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**VALUATION AND COMPENSATION OF WETLAND ECOSYSTEM SERVICES IN  
THE RAPIDLY URBANIZING LANDSCAPE OF SOUTHERN ONTARIO, CANADA**

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**ABSTRACT:** Wetlands provide numerous and important environmental services to society including water filtration, flood control, ground water recharge, carbon sequestration and storage, erosion control and recreation opportunities. A recently released report estimates that 72% of all wetlands in Southern Ontario have been lost and that this loss continues today<sup>1</sup>. The Toronto and Region Conservation Authority, an environmental agency dedicated to the conservation, restoration and management of the natural resources in Toronto-area watersheds, has utilized the emerging science of ecosystem valuation to highlight the economic importance of intact and functioning wetland systems. A methodology developed by the Ontario Ministry of Natural Resources<sup>2</sup> has been applied to underscore the economic value of the current wetland system and the potential value of a restored and expanded system. Despite an increased awareness of the importance of wetlands and a strong protective policy framework, wetlands and other natural habitats continue to be removed due to strong development pressure and competing societal interests. To help stem the continued loss of ecosystem services, TRCA has developed an ecosystem services compensation protocol. This protocol uses a pragmatic approach to quantify lost services and place an economic cost to the replacement of these services. It considers land value, restoration costs and lag time when determining compensation costs. This protocol can be applied to development applications when impacts to wetlands are unavoidable. The compensation funds raised can be strategically directed to ensure that the lost services are replaced elsewhere in the watershed. 1. Southern Ontario Wetland Conversion Analysis, Ducks Unlimited Canada, 2010. 2. Estimating Ecosystem Services in Southern Ontario, Spatial Informatics Group, Troy and Bagstad, 2009

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