



## Ecodistrict Profile

### Ecological Landscape Analysis Summary Ecodistrict 610: **Annapolis Valley**

An objective of ecosystem-based management is to manage landscapes in as close to a natural state as possible. The intent of this approach is to promote biodiversity, sustain ecological processes, and support the long-term production of goods and services. Each of the province's 38 ecodistricts is an ecological landscape with distinctive patterns of physical features. (Definitions of underlined terms are included in the print and electronic glossary.)

This Ecological Landscape Analysis (ELA) provides detailed information on the forest and timber resources of the various landscape components of Annapolis Valley Ecodistrict 610. The ELA also provides brief summaries of other land values, such as minerals, energy and geology, water resources, parks and protected areas, wildlife and wildlife habitat.

The Annapolis Valley Ecodistrict is bounded by the south-facing slopes of the North Mountain and the north-facing slopes of the South Mountain. The ecodistrict, with an area of 92,800 hectares, is about 130 kilometres long and varies in width from 3 to 11 kilometres. The small adjacent Gaspereau Valley has been included in this ecodistrict.

The shelter provided by the North and South mountains allows the Annapolis Valley to have early springs and hot summers, making it one of Nova Scotia's most productive agricultural areas.

The valley is underlain by sedimentary deposits that have provided the parent material for the sandy soils found in the ecodistrict. The valley is drained by two rivers: the Annapolis River flows southwest to the Annapolis Basin and the Cornwallis River flows northeast to the Minas Basin.

The high tides of the Bay of Fundy affect both basins and have formed extensive areas of tidal salt marsh. Most of this marshland, which is now protected from the salt water by a system of dykes, is used for agriculture. The dykes were originally built by the early French settlers in the 1600s.



A mix of fields and forests on the Valley floor near Bridgetown follow along the lower slope of the North Mountain.

Agricultural use of the land occurs on 43% of the ecodistrict, followed by forested land at 32%, and urban lands at 10%. Wildlife species that benefit from this arrangement are those that occupy edge habitats and have a preference for agricultural and urban landscapes, such as red fox, striped skunk, raccoon, and meadow vole. Bald eagles are also common in the ecodistrict.



Private land ownership accounts for 92% of the ecodistrict. Provincial and federal governments own 1% and 2%, respectively. Aboriginal and other lands account for the remainder.

Remnant sand heathland with broom crowberry and red pine near Kingston. These rare, globally unique ecosystems are under threat from land use pressures. They contain several rare plants including golden heather and rockrose.

In many areas of the ecodistrict, the valley floor is not flat but comprises small hills and hummocks where the soil is not excessively sandy. These sites will support shade-tolerant hardwoods on the upper slopes and red spruce, hemlock and pine on the lower or shaded slopes. Black spruce and larch grow on the wetter sites.

The rapid to well-drained sandy soils on the valley floor are prone to drought and support pure stands of white pine, red pine, and red oak or mixtures of these species. The alluvial soils along the major rivers once supported a riparian hardwood forest with elm, black cherry, and black ash.

Landscapes are large areas that function as ecological systems and respond to a variety of influences. Landscapes are composed of smaller ecosystems, known as elements. These elements are described by their physical features – such as soil and landform – and ecological features – such as climax forest type. These characteristics help determine vegetation development.

Element descriptions promote an understanding of historical vegetation patterns and the effects of current disturbances. This landscape analysis identified and mapped 11 key landscape elements – ten patch elements and a corridor element – in Annapolis Valley. In this ecodistrict, there was not a single dominant matrix element.

**Spruce Hemlock Pine Hummocks and Hills**, representing 32% of area of elements in ecodistrict, is the largest patch element. The main trees species are shade-tolerant red spruce, hemlock, and white pine, along with black spruce, red maple, and tamarack. Abandoned farmland reverts to old field forests, usually white spruce, aspen, or tamarack.

**Pine Oak Flats and Pine Oak Hills and Hummocks**, the next two largest patch elements with a combined area of 35%, support white pine and red oak, along with black spruce, red pine, jack pine, aspen, and red maple. The other patch elements, in order of size, are **Red and Black Spruce Hummocks, Marshes and Grasslands, Spruce Pine Flats, Floodplain, Wetlands, Salt Marsh, and Tolerant Hardwood Hills**.

**Valley Corridors**, a linear corridor element, includes the riparian areas along major rivers, such as the Annapolis, Cornwallis, Nictaux, Black, Fales, South, and Gaspereau.