



Report Highlights

- According to Statistics Canada, the natural resource sectors account for at least 84 per cent of gross water use in Canada. The figure does not include gross use by the hydro and oil and gas sectors.
- The natural resource sectors accounted for approximately 12.5 per cent of GDP in 2009 and are expected to grow by about 50-60 per cent by 2030.
- All Canadian provinces, with the exception of Prince Edward Island, share freshwater resources with other provinces/territories and/or the United States.
- At least 20 federal agencies have responsibilities regarding water management, covered under 11 different pieces of legislation.
- Water use licenses exist in all provinces and territories, but vary significantly from jurisdiction to jurisdiction. In most cases, one-time fees are payable at the time of application. Some provinces have fixed prices, while others have variable fees.

Sectoral Findings

- Thermal electric power generation is responsible for 64% of water withdrawn across Canada, making it the greatest water user in the country.
- In 2005, agriculture was responsible for 10% of gross water use and 66% of national consumption. Irrigation makes up 77 per cent of all agricultural water use.
- Unlike the thermal power sector, hydroelectric power is not a significant consumer of water. However, hydro facilities can affect stream flow and water levels and have important impacts on ecosystems and downstream users.
- The oil and gas sector uses relatively small volumes of water at the national level, but has important water quantity and quality impacts at the local level. In 2007, three-quarters of all Alberta's oil production was water-assisted.
- British Columbia, Alberta and Saskatchewan together account for 92 per cent of agricultural water use in Canada.
- Mining operations can benefit from robust adaptive water management plans to cope with climate change. For example, melting permafrost in Canada's North will have a serious impact on the stability of structures such as tailings impoundment facilities.