# Huron County shoreline planning proposal for an integrated assessment of water-level fluctuations

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**Introduction and Context** Ontario municipalities along the Great Lakes shorelines have experienced increasingly serious impacts of both high and low water levels in recent decades, leading to research and policy work on adaptive management, disaster relief and planning activities by all levels of government. Research indicates there is no way to identify a long-term trend in water levels, other than an increase in extreme weather events. This requires flexibility in consideration of practical adaptive management policies, programs and initiatives to address local issues and circumstances. Whether dealing with floods, drought, erosion or water quality issues, communities are impacted across the spectrum of environmental, economic and social effects and challenges. When added to the socio-demographic trends of declining and aging populations in all but Ontario's five largest municipalities, dealing with the community safety, tourism, infrastructure, health and social services and environmental issues is a challenge.

**Project Summary** The Huron County shoreline team proposes to focus on the Huron County shoreline centered on the Town of Goderich as our planning locality to support development of an Integrated Assessment for adaptive management of variable water levels. The initial activity will involve consultation with stakeholders, scoping key areas of concerns, following with data assessment and the development of a physical and socio-economic model with explicit user-inputs on different policy and management options. During the six month planning period we will:

- Identify and summarize existing data sources from governmental, non-profit and private sector sources, including adaptive management approaches
- Identify the full range of issues raised for local communities (including First Nations and Metis) from variable water levels – social, economic and environmental impacts
- Identify the full range of stakeholders and potential partners and participants for the Integrated Assessment
- Identify potential regulatory and non-regulatory options
- Analyze the applicability/relevance and scalability of the Huron County planning study to other Great Lakes coastline areas within Ontario (this planning team will focus on the Ontario regulatory and local government environment)
- Provide a process model for the Integrated Assessment for discussion with other planning teams and the Advisory Committee
- Provide initial performance indicators for use during the Integrated Assessment.

**Approach** Planning for an Integrated Assessment requires a multi-disciplinary team with expertise in a wide range of socio-economic and environmental issues. As well, the team must have experience in interjurisdictional policy development processes in order to integrate varying and often competing stakeholder interests and knowledge. This project will require both scientific and interpersonal/ communication expertise. The Huron County Shoreline Team includes academic, federal government scientific expertise, provincial and local government expertise, and a post-doctoral associate to meet the planning grant requirements. Our approach will start with a literature search and identification of data sources (see initial list included in this proposal), but will mainly involve direct communication (phone, email, face to face meetings) with a wide range of stakeholders as initially indicated below. A draft final report would be produced for review and consultation with stakeholders in order to build on and ensure local accuracy and relevance. A final report will be submitted to the Graham Institute of Sustainability at the end of the funding period.