**Purpose:** Investigate the effects of changes in lake water levels on coastal ecosystem at sites of interest designated by the IUGLS Environmental Technical Working Group.

**Location:** Great Lakes

**Proposed Methods:** Compile site data, identify target indicators, and determine appropriate analyses (data analysis workshop). Develop indicator-water level relationships and identify data gaps (individual PI work and second workshop). Conduct fieldwork to verify relationships and fill data gaps (summer of 2010 for missing water level and indicator data). Finalize indicator-water level relationships and write final report (third workshop).

**Anticipated Results:** Will deliver indicator-water level relationships that can be developed to the water level scenarios modeling team.

**Proposed Researchers:** Jan H. Ciborowski and Scudder D. Mackey (Univ. of Windsor); Gerald J. Niemi, Valerie J. Brady, and Lucinda B. Johnson (Univ. of Minnesota, Duluth); Susan E. Doka (Fisheries and Oceans Canada); Janet R. Keough (US EPA Duluth), and Donald G. Uzarski (Central Michigan Univ.)

**Prepared For:** USACE

**CESU:** Great Lakes