



**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY 13 JANUARY 2010**

SUBJECT **BIOSOLIDS EMERGENCY DISPOSAL BACKUP PLAN**

PURPOSE

To request approval from the Core Area Liquid Waste Management Committee to include an emergency disposal backup plan for biosolids in the next Liquid Waste Management Plan amendment.

BACKGROUND

At its meeting of 07 December 2009 the Board approved the following motion:

MOVED by Director Lucas, SECONDED by Director Desjardins, that under Amendment No. 7, Section 7, Commitment 5 be deleted and that staff bring forward a report identifying and evaluating alternatives for backup or emergency biosolids management within the next two months for consideration by the Core Area Liquid Waste Committee.

ALTERNATIVES

One thing is certain regarding any wastewater treatment system: once the system and contributors are in place, wastewater will not stop coming to the facility. Solids will not stop being generated and the need for processing and end-use or disposal will be continuous. There must be a place for the resulting biosolids at all times. It is of prime importance that the recommended biosolids utilization/disposal method has maximum reliability and, ideally, a backup option which provides flexibility to the Capital Regional District (CRD) for disposal of the end product.

To plan for this high level of reliability, the concept of "primary" and "backup" alternatives has been used successfully to develop diverse, flexible, yet reliable, comprehensive biosolids management programs. The fundamental definition of these terms in the context of biosolids management can be described as follows:

Backup Alternative: This is a handling option that can provide reliable disposal at all times and under all circumstances for all the sludge generated by the wastewater treatment plant. A backup alternative must be operational on an as-needed basis at all times and meet the principal criterion of reliability. For this reason, the backup alternative facility and disposal site must be under the complete control of the CRD.

Primary Alternative: Usually driven by a municipality's objective for beneficial use or resource recovery, the primary alternative is intended to receive most or all of the biosolids generated, but does not have to meet the strict reliability constraints of the backup alternative. Should the utilization system fail for any reason, the biosolids going to the primary utilization option must be readily and quickly transferable to the backup alternative, which must remain fully capable of operation.

The primary alternative for biosolids disposal will be use as cement kiln fuel; however, no backup disposal is presently identified in the CRD plan. Landfills are quite often the backup alternative of choice (or necessity). The Hartland landfill is a good example of a backup alternative and it is currently used for disposal of biosolids for the Saanich Peninsula wastewater treatment plant and sludge from the Sooke treatment plant. The CRD will hopefully use all of its biosolids through the cement kiln fuel option; however, Hartland landfill would be available for backup reliability. Under a robust biosolids management

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program, if a separate primary method is used and is successful, no biosolids will ever have to be disposed using the backup alternative.

Under other forms of biosolids management, the backup and primary alternatives are one and the same. As an example, a waste-to-energy facility, burning biosolids and solid waste to produce energy, if owned or under control of the CRD, would serve as a beneficial primary use alternative and would be, inherently, the backup alternative because it is totally under CRD control.

IMPLICATIONS

The current Liquid Waste Management Plan Amendment No. 7 shows the cement kiln fuel option as the only biosolids option available to the CRD. Should these markets not materialize, or if they are developed and then terminated, there will be a need for the CRD to store the biosolids (approx. 20,000 kg/day) and initiate planning and implementation of some form of waste-to-energy facility.

SUMMARY

Currently, the Hartland landfill is the only biosolids emergency backup plan available to the CRD.

RECOMMENDATION

That the Core Area Liquid Waste Management Committee approve the Hartland landfill as the emergency biosolids backup plan to be included in the Liquid Waste Management Plan Amendment No. 8.

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