



## **Terrestrial Ecosystem Enhancement Model: Identifying a Natural Heritage System for the Credit River Watershed**

### **FREQUENTLY ASKED QUESTIONS**

#### **1. What is a Natural Heritage System and why is it important?**

- A Natural Heritage System (NHS) is defined by the province of Ontario 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” (Provincial Policy Statement 2005).
- As part of their normal functioning, natural features such as woodlands, wetlands, and meadows provide society with life-sustaining ecosystem goods and services such as genetic resources, breathable air, a clean and reliable supply of water, a livable climate, flood moderation, erosion control, and recreation.
- Natural features are individually owned and managed by a variety of public agencies such as provincial ministries, municipalities and conservation authorities, and private interests such as landowners, commercial and recreational operators, farmers, and others.
- Natural features that are linked within a properly designed Natural Heritage System are more likely to function over the long term than those that remain isolated.

#### **2. Why is Credit Valley Conservation (CVC) developing a Natural Heritage System for the Credit River Watershed?**

- The Natural Heritage System is intended to support multiple watershed management objectives such as municipal development review and plan input programs including subwatershed studies, public and private restoration and stewardship activities, natural area inventories, securement of Greenlands, and effectiveness and impact monitoring programs.
- The province of Ontario has directed planning authorities to protect, improve or restore the quality and quantity of water. To achieve this, it identifies the watershed as the ecologically meaningful scale of planning.
- Municipalities, conservation agencies, stakeholders and private landowners play a strong role in achieving shared objectives related to conservation, restoration and management of watershed natural resources. CVC has the data and scientific expertise to identify natural heritage features, functions and linkages necessary for the ecological and hydrological integrity of the watershed.



- Current data show that the natural features and ecological functions within and beyond the Credit River Watershed are being negatively affected by human-induced stresses including climate change. Remaining natural areas are often not large enough, diverse enough or sufficiently connected to meet the life-cycle requirements of species, but opportunities still exist for enhancing natural features and functions to develop a more sustainable system.
- The Terrestrial Ecosystem Enhancement Model (TEEM) project will design a science based, efficient (and therefore cost-effective) Credit River Watershed Natural Heritage System.

### **3. What is CVC's approach to developing a Credit River Watershed Natural Heritage System?**

- Credit Valley Conservation is taking a systems approach to developing a Natural Heritage System - the health of individual natural heritage features depends upon their placement within a functioning system. The NHS will be based upon well-established conservation biology principles, the best available science, watershed data and professional judgment.
- Guiding principles in developing the NHS include recognition of the link between human health and the natural environment; recognition that protection of natural features and functions is in general preferable to restoration; application of the Precautionary Principle; and the importance of adaptive environmental management.
- Primary goals of the Credit River Watershed Natural Heritage System are to: 1) To protect, restore, or enhance the ecological integrity of the Credit River Watershed's natural features, functions and systems; and 2) To protect or enhance the quantity and quality of surface and ground water for environmental and human uses.
- The NHS builds upon existing regional connections within the Greenbelt Plan Area, with a focus on enhancing watershed health.

### **4. How does the Credit River Watershed's Natural Heritage System differ from current practice?**

- Current municipal and agency practice as provided in strategic planning and policy documents primarily focuses on individual natural feature protection and conservation-management issues.
- Natural Heritage System modelling is promoted by the Provincial Policy Statement 2005 and is reflected in current scientific literature and research. These principles and approaches are supported by Conservation Ontario and represent the direction that CAs are taking to protect watershed features and functions.



- The Credit River Watershed Natural Heritage System approach mirrors the work that is being done by the Toronto and Region Conservation Authority and other CAs and agencies in Ontario and elsewhere.

## **5. What does a Natural Heritage System approach mean for you?**

- The NHS will provide guidance to landowners to identify, restore, and enhance the natural resources values of their properties. The NHS is intended to encourage sustainable conservation and land management approaches.
- CVC will engage municipal planning authorities to emphasize the effectiveness of existing natural heritage related policies and provide information in updating existing natural heritage system protection strategies within the context of watershed health.
- A more sustainable watershed Natural Heritage System contributes to the health and well-being of the watershed's residents over the short and long term and contributes to some extent to risk reduction with respect to climate change.

## **6. How can you obtain more information?**

- The report "Towards a Natural Heritage System for the Credit River Watershed" can be found on the CVC website: <http://www.creditvalleyca.ca/bulletin/resources.htm#natural> (or [www.creditvalleyca.ca](http://www.creditvalleyca.ca) → Bulletin → Resources/Publications → Natural Heritage and Stewardship).
- Contact Aviva Patel at [apatel@creditvalleyca.ca](mailto:apatel@creditvalleyca.ca) tel. 905-670-1615 x244. We look forward to contacting you for future workshops and feedback.