Solid Waste Management in Canada: Current Practice

Summary: A landfill is central to the development and implementation of an effective waste management plan. However, waste minimization techniques such as reduce, reuse and recycle are practiced to minimize the amount of waste directed to the landfill, thereby reducing the size of the landfill and the severity of the associated problems. In addition, the current philosophy of landfilling is changing. A new concept being implemented in Canada is sustainable landfills. Sustainable landfills involve rapid stabilization of waste within a landfill by operating them sequentially as anaerobic and aerobic bioreactors, and subsequent mining. During anaerobic bioreactor operation, leachate is recirculated and produced methane gas is extracted to produce energy. During aerobic bioreactor operation, leachate is recirculated and air is pumped into the landfill to enhance aerobic stabilization of waste. Once biodegradation is complete, landfill is mined to recover recyclables and compost. Most importantly, valuable space is recovered.