

32 sewage plants beat 4 large ones, report says CRD could sell heat, electricity, water from house-sized treatment facilities

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The Capital Regional District should build as many as 32 small, house-sized sewage treatment plants across Greater Victoria instead of four large regional facilities, as is currently proposed, says a provincial report released yesterday.

By placing the small plants near large businesses and residential projects, the CRD could sell extra heat, electricity and clean water from the treatment process and end up recovering some of the hundreds of millions of dollars required to build the plants in the first place, according to the report, titled "Resources From Waste."

The plants, if engineered to maximize resource recovery, would recapture enough energy to heat one-third of the capital region's buildings, power 10,000 houses with electricity and eliminate 80,000 cars worth of greenhouse gases, the report said.

It is a dramatic re-thinking of the CRD's sewage treatment strategy, which calls for large regional plants and a household tax increase of up to \$700 a year, depending on the municipality. The report will likely change how the region plans the largest project in its history, said Vic Derman, CRD sewage committee member.

"It says there's a very good chance that a different direction might have both a better financial outcome and a better environmental outcome," Derman said.

The provincial government ordered the CRD to start planning treatment in 2006 because it said dumping raw sewage into the ocean is unacceptable.

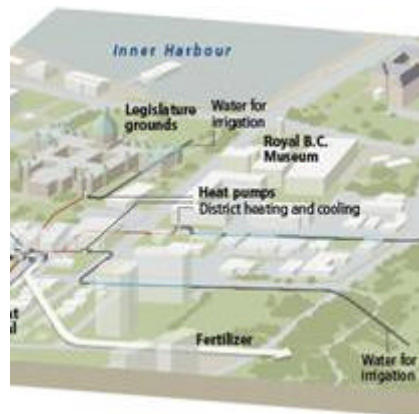
Last month, the CRD voted to stop planning plant locations until the province released the report, saying it might redefine the architecture of the whole project.

The study calls for a fundamental shift in how we think about not only sewage, but landfill waste, water use, urban growth and community planning, said Chris Corps, one of the report's four authors and a Victoria development and financial consultant.

It recommends communities merge organic kitchen waste, typically tossed into a landfill, with the sewage stream. The byproduct could be digested into biogas, which some countries use to power buses and cars, or sold into the natural gas stream. Meanwhile, heat pumps could extract warmth from sewage pipes -- the average temperature is 17C -- and funnel it into the heating of buildings, the report says.

Key to making it all work is good community planning, the authors say. And it helps to think of the capital costs as investments that can turn a profit by selling water and energy later on, said Stephen Salter, a local engineer and report author.

"If people say it costs more and they stop there, they are missing the point -- it's the cost-benefit," he said. The report estimates a 32-plant CRD system would cost somewhere between \$594 million to almost \$1 billion. However, academics who peer reviewed the report caution those numbers are extremely preliminary and can't accurately be compared to the \$1.2 billion plans for four large plants.



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A small sewage treatment plant in James Bay could provide clean water for Beacon Hill Park and heat nearby hotels and buildings such as the B.C. legislature and the Royal B.C. Museum, according to a provincial study on resource recovery released yesterday. Heat pumps would suck energy off the sewage pipes, while the treatment process would produce water suitable for irrigation.

The report recommends the province launch pilot projects and create a project office on the subject. It also suggests building a small treatment plant in James Bay to heat the B.C. legislature and provide clean water to Beacon Hill Park.

The study has some good ideas, but the province doesn't want to tell communities what to do, said Community Services Minister Ida Chong.

"If there are municipalities interested we can certainly work with them," she said. The province will review legislation to see if there are any barriers to encouraging resource recovery from sewage, said Chong.

The CRD must submit preliminary plans for treatment plants to the province by the end of June, and finalized plans by the end of the year.

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