Executive Summary

Natural Heritage Systems (NHS) planning is a science based holistic and strategic approach to natural heritage conservation. As opposed to traditional conservation approaches which focus on protected areas and maintaining ecological health, NHS takes a landscape level approach, integrating planning for public and private lands, and includes a strong focus on stewardship and restoration (MNR 2002).

The Provincial Policy Statement (PPS) is the document which sets out provincial priorities and requirements for municipalities. The PPS (MAH 2005, p.33) defines Natural Heritage Systems as "a system made up of natural heritage features and areas, linked by natural corridors which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems. These systems can include lands that have been restored and areas with the potential to be restored to a natural state." Wetlands, woodlands, valleylands, significant wildlife habitat and habitat of endangered species, fish habitat and ANSIs (Areas of Natural and Scientific Interest) are listed in the PPS as features and areas which should make up the Natural Heritage System (MAH 2005).

Natural Heritage Systems are often planned and designed at a regional scale, using MNR eco-districts or other larger regional landscape feature as a planning area in order to benefit from ecological boundaries. These landscape scale systems often include several, or parts of several different municipalities and other political or jurisdictional boundaries. This presents challenges for the implementation and management of these systems once they have been designed through scientific analysis and multi-stakeholder consultation.

The purpose of this report is to examine some of these challenges by looking at the different approaches that have been taken in Ontario for writing NHS policy into municipal planning documents. In particular these findings will be used to provide recommendations and policy options for implementing NHS planning in the municipality of Prince Edward County (PEC) where NHS data and modeling has already been done through a project prepared by the Ministry of Natural Resources (MNR) and municipal and community stakeholders.

Research Question

How can the municipality of Prince Edward County (PEC) implement the Natural Heritage Systems planning and mapping scenario for Ecodistrict 6-E15 prepared by MMR and stakeholders? What options and best practices learned from other Ontario Natural Heritage Systems Plans are relevant to implementation in Prince Edward County?

Method

In order to study these jurisdictional and implementation problems and to develop recommendations for Prince Edward County, three Ontario case studies were selected, each with some form of Natural Heritage Strategy already in place. For each case study location a document analysis was carried out for each of the principle environmental planning documents. This analysis was supported by supplementary planning documents, technical papers, and provincial Natural Heritage guidelines and reports.

A literature review, conducted prior to the selection of the case studies, included a review of academic literature on systems based conservation planning, Ontario provincial policy

documents, and review of policy documents from three case study municipalities. These sources were used, along with the case studies, to answer specific questions about the implementation of Natural Heritage Systems. The question criteria were selected partially based on the academic literature written on implementation of environmental areas planning, and partially on the requirements of Prince Edward County.

The Categories examined for each case study plan include:

1. Vision – What is the overall stated purpose of the NHS?
2. Features – What features and areas are included in the NHS?
3. Boundaries – How are Boundaries delineated?
4. Land Use Designations – How do NHS Designations interact with previous zoning/land designations?
5. Implementation – What studies or tests are required if alteration is to be permitted?
6. Public Participation – How extensive was public involvement in the creation of the plan?
7. Adaptive management and monitoring – Is there a review/monitoring framework?
8. Mapping and communication – How clear/accessible are the maps/schedules?

Overview of Findings

Recommendations

The following recommendations were formed after analyzing the three case studies to provide suggestions for Prince Edward County when writing their NHS policies.

Vision

- The current OP discusses the need for an ecosystem approach, but this could be better defined and elaborated on with specific discussion of the need for connectivity to preserve ecosystem services.

Features

- Include Environmentally Sensitive Areas (ESAs) which were previously designated but may no longer specifically fall within the PPS categories.
- Use the MNR data mapping and the MARXAN analysis to evaluate significant woodlands within the County.

Boundaries

- Exact boundaries may be determined on a case by case basis where they do not align with existing landscape features such as roads or waterways.
- Clear requirements for buffer distances for specific features and areas should be prominently included.
- Incorporate interactive NHS layers to the County GIS would allow concerned land owners easy access to information and to help show the bigger picture.

Land Use Designations

- Creating meaningful categories combining individual types of features and areas both simplifies policies and helps to communicate NHS principles. Consider using "Core Natural Areas" and "Natural Linkage Areas" or "Supporting Natural Areas" rather than simply Category A and B.
- State very clearly that nothing in the NHS plan is intended to impact existing normal farm practices.

Implementation

- Include a technical appendix that explains the scientific rational behind decisions as well as a specific list of the information and studies that may/shall be required as part of an EIA.
- Include different levels of EIA depending on the size of the project of the type of feature

Public Participation

- Involve the community and agricultural groups early to ensure understanding of the goals and impacts of NHS and to avoid misinformation.
- Share the data collected (except for sensitive/confidential information such as the location of species at risk) and educate landowners as to the value and functions of their land.

Adaptive management and monitoring

- Educate community and naturalist groups about natural heritage systems and provide them with the tools and organisational structure (ie. a centralised database) to be able to contribute to keeping data up to date.

Mapping/Communication

- Integrate NHS mapping with the Counties GIS. Include layers showing proposed core and core areas as well as layers for individual features and areas so that people are able to see how these interact.
- Use the MNR MARXAN tool for evaluating land use planning projects. Make this data along with the “preferred scenario” available to stakeholders and the public.