

CRD'S SEWAGE AND PCBS

BACKGROUND

CRD Sewage Discharges

The City of Victoria (Capital Region District or "CRD") discharges an average 120 million litres of raw untreated sewage daily. This sewage is pumped into the waters of the Strait of Juan de Fuca through two large outfall pipes at Clover and Macaulay Points. The sewage receives no treatment whatsoever, except for the removal of particles greater than 6 millimetres.

Over the past 15 years, the federal Department of Fisheries and Oceans (DFO), Environment Canada (EC), and successive BC provincial governments, have informed the CRD that their lack of adequate sewage treatment represents a violation of the federal Fisheries Act. Both levels of government have repeatedly recommended that the CRD upgrade their level of sewage treatment to at least secondary treatment in a timely fashion.

The CRD's current Liquid Waste Management Plan (LWMP) was approved by the Ministry of Water, Land and Air Protection in March 2003. The LWMP is intended to detail all aspects of how a municipality proposes to handle its sewage and wastewater during the plan's time frame, usually 25-30 years.

The approved LWMP does not include any plans to upgrade sewage treatment facilities.

PCB Discharges

In March 2003, Sierra Legal Defence Fund obtained samples of sewage from CRD's two sewage treatment plants and had them analyzed for PCBs. The results revealed that the effluent contained 16 nanograms of PCBs per litre.

BC Provincial water quality guidelines (1992) stipulate that in order to protect aquatic life and other wildlife the concentration of total PCBs discharged to waters should not exceed 0.1 ng/litre. This means that 1 gram of PCBs is sufficient to render 1 billion litres of water unsuitable for habitation by fish and wildlife.

Internationally, Canada along with 151 other Nations around the world has signed the Stockholm Convention on Persistent Organic Pollutants, 2001, which calls for the virtual elimination of 12 highly toxic substances including PCBs. When it ratified this Convention Canada committed to disposing of PCBs in a manner that ensured their destruction.

Given the quantity of sewage being discharged each day, these findings suggest that the CRD is currently discharging between 2 and 6 grams of PCBs per day to the water of the Strait of Juan de Fuca.

Recent scientific studies (Dr. Peter Ross et al., 2001) have shown that killer whales and seals that frequent Georgia Strait are heavily contaminated with persistent organic pollutants, in particular PCBs, and are amongst the most heavily contaminated mammals in the world. This may be affecting their ability to reproduce. Scientific data suggests that the southern resident killer whales, which reside year

round along the southeast coast of Vancouver Island, will be extinct in about 60 years if current trends continue.

In November 2001, the federal Committee on the Status of Endangered Wildlife in Canada (COSEWIC) listed the Southern Resident population of killer whales as endangered in part due to their high contaminant loads.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are synthetic oils made by man. They are mixtures of up to 209 different chlorinated compounds (known as congeners). PCBs are one of several organic chemicals known as persistent organic pollutants (POPs). They have been designated for "virtual elimination" in Canada and internationally due to their toxicity.

PCBs have been, and continue to be, used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. PCBs enter the environment during their manufacture, use and disposal.

PCBs do not readily break down in the environment and tend to bio-accumulate in fish and marine mammals, reaching levels that may be many thousands of times higher than in their concentration the water.

Secondary Treatment

Data obtained from the Greater Vancouver Regional District demonstrate that secondary sewage treatment is highly effective at removing most toxic contaminants from the sewage stream (as much as 93% efficiency on average) compared to primary treatment (15-32% removal efficiency). Secondary treatment has a 99% removal rate for PCBs.

Pursuant to the BC Waste Management Act, the Minister of Water, Land and Air Protection can order the CRD to revise its plan and provide a more appropriate approach to sewage treatment, such as clearly defined plans and schedules for upgrading sewage treatment facilities.

Courtesy of Ecojustice Canada