

From: WSCA Sewer Sub-Committee

Re: **Recommendation on “Package” Sewer Treatment Plants- District of Sechelt**

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This memo is in response to a document sent out by Mr. Bill Brown, Administrator with the District of Sechelt (DOS) January 25, 2007, outlining the potential use of “Package” Sewer Treatment Plants for new developments within the DOS.

This document contains the WSCA sewer sub-committee’s recommendation as well as background information and discussion points that have been condensed from information supplied by the DOS and the Sunshine Coast Regional District (SCRD).

## **BACKGROUND**

The current DOS Liquid Waste Management Plan recommends against the installation of package treatment plants, due to a history of failure of such plants on the Sunshine Coast in the 1980’s and 1990’s.

Currently applications are being made for multiple unit (commercial and residential) buildings and subdivisions which use package sewage treatment plants. Jurisdiction for applications for sewage treatment plants smaller than 22,500 liters per day (equivalent to approximately 20 dwelling units) is with Vancouver Coastal Health Authority. Jurisdiction for treatment plants greater than 22,500 liters per day is with the Ministry of Environment.

The DOS has suggested the following 5 alternatives **for package treatment plants with flow capacities greater than 22,500 litres/day** and has requested community feedback. These alternatives have been condensed and paraphrased as follows:

Alternative 1) Amend the Subdivision and Development Control Bylaw by introducing standards for package sewage treatment plants to serve multi-unit developments thereby addressing the concerns about plant standards. DOS however, would not assume control of package treatment plants.

Alternative 2) Introduce higher standards for construction, and the maintenance and operation of package sewage treatment plants (as above). This second alternative would oblige the system owner to retain an approved operator for maintenance and operation that would report to the DOS, or have the system owned and operated by an approved utility franchise (e.g. BC Hydro, Terasen, Corix). DOS would not assume control of package treatment plants.

Alternative 3) This alternative is the current model used by the SCRd. Sewage collection and treatment systems would be turned over to DOS for operation as a local service area following acceptance of construction. Treatment plants and collection lift stations would be maintained by DOS staff and contractors. Properties within the local service area would pay utility fees (tax) for their maintenance, operation, and replacement reserve. In this alternative the DOS assumes full control of package treatment plants. The developer or owner of the package system is responsible for all costs of operation, maintenance and repair of the system incurred by the DOS during the **first year of its operation**.

The owner will provide for this first year a letter of credit constituting 10% of the total construction cost of the package system to ensure payment of operation, insure against construction defects, and ensure maintenance and repair of the package system during the first year of its operation.

Alternative 4) Maintain the current model whereby Vancouver Coastal Health has jurisdiction for package sewage treatment plants producing less than 22,500 liters/day (approximately 20 dwelling units) and the Ministry of Environment has jurisdiction for plants that are larger.

Alternative 5) That the District either provide central sewage service to new developments, or that new developments be delayed until central services are available.

## **DISCUSSION**

Our sub-committee discussed these various alternatives and structured our recommendation to address what we believe to be the main issues.

- 1) Any new package treatment plants must be of a high enough technical standards as to last for many years to come with reasonable operation and maintenance costs.
- 2) Users of any package treatment plant should pay for any specific systems maintenance, operation and replacement (user pay), thereby not impacting any other rate payers within the DOS.

## **RECOMMENDATION**

**The sub-committee recommends Alternatives 1 and 3 with a suggested change of time frame for Alternative 3.**

Introducing new and higher standards for package treatment systems as suggested by Alternative 1, would require the use of more effective and technologically advanced systems that are available today. The sub-committee believes that this alternative needs to be implemented to ensure that package treatment systems installed in the future use the best systems that technology has to offer.

Alternative 3 addresses the issue of “user pay” for these package treatment plants while being equitable to future developments in the DOS. However, the committee suggests that the time frame for developer/owner responsibility be **increased from one year to two years**.

As part of this recommendation we'd like to add the following information as to the benefits and concerns raised by the implementation of Alternatives 1 and 3.

### **Benefits**

DOS would have direct control over package treatment plants reducing the probability of system failure and better environmental protection through higher standards of operation and maintenance procedures.

Improved technology of these treatment plants potentially means more hours of trouble free operation.

Package treatment plants could be used by others with residences close by the system thereby extending sewer service to those currently not on a sewer system.

Package treatment plants would assist in facilitating “smart growth” with affordable housing and increased density for a given area.

Liability for failure is the responsibility of the developer for the first two years of operation and thereafter the owners responsibility within a given development/strata.

Reduces the financial burden on developers by not having to post a 120% bond as is currently required by the Ministry of Environment for package treatment systems will flows greater than 22,500 litres/day. The requirement for replacement security would be removed if the DOS agreed to assume operation and ownership.

Package treatment plants are currently working successfully in other parts of the Sunshine Coast such as the system at Caleta Estates in West Sechelt.

### **Concerns**

Alternative 3 is potentially expensive for owners within a new development/strata. The SCRD estimates that annual tax for these packages treatment plants is \$200 - \$800 per year for each residence on the system. This cost covers operations, maintenance and a replacement reserve.

The DOS would take on all the financial liability of ownership and would be required to find and train additional personnel to operate and maintain these package treatment plants. Alternatively the DOS could sub-contract operations and maintenance to a 3<sup>rd</sup> party contractor, for example Terasen, Corix , BC Hydro or SCRD.

The current DOS Liquid Waste Management Plan recommends against the installation of package treatment plants. This could limit future development when current sewer capacity is reached.

Additional administrative resources would be required to establish the local service areas and calculate taxes associated with these areas.

Why limit the administration of packages treatment plants with flows greater than 22,500litres/day?

- The number of smaller package treatment plants would be difficult to administer, inspect and maintain in a cost effective manner.
- Smaller package treatment plants are approved by the local office of VCH which does inspections before and after construction and generally has a closer working relationship than that of the more remote Ministry of Environment.
- Larger systems require more technical expertise.
- Larger systems have potentially greater environmental impacts.

If you require further information please contact our sewer committee chair

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