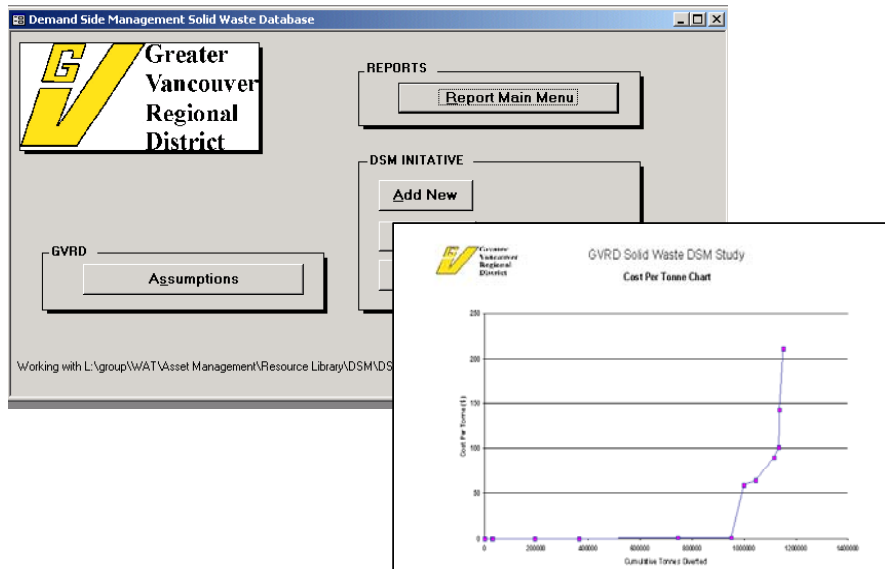


Solid Waste Demand Side Management Option Evaluation



Earth Tech was retained by the GVRD to develop a framework to evaluate a complete range of solid waste demand side management (DSM) strategies from both a technical and economic standpoint that have the potential to reduce waste disposed by landfill or incineration.

The objective of this study was to inventory a complete range of DSM options in a consistent and repeatable format, and to then rank the identified strategies according to their potential to benefit the District from a total cost/benefit ratio perspective. Finally, the approach included the development and design of a business-case methodology to quantify the total impact of the most beneficial DSM strategies in the form of a supply curve showing unit costs against cumulative tonnes diverted.

The GVRD needed to develop a waste reduction strategy that integrated and optimized existing and new programs. To this end, data was collected on waste composition and volumes, existing waste diversion programs within the GVRD and potential future waste diversion programs based on examples of existing initiatives in other regions.

All project information and relevant data for each of the researched DSM options were consolidated on a small MS Access database tool that included a reporting module to present the output in a consistent format that is understandable to the various stakeholder groups that participate in developing regional solid waste solutions.

PROJECT DETAILS

CLIENT: Greater Vancouver Regional District
 LOCATION: British Columbia, Canada

REFERENCE INFORMATION

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PROBLEM

GVRD needs to meet the provincial mandated target of 50% waste reduction per capita. DSM options, if selected against a criterion that can identify options that can generate the highest marginal return, can reduce and divert municipal solid waste from incineration and landfill disposal.

CHALLENGES

Data concerning a range of DSM options was based on pre-1995 data and not normalized to allow comparisons against each other in a consistent fashion. Each DSM strategy needed to be evaluated in a consistent and relevant manner to allow ranking and prioritization.

SOLUTION

Earth Tech conducted analysis on a wide range of DSM options in a business case framework to allow comparison and total quantification of benefits.

BENEFITS

GVRD can now pursue DSM on only the options that present the highest ratio of benefits to cost, and ultimately, increase future disposal capacity.