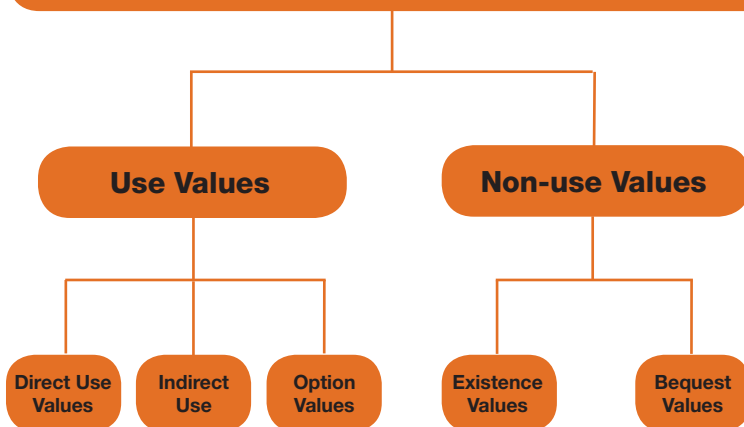


Ecological Economics 101:

Value of Ecological Services in the Credit River Watershed



Natural Resource / Environment Total Economic Value



Total economic value

Total economic value (TEV) is the concept used in valuation of natural capital and ecosystem services. It suggests that economic value is the sum of use values and non-use values. Use values reflect the value derived by humans from consumption (directly or indirectly) of the services, or the value of having the option of consuming them in the future. There are three types of use values:

- **Direct use value:** value derived from direct use of the ecosystem or resource, such as the value of drinking water.
- **Indirect use value:** value derived from indirect use of the ecosystem or resource, such as the value of a wetland for flood control.
- **Option value:** value derived from preserving a use value of water or forest today so that it may be available in the future.

Non-use values, in contrast, are derived without consumption taking place.

There are two types of non-use values:

- **Bequest value:** satisfaction that individuals derive from knowledge that ecosystem services will exist for future generations, for example knowledge that natural areas will be protected for children and grandchildren.
- **Existence value:** satisfaction of knowing that certain plants or animals exist in the watershed. For instance, some people may value the fact that the bald eagle exists in the Credit River area, even though they may never see one.

CVC's natural capital and ecosystem valuation reports:

¹ "An Analysis of Present and Future Carbon Storage in the Forests of the Credit Valley Watershed" (2010)
<http://www.creditvalleyca.ca/bulletin/downloads/CVC-CarbonStudyFinal.pdf>

² "Natural Credit: Estimating the Value of Natural Capital in the Credit River Watershed" (2009)
<http://www.creditvalleyca.ca/bulletin/downloads/CVC-NaturalCreditReport.pdf>

³ "The Credit River Watershed: Property Value Appreciation: Impacts of Natural Features" (2009)
http://www.creditvalleyca.ca/bulletin/downloads/CVC-NatFeatRpt-Mar31_09.pdf

⁴ "The Credit River Watershed: Valuation of Angling" (2008)
<http://www.creditvalleyca.ca/bulletin/downloads/cvc-anglingRpt-Jan29.pdf>

⁵ "Valuing Wetlands in the Southern Ontario's Credit River Watershed, Phase 1: Wetland Ecosystem Services Characterization" (2009)
<http://www.creditvalleyca.ca/bulletin/downloads/ValuingWetlandsPhase1-final.pdf>

⁶ "Valuing Wetlands in the Southern Ontario's Credit River Watershed, Phase 2: A Contingent Valuation Analysis" (2010)
<http://www.creditvalleyca.ca/bulletin/downloads/ValuingWetlandsPhase2-final.pdf>