

## **Private Forests & Ecological Goods and Services**

The term ecological goods and services (EG&S) refers to the direct economic, ecological and social benefits provided to humans by ecosystems such as wetlands and watersheds and includes water filtration, flood protection, carbon sequestration and wildlife and fisheries habitat.

Because private forests provide many of the forest-related ecological goods and services in the settled regions of Canada, it's in everyone's best interest to encourage forest owners to keep their forests in production and to recognize the valuable contributions private forests make to the overall quality of life for Canadians.

## **Watershed Regulation and Flood Control**

Due to their proximity to settled regions, private forests play an essential role in watershed regulation and flood control. Compared to cleared or urban land, a forested watershed has a much greater capacity to absorb water into the soil, re-charge the water table and moderate surface runoff during the heavy rains and melting snows of spring.

## **Conservation of Water Quality**

Forests help to conserve two key aspects of water quality – water temperature and sedimentation. Trees provide shade to keep water cool. Cool water maintains a higher oxygen content than warm water. Insects fall off tree branches beside the watercourse and provide food for fish and other aquatic life. Erosion is the main source of sedimentation. A forested watershed has more moderate runoff patterns and less erosion. Sediment damages the gills of fish and can destroy gravel beds used for spawning. Private forests, in particular, make an important contribution to the conservation of aquatic habitat, and to the purity of community water supplies.

## **Climate Change**

The U.N. Intergovernmental Panel on Climate Change recognizes that in the long term, a sustainable forest management strategy aimed at maintaining or increasing carbon stocks while producing an annual sustained yield of timber will generate the greatest mitigation benefit. The government of Canada recognizes that there is no solution to the climate change challenge without forests.

As owners of a tenth of Canada's managed forests (6 per cent of Canada's total forest land), Canada's private forest landowners take the stewardship of our forests seriously. Our stewardship focus works to mitigate climate change, because keeping forests healthy means more greenhouse gases are stored in trees and soils – not the atmosphere. By law, any harvested tree is promptly regenerated.

## **Wildlife & Fisheries Habitat**

Private forests play an important role in providing wildlife habitat and preserving biodiversity.

With the exception of densely populated areas, Canada has maintained the majority of original forest cover. In urban areas, and areas where most of the land has been cleared for agriculture, farm woodlots, and other forested lands, provide important wildlife habitats for forest dwelling wildlife: animals, birds and amphibians.

## **Biodiversity Conservation**

Many species of trees, shrubs, ground vegetation, birds, animals, amphibians and insects require a forest ecosystem to thrive. Deforestation, conversion to agriculture and urban sprawl all contribute to the loss of biodiversity. Private forest lands tend to be located in the southern regions of Canada. These areas are more productive and provide habitat for species that are indigenous to these regions. By maintaining their land in forest, private owners make a significant contribution to conserving biodiversity and maintaining thriving forest ecosystems.

### **A Reservoir of Forest Carbon**

It is widely recognized that forests constitute an important pool of carbon. Trees take carbon out of the atmosphere through photosynthesis. This carbon is stored in the trees. Green wood, by weight, is about 25% carbon. The national forest carbon reservoir is sustained by keeping forest land in a healthy growing condition. The majority of harvested carbon is stored in solid wood products; this results in a net carbon uptake over time.

Private forest lands regularly provide outdoor recreation opportunities.

### **Outdoor Recreation**

Forest lands, together with lakes and streams, provide an excellent resource for outdoor recreation – hunting, fishing, hiking and camping. Due to their proximity to settled areas, private forests are often widely used for recreation with permission from the landowner.

### **Landscape Aesthetics**

Forested hills and mountains provide the backdrop for Canada's tourism industry. They also provide enjoyment for all Canadians, both urban and rural. Often, the vistas we enjoy the most are a result of careful management by individual landowners.