

**Preparing Coastal Communities for Climate Change:
Translating Model Results
to
Prepare Ports, Harbors and Stormwater Management Facilities
in an Era of
Climate Variability and Scientific Uncertainty.**

GOAL: Key stakeholders in the Great Lakes region will be aware of the climate change issue, will understand the ways climate change may affect their operations and planning processes, will be aware of the current state of climate modeling for the region which is relevant to their needs, will be cognizant of the inherent uncertainties and variability in climate modeling and what that means to them, will be engaged with their local Sea Grant programs in a continuing dialogue about climate change impacts and forecasting improvements, and will be prepared to adapt to a changing climate.

OBJECTIVES:

- 1) Needs Assessment
 - a. Characterize public concerns and potential impacts stemming from climate change on shipping, commercial marinas, recreation, storm water managers and community planners
 - b. Focus groups composed of key stakeholders from will identify specific forecasting needs which can be met with current data and modeling capacity.
- 2) Strong Science to Directly Address Needs
 - a. Regional scenarios will be modeled to address specific priority concerns identified by stakeholders relating to climate impacts on water levels.
 - b. Pre-existing economic data on shipping and sediment management costs will be used to translate climate change scenarios into economic terms.
- 3) Communications Toolbox
 - a. The Great Lakes Sea Grant Network will develop a coordinated regional strategy for communicating about climate change
 - b. Development of case studies for use as examples in communicating about climate change
 - c. Development of products for communicating the concepts of scientific uncertainty and variability including strategies for action in the face of uncertainty which are based in state-of-the-art communications theory
- 4) Planning for the Future
 - a. Decision-makers, scientists, and extension professionals will work together to develop strategies for adapting to climate change.
 - b. Scenario modeling results will be communicated to the stakeholder sectors that identified the need so that results can be incorporated into planning.