An Introduction to Forest Ecosystem Classification

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An Introduction to Forest Ecosystem Classification

How to use Nova Scotia's new Forest Ecosystem Classification manual to help manage your forested land.

Over the last few decades …

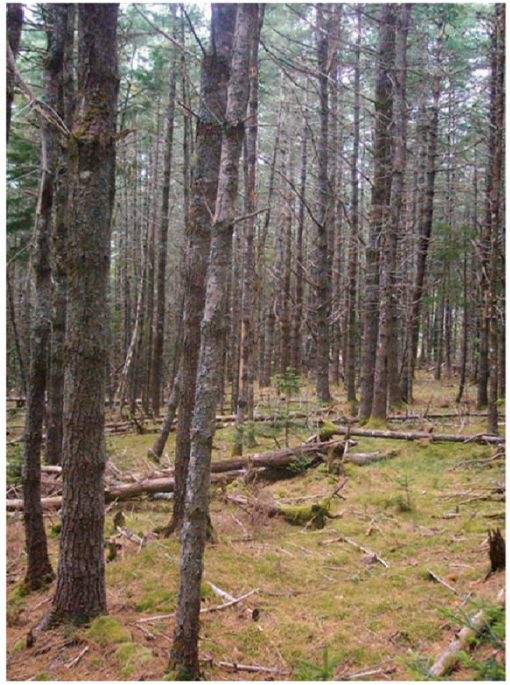
The forestry profession has increasingly begun to use management approaches in which forested areas, forests and even individual stands receive treatments that are tailored to their specific structure, functions and species.

This approach is called *ecosystem-based forest management.*

Ecosystem-Based Forest Management

An approach to forest management that respects all the values of a healthy natural forest.

Ecosystem-based forest management is a way to know:



Horne Settlement, Hants County

- What your forest contains
- What's going on in your forest
- What can be done to improve conditions
- What species can grow here.

The approach takes cues from nature …

Fox River, Cumberland County

… with an understanding that each forest, and each area within each forest, is part of an interconnected web of life known as an *ecosystem*.

An ecosystem …

"… is a self-sustaining community that consists of a dynamic set of living organisms interacting with each other and with their environment."

- Environment Canada

In other words …

An ecosystem has similar soil, climate and moisture conditions. The plants and animals living there are adapted to these conditions, as well as to each other.

Brookfield, Colchester County

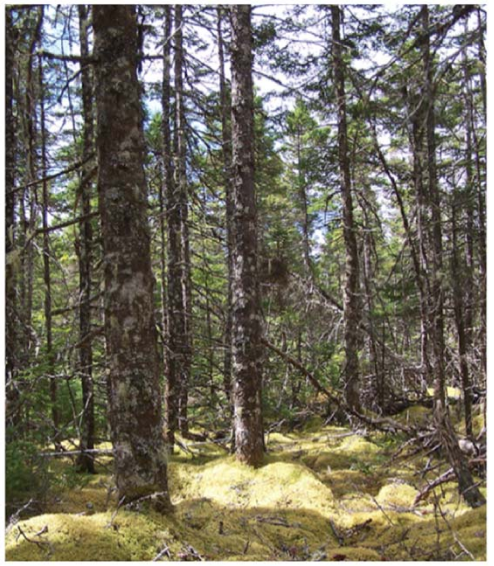
In ecosystem-based management …

Brickton, Annapolis County

The woodlot owner or forest manager uses information about the ecosystem or ecosystems present in a forest or stand in order to understand the natural processes that should be or are occurring there and what species are suited to the site.

This information is used to …

… protect and maintain natural processes while achieving other goals.



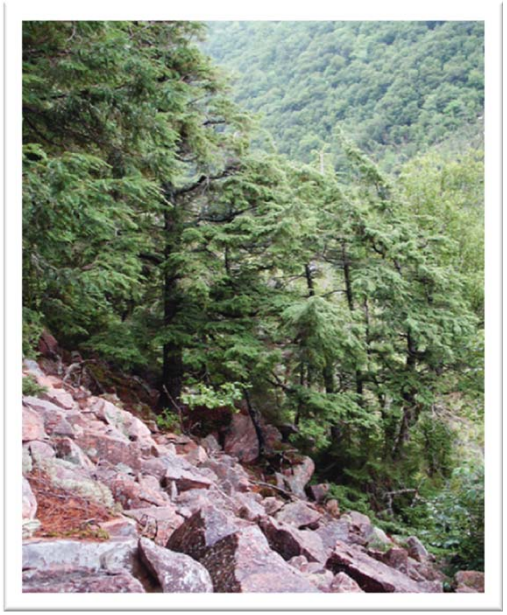
Second Lake, Halifax County

These may include timber production, conservation, clean air and water, recreation, wildlife and beauty.

Holden Lake, Lunenburg County

At the level of a woodlot or single stand ...

The primary tool used for ecosystem-based management is *Forest Ecosystem Classification*, also known as *FEC*.



Cheticamp River Valley, Cape Breton Highlands National Park, Inverness County

Forest Ecosystem Classification

A tool that helps forest managers use ecosystem-based management on individual properties.

A manual for using FEC …

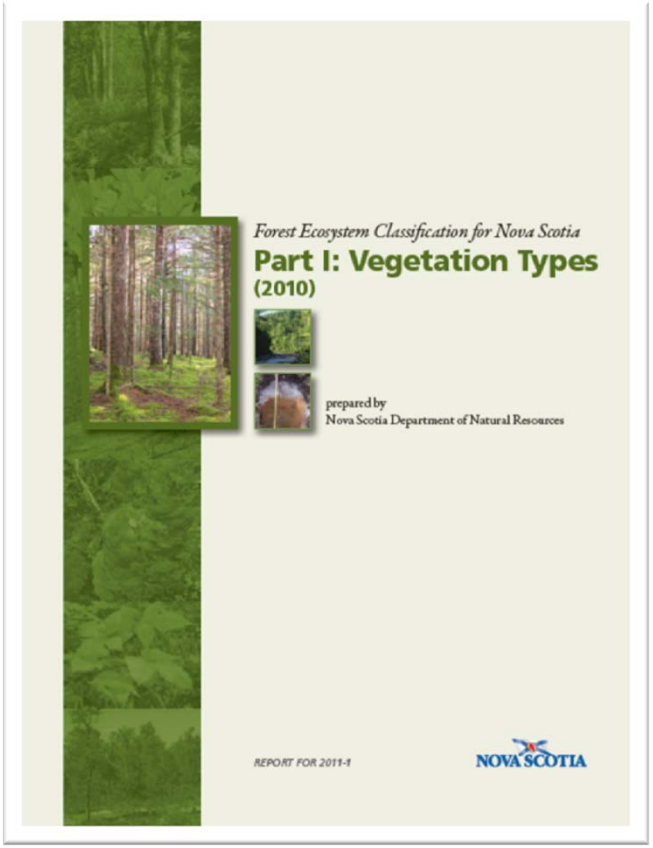
Was introduced in Nova Scotia in 2011, based on 10 years of field research.

It is composed of three volumes:

- Part I-Vegetation Types
- Part II-Soil Types
- Part III-Ecosites

Part I-Vegetation Types

After identifying trees, shrubs and other plants growing on the property, the forest manager uses Part I of the FEC manual to determine *vegetation type* or *types*.



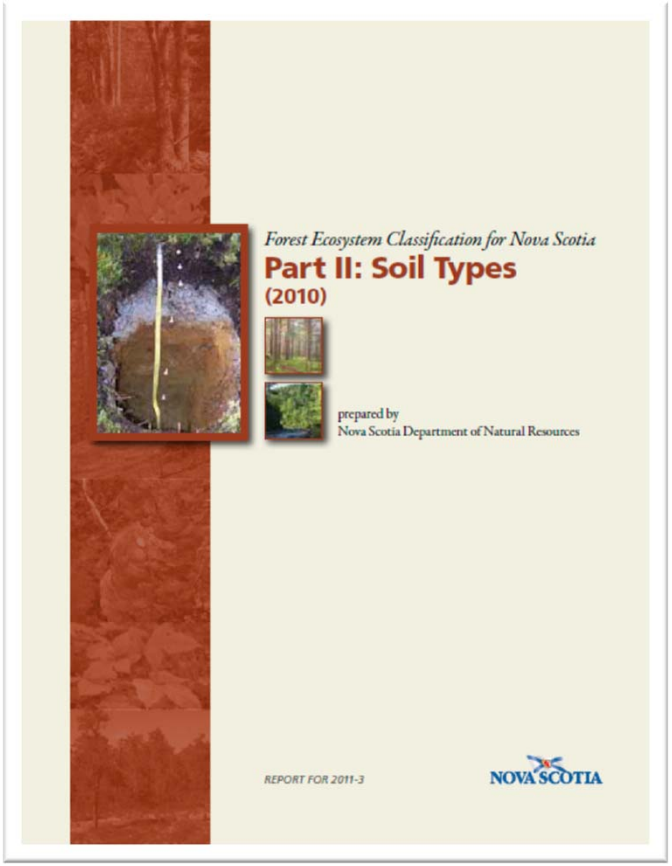
Vegetation Types …

… provide information about many characteristics of a site, including its potential as wildlife habitat. They are an indication of what plants can grow on a site and the site's future potential.

Alma, Pictou County

Part II-Soil Types

Part II of the FEC manual explains how to determine soil characteristics such as texture and moisture content. This information is used to determine *soil type* or *types*.



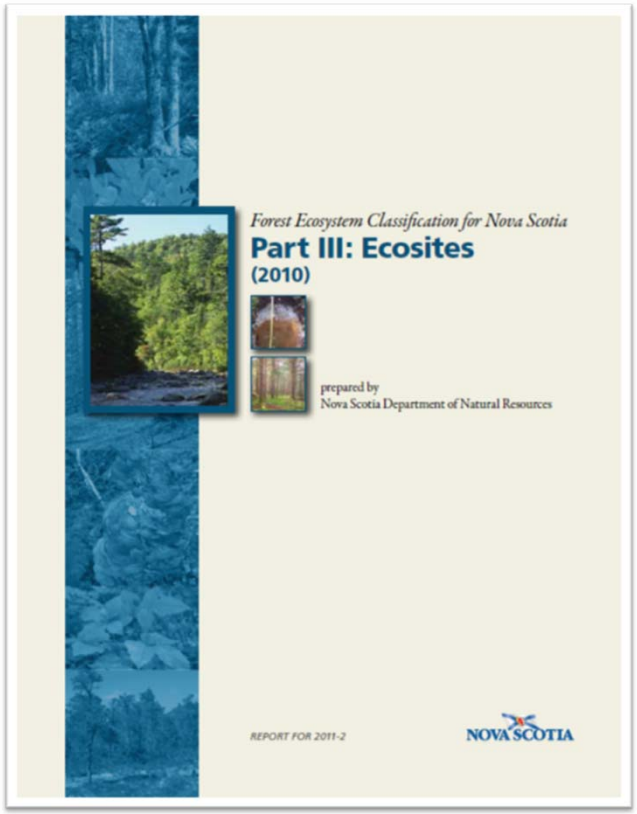
Soil Types …

… indicate not only what can grow on the site but also possible hazards associated with activity on the site.

Aldershot, Kings County

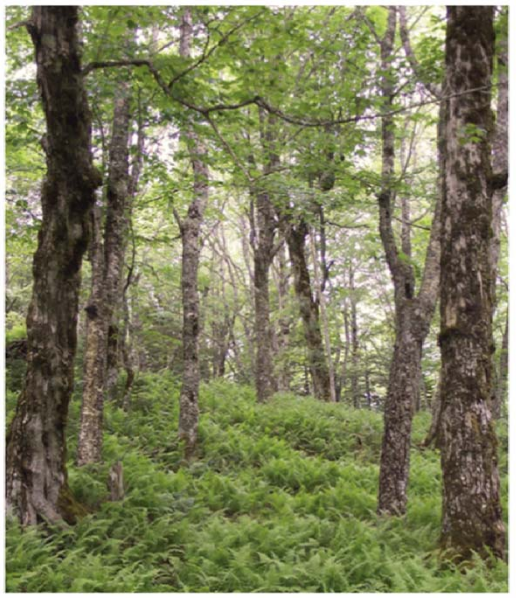
Part III-Ecosites

Part III of the Forest Ecosystem Classification manual explains how to determine what *ecosites* are present on a property. This is the final step in making an FEC assessment of a site.



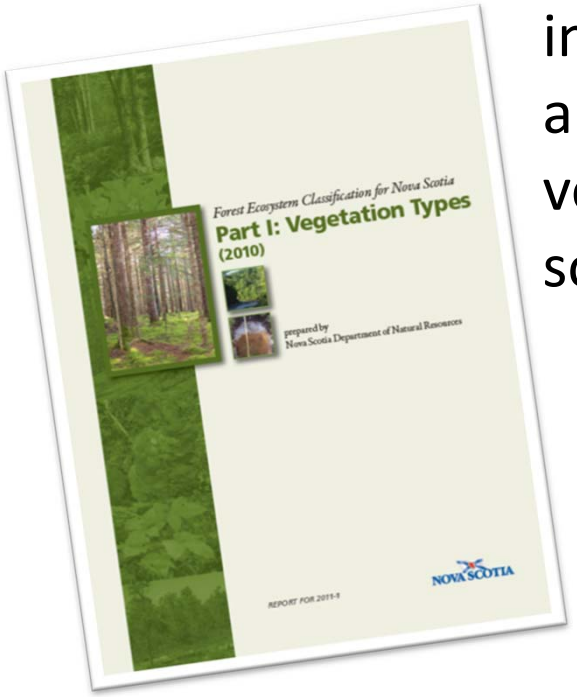
Ecosites …

… are a way of classifying an area according to similarities in the availability of moisture and nutrients. Ecosite information can be used to determine whether commercially valuable tree species will grow well on a particular site.

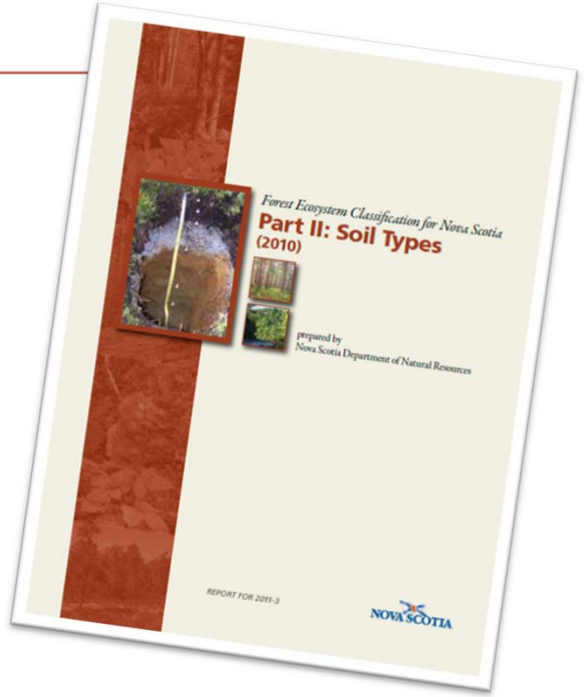


Lake George, Yarmouth County

To determine what ecosites are present …



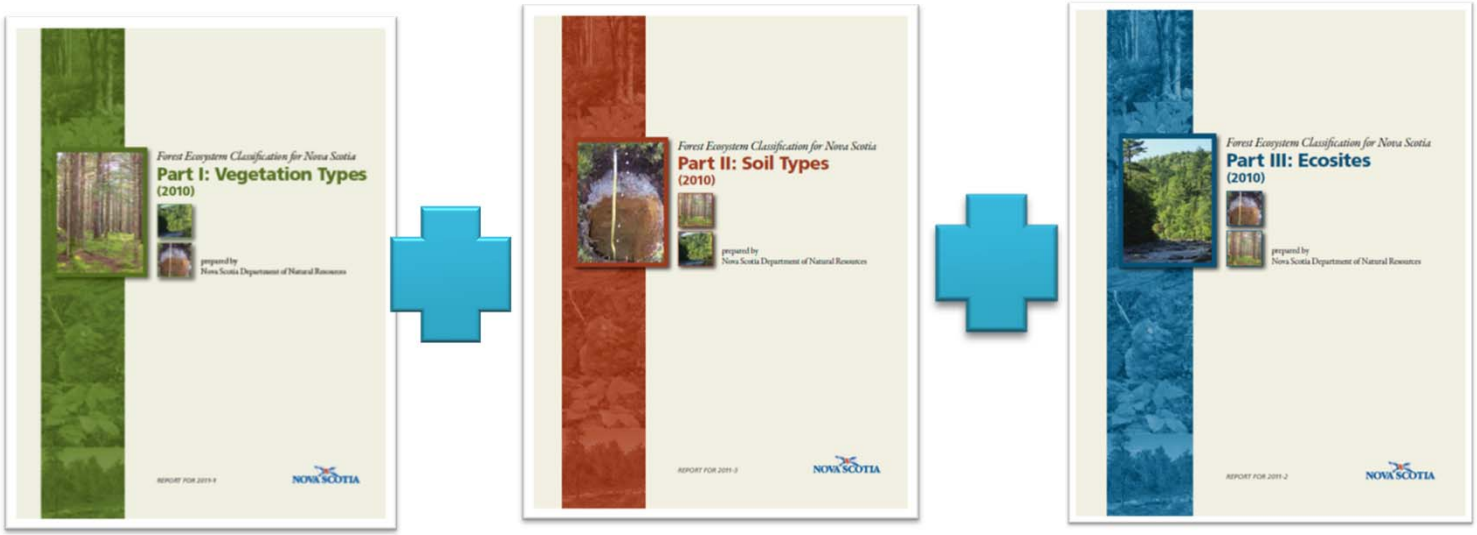
Start with information about the vegetation and soil types.



Then use vegetation and soil types to determine ecosite.

Used together …

These manuals provide abundant information that can be used in forest management.



In Summary

The FEC approach helps forest managers to:

- Maintain long-term site productivity.
- Set and reach achievable goals.
- Focus efforts where they will yield the best returns.
- Improve the quality and value of individual trees over time.
- Restore and maintain a healthy forest.
- Manage for multiple benefits and uses.
- Avoid negative effects.

The FEC manual for Nova Scotia

Covers vegetation, soils and ecosites in detail.

This presentation …

Will provide an introduction to FEC focusing on how to use these manuals to perform a simple assessment of a specific site.

Additional Information

Additional information about FEC is available from the NSDNR Forests website at the address below, and from the Ecosystem Management Group, Forestry Division, NSDNR, Arlington Place, 664 Prince Street, Truro, 902-893-5692. The full text of the provincial FEC manual is available online.

http://www.gov.ns.ca/natr/forests/

Copies of the provincial FEC manual …

Are available online at the Nova Scotia Department of Natural Resources Library web page titled “Forestry Publications”. Paper copies are in limited supply and available from the Forestry Division.

http://www.gov.ns.ca/natr/library/publications/forestry.asp

Credits

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