

# Moving Biodiversity Conservation to a Landscape Approach

Land Stewardship and Habitat Restoration Program

## The Land Stewardship and Habitat Restoration Program

### Moving Biodiversity Conservation to a Landscape Approach

The Ministry of Natural Resources and Forestry (MNRF) is now focusing efforts on the strategic conservation of ecosystems and species at a landscape level. There is widespread support for this kind of approach, both in Ontario and elsewhere. Many jurisdictions have concluded that biodiversity conservation, sustainable resource management and restoration of degraded habitats are best accomplished using an ecosystem and landscape-based approach. Pressures on the landscape and natural resources continue to grow due to increased population levels, urbanization and intensification of agriculture. An integrated, strategic landscape approach to biodiversity conservation is proving to be the most effective and efficient method to plan stewardship, resource management and planning activities to achieve more coordinated and significant gains.

In the past, some biodiversity conservation efforts have tended to focus on individual, local environmental challenges on smaller land areas, specific sites, or specific populations, often taking an opportunistic approach and without an eye to the broader landscape. This approach can often be labour intensive, costly and challenging, and does not always have a strategic impact across larger areas. Despite the fact that these individual activities may have a high-level conservation vision and goals, their individual design and implementation can be independent not only of each other but also of the patterns and processes across higher spatial scales and a broader landscape. This site specific approach, while it addresses an isolated, local biodiversity conservation challenge, is not always efficient or cost-effective, sometimes leading to duplication of effort and increasingly complex tracking and reporting of stewardship efforts.

Numerous ecological issues, public concerns, adaptive management needs and fiscal realities require us to strategically direct site-level and local scale activities toward the most effective and integrated scales for the ministry's biodiversity conservation activities. Managing at broader scales is possible by ensuring that local activities address both the site-level and the greater biodiversity conservation needs within a larger environmental, social and economic context. A strategic and integrated broader-scale approach to management, conservation and planning serves to bring partners and stakeholders together to work toward common and shared goals that consider both site-level needs and wider landscape considerations. This strategic approach makes it easier to efficiently use and balance resource demands, coordinate activities, and accomplish shared strategic management goals. This approach also enables us to better understand the impacts of cumulative effects on biodiversity and natural resources spatially, quantitatively and in a cost-effective manner, in order to prioritize responsive management actions.

It is important to note that broader-scale management does not mean a "*one size fits all*" approach. Just as other agencies elsewhere in the world do, the ministry continues to recognize that finer-scale management efforts are still necessary and appropriate. However, to be thoroughly effective these finer-scale management efforts need to be integrated within a broader management approach. The key is to identify those situations where a finer-scale activity can address multiple and broad-scale scale objectives in a consistent, measurable fashion. Strategic, integrated landscape-scale

management should be the guiding principle under which finer-scale stewardship activities are nested to contribute to a broader and more strategic vision.



### **Adopting a MNRF Landscape Approach**

What does adopting a landscape approach mean for MNRF? The ministry has established two goals to guide the implementation of a landscape-scale approach to biodiversity conservation in Ontario; both are consistent with the ministry's overall mandate.

The goals are:

1. Adopt a modern and sustainable approach to managing Ontario's natural resources over broader areas and longer time periods.
2. Support, enable and advance ecosystem-based, landscape management approaches in Ontario over time.

These goals will be realized by identifying the best opportunities to develop and implement a broader landscape approach to better address the biodiversity conservation challenges we face today. Some steps will include:

- supporting stewardship and restoration activities that address multiple objectives and the needs of broader landscape management
- finding opportunities for coordinating and aligning natural resource management programs
- re-assessing the size of management units to seek economies of scale
- setting management priorities based on the risk to natural resources and the public.



### **Contributing to a MNRF Landscape Approach**

To contribute to the achievement of these goals, the ministry is recommending that organizations applying to the Land Stewardship and Habitat Restoration Program (LSHRP) address the following considerations in their proposed projects and application for funds.

#### **1. Appropriate Scales**

The concept of scale in biodiversity conservation encompasses space, time, and level of biological organization (e.g. genes, species, or ecosystems). Scale can include the size of an area or a period of time and relate to the detail or frequency at which various programs are administered.

**Where appropriate, identify all ecologically meaningful higher scales (such as natural heritage systems, ecosystems, watersheds, or broader species distribution – e.g. see Figure 1) and demonstrate how your project will benefit the ecological functions and structures at these scales.**

**Prior** to application submission and to better align proposed projects with the landscape approach goals of the LSHRP all applicants are required to provide the LSHRP the Assessment Roll Number(s) (ARN) for the parcel(s) their project will be implemented on.

The parcel locations containing the proposed projects will be assessed against a strategic provisional Natural Heritage System (NHS) that has been consistently mapped across Southern Ontario as shown in Figure 1 below.

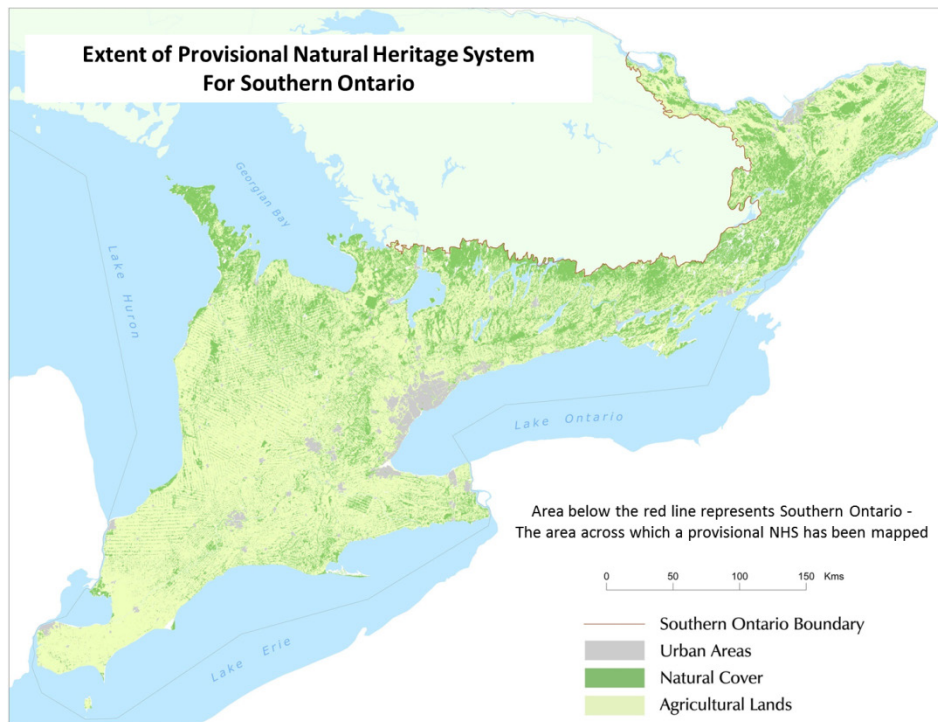


Figure 1: Extent of mapped Provisional NHS for Southern Ontario

The provisional NHS consists of the following mapped components:

1. Core Areas – these include the least fragmented areas of existing natural cover that are at least 500 m wide.
2. Core Area Enhancement Zones – these areas represent opportunities to expand and enhance Core Areas through restoration, where the existing natural cover is currently more fragmented.
3. Potential Core Areas - these areas represent opportunities to build entirely new Core Areas through restoration, where the existing natural cover is currently more fragmented.
4. Corridors – these areas connect or have the potential to connect through restoration, terrestrial and/or aquatic Cores Areas together.

5. Linkages – these areas connect or have the potential to connect through restoration, terrestrial and/or aquatic Cores Areas together along riparian systems.
6. Adjacent Areas of Existing Natural Cover – these consist of slightly fragmented areas of existing natural cover that are located within 100m of any of the other NHS components described above.

The parcels containing the proposed projects will be pre-screened to determine if all or a portion of the parcel includes one or more of the provisional NHS components. Applicants will then be notified if their proposed project area is located within parcels containing one or more provisional NHS components. Projects located within parcels containing one or more provisional NHS components will score higher during the application review process.

Please email the ARN(s) containing your proposed project area to [LSHRP@ontario.ca](mailto:LSHRP@ontario.ca) by Nov 28, 2014. LSHRP staff will then assess the parcel(s) against the strategic provisional NHS mapping and provide you with a tabular report describing which, if any, NHS components are found within the parcel.

Projects Located in Northern Ontario: for applications with projects occurring in northern Ontario, and in absence of existing landscape level planning, applicants will be asked in the application to identify and describe the impact of their project on the surrounding landscape.

## **2. Integration and Coordination**

A broader landscape perspective can reveal opportunities to integrate and coordinate your project with the work of others and ensure sustained, long-term ecological, social and economic benefits to communities. Coordination can also identify duplication of effort and suggest opportunities to more effectively implement stewardship activities across the landscape.

**Identify opportunities at the landscape level that also integrate or coordinate your project with the work of other agencies (government and non-government) involved in biodiversity conservation, to find efficiencies and ensure sustainable approaches.**



The ministry has already made significant progress in implementing broader landscape approaches. The Land Stewardship and Habitat Restoration Program (LSHRP) presents another opportunity for MNRF to further the application of a landscape-scale approach, while supporting the work of our many partners.