIONAL DISTRICT WASTE MANAGEMENT PLANNING – AN
INTEGRATED PERSPECTIVE**

PURPOSE

To review solid and liquid waste management planning initiatives underway and to demonstrate potential integration opportunities.

BACKGROUND

A number of planning initiatives are currently underway for both liquid and solid waste that will ultimately shape how the Capital Regional District (CRD) will manage these waste streams in the future.

Over the past number of months, the Core Area Liquid Waste Management Committee has explored options, opportunities and costs associated with wastewater treatment for the core area. A number of discussion papers covering various aspects of the project have been prepared by the project consultants including a biosolids/organics residuals strategy evaluation. Building on this discussion paper, and an overall review of the project by the peer review team, the committee, at its meeting of 02 June 2009, moved to proceed with Option 1 of the wastewater management strategy. Option 1 includes three wastewater treatment plants located at Saanich East-North Oak Bay, Macaulay Point/McLoughlin Point and the West Shore, with a wet weather facility at Clover Point and a biosolids management facility at or near Macaulay Point/McLoughlin Point. The committee requested further investigation of variations on this strategy including:

- an assessment of biosolids integration with solid waste activities and functions, and;
- investigation of relocation of the solids processing from the liquid processing site to allow potential integration with solid waste activities and functions.

At the same time, the Environment Committee has been reviewing solid waste planning initiatives. A key goal of the Solid Waste Strategic Plan is to achieve a 60% waste diversion rate by 2013. In order to meet this goal, source separated organics are targeted for diversion from the waste stream. A business case analysis and stakeholder consultation is currently underway to determine how source-separated organics can most effectively be collected. Processing technologies for the collected organics will be evaluated and selected.

Staff are also participating in a high level study with the Cowichan Valley Regional District and the Regional District of Nanaimo to investigate the feasibility of long-term municipal solid waste residuals management options, such as waste-to-energy, that could serve as a backup option for wastewater sludge treatment. Furthermore, as waste is diverted away from the landfill and tipping fee revenues decrease, staff are evaluating alternative revenue sources to maintain current service levels for recycling and other waste diversion programs.

Clearly, planning for core area wastewater and regional solid waste must move forward in an integrated way. A fully integrated, holistic approach to waste management planning is a new way of thinking compared to the established practice of planning for each waste stream separately. An integrated

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planning approach may reveal synergies that could result in reduced life-cycle costs for infrastructure, more flexible options, reduced greenhouse gas emissions and other environmental benefits, as well as new revenue streams from recovered resources.

Appendix A presents a flowchart of liquid and solid waste streams generated in the region, showing which functions are currently integrated and where the potential lies to move towards a more integrated approach.

The province requested that the CRD Board submit an amendment to the core area Liquid Waste Management Plan by 31 December 2009. Over the next six months, the wastewater project consultants, Stantec with Brown and Caldwell, working with staff, will address the following questions:

- Where will biosolids and source-separated organics be processed?
- How will source-separated organics be processed?
- Will fats, oils and grease or food waste be co-digested with sludge?
- What are the contingencies for disposing of biosolids? Do these plans include a waste-to-energy facility that also receives municipal solid waste residuals?
- How do these alternatives impact the financial models for liquid and solid waste disposal?

A comprehensive biosolids management plan, that reflects integration opportunities with regional solid waste, will be presented to committee in the fall of this year.

ALTERNATIVES

Not applicable.

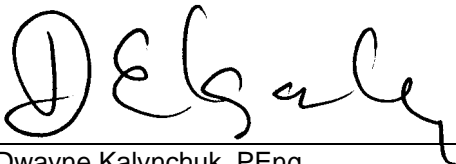
SUMMARY

As the CRD develops waste management options for the future, an integrated planning perspective is crucial. Key initiatives currently underway for core area liquid waste and regional solid waste management are coming together in order that an integrated plan be developed to achieve economic, social and environmental benefits for the region.

RECOMMENDATION

That the Environment Committee and Core Area Liquid Waste Management Committee receive this report for information.

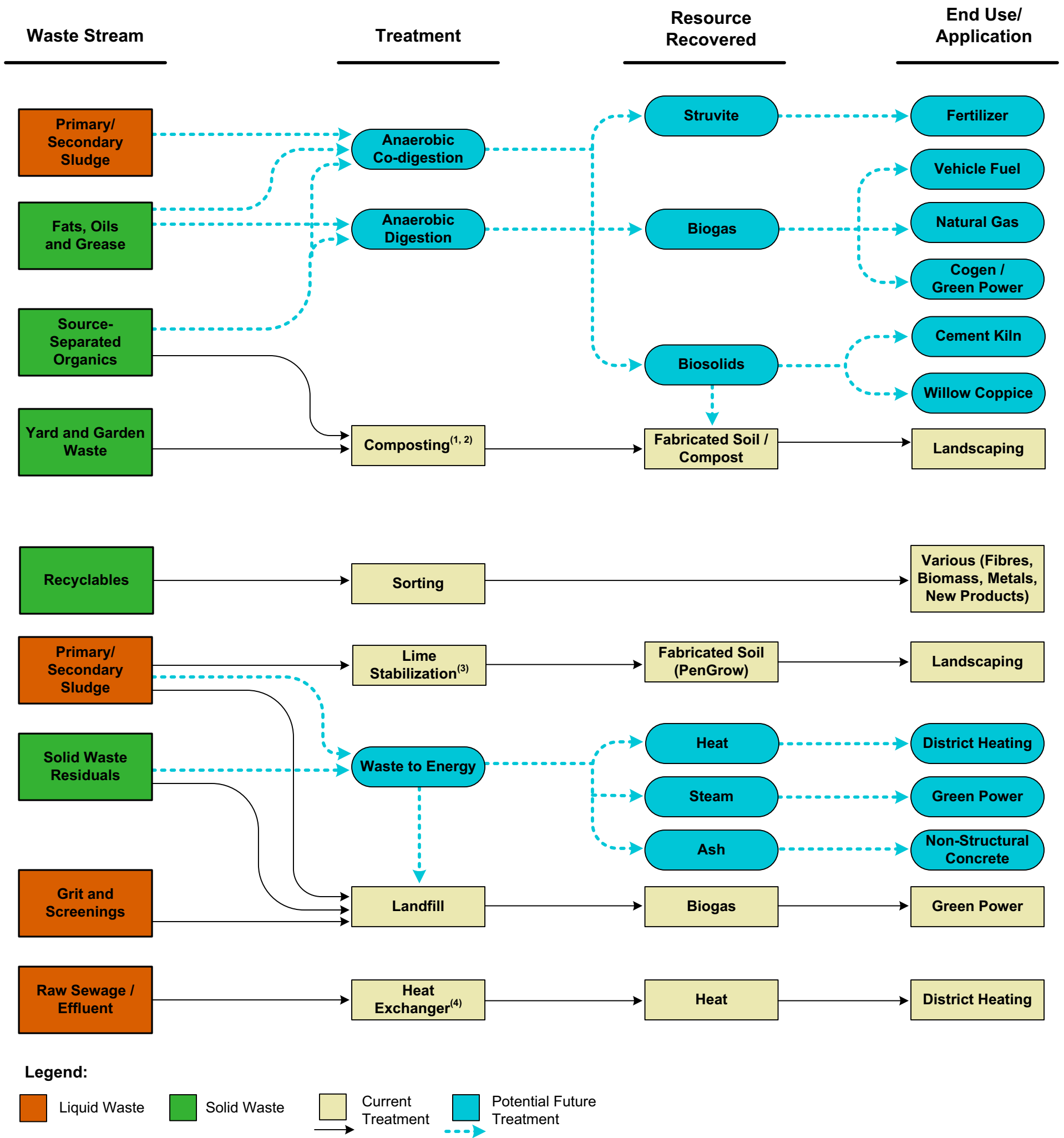
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LH:cl
Attachment: 1

Integrated Liquid and Solid Waste Management – Capital Regional District



Notes:

- Limited source-separated organics are collected, transferred at Hartland Landfill and hauled to Cobble Hill in-vessel composting facility.
- Yard and garden waste is handled by municipalities and private industry and composted locally in outdoor windrow facilities.
- The biosolids at the Saanich Peninsula Wastewater Treatment Plant are treated by a lime stabilization process and distributed as PenGrow.
- A pilot project is underway at the Saanich Peninsula Wastewater Treatment Plant to recover heat from effluent for Panorama Recreation Centre and the treatment plant. No projects underway to extract heat from raw sewage at this time.