

## Ecodistrict Profile

### Ecological Landscape Analysis Summary Ecodistrict 410: **Rawdon Wittenburg Hills**



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.)

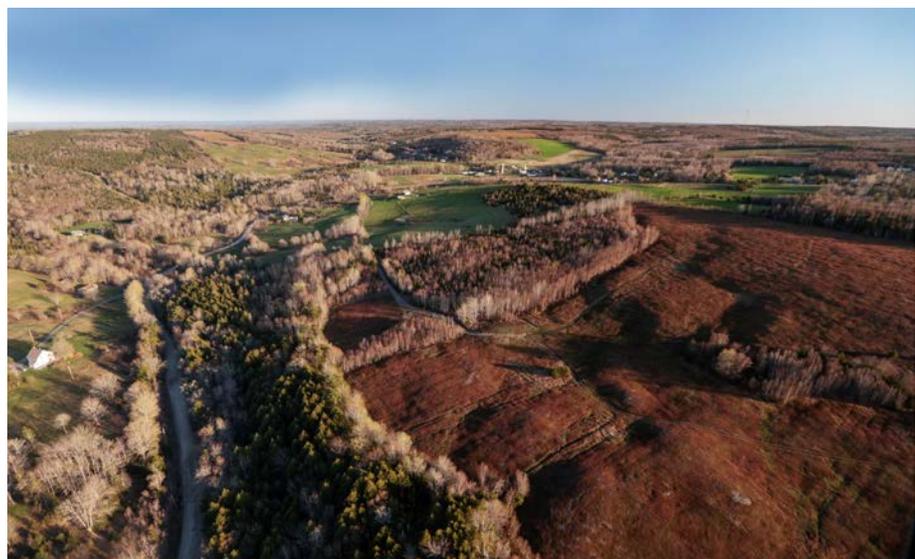
This Ecological Landscape Analysis (ELA) provides detailed information on the forest and timber resources of the various landscape components of Rawdon Wittenburg Hills Ecodistrict 410. The ELA also provides brief summaries of other land values, such as minerals, energy and geology, water resources, parks and protected areas, wildlife and wildlife habitat.

Rawdon Wittenburg Hills consists of a pair of inland, elongated ridges forming a series of flat-topped hills. The ridge in Wittenburg, with elevations of 180 to 210 metres, runs northeast-southwest separating the Stewiacke River Valley in Colchester County from the Musquodoboit River Valley in Halifax County. Rawdon Hills, with similar elevation and orientation, is located in Hants County. The total area of this ecodistrict is 61,000 hectares.

Most of the area is rural. Forestry and, to a lesser extent, agriculture are the main land uses.

The rock in the deeply dissected hills and ridges is mainly slate. On top of the hills, well-drained soils of sandy loams will be found. Sandy clay loams and clay loams occur on the side slopes of the ridges.

Several rivers have their headwaters in the ecodistrict or pass through, including the St. Andrews, South Branch, Stewiacke, Musquodoboit, Herbert, Meander, Nine Mile, and Shubenacadie. Where rivers and larger streams leave the hills and enter the lowlands, extensive floodplains have formed and are often used for farming. Smaller floodplains occur in the hills and have natural forests, some with the potential for rare or endangered plants.



A blend of forests, farmland and wild blueberry fields dominate the hilly topography of this ecodistrict near East Gore, Hants County.



The ecodistrict is underlain by slate which is often quarried for a variety of purposes. The slate quarry in the foreground is near Glenmore.

Red spruce forests are common, occurring predominantly on the hummocky terrain on top of the hills. Where soils are wetter, black spruce is dominant. Shade-tolerant hardwood forests with sugar maple favour the upper slopes where there are well-drained nutrient rich soils. On the middle and lower slopes, where soils are enhanced with moisture and nutrients, tolerant mixedwood forests of yellow birch and red spruce are prominent. Past forestry and clearing for agriculture have influenced forest composition – old field stands of white spruce are common. Much of the ecodistrict naturally supports long-lived forest communities typical of the Acadian Forest.

Private land ownership accounts for 96% of the total Rawdon Wittenburg Hills Ecodistrict area, with 3% under provincial Crown management and the rest is in other ownership.

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 six key landscape elements – one dominant matrix element, four smaller patch elements, and a corridor element– in Rawdon Wittenburg Hills.

**Tolerant Hardwood Hills** is the matrix element, representing 70% of the area of the ecodistrict. The crests and upper slopes of the element support a forest of sugar maple and yellow birch with some beech and white ash. Lower slopes support a mixedwood forest of red spruce, hemlock, and yellow birch.

**Tolerant Mixedwood Hummocks**, the largest patch element, supports a climax forest of red spruce and includes a variety of hardwood species. Much of the element has been converted to other uses, and abandoned farmland has either reforested to white spruce or white pine or been cultivated into wild blueberry fields. The other patch elements, in order of size, are **Tolerant Mixedwood Slopes**, **Wetlands**, and **Floodplain**.

**Valley Corridors** is a linear element associated with major waterways in the ecodistrict.