



## Land-Use and Growth Management

The Metro Vancouver region is growing rapidly. Our population is increasing by 30,000 residents each year and it is anticipated that the regional population could reach 3.6 million people by the year 2050. The location of new homes, businesses and institutions strongly influences both greenhouse gas emissions and exposure to risks associated with climate change.

Land use decisions determine where residents live, work and play. Metro Vancouver and its member jurisdictions are working to reduce greenhouse gases by focusing growth in a network of transit-oriented urban centres, and building compact, complete communities that offer amenities close to home. This focused growth reduces emissions by supporting low carbon transportation such as walking, cycling and public transit. Actions in this Issue Area will be complementary to those contained in the *Transportation* Issue Area.

Where and how the region accommodates growth also determines how much residents, businesses and infrastructure are exposed to physical risks associated with climate change, such as flood risk from rising seas and rivers. Land use planning is an important tool for directing growth away from higher risk areas and natural areas that can alleviate negative impacts, thereby increasing community resilience to flooding. For buildings and other infrastructure that remain in flood-prone areas, protection such as dikes may need to be built or upgraded to mitigate increasing climate risk (see *Infrastructure* Issue Area), and additional resources may need to be allocated to emergency response planning (see *Emergency Management* inset box, pg 27).

### LAND-BASED CARBON INVENTORY

As the region urbanizes, areas that were once forests, bogs, or agricultural land are changing to residential, commercial, or industrial uses. Often when these changes occur, greenhouse gases are released into the atmosphere through soil disturbance and decomposition or burning of wood and other plant material. In this process, local carbon sinks (e.g., trees, soil, bogs, and estuaries) are disturbed or lost entirely. Our current emissions inventory approach does not capture the potentially significant changes in emissions associated with land development in the region.

A land-based carbon inventory would provide a better understanding of the impact that land-use changes are having on the region's ability to sequester carbon and inform *Climate 2050* actions to protect local carbon sinks.

