Great Lakes Water Levels Integrated Assessment
Request for Proposals

RELEASE DATE: SEPTEMBER 3, 2015
DEADLINE FOR RECEIVING PROPOSALS: OCTOBER 19, 2015
ANNOUNCEMENT OF AWARDS: NOVEMBER 20, 2015

OVERVIEW:

The Graham Institute and U-M Water Center are leading an Integrated Assessment to consider options for addressing changes in Great Lakes water levels. Following a six month planning grant phase, the Graham Institute is releasing this Request for Proposals (RFP) to fund 4-5 teams to participate in an 18 month Integrated Assessment (IA) on Great Lakes Water Levels. (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 interdisciplinary analyses that consider environmental, social, political, and economic issues and approaches relevant to the impacts/vulnerabilities facing a specific locality. Examples of topics that might be included within the analyses are provided below. While the specifics will vary among localities, it is expected that all four categories will be addressed by each team.

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Social</th>
<th>Political</th>
<th>Economic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change</td>
<td>Effects of shoreline management activities on neighboring properties</td>
<td>Shoreline or floodplain building and zoning regulations</td>
<td>Property values</td>
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<tr>
<td>Hydroclimate processes and modeling</td>
<td>Distribution of costs and benefits of water level impacts and shoreline management activities</td>
<td>Shoreline or floodplain planning</td>
<td>Property damage</td>
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<tr>
<td>Shoreline stability</td>
<td>Changes to the culture/feel of a community</td>
<td>Land conservation</td>
<td>Decreased business revenue</td>
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<td>Slope erosion</td>
<td>Education/communication and outreach/engagement</td>
<td>Decision tools</td>
<td>Increased operating expenses</td>
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<td>Ecosystem dynamics</td>
<td>Resiliency planning</td>
<td></td>
<td>Incentives</td>
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<tr>
<td>Habitat</td>
<td></td>
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<td>Financial planning and budgets</td>
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As mentioned above, teams will focus the first phases of 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 phase of the IA is collaboration among the teams to integrate 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 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 (U.S. and Canada) 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:

Proposal Preparation and Submission Instructions

Required Application Materials: Proposals submitted in response to this RFP must be submitted online via the team’s existing application webpage. That webpage is accessible using the unique hyperlink emailed to the team member who submitted the planning grant application. Proposals must be uploaded as a single PDF file and include the following:

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 10 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 interdisciplinary topics
   ii. Locality
   iii. Relevance of the work in light of previous work completed on Great Lakes Water Levels in general, such as the International Joint Commission Upper Great Lakes Study and Levels Reference Study, and in the specific locality
   iv. Sources of data/information
   v. Characterization of regulatory and non-regulatory options (management strategies, incentives, practices, etc.) to address the topics
   vi. Potential stakeholders/partners and plans for how they will participate in the project
   vii. Potential for transferability including specific locations/jurisdictions
   viii. Objectives, activities, expected outcomes, and significance of the proposed work

e. **Project timeline**

f. **References**
g. **Proposal Approval Form**: Found online at:
   [http://graham.umich.edu/media/files/water-levels-ia-paf.docx](http://graham.umich.edu/media/files/water-levels-ia-paf.docx)

h. **Two-page Resumes**: Provide resumes for PI and all Co-Is. Resumes 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 $50,000 for 18 months. Indirect costs and equipment expenses are not allowed. Support for travel and/or small workshops is 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 grant period.

j. **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).

k. **Letters of Support**: From current or potential stakeholder/partners.

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**Eligibility Information**

Proposals will only be accepted from teams involved in the planning grant phase and must include an interdisciplinary team of investigators (comprised of at least two members) affiliated with either a Canadian 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 and can be expanded from the team they developed for the planning grant phase. Graham Institute personnel can assist with identifying potential partners and technical resources.

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**Proposal Review Information**

A review panel of experienced researchers and practitioners from Canada and the U.S. will be assembled to review the proposals based on the review criteria listed in the RFP. The reviewers will provide their input to Graham Institute staff who will make the final funding decisions 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? Has the proposing team demonstrated an increase in their understanding of the key issues and/or refined the issues that they are addressing as a result of the planning grant?

- **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?

- **Data/information access**: IA relies primarily on analyzing and communicating existing data/information rather than collection of new data sets. Does the proposal describe actual data sources for the project? Does the proposal identify team members and established partnerships which bring the required 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 and demonstrate willingness and readiness to participate? Does the proposal outline how stakeholders/partners will be engaged and the specific roles they will play?

- **Appropriateness of the proposal budget**

- **The inclusion of opportunities for students**
Requirements of IA Grant Recipients

- Participation by all funded team members in at least two meetings during the IA to discuss project development strategies, analytical approaches, findings, key opportunities, and learnings across teams. Dialogue among the teams and with stakeholders will be encouraged and expected.
- Submission of a Phase 1 report described in the timeline below.
- Submission of a Phase 2 report described in the timeline below.
- Collaboration with project personnel and other funded teams and submission of material in Phase 3 for a final comprehensive report described in the timeline below.
- Following guidelines provided by Graham Institute personnel for all reporting materials.
- 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.

Timeline

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<th>Timeline</th>
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| November 2015 - April 2016 (IA Phase 1) | • Using existing data/information, each funded analysis team provides an interdisciplinary overview synthesis and report of status, trends, causes, and consequences of changing water levels as they relate to the key issues in a particular locality. Reports will be interdisciplinary and integrate social and natural science.  
• Stakeholders provide feedback on the above reports and input to help identify and develop prospective management/policy options. |
| May 2016 - October 2016 (IA Phase 2) | • Based on stakeholder input to the Phase 1 reports, each analysis team develops a report identifying and analyzing viable policies and adaptive actions that meet local objectives identified in collaboration with community partners. Stakeholder groups provide input.  
• Mid project evaluation. |
| November 2016 - April 2017 (IA Phase 3) | • Analysis teams work together with project personnel to develop a final comprehensive Integrated Assessment 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 region. It will address jurisdictional considerations, uncertainty, implementation strategies, and performance measures.  
• IA undergoes peer review, and project personnel and teams integrate peer review feedback into report.  
• Graham Institute facilitates public review of final product(s) and compiles public responses to the final options as a separate document. |
| (Post IA)                | • Final project evaluation                                                                                                                                 |

Please direct questions to:

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