
CITY OF KELOWNA
MEMORANDUM

Date: February 28, 2007
File No.: 5280-01
To: City Manager
From: Environment and Solid Waste Manager
Subject: **Environmental Indicators**

RECOMMENDATION:

THAT Council receives the report of the Environment Manager, dated February 28, 2007 for their information on the environmental indicators update.

BACKGROUND:

Environmental indicators are an environmental management tool as they identify and track environmental concern areas, such as, air, water, land use and ecology. In 1998, the Environment Division held a community workshop where a diverse group of over 40 citizens assisted in selecting Kelowna specific environmental indicators. From the recommendations, the Environment Division prioritized the indicators and implemented the tracking of twenty-two indicators in 1999 (see attachment for inclusive list). Staff has now completed the 2006 updates which are posted on the City's website under Residents / Environment / Environmental Indicators.

REPORT ON INDICATORS:

Air Quality:

According to data from the Ministry of Environment, air pollution in the region dropped by 1,359 tonnes of particulate in 2005. In fact, the Central Okanagan recorded the lowest pollution levels from combustion sources (smoke from burning, emissions from vehicles) since monitoring of this pollutant started in 1997. 2006 data will be available this summer.

Drinking Water:

Total volume of water pumped by the City Water Utility has remained relatively consistent over the years; however, 2006 marked the highest volume of water pumped at 16,096,680 cubic metres. Peak demand continues to be in July, when water use skyrockets due to outdoor water use. Initiatives such as the Water Smart Program and the Water Sustainability Action Plan are geared towards reducing our water consumption throughout the City Water Utility service area.

The City of Kelowna Water Utility drinking water quality consistently meets or exceeds the standards set by the Canadian Drinking Water Guidelines and Provincial Drinking Water Regulations. City staff examines raw and treated drinking water for a variety of parameters. Trained technicians perform more than 5,000 individual water quality tests each month on source water and water in the distribution system. Water quality at both water distribution and storage facilities is monitored 24 hours per day.

Ecology and Biodiversity:

Okanagan Lake kokanee reached a peak of 227,204 spawners in 2005, which is a high since the early 1990's. This number allowed a limited opening of the kokanee fishery to begin again in 2006. In 2006 the number of spawners decreased to 149,000, however Ministry of Environment feel this number is

still acceptable and will continue to allow the limited kokanee fishery in 2007. The Christmas Bird Count shows an increase in most bird species including birds of prey, gulls, pest species and songbirds.

Land Use:

By the end of 2006, the City of Kelowna owned approximately 798 hectares of park land. When combined with the Province of B.C. and RDCO owned lands at 705 hectares this adds up to 1,503 hectares of protected area, or 6.5% of Kelowna's land base. The OCP was updated in 2006 in regards to land use policies.

Solid Waste:

The Blue Bag Curbside recycling program for the Central Okanagan was initiated in the year 2000. This program has almost doubled the amount of recycling collected each year versus the previous depot-only system. In 2006 more than 11,000 tonnes of recyclables was collected. In 2007, the curbside recycling program is expanding to include all household rigid plastic containers and plastic film such as grocery bags and shrink wrap.

Large amounts of materials still continue to go to the Landfill at an increasing rate. In 1991, the amount of waste buried equalled 1.2 metric tonnes for every citizen. In 2003, the amount was 0.75 metric tonnes. Due to a strong economy and rapid growth the amount of material disposed in the landfills increased to 0.82 metric tonnes in 2006 (113, 681 tonnes buried). The 2006 Solid Waste Management Plan recommended targeting construction & demolition waste and paper waste. Programs are now underway.

Surface Water:

The Surface Water indicators are currently being revised, as the City's sampling regime and monitoring program has undergone many changes over the years and a new reporting format is being developed. It has been noted that our urban streams are under increased pressure, with sediment input being one of the largest challenges.

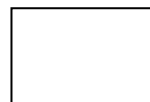
Transportation:

Older vehicles, although representing a smaller percentage of total cars on the road and driven fewer kilometres, still contribute more to air pollution than newer, more fuel-efficient vehicles. The data from ICBC shows that the percentage of registered vehicles made before 1988 has decreased from 33% of the total fleet in 2000 to 13% in 2006. Essentially, the Central Okanagan fleet is getting cleaner as each year passes and older vehicles are retired.

Wastewater:

Since 1999, there has been a 25.5% increase in population served. The estimated population serviced by sewer by the end of 2006 is 81,000 people. In 2006 the City of Kelowna hired an engineering firm to commence pre-design work on the next Wastewater Treatment Plant expansion. Once completed, the new plant will be able to handle 60ML/day, a significant increase from its current 40ML/day.

Mark Watt
Environment and Solid Waste Manager



approved for inclusion:
John Vos
Director of Works & Utilities

Attachment: City of Kelowna Environmental Indicators

City of Kelowna Environmental Indicators

Air Quality:

- Fine Particulates
- Ground Level Ozone

Drinking Water:

- Drinking Water Quality
- Drinking Water Quantity

Ecology and Biodiversity:

- Kokanee Count
- Christmas Bird Count

Land Use:

- Agricultural Land
- Public Park and Open Space
- Single-Family Housing

Solid Waste Management:

- Tonnes Per Capita Disposed
- Tonnes Recycled
- Hazardous Waste Collected

Surface Water Quality:

- Local Streams
- Local Beaches
- Okanagan Lake

Transportation:

- Vehicle Ownership
- Vehicle Fuel Type
- Vehicle Ages
- Mode of Travel

Wastewater Management:

- Total Sewer Customers
- Wastewater Volume Treated
- Treatment Efficiency