

WASTEWATER TREATMENT MADE CLEAR



Core Area Wastewater Treatment Project

Frequently Asked Questions

CRD

Making a difference...together

March 2009

About the Project



WHAT ARE THE GOALS OF THE WASTEWATER TREATMENT STRATEGY?

The CRD is committed to protecting public health and the environment by providing for sustainable, cost effective, innovative wastewater treatment to residents. Over the next 60 years, the population of the Core Area of the CRD is anticipated to nearly double to 600,000 residents. We are working together to ensure that wastewater treatment facilities are built to meet our immediate needs and expandable to meet the long-term needs of the region.

WHAT IS THE CURRENT LEVEL OF TREATMENT IN THE CRD'S CORE AREA?

Wastewater within the Core Area of the CRD currently undergoes preliminary treatment at Clover and Macaulay Points. Preliminary treatment consists of screening the effluent with 6mm screens, which removes debris and solids.

ARE FISH AND WHALES BEING HARMED BY THE CRD'S SEWAGE OUTFALLS?

No. Because fish and marine mammals move extensively through the ocean, seafloor animals are used to monitor any effects to animals up the food chain. Extensive testing of seafloor animals shows no indication of movement of chemical contaminants up the food chain. Levels found are acceptable for human consumption.

WHAT IS THE CRD'S SETAC REPORT?

In 2005, the CRD Board commissioned an independent study by the Society of Environmental Toxicology and Chemistry (SETAC) to review our liquid waste practices. The report found that although there is no evidence of harm to the marine environment, our increasing population may soon require increased treatment.

WHAT IS THE TRIPLE BOTTOM LINE?

The triple bottom line (TBL) is a decision-making methodology for evaluating project options. The TBL is designed to provide decision makers with a framework to understand the cost and benefits of alternatives across a spectrum of social, economic and environmental goals and objectives. In this way, a more balanced view of alternatives is created, and one which can be weighted in a variety of ways to achieve the best possible solution.

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Cost

HOW MUCH IS THE PROJECT GOING TO COST?

Costs will vary depending on the treatment strategy chosen. The three distributed treatment strategies which have been put forward by the CRD's consultants estimate between \$1.2 and 2 billion, depending on the option chosen.

WHY ARE THE COST ESTIMATES SO HIGH?

The cost of implementing wastewater treatment is significant for our community. The cost is based on a capital cost to build the necessary facilities and make changes to the infrastructure. The CRD planning has been based on existing infrastructure in order to minimize the changes and costs. It's important to note that generally, 60-80% of the capital cost for wastewater management is associated with the collection system.

SINCE THE NEW TREATMENT PLANTS WILL PRODUCE RENEWABLE ENERGY AND RECOVER RESOURCES WHY DOESN'T THE PROJECT PAY FOR ITSELF?

Our research has found that the potential revenues from resource recovery are not as significant as the operating and maintenance costs and therefore will offset some of the operating and maintenance costs of wastewater treatment, but will not be revenue neutral. In addition, capital costs are not offset by resource recovery.

HOW MUCH WILL TREATMENT COST THE AVERAGE TAXPAYER?

Costs will vary from community to community depending on wastewater flows. At this point it is estimated that the cost per average residential household per year will vary from approximately \$200 for Westshore municipalities to approximately \$700 for Oak Bay. Updated cost estimates will be available as they are determined by the CRD's consultants.

WILL THERE BE ADDITIONAL COSTS TO THE TAXPAYER FOR CAPITAL COSTS?

At some sites, the CRD may wish to integrate learning facilities or other neighborhood activities such as recreational fields into a treatment plant site. These types of additional uses have not been included in the cost estimates. Similarly, some plants have the opportunity for off-site water reuse or heat recovery. Allowances for off-site reuse or recovery works have not been included in current cost estimates, as these opportunities cannot be defined at this time.

IS WASTEWATER TREATMENT GOING TO BE A PUBLIC/PRIVATE PARTNERSHIP?

The provincial government requires the CRD to look at whether the project or part of the project can proceed as public private partnership (P3). At this point, no final decisions have been made. We expect to be in a position to provide a specific answer by fall 2009.

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Siting, Approvals & Timing

HAVE THERE BEEN ANY DECISIONS REGARDING POTENTIAL SITES?

There have currently been no final decisions regarding sites. Two existing sites near Macaulay Point/McLoughlin Point in Esquimalt and at Clover Point in Victoria have been identified as options. A parcel of land at the corner of Arbutus and Finnerty Roads has also been purchased and is under consideration for a treatment plant location. For several years, Macaulay Point and Clover Point have been identified as potential treatment sites within our approved Liquid Waste Management Plan. We will also be reviewing the option of using the tanker farm at the Imperial Oil site near McLoughlin Point in Esquimalt.

HOW MANY TREATMENT FACILITIES WILL BE BUILT?

The three distributed wastewater management options currently being considered offer strategies for three, five or ten treatment plants, with wet weather facilities at Clover Point.

WHEN WILL SITE SELECTION BE FINALIZED?

Site selection is expected to be well advanced by the fall of 2009. A plan will be drafted for presentation to the Minister of Environment by the end of 2009. This plan will include:

- Treatment plant locations
- Proposed system configuration with related cost estimates
- Plans for resource recovery and use
- A business case analysis, outlining the procurement options for the design, construction, operation and financing of the required works

WHAT CRITERIA WILL BE USED TO DETERMINE THE WASTEWATER TREATMENT STRATEGY?

Final decisions will be based on a thorough analysis of economic, environmental and social factors, using a triple bottom line methodology.

WHAT IS THE ROLE OF THE PROVINCIAL GOVERNMENT?

The province made the original decision requiring the CRD to move towards wastewater treatment for the core area municipalities. We are abiding by that decision and are working to meet that requirement in the timelines established by the province. The province has also committed to one third of the cost of funding the wastewater treatment project. The provincial government is responsible for the consultation process with first nations.

WHO WILL MAKE THE FINAL DECISION REGARDING THE LOCATION OF SEWAGE TREATMENT FACILITIES?

The Core Area Liquid Waste Management Committee will select the preferred sites at each location. Locations must, however, receive final approval from the Provincial Minister of Environment. Public consultation will also form an integral part of this process.

WHEN WILL CONSTRUCTION START?

Construction is scheduled to start 2010-2011, and be completed by the end of 2016.



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Environmental Impact & Innovations

WHAT ENVIRONMENTAL IMPACT WILL THE WASTEWATER TREATMENT FACILITIES HAVE?

Environmental impact can only be determined when the final sites are selected, but it is expected that all impacts will be mitigated to less than significant levels.

HOW WILL THE CRD PROTECT SENSITIVE ECOSYSTEMS AND AT-RISK SPECIES WHEN DECIDING ON PLANT SITING?

Environmental impact is one of the three criteria of the CRD's triple bottom line methodology. Our environmental goals include the minimization of disruption to natural areas, including wetlands, rare or endangered species, fish spawning and rearing habitat, critical green/blue spaces and land in the Agricultural Land Reserve. Potential treatment plants are being assessed for environmental impact, and the CRD will work hard to protect the region's diverse ecosystems.

WILL THE WASTEWATER TREATMENT FACILITIES BE CARBON NEUTRAL?

If feasible, the goal of the CRD is to ensure that wastewater facilities are carbon neutral. To that end, plants will be designed so as to minimize energy consumption during construction and subsequent operation. As well, when cost effective, energy will be recovered from the sludge and effluent.

DO ALL THREE PROPOSED WASTEWATER TREATMENT OPTIONS INCORPORATE RESOURCE RECOVERY?

Yes. All three distributed wastewater management options have the potential to:

- Fully utilize the available heat energy
- Utilize the energy from organic solids
- Provide opportunities for water reuse

The only difference is how the option achieve these end points.

WHAT COULD RECLAIMED WATER BE USED FOR?

Reclaimed water is a water supply produced from wastewater to replace or replenish non-potable water uses in communities. Reclaimed wastewater goes through a number of processes to ensure that it is free of pathogens, micro-organisms and contaminants. Recovered water could be used for a variety of purposes, including landscape irrigation, non-potable (non-drinkable) uses such as toilet flushing in redeveloped or newly developed areas. When the reuse water was not required, it could be discharged either to the marine environment via an outfall or augment flow in local streams and rivers.



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Public Input

HOW IS THE CRD INVOLVING FIRST NATIONS IN PUBLIC INPUT?

In partnership with the Provincial Government, First Nations engagement is one of our key priorities when planning for wastewater treatment in the Core Area. We are eager to work with our First Nations neighbours in a meaningful way on the project to seek their input, to apply their input to avoid problems and to seek opportunities to work together. Given the complexities of the wastewater treatment project, the legal requirement and genuine desire to engage and consult with First Nations, and the number of other important endeavors taxing these First Nations' capacity, this pursuit can be expected to be an important element of the wastewater treatment project.

HOW CAN I PROVIDE MY INPUT?

Following the open houses, watch for more information on the next stages of the wastewater project. This will include community dialogues and community based workshops in the coming months that will help in guiding the decision making process. We will be initiating interactive and intensive engagement with neighbourhoods where treatment plants may be located, highlighting community enhancement and seeking input on how best to integrate these future facilities.

HOW DO I FIND OUT MORE ABOUT WASTEWATER TREATMENT?

Additional information is available by visiting www.wastewatermadeclear.ca or by calling the Wastewater Project Team: 250.360.3001