

**TAKING ACTION IN 2009**

- ▶ Conserve Kelowna's water resources
- ▶ Preserve and promote the enhancement of air quality within Kelowna's air shed
- ▶ Manage human impacts on our natural environment, including Okanagan Lake and the surrounding hillsides



Maintain, respect and  
enhance our natural  
environment.



# A natural, protected environment

## Environmental Protection

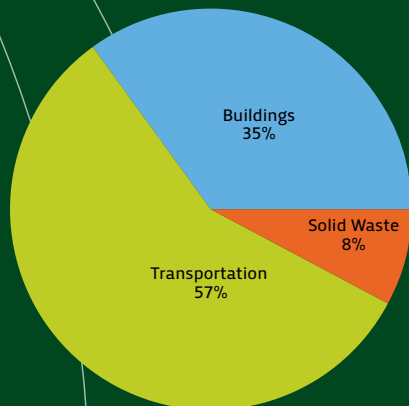
From water conservation to pesticide reduction, the City continued to take steps to protect the environment and reduce its ecological footprint.

### Community Greenhouse Gas Report

The City released its first Community Greenhouse Gas Inventory Report. At 778,958 tonnes, Kelowna reported the second highest per capita greenhouse gas emissions of the Province's mid-sized cities. The transportation sector was responsible for the largest share of locally produced emissions. Steps are underway to develop a Kelowna 2020 Action Plan to cut emissions from the 2007 levels and adopt a new Official Community Plan as a road map for overall sustainability.

### Greenhouse Gas Emissions by Sector

Base year: 2007



Source: Government of BC

### Pesticide Bylaw

The Pesticide Regulation Bylaw took effect January 1, 2009 restricting the use of pesticides on residential property. Outreach efforts raised awareness of the new regulations and helped residents learn how to create healthy lawns and yards without using pesticides.

### Waste Management & Recycling

The City launched an automated curbside collection system for garbage, yard waste and recyclables. Facilities were upgraded at the Glenmore Landfill to support the expanded yard waste composting and waste reduction program. In April 2009, the landfill began accepting waste from the region; waste materials are expected to increase by 20 per cent. The landfill gas recovery project saw more than 220,000 kWh of electricity generated from captured methane gas. Work began on a \$6.4 million expansion to the Regional Composting Facility to meet increased need for composting biosolid material from Vernon and Kelowna.

### Urban Forestry

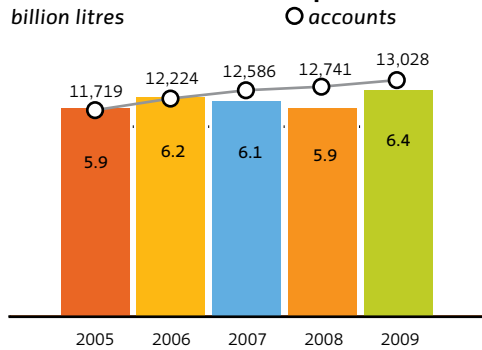
The City took further steps to grow and preserve Kelowna's urban forest. NeighbourWoods, a partnership with FortisBC, supported residents to plant 93 trees in Clifton, Quail Ridge, Glenmore, Rutland and the downtown neighbourhoods. The City planted an additional 595 large caliper trees in parks, boulevards and the City's arboretum and 8,300 seedlings in natural areas. With the assistance of provincial and federal funding, 300 pine beetle-infested trees were removed from City properties.



**Water Conservation**

The City met its goal to reduce water consumption by 15 per cent in civic buildings. A new condenser was installed at Rutland Arena to allow for water recirculation. The result was a reduction of 35,000 cubic metres of water use. In City parks, water meters were installed and water irrigation was reduced. A park irrigation review is set for 2010. A comprehensive water audit and leak detection survey showed low water loss across the entire distribution system. Annual audits are planned to ensure the distribution system is as efficient as possible.

**Residential Water Consumption**



Source: City of Kelowna, Watersmart Program

The City continued to work with residential and commercial customers to reduce water consumption. A seven per cent water rate increase was introduced in 2009, which included escalating charges as water consumption increases. A new water rate was introduced for strata developments. Residential irrigation audits were conducted at 100 properties, with 68 per cent reducing their water usage.

**Energy Management Plan**

The City's Energy Management Plan has resulted in a reduction of 312 tonnes of greenhouse gas emissions and energy savings of 1.03 gigawatt hours over the last two years – enough to power 130 homes for one year. New building controls were installed at Main Library and City Hall and



boilers were replaced at the Kelowna Art Gallery, Fire Station No. 1 and Rutland Arena.

**Environmental Outreach**

The City's educational programs encouraged students to foster respect for the environment through interactive learning and hands-on adventures in watershed and airshed health. Outreach included school presentations and the Environmental Mind Grind, Mayor's Environmental Expo and the Kokanee Salmon Festival.

**Habitat Protection**

The City continued to ensure development activities adjacent to environmentally sensitive areas adhered to the approval process. The City completed inventory and mapping of environmentally sensitive areas including creeks, wetlands, Okanagan Lake foreshore, grasslands and old growth forests. Twenty-seven creeks and 278 wetlands (including 75 previously unknown wetlands) were identified. Sensitive area maps were made available for download from the City's website and an overview presented to the Urban Development Institute and other consultants.



The City acquired 30 hectares of green spaces in 2009 that will remain as protected land. In total, 98 hectares of protected and parkland were acquired by the City at a cost of \$6.23 million.

### Air Quality

The City of Kelowna continued proactive bylaw enforcement of open burning regulations and air quality monitoring. During the summer forest fires there were extended periods when the air quality index was in the fair and poor range; however during the remainder of the year air quality ratings remained good. Ongoing free chipping of wood waste materials from orchard removals or replant programs was done under the Agricultural Chipping Program, helping to reduce or eliminate the smoky haze created by the open burning of orchard debris.

Promotion of programs such as the BC Scrap-It vehicle replacement program and the Great Okanagan Wood Stove Change Out program continued to raise awareness of air quality issues and supported residents to make positive changes. Active transportation events such as the Commuter Challenge, Bike to

School/Work Week, Clean Air Day, and Carpool Week raised awareness of air quality related to transportation emissions.

The City liaised with Okanagan Similkameen Airshed Coalition to further the development of a valley-wide air quality management plan to further protect the Valley's common airshed.



### LOOKING FORWARD TO 2010-2011

- ▶ Create a 2020 Action Plan to reduce greenhouse gas emissions from the 2007 levels
- ▶ Initiate a variety of reduction measures for water conservation and energy management
- ▶ Remove pine beetle infested trees and replace lost tree canopy
- ▶ Complete expansion of the Regional Composting Facility
- ▶ Enact landscape and irrigation standards for new developments

