



MEDIA BACKGROUNDER

National Sewage Report Card III

Report Card Highlights

- Evaluation of the 22 cities was based on: level of sewage treatment, volume of raw sewage discharged, compliance with laws and regulations, type of disinfection, method of sludge disposal, prevalence of combined sewer overflows and commitment to improvement
- Calgary, Edmonton and Whistler: Top of the class with 100% Tertiary treatment with UV disinfection
- Halifax, St. John's and Dawson City: Still near the bottom of the class, but major upgrades planned
- Montreal: Failing grade got worse; still 40% of sewage discharged raw into the St Lawrence River
- Victoria: Worst in the class. Only large city still discharging all of its sewage raw, approved a 25-year plan without commitment to upgrade

Sewage-related Laws and Standards

- Canada lacks binding national standards for sewage treatment, instead we have a patchwork of federal, provincial, municipal and international laws and standards
- The European Union has adopted legally enforceable declarations requiring all urban communities to upgrade to secondary sewage treatment by December 31, 2005
- The United States has binding federal legislation in the *Clean Water Act*, which requires all cities to have the equivalent of secondary sewage treatment
- Canadian municipalities are generally responsible for regulating and operating sewage treatment facilities and sewer systems and ensuring that effluent meets basic provincial and federal pollution standards
- Canada has federal laws intended to protect fish bearing waters such as the *Fisheries Act*, and laws to control toxic substances, such as the *Canadian Environmental Protection Act*, but largely ignores the issue of sewage pollution

General Sewage Statistics

- Canada generates more than 3 trillion litres of sewage each year
- Victoria continues to dump more than 34 billion litres of untreated sewage into the Strait of Juan de Fuca each year
- In 2001, Vancouver discharged approximately 22 billion litres of untreated wastewater from combined sewer overflows into Georgia Strait and the Fraser River
- Montreal continues to dump 360 billion litres of raw sewage into the St. Lawrence River each year
- Halifax has committed to construct advanced primary sewage treatment facilities in coming years, but continues to dump 65.7 billion litres of raw sewage per year into the Atlantic Ocean
- St. John's has committed to construct primary sewage treatment facilities, but still dumps 33 billion litres of raw sewage per year into the Atlantic Ocean

Sewage Treatment

- Sewage is a cocktail of water, human waste and hundreds of toxic chemicals, including heavy metals, PAHs, PCBs and PBDEs.
- Screening removes grit and large solid materials and is the sole method of treatment in only Victoria and Dawson City.
- Primary treatment is used to settle out organic and solid matter (only Charlottetown and Montreal use this as their only method of treatment, 19% of Canadians served by primary)
- Secondary treatment is used to break down organic matter (14 of 22 cities use secondary at some or all plants, 38% of Canadians served by secondary)
- Tertiary treatment technologies remove additional nutrients and pollutants
- Chlorine and some of its by-products are highly toxic to aquatic organisms, yet it is still used by a majority of Canadian municipalities
- The best “treatment” is to ensure that toxic chemicals never enter the sewer system
- 85% of inland municipalities served by sewers receive secondary or tertiary treatment
- 80% of municipalities on Pacific coast receive only primary treatment
- 48% of population served by sewers on Atlantic coast receive no treatment at all

Sludge, Bypasses and Combined Sewers

- Sludge is the solid waste left over after sewage is treated and liquid removed. Disposal on agricultural land releases unknown toxic chemicals to the environment; sludge not tested for many known chemicals
- Bypasses are used when a treatment facility is overloaded
- Combined sewer systems carry sewage, storm water and urban run-off in the same pipes and tend to be releases directly into environment during heavy precipitation (Seventeen of the 22 cities surveyed still have combined sewers)

Key Recommendations

- Ensure that all communities in Canada have access to effective sewage treatment that ensures that the environment and human health are protected from contamination from sewage effluent and sludge
- Take a holistic approach to sewage treatment and address the problem of harmful contaminants before they get in the sewer system
- Develop legally binding national standards for sewage treatment in Canada that are enforced consistently and equitably throughout the country
- Federal and Provincial governments must make available appropriate funds to ensure proper treatment facilities are built in all communities in Canada
- All levels of government must ensure that resources are made available for research and development of safer sewage treatments including effective methods for safe sludge disposal
- Chlorine disinfection must be phased out and replaced with safer alternatives
- Reduce discharges from combined sewer overflows and untreated storm water outfalls

**Please note that copies of the report and media backgrounders are available for download from Sierra Legal’s website at: www.sierralegal.org
French versions of these materials are also available**