The Council of Great Lakes Industries (CGLI) appreciates the opportunity to provide comments regarding the May 21, 2013 draft Adaptive Science-Based Framework for Great Lakes Restoration (Framework). CGLI members operate in or have substantial interests in the natural resources of the Great Lakes region and play key roles in the utilization, protection, and restoration of Great Lakes resources. They contribute specialized expertise and stand ready to assist governments and other stakeholders in seeking success of the restoration effort. Full engagement of CGLI and other key stakeholders not only is valuable, but also is essential for leveraging the substantial efforts required to implement the next phase of the Great Lakes Restoration Initiative.

Overall, the structure and content of the Framework described in the draft is a good start. However, as proposed, the Framework is missing several important elements and does not incorporate critical recommendations made by the EPA Science Advisory Board’s ad hoc panel in its January 24, 2012 report. Specifically:

- **The need for independent science review.** The Framework describes various instances when agencies have applied science during the various stages of GLRI planning and administration, which we acknowledge as essential to program success. However, a critical flaw in the Framework as proposed exists in its failure to incorporate the independent, standing science panel that the EPA SAB panel recommended. As the agencies are aware, the EPA SAB panel highlighted the need to establish an independent science panel that would be convened every year or two to “review the science plan and restoration progress, evaluate new scientific findings, and recommend appropriate adjustments to the action plan and science plan.” (EPA SAB Panel Report, p. 16.)

We strongly support the EPA SAB panel recommendation and believe that the activities of the panel would be consistent with the adaptive management approach that has been proposed in the Framework. Convening an independent, multi-disciplinary panel would

- help “to strengthen...use of the best available science to address the most pressing problems facing restoration of the Great Lakes” (Framework, p. 14);
- “engage scientists, stakeholders, and the general public” in the process of evaluating program progress and updating the GLRI over time (Framework, p. 15);
- provide access to external research and study results developed by academic and research institutions and the private sector to inform the review of “trends and/or predicted trajectories” reflected in progress reports (Framework, pp. 18-19);
We encourage the agencies to establish an independent, multi-disciplinary panel to support, enhance, and provide input to the science-based adaptive process described in the draft.

**Need to assess and evaluate research results.** Section 3.4 of the Framework addresses, in broad terms, the need to assess and evaluate results at the *project* and *program* levels. However, while the Framework broadly endorses peer review as an element of science-based decision-making (Framework, pp. 5, 9), the Framework does not explicitly propose science-based evaluation of GLRI activities at the *research* level.

Currently-funded GLRI research projects that are underway in the toxic substances area illustrate the need for project evaluation (including peer-review) at the research level. Many of the projects are being conducted by large collaborations of agencies and academic institutions. It is unclear whether or how scientific peer review is being undertaken to evaluate the results of research undertaken by these collaborations. As a result, project results may be accepted and incorporated into decision-making without being subjected to the rigorous scientific review that would ensure reliability.

*We recommend that Section 3.4 be expanded to include a process for subjecting project research to peer review at the time that projects are proposed, periodically throughout project activities, and when the results are being reported.* The independent science panel recommended by the EPA SAB panel could be assigned to this task.

**Multiple factors needed to assess and evaluate results.** Section 3.4, while appearing to outline a systems-based approach, does not emphasize the importance of considering multiple factors when establishing goals or assessing progress. In Section 3.2 (“Toxics Substances and Areas of Concern”) of its report, the EPA SAB panel:

- stated that “strategic planning for the toxics focus area should be based on risk characterization that reflects current and anticipated future conditions in the Great Lakes;”
- observed that “[f]urther analysis is needed to explore how the toxics measures of progress work together – for example how does delisting a given AOC contribute to the goal of reducing fish tissue PCB concentrations and therefore the number and frequency of fish consumption advisories?” and
- called for “an independent, science-based ranking of AOCs to determine which site clean-ups will best assist in meeting the GLRI toxics goals.”

(EPA SAB Panel Report, pp. 17-20.) We agree with the panel’s suggestion that multiple factors should be considered when establishing project or program goals or evaluating progress.
We observed an example of the need to integrate multiple factors during the recent annual conference of the International Association of Great Lakes Researchers. Results from various toxic substances-related projects that have been funded by GLRI and are now underway were presented at the conference. Much of the work focused on the single objective of developing analytical techniques that call for lower-than-ever detection capabilities. While this GLRI work may be informative, it is important to relate the results to other factors, such as levels of significance or concern, if the results are to be of value within the Adaptive Science-Based Framework that has been proposed for the GLRI program. The EPA SAB panel affirmed the importance of considering project results in context when it stated that the agency should “identify which contaminants occur at levels of concern and should therefore be priority contaminants for action” (EPA SAB Panel Report, p. 2) (emphasis added).

*We recommend that Section 3.4 of the Framework provide additional detail regarding how context, including the multiple factors and facets that may have important influence on a problem or issue, will be included in the assessment and evaluation process.*

- **More detail is needed regarding update of the Great Lakes Restoration Accountability System (GLAS).** The EPA SAB panel emphasized that “much work will need to be done to upgrade the [GLAS] from an accounting system to one that provides transparency, is able to track project outcomes as well as outputs, and provides a solid basis for programmatic evaluation across the focus areas” (EPA SAB Panel Report, pp. 2 and 13). Section 3.5 of the Framework acknowledges the need to upgrade the GLAS system and “assemble, analyze, and integrate GLRI results with other monitoring and assessment information across geographic…and temporal scales…to inform GLRI decisions” (Framework, p. 19). The draft Framework proposes the development of an “information system…to aggregate and present GLRI information in the context of the health of the Great Lakes ecosystem” (Framework, p. 19). However, the draft Framework provides no details on how or by whom these tasks would be accomplished.

*We recommend that the draft Framework provide additional detail on the design, development, and deployment of the proposed new information system. Upgrades to GLAS should be identified and designed either by the independent science panel or a separate multi-stakeholder group established for this purpose. We also recommend that the scope of the GLAS system be expanded to include details of GLRI project proposals. Currently, only project titles, names of investigators, and award amounts are provided. Further details regarding the projects are essential to inform stakeholders about work underway.*

- **Provisions related to Integration and Partnerships and Sustainability of Environmental and Societal Benefits appear extremely limited.** Section 4.2 of the Framework touches on the importance of partnerships and the role of societal institutions in successful GLRI outcomes (Framework, pp. 23-24). However, no details are provided on how the agencies propose to establish and engage partnerships and
societal institutions. The EPA SAB highlighted the need to place social scientists on the independent science review panel (EPA SAB Panel Report pp. 2, 3 and 14). Additional needs for robust stakeholder engagement have been noted in the EPA SAB Panel Report and by stakeholder groups, including CGLI, in comments or remarks made in other forums.

*We recommend that Section 4.2 of the Framework be expanded considerably to include specific opportunities for independent, multi-disciplinary non-agency personnel and stakeholders to participate in the adaptive science-based Framework that has been proposed.*

- Limiting implementation of the Framework to the IATF and Regional Working Group (RWG). Section 4.3 of the Framework assigns responsibility for implementation to the IATF and RWG. As noted above, we support the EPA SAB panel recommendation that an independent science panel consisting of individuals holding a diverse range of expertise and interests be engaged in GLRI science application processes. As described by the panel, one function of the independent panel would be “providing insights into the likely workability of particular institutional arrangements” for carrying out GLRI actions (EPA SAB Panel Report, p. 2). The institutional review described by the panel cannot be carried out if the independent panel is not made part of the Framework process.

*We recommend that an independent science panel be engaged with IATF and RWG in the implementation of the Framework.*

Thank you for the opportunity to comment on the draft Framework. Please feel free to contact us if you have questions about these comments or require additional information.

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