

Hazardous Waste



Noteworthy:

- Alberta ranked 3rd highest among Canadian provinces for releases of pollutants to air, water, landfill and underground in 1997.
- Over 14,000 tonnes of industrial chemical waste and about 40,000 cubic metres of oilfield waste were injected in deep wells in 1998.
- Alberta accounts for 90% of all deep well injection of waste in Canada.
- The Alberta Special Waste Treatment Centre at Swan Hills treats about 1/5 of Alberta's hazardous waste.
- Since 1996, over 60% of waste treated at Swan Hills came from outside Alberta.
- Leaks from the Swan Hills plant have contaminated fish and wildlife within 30 km.
- When the Swan Hills plant shuts down "perpetual care and monitoring of the site will be required."
- About 3/4 of Alberta's hazardous wastes are recycled.
- Two-thirds of used oil was recycled in 1999.
- Nearly half the pollutants released in 1998 were released to the air; these included benzene, which causes cancer.
- Conservatively estimated, the environmental cost of hazardous waste increased from \$1.7 million in 1991 to \$7.1 million in 2003.

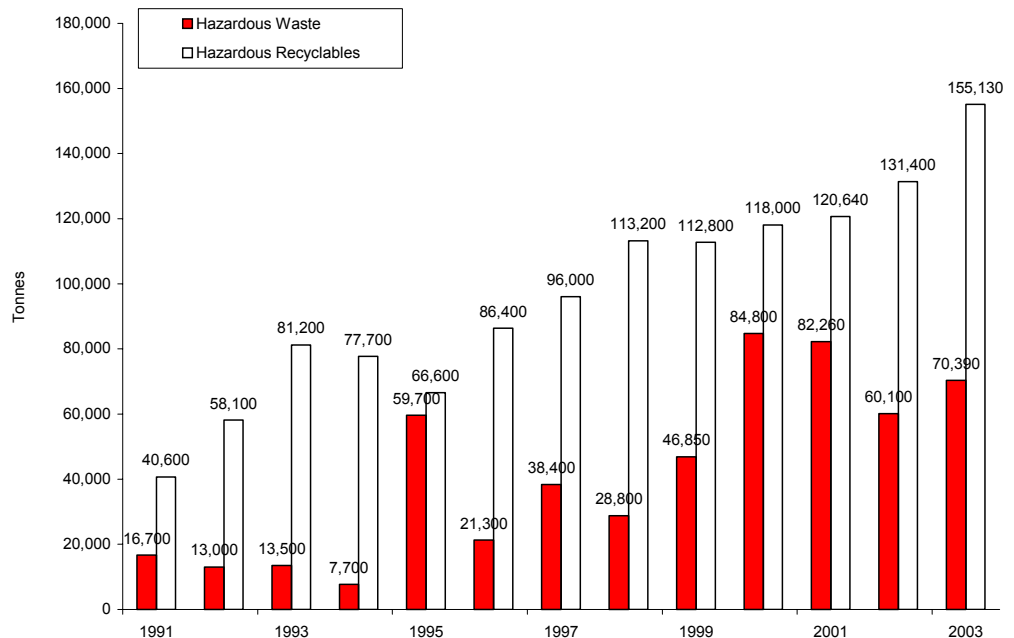
Hazardous Waste in Alberta: How Much?

The recorded volume of hazardous waste increased more than threefold in Alberta from 1991 to 2003. This figure does not include wastes that remain on the site where they were created or dangerous oilfield waste, which is not classified as hazardous waste even if the chemical composition is identical. Over 70,000 tonnes of hazardous waste were

moved off site for disposal or treatment in 2003, while the volume of hazardous waste that was recycled was over 155,000 tonnes. The total volume of oilfield waste in 1999 was nearly 900,000 tonnes, but there are no published figures for the proportion that was not dangerous. Environmental contamination comes not only from waste but from

the release of pollutants to air, water and land. National Pollutant Release Inventory (NPRI) figures show that the on-site release of pollutants grew 50% from 1993 to 1998. Waste disposal has contaminated former industrial sites and leaking underground storage tanks require costly replacement.

Alberta's Hazardous Waste and Recyclables Moved Off Generator's Site

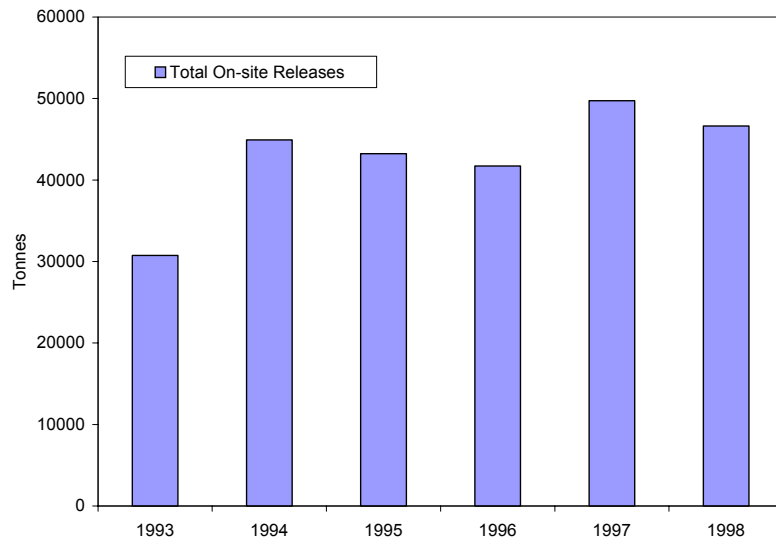


Source: Alberta Environment

So What?

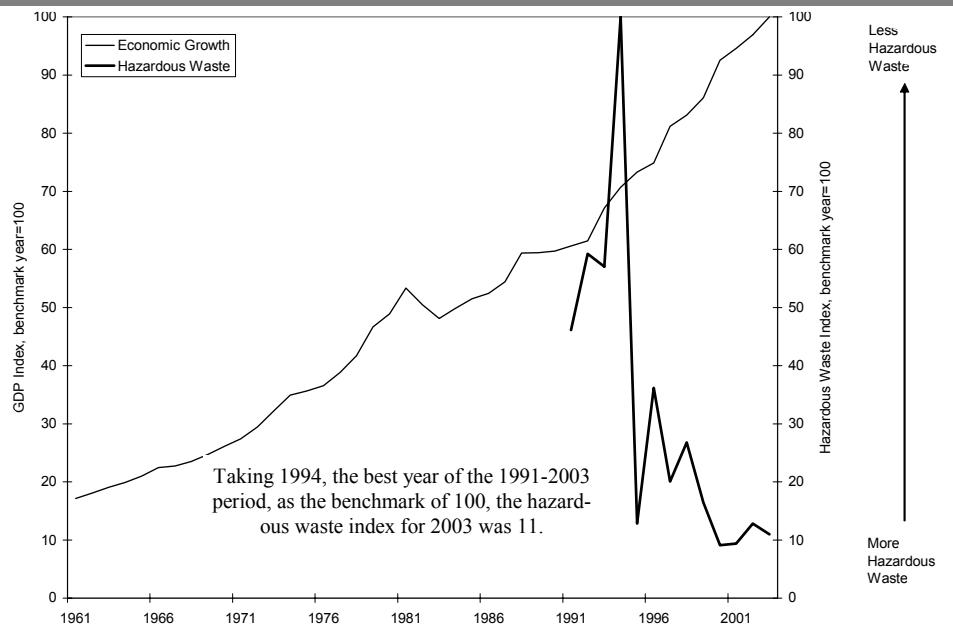
A sustainable society would no longer produce toxic waste, yet in Alberta the total volume of hazardous waste requiring disposal increased in the last decade. The Alberta Special Waste Treatment Centre contaminated the environment and was so expensive that four-fifths of Alberta's hazardous waste was injected into deep wells, landfilled or sent out of province. Deep-well disposal of chemical wastes and disposal of oilfield wastes may cause future problems. Society should adopt the precautionary principle since the long-term environmental and health risks associated with the disposal of toxic waste are largely unknown. The cost of toxic waste treatment to Alberta taxpayers has been roughly \$50 million (sum of the Alberta Special Waste Treatment Centre costs, costs associated with cleaning up old industrial sites and environmental costs) per year, on average for last 10 years. The Alberta Special Waste Treatment Centre cost Alberta taxpayers about \$44 million per year. Cleaning up old industrial sites cost over \$2 million per year. Conservatively estimated, the environmental cost of hazardous waste was \$7.1 million in 2003. This is an increase over the environmental cost in 1991 which amounted to \$1.7 million. In addition, it will cost taxpayers another \$80 million to deal with leaking underground storage tanks. We identify these costs as "regrettable" environmental expenditures since, in the absence of toxic waste production, governments, business and taxpayers would not incur these direct and societal costs. The actual toxic waste disposal costs born by industry are unaccounted for in this preliminary analysis, however, future GPI accounts should explore the full costs of toxic waste disposal and clean up by industries producing them.

On-Site Release of Pollutants in Alberta, 1990 to 1998



Source: National Pollutant Release Inventory, Environment Canada

Hazardous Waste Index and On-Site Pollution Release Index



As an index, hazardous waste in Alberta scored an 11 in 2003, relative to 100 in 1994 (the year with the lowest amount of hazardous waste since 1991). Although the long-term environmental and human health impacts of hazardous waste are unknown, estimates place the cost of hazardous waste at \$57 million when a conservative estimate for the environmental costs is included (\$7.1 million).

