

Memorandum

To: Executive Committee of the Great Lakes Regional Collaboration

Fr: Steve Brandt and Roger Gauthier, Co-chairs of Information and Indicators Strategy Team

Re: Anticipated changes to I & I draft chapter

Da: September 30, 2005

As requested by the Executive Committee of the Great Lakes Regional Collaboration (GLRC), the Co-chairs of the Information and Indicators (I&I) Strategy Team are submitting this memorandum summarizing 1) the substantive elements of our draft chapter that *may* be modified based on our team's consideration of the public comment; and 2) issues we have encountered in the public comment that we believe should be considered by the Executive Committee.

Following the receipt of the public comments regarding the I&I section on September 20th, our staff categorized the comments to assist our team in identifying the salient issues raised by the commentors. This categorized document, which we believe contains all pertinent comments on our chapter, is attached. Numbers in parentheses below refer to individual comments in the attached document. Discussion among the I&I team, taking place both at the Rochester meeting and via the team's online discussion forum, will be the basis for determining what changes are to be made to the I&I chapter. Below we summarize the main issues raised during the comment period and how they may impact our chapter. Item IX includes issues we would like the Executive Committee to consider during the Rochester Meeting. Item X includes a very rough summary of likely near-term actions.

I. Creation of New Institutions and Programs vs. Employing Existing Program

Several comments (8-10) were received that questioned the need to create new institutions to achieve the goals and objectives of the I&I strategy. These comments express a concern that existing institutions or programs may be capable of performing tasks that our chapter assigns to "new" institutions. Our chapter proposes the creation of a Great Lakes Information Coordination Council (GLICC) that would oversee the activities of a Monitoring Coordination Working group, an Indicators Working Group, an Information Management Working Group, a Communications Working Group and the Great Lakes Research Office. While the GLICC and the four "working groups" are new institutions, the Research Office is an authorized entity under the Clean Water Act for which operation funds have never been appropriated. The set of comments questioning the need to create these institutions may result in changes to the I&I section, such as assigning these tasks to existing institutions or clarifying the need for new institutions. While it appears clear from the public comment that the coordinative roles of the GLICC and Research Office are needed, the other "working groups" may be modified to be subcommittees of the GLICC, with an emphasis on integration of assigned tasks with existing groups.

II. Educational Programs

There were numerous public comments received centering on the need for the report to enhance its treatment of Great Lakes education issues (43-46). Education can be divided into several

categories, including primary (K-12) education, higher education and public education. Public comments urged for increased emphasis on Great Lakes education in all three of these categories. While our chapter addresses communication of Great Lakes information, it does not currently address educational programs, which are far more than merely the formatting and delivery of information. While an attempt may be made to include increased mention of educational programs in our chapter, likely under the communications section, the public comments on this topic suggest that a more extensive treatment of this issue than we can provide may be needed. This topic will also be raised to the Executive Committee for consideration of other alternatives for a comprehensive treatment of education in the full report.

III. Data/Information Management and Delivery

Numerous public comments focused on the need for a centralized and overarching data management structure to drive informational tools that can support informed decisions regarding Great Lakes management (26-29). In particular, several comments advocated for the creation of a centralized database that would house all pertinent information regarding the Great Lakes. Our chapter, rather than emphasizing the need for such a database, emphasizes the need for enhanced information technology infrastructure across the basin, adoption of data standards and open access to data. While it may seem that the lack of a centralized data repository is an oversight of the chapter, the chapter's recommendations in fact make such a repository unnecessary, as state-of-the-art technologies now allow a distributed data management model to serve the data management role more effectively than a single centralized database. The approach taken in the chapter is to build capacity so that all regional organizations can collect, manage and share their data in a consistent format that will allow informational and decision-support tools to be created using internet technologies to link these distributed datasets. It is generally agreed that this distributed approach to information management is more reliable, robust and practicable than the creation of a single data repository that would house every bit of information that may be needed. In addition, it is well suited for implementation across a broad region like the Great Lakes where information is collected by a great multitude of organizations. While we do not anticipate a need for any changes in the approach to information management in our chapter, there is likely a need to clarify to our audience the capabilities of this distributed data management approach as opposed to a centralized database.

IV. Research Funding, Coordination and Prioritization

Many comments were received regarding our draft chapter's recommendations for increased research and coordination of research (11-18), as well as the need for identification of research priorities (19-21). Our draft chapter recommended a general doubling of Great Lakes research expenditures, echoing a recommendation of the U.S. Commission on Ocean Policy, with 10% of restoration monies to go toward independent research to support and validate restoration actions and track progress. The I&I strategy recommended appropriating funds to support the authorized Great Lakes Research Office to lead coordination of research activities within the basin. The strong support for these recommendations throughout the public comment justifies retaining them. The call for identification of research priorities must be met in our team's effort to identify near term actions. We suggest an identification of high-priority research actions to be undertaken in the next 2-year timeframe, after which the Great Lakes Research Office would be capable of determining priorities on an ongoing basis.

V. Approach to Indicators

In addition to the several comments suggesting broadly that existing institutions should be utilized (8-10 and above), there were several comments that specifically noted the need for increased support of SOLEC, and the indicator selection and evaluation process generally (31-35). While we believe the approach to indicators presented in our appendix is consistent with the theme of these public comments, the draft I&I chapter might be strengthened by clearer explanation of the approach suggested in the appendix, particularly regarding increased support for and participation in the SOLEC process. The language proposing an Indicators Working Group might more directly stress the need for integration of this group's activities with the SOLEC process.

VI. Public and Community Involvement

A large number of public comments were received voicing a need for increased support for and participation of the public and local communities in the tasks outlined in the I&I strategy (47-52). While the approaches taken and recommendations made in our draft chapter certainly make room for inclusion of these groups in I&I activities, there is little if anything that explicitly gives an active role for the general public or local communities in the proposed I&I activities. Comments suggested highlighting the participation of the public in data collection and research, and the engagement of local communities as information sources and recipients, among other suggestions. While there are no sweeping changes to the draft that are needed to address these comments, there may be opportunities to highlight the potential role of these groups in I&I activities in several places in our strategy.

VII. Integrate Recommendations and Needs of other Strategy Teams

At least two commentators identified the need for the I&I chapter to reflect the needs identified by the other strategy teams on I&I issues (63, 67). This was anticipated by the team in the preparation of the draft I&I chapter, but the concurrent development of the other issue area strategies left little time for such treatment. An effort was made to summarize the needs of all strategy teams for observations, monitoring, indicators, research, and communications in tables that are included in the appendix. It is clear that these tables need to be revisited and improved during preparation of the final draft. One significant public comment submission, from the Great Lakes Research Consortium (21), provides some additional material to be considered for these tables. While it was suggested in one comment that the I&I chapter should be rewritten to center around the I&I needs of each issue area (5), this is not practicable given the necessary page limits or time constraints.

VIII. Other Items

There were a considerable number of comments received that made specific recommendations for changes to the chapter of conclusion of specific issues. These include avoidance of the term "sound science" (42), increased (or decreased) emphasis on geo-spatial technologies and remote sensing (53-56), "synergistic, catastrophic developments" (57), flow regimes (57), hydrologic-based wetlands classification (58), socio-economic information (59), global warming (5, 60), biodiversity (61), binational efforts (62), chemical research (22), open-water and coastal monitoring (23-25), data withholding (30), and TMDL monitoring for the Maumee River (38). Each of these comments will need to be weighed individually by our team to determine what, if any, changes can be made to improve our chapter or appendix. The more specific, issue-related

comments (e.g., monitoring for the Maumee River, wetlands classification) are more likely to be addressed in the appendix than the broader comments (e.g., “sound science,” chemical research) for which there is a stronger likelihood of addressing through changes to the chapter).

IX. Considerations for the Executive Committee

There are a handful of issues that we would like the Executive Committee to consider during the Rochester Meeting on Oct. 6-7.

- Reporting on GLRC progress: A recommendation was made through public comment (from Peggy B. Johnson) to require biennial reporting of progress on the GLRC Action Plan. Obviously, it would be important to distinguish any such reporting from other biennial reports, including that of the IJC and the State of the Lakes reports. We believe the emphasis of this recommendation is strictly regarding the progress on implementing the GLRC recommendations and does not suggest an addition biennial report on the status of the ecosystem. As this recommendation calls for something that is beyond what our team can address, we would like to call it to your attention.
- There were numerous public comments focusing on education. The I&I team had not addressed education needs as a part of our draft chapter (see item II above). While we continue to believe that there is not sufficient room to give significant attention to this in our chapter, we generally agree with these comments and believe the GLRC report would benefit from better treatment of this issue. We intend to seek opportunities to incorporate education into our chapter where possible (likely under our communications recommendation) but do not anticipate that even our best effort will do justice to this topic given our constraints on length and number of recommendations. We invite you to consider additional ways education (including primary education, higher education and public education) can be treated in a comprehensive way in the GLRC report. If you determine that the I&I section is the appropriate place for this, allowance of additional length and/or an additional recommendation would greatly improve our ability to treat this issue.
- Although with a successful meeting in Rochester we anticipate being able to submit a revised I&I chapter by the Oct. 12th deadline, there is a considerable chance that we will emerge from the Oct. 6-7 meeting with too many remaining tasks to complete in three business days. Allowance of several days to a week beyond this deadline would likely allow opportunity to improve our section and provide additional opportunity to engage team members, particularly those that cannot make it to Rochester. While there is a good likelihood that we would be able to meet the Oct. 12th date for the 5-page chapter, it is certain that there will not be sufficient time for us to update our appendix to reflect the changes made to the I&I chapter and the public comments. We ask for several additional weeks (until the end of October) to refine our appendix so that it sufficiently reflects and supports the content of our chapter, as well as of the other seven.

X. Near-term Actions

Many details of the final I&I chapter will not be determined until the Rochester meeting. As such, it is difficult at this point to give a thorough accounting of near-term actions that our team will likely recommend. Nevertheless, as it appears that much of the section’s logic and recommendations will be generally maintained, we offer the following general approaches to

near-term actions. Certainly, these remain subject to discussion, change and elaboration at the Rochester meeting.

- While the several “working groups” that were proposed may or may not be redirected to take advantage of existing entities (see item I above), it is fairly clear from the public comments that overall coordination of Great Lakes informational and scientific activities is lacking. The establishment of a Great Lakes Information Coordination Council, as described in our first recommendation is therefore an urgent priority. Near term actions are to bring together regional leadership to determine the structure of such a council, appoint members and leadership, and define initial tasks and timelines. The council will need staffing to be successful and a means for that must be identified and pursued.
- Based on the considerable positive feedback regarding the I&I research recommendations (see IV above), it appears that the general approach to bolstering the region’s research capacity and research coordination will be pursued. Near term actions will be to pursue appropriations for and establishment of the Research Office and to pursue \$30-40 million per year in addition research expenditures, to be scaled up over a 5-year time frame. These increased expenditures will include increases in identified research budgets of Great Lakes agencies, as well as increased support for Great Lakes research in academia. This might be pursued through additional funding by NSF, such as through a Science of Freshwater Inland Seas (SoFIS) program.
- Indicators are a theme of our chapter and public comments suggest strong action is needed on this topic. A probable near-term approach would be to increase U.S. support for the binational SOLEC process to speed the implementation of indicators and promote increased participation by all Great Lakes organizations in this process.
- To rapidly address monitoring and observing needs, support would be sought to address several critical identified needs through the Great Lakes Observing System. Critical monitoring needs, including those identified by other teams, might also be addressed through increased support for selected existing monitoring programs. Given the emphasis of public comments on citizen and community involvement in such issues, expansion of volunteer and community-based monitoring may be one option pursued in the near term.
- The recommended increases in data standardization and improvements in the region’s technological infrastructure need to be moved forward rapidly to support all activities in the other areas. Increased federal support of such activities, possibly coordinated by EPA, is one likely near-term action. As this activity requires considerable state and local engagement, allocation of some funding and responsibilities to the states will be important. Data standardization and coordination must be pursued by focused regional workshops.
- Regarding communications, the primary recommendation is for increased coordination across the region. This will require the establishment of a new or adaptation of an existing entity to fill this role. In either case, dedicated full-time staff support is needed. Funds are needed to grant to partner organizations for communications initiatives to fulfill identified communications needs.