

# Climate Change

**RGS Goal:** Minimize regional greenhouse gas (GHG) emissions and plan for adaptation

## Issue Overview

Combating climate change is one of the most critical issues facing not only our region, but the entire planet. In BC, greenhouse gas (GHG) emission reductions are being addressed through new provincial regulations, including legislation that commits our region and other regional districts to identify GHG emissions reduction strategies to support BC in reducing emissions by 33% below the 2007 levels by 2020, and 80% below the 2007 levels by 2050.

Land use, infrastructure, transportation and building form all have major impacts on regional energy consumption and related GHG emissions. The RGS has an important role to play, both in helping to mitigate climate change impacts and helping the region adapt to current and emerging climate change impacts. This role includes creating a clear direction on where growth and development will occur, while encouraging a more compact settlement pattern, sustainable transportation options, and protection of natural areas. All this could be achieved while also enhancing the economic competitiveness of the region.

## Current Situation

With the help of the Province, an emissions inventory was recently completed for our region. Here are highlights from this inventory provided along with a summary of other climate change initiatives already underway in our region.

- » **Transportation-related emissions:** On-road transportation accounts for more about 66% of GHG emissions in our region, or about 6% above the provincial average. Personal vehicle use is responsible for the majority of these emissions, but additional research is required.
- » **Landfill emissions:** Our landfills (Westside and the City of Kelowna operated Glenmore) are responsible for 6% of regional GHG emissions, which is about the same as the provincial average.
- » **Buildings emissions:** Emissions from building heating and cooling account for about 28% of regional GHG emissions. This is about 6% below the provincial average and could be related to our region's larger proportion of newer, more energy efficient homes and buildings.
- » **A changing climate and water supplies:** Climate modeling work carried out as part of the valley-wide Okanagan Water Wise project indicates that our air temperatures are expected to increase and more winter precipitation will fall as rain rather than as snow. Furthermore, the future high elevation snowpack is expected to start melting sooner every year. These factors will further stress our water supply and increase the importance of reservoir storage. In a future three-year drought scenario – something that climate change could very well bring about -- average annual net inflows to Okanagan Lake are expected to be roughly half of what they are presently.