



MEASURING THE BENEFITS OF Wetland Restoration

THE VALUE OF WETLANDS

Wetlands provide many benefits to people and the environment. Goods such as timber, fuel wood and food are important to our growing communities. Wetlands also provide important ecosystem services, such as water purification, flood control and carbon storage. They are home to a wide variety of plant and animal species, and add to the biodiversity of an area.

When we calculate the value of all the goods and ecosystem services provided by each land type, wetlands top the list. Wetlands in the Credit River watershed provide residents with approximately \$187 million per year in ecosystem goods and services.

Like much of Southern Ontario, we've lost many of the wetlands historically found in the Credit River watershed. The ones that remain are often negatively impacted by development, aggregate mining, farming, peat extraction and water-taking.



Wetland restoration can be costly, funding is limited and environmental benefits are often poorly understood. Credit Valley Conservation and the Friends of the Greenbelt Foundation have developed a Wetland Restoration Environmental Benefit Index (EBI) – a tool to help conservation practitioners measure the benefits of potential wetland restoration projects. The tool can be used to communicate the benefits of restoration projects on privately-owned land and to support funding programs that require understanding the benefits associated with the proposed projects.



Possibility grows here.



COUNTRYSIDE
stewardship

WHAT'S MEASURED

The Wetland Restoration EBI measures three components: biological, hydrological and social. Within each of these components are nine sub-components and 28 attributes that are individually measured to achieve the total benefit score of the proposed wetland restoration project.

BIOLOGICAL

Wetland Site Characteristics and Biodiversity

- wetland type
- project area
- proximity to other wetlands
- permanent and seasonal open water
- interspersion
- vegetation communities
- diversity of surrounding habitat
- carbon sequestration

Wildlife and Wildlife Habitat

- reproductive habitat
- migration, feeding and/or hibernation habitat
- locally, regionally and/or provincially significant species
- nesting and feeding habitat for colonial waterbirds
- waterfowl breeding, staging and/or moulting area
- migratory passerine, shorebird and/or raptor stopover
- fish habitat

HYDROLOGICAL

Flood Attenuation and Groundwater Recharge/Discharge

- flood attenuation capacity
- groundwater discharge
- groundwater recharge

Water Quality and Carbon Storage

- short-term water quality improvement in wetland
- short-term water quality improvement in buffer
- long-term nutrient trap
- shoreline erosion control
- carbon storage

SOCIAL

Goods

- harvesting of goods

Recreation

- recreation enjoyment

Aesthetics

- landscape aesthetics

Education and Research

- educational and research value

Cultural and Aboriginal Values

- historical, religious and/or spiritual value

The EBI considers existing site conditions and proposed restored conditions when calculating the final score. The tool has been programmed in Microsoft Excel so that anyone with limited programming knowledge is able to use and modify it for their own local conditions.



HOW TO GET STARTED

Visit: creditvalleyca.ca/egs and download the Wetland Restoration Environmental Benefit Index user manual and calculator tool.

For more information, please contact:

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