GRAHAM SUSTAINABILITY INSTITUTE
UNIVERSITY OF MICHIGAN

Great Lakes Water Levels Integrated Assessment
Request for Planning Grant Proposals

RELEASE DATE: DECEMBER 1, 2014
DEADLINE FOR LETTERS OF INTENT: JANUARY 6, 2015
DEADLINE FOR RECEIVING PLANNING GRANT PROPOSALS: FEBRUARY 2, 2015
ANNOUCEMENT OF AWARDS: MARCH 2, 2015

OVERVIEW:

The Water Center and Integrated Assessment Center at the University of Michigan's Graham Sustainability Institute have worked over a year to solicit input and develop a plan for an Integrated Assessment related to Great Lakes Water Level variability. **Based on these discussions, the Graham Institute is releasing this Request for Proposals (RFP) to fund up to ten planning grants to help prepare for an 18 month Integrated Assessment (IA) on Great Lakes Water Levels that would follow after these planning grants.** (For background and additional information, refer to the Integrated Assessment plan found at http://graham.umich.edu/knowledge/ia/water-levels).

IA offers an effective way to frame and guide decisions for sustainability problems that lack consensus on the cause or solution. It makes use of existing data to summarize scientific knowledge and guide decision-making, considers environmental, social, and economic dimensions of the problem, and engages the full range of stakeholders in evaluating options. For more on IA see: http://graham.umich.edu/knowledge/ia.

The IA will develop information, tools, policies, and partnerships to help decision makers address the challenges and opportunities posed by variability in Great Lakes water levels. It will build upon previous efforts in the region, incorporating best-available science, place-based efforts, and end user engagement. With a focus on Lakes Michigan-Huron and Erie, including the Lake Huron to Lake Erie corridor, the assessment will identify and evaluate regulatory and non-regulatory adaptive actions and policy options. Specifically, the IA asks: ***What environmentally, socially, politically, and economically feasible policy options and management actions can people, businesses, and governments implement in order to adapt to current and future variability in Great Lakes water levels?***

The IA will focus on key areas impacted by water level variability, including, but not limited to: infrastructure, recreation and tourism, shoreline communities and economies, nearshore and shoreland habitat, and water quality.

Funded teams will complete an **interdisciplinary analysis** that considers environmental, social, political, and economic issues and approaches relevant to the impacts/vulnerabilities facing a specific locality. Examples of topics and types of drivers and activities that might be included within the analysis are provided below. While the specifics will vary among localities, it is expected that all four categories will be addressed.

Environmental
- Climate change
- Hydroclimate processes and modeling
- Shoreline stability
- Slope erosion
- Ecosystem dynamics
- Habitat

Social
- Effects of shoreline management activities on neighboring properties
- Distribution of costs and benefits of water level impacts and shoreline management activities
- Changes to the culture/feel of a community
- Education/communication and outreach/engagement
- Resiliency planning

Political
- Shoreline or floodplain building and zoning regulations
- Shoreline or floodplain planning
- Land conservation
- Decision tools

Economic
- Property values
- Property damage
- Decreased business revenue
- Increased operating expenses
- Incentives
- Financial planning and budgets

As mentioned above, teams will focus their work on a specific locality. This place-based approach will allow the IA to: 1) move beyond enumerating general strategies identified in previous studies to evaluating specific, integrated, and feasible options, 2) engage local stakeholders in identifying and prioritizing objectives and evaluating the strategies to achieve them, and 3) build the local ownership necessary for implementing and sustaining options after the IA concludes.

A key component of the final IA is integration across the impact areas and locations in order to identify opportunities for the wide variety of shorelines and issues throughout the Lakes Michigan-Huron and Erie basins including the Lake Huron to Lake Erie corridor.

PURPOSE:

The purpose of the final IA is to help equip the region with a robust set of water level adaptive strategies that protect the ecological integrity, economic stability, and cultural values of the region. These strategies are also intended to support the notion of living with variability and address the uncertainties of an evolving future associated with climate change and the potential for extreme water levels and associated impacts. To do so, the final IA will integrate the analyses of several locally-focused teams into a cohesive analysis of options to achieve the following objectives:

- Identify and analyze key adaptive actions and policy options that minimize the negative impacts and enhance the positive impacts of water level variability;
- Create performance measures for assessing interventions through a common analytical approach;
- Build upon approaches for specific localities to identify opportunities applicable to other communities across jurisdictions throughout the Lakes Michigan-Huron and Erie watersheds including the Lake Huron to Lake Erie corridor;
- Further the development and application of adaptive approaches; and
- Form a network among communities facing water level variation.

PROCESS:

Planning Grants

An effective IA in this context first requires identifying appropriate localities and partners willing to collaborate. To support this work, the Graham Institute will fund up to ten planning grants at a level up to $10,000 each. The planning grant work should focus on the feasibility of conducting a place-based analysis of a particular set of options that will contribute to the IA. Planning grants will last for six months and run concurrently between March and August 2015. It is anticipated that some of the planning grant recipient teams will continue on with the full IA.

The key purpose of the planning grants is to identify appropriate locations for the IA and to scope approaches for conducting the full assessment. *Planning grant proposals must specify a locality for the focus of their work.* Locations must have: known issues related to changes in water levels, multiple shoreline uses/objectives, available data, and local/community stakeholders to participate in the IA. Proposals should identify the multiple impacts and/or competing objectives (e.g., property protection, marina access, habitat protection) in that location that necessitate integrated response options. Additionally, the proposals should explain why the findings from that location will be transferable to other locations, identify potential locations, and describe how the team and work would contribute to integrating their findings across the Lakes Michigan-Huron and Erie basins including the Lake Huron to Lake Erie corridor.

Eligibility Information

Proposals will only be accepted from interdisciplinary teams of investigators (comprised of at least two members) affiliated with either a Canadian and/or US college or university and must propose work within the geographic focus of the assessment - Lakes Michigan-Huron and Erie including the Lake Huron to Lake Erie corridor. Researchers are strongly encouraged to develop proposals that involve collaboration with other institutions, non-profit and for-profit entities, government agencies at all levels, and other relevant stakeholder groups. Graham Institute personnel can assist with identifying potential partners and technical resources.

Planning Grant Preparation and Submission Instructions

Letter of Intent: A letter of intent is recommended before submitting a planning grant proposal. Letters of intent should be prepared and submitted on-line at http://graham.umich.edu/application-request/31268 and include the following:

1. Principal Investigator (PI) and Co-Investigator (Co-I) names and contact information
2. Project working title
3. One page summary of proposed activities focused on the impact areas/analysis categories outlined above (or similar ones), along with the names of potential collaborators (other researchers and stakeholder groups).

Letters of Intent will not be used as a screening tool but will allow Graham Institute staff to gauge interest in this opportunity and initiate conversations regarding potential partnerships and sources of data.

Planning Grant Proposal Required Application Materials: Proposals submitted in response to this RFP must be submitted on-line at http://graham.umich.edu/application-request/31268 and include the following:

1. **Complete on-line submission form** (at the URL above)
2. A **single PDF** file that includes:
    a. **Cover Page** with the following information:
        i. Proposal Title
        ii. Total Funds Requested
        iii. Investigators' names, titles, appointments and email addresses
        iv. Full contact information for Principal Investigator
    b. **Table Of Contents**: No longer than one page
    c. **Proposal Summary**: No longer than one page using non-technical language
    d. **Proposal Narrative:** No longer than five pages, including all figures, graphs, and tables. The narrative must provide a concise description of the proposed project and address the following:
        i. Impact areas and topics
        ii. Relevance of the work in light of previous work completed on Great Lakes Water Levels such as the International Joint Commission Upper Great Lakes Study and Levels Reference Study
        iii. Locality
        iv. Sources of data/information
        v. Characterization of potential regulatory and non-regulatory options (management strategies, incentives, practices, etc.)
        vi. Potential stakeholders/partners
        vii. Objectives, expected outcomes, and significance of the proposed work
    e. **Project timeline**
    f. **References**
    g. **Proposal Approval Form:** Found on-line at: http://graham.umich.edu/media/files/Planning-Grants-Proposal-Approval-Form.docx
    h. **CVs: Brief**, i.e., no longer than two pages each for PI and all Co-Is. CVs are also required for any individual identified as senior project personnel, e.g., post-doctoral associates who will participate in the proposed research.
    i. **Budget:** Awards will be funded at a level of up to $10,000 for six months. No indirect costs or equipment expenses allowed for planning grants. Support for travel and/or small workshops allowed. Budget should include travel costs (for two investigators or one investigator and one partner) for two one-day meeting trips to Ann Arbor, Michigan during the planning grant period. **Budget Justification:** No longer than two pages. A narrative must be attached which fully explains the relationship of costs to accomplish the proposed activity and the basis for cost estimates. NOTE: Funds may be used to support normal research expenditures with the exception of equipment purchases. If salary support is requested, provide detail (for whom, nature and percent of appointment, period of time, amount).
    j. **Letters of Support:** From potential stakeholder/partners. (Not required but helpful if partnerships already exist).

Proposal Review Information

Proposal review and selection will be completed by Graham Institute project personnel with input from the advisory committee. Proposals will be selected to ensure diverse representation across geography and topics and will be screened with the following criteria in mind:

- **Understanding of context and underlying issues:** Does the proposal identify underlying issues; are they the appropriate given the focus and approach of the IA; does the proposal provide the right historical and contemporary context for the underlying issues drawing from previous work completed on Great Lakes water levels?
- **Project approach:** Does the proposal address the elements needed to respond to the IA question? If it does not, are exceptions/gaps acknowledged and explained? Is the explanation credible?
- **Identification of relevant data sources:** Does the proposal describe actual and potential data sources for the project?
- **Data/information access:** IA relies primarily on analyzing and communicating existing data/information rather than collection of new data sets. Does the proposal identify team members and established partnerships which bring data/information or access to data/information to the team?
- **Competency of the proposing team:** Does the proposal identify members who can carry out each element of the project within the proposed timeframe? Have team members carried out similar work in the past? Here they do not necessarily have to have IA experience specifically, but an indication that they are able to assess status and trends, causes and consequences, and policy options.
- **Inclusion of stakeholders/appropriate decision makers:** Does the proposal clearly identify appropriate potential partners?
- **Appropriateness of the proposal budget**
- **The inclusion of opportunities for students**

Requirements of Planning Grant Recipients

- Participation by all funded planning grant team members in at least at least two meetings during the planning phase to discuss project development strategies, analytical approaches, key opportunities, and learnings across teams. One meeting will serve as a "kick-off" at the start of the planning grant period and the other meeting will serve as a summative meeting near the end of the planning grant period. Dialogue among the teams will be encouraged and expected.
- Submission of a final report (following guidelines to be provided by Graham Institute personnel) addressing the outcomes of the planning grant effort and opportunities for the analyses and stakeholder engagement to continue through participating in the IA. The planning grant final reports will be compiled and shared in order to provide a base of information for analysis teams and stakeholders during the IA.
- Mentioning Graham Institute support in any publications or presentations of project results and providing information to Graham Institute staff on any publications generated through the project.

Integrated Assessment

Following submittal of the planning grant reports, some grantees will be invited to submit fully-developed proposals to participate as analysis teams in the Water Levels IA. Those proposals will be due in in late October 2015. It is expected that the Graham Institute will select at least four proposals to support at approximately $50,000 per team over an eighteen month period (Phase 1 through Phase 3). Similar to the planning grant phase, analysis team members will gather at least twice during the IA phase to discuss project development strategies and analytical approaches. The IA will occur in three phases outlined briefly below. For more detailed information, please refer to the IA Plan found at: http://graham.umich.edu/knowledge/ia/water-levels.

- Phase 1 (November 2015 - April 2016): Building on the planning grant work, each analysis team will provide an interdisciplinary overview synthesis and report of status, trends, causes, and consequences of changing water levels as they relate to key issues in a particular locality.
- Phase 2 (May - October 2016)): Using stakeholder input on the Phase 1 overviews, each analysis team will develop a report identifying and analyzing viable policies and adaptive actions that meet local objectives identified in collaboration with community partners. Reports will be shared with stakeholder groups for further input.
- Phase 3 (November 2016 - April 2017): Analysis teams will work together with project personnel to develop a final comprehensive IA report of select options. The report will integrate the findings of the

various analysis teams and stakeholder input to identify opportunities across impact areas and for application more broadly throughout the basin. It will address jurisdictional considerations, uncertainty, implementation strategies, and performance measures.

Please direct questions to:

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