

GLRI Ecological Workgroup Draft Report

Great Lakes Advisory Board

Themes 5, 6 & 3: Seek Advice and Recommendation on GLRI

Background Information:

Theme 5: Outcome Based Investments in the Great Lakes Background Information: This Administration has prioritized outcomes and deliverables from all agency programs. Since its inception in 2010, GLRI has produced measurable results, but are we moving the needle, specifically on AOC delisting, nutrients, invasive species, and habitats.

Theme 6: GLRI's Role in the Vitality and Reinvestment of Great Lakes Communities Background Information: This Administration has prioritized clean-up, redevelopment and reuse of abandoned, blighted and contaminated properties. There are numerous examples around the Great Lakes where clean-up of waterways is followed by development and economic prosperity. In addition, under President Trump's Executive Order on "Modernizing America's Water Resource Management and Water Infrastructure" which formally establishes the Water Subcabinet, there are opportunities for even better leveraging of resources and expertise across the Federal family.

Theme 3: Seek Advice and Recommendation on GLRI Outreach Background Information: Under the GLRI and GLWQA, a number of mechanisms are utilized to inform the general public about activities and efforts underway to improve the health of the Great Lakes ecosystem, including but not limited to, press releases, glri.us.; binational.net; asian carp.gov; annual GLRI Reports to Congress, 5-year LAMPs and annual reports for each Great Lake, triennial Progress Reports of the Parties, triennial State of the Great Lakes Highlight Reports.

Charge questions to GLAB:

Charge Question 5 to GLAB: *As we enter the next decade of GLRI funding, what are appropriate annual ecological and community based outcomes (coupled with appropriate baselines and monitoring) to show that we are making progress in the areas of AOC remediation and delisting, invasive species control and prevention, nutrient reduction, and habitat restoration and protection, such that we can show a good return on investment?*

Charge Question 6 to GLAB: *How can GLRI projects and funding be further leveraged across Federal agencies and programs, including Opportunity Zones and Brownfields, to maximize environmental and economic benefits to Great Lakes communities?*

Charge Question 3 to GLAB: *How well are EPA and its federal, state and tribal partners communicating the goals, challenges and accomplishments of GLRI? Are there stakeholder*

groups that could be more effectively communicated with? What additional and/or innovative tools could be used to improve outreach to citizens, elected officials and partners.

I. Introduction

The Great Lakes Restoration Initiative (GLRI) continues to be a huge success as we make progress in managing this national treasure - the Great Lakes. As we enter the next decade of GLRI funding, the Great Lakes Advisory Board (GLAB) is looking for ways to build from that success and offer recommendations to further improve the GLRI. The GLAB is evaluating what are appropriate ecological and community-based outcomes, coupled with appropriate baseline data and monitoring, to show that we are making progress in the areas of AOC remediation and delisting, invasive species control and prevention, nutrient reduction, and habitat restoration and protection, such that we can show a good return on investment. The report includes what actions we can take to further leverage the work being done in the Great Lakes Basin by many partners, both as part of GLRI, but also other programs, initiatives, and sustainability plans. Climate stresses places a further burden on our actions and the GLAB offers recommendations for greater resilience and improved communication. This report addresses the GLRI Charge Questions with a focus on the ecological recommendation in full recognition that the work by the AIS, Nutrients, and the GLRI Community focus workgroups need to be woven together. Across all of our work the GLAB will incorporate the critical environmental justice recommendations and actions.

II. Recommendations

Recommendations for Charge Question 5

- Continue to use the GLRI Action 5-year Plan as a guide to implementing the GLRI.
 - The GLRI Action Plan should be considered a “living” document amenable to adaptive management.
 - It has been suggested that the Great Lakes Restoration Initiative be revised to be the Great Lakes Management Initiative to better reflect the ongoing nature of the Great Lakes work.
 - Recommend continuing with the brand GLRI but acknowledge that with the changing conditions and stress on the system, that to retain the investment and progress on the Great Lakes and see new and better improvements, that we will need a sustained, committed effort of federal, state and Tribal policy makers, scientists, agencies, communities and the public to meet the challenge.
 - Underscore the importance of protection as part of the GLRI.
 - Support innovation, flexibility, and collaborative R&D.
- Evaluate the GLNPO staffing needs and increase staffing commensurate with the GLRI program management needs.
 - GLNPO utilize state and tribal partners more in the project selection process.

- Retain the existing Focus Areas of the GLRI 5-year AP.
- Prioritize funding for projects in Great Lakes Basin by Focus Area as recommended by State and Tribal priorities.
 - Engage State and Tribal partners actively in the selection and funding of projects.
 - Base projects on local priority areas. Not just a single subject or topic area. GLNPO staffing needs.
 - Continue to evaluate and assure close alignment of all Federal agencies that are part of the Federal Working Group to state and tribal priorities.
 - Leverage work by each member agency by communicating project proposals, implementation and reports with other agencies, states and tribes, science community, and public for full use.
- Measuring or documenting annual ecological outcomes to show that we are making progress.
 - AOCs
 - Document delisting AOCs.
 - Document removing Beneficial Use Impairments (BUIs).
 - Document Management Action Lists for each BUI.
 - Document actions taken to define BUIs e.g. monitoring data and studies needed to define or refine the management actions for removing a BUI.
 - Acknowledge that AOCs and the actions are a key step towards ecological restoration, but oftentimes requires time to further recover to meet full ecological and community goals.
 - Ecological end points and not just restoration – management vs restoration
 - Fish consumption advisories as an example. The remediation work undertaken to meet the AOC objectives may take years to recover enough to meet a subsistence fish consumption endpoint.
 - Approach to attributing value to restored greenspace, public access and more natural systems along with new economic developments such as restaurants and housing.
 - Restore ecosystem services e.g. Greenspace value for wildlife and improved biodiversity.
 - Neighborhoods – safety
 - Waterways as receiving waters
 - Value of recreational fishery.
 - Greater community interaction with natural systems.
 - Monitor and document pre and post conditions
 - Biological, physical, and chemical
 - Evaluate opportunities for riparian improvements e.g. natural plantings, public access, bird stop-over habitat, increased biodiversity
 - Involve partners such as urban ecology centers, schools, universities, and other local partners.

- Attention to operation and maintenance (O&M) of actions undertaken.
 - Economic milestone/development/conditions
 - Evaluation of ecosystem services - economists
- Community engagement - nexus with GLRI Community Workgroup.
 - Recommend increasing funding support for Public Advisory Committees (PAC) community development
 - Regulatory support – neighborhood groups
 - GLNPO staffing ability to assist EJ PACs
 - Advisory community level – technical advisory committee – funding to state agency
 - Broad diversity of PAC membership as a better reflection of the community
 - PAC as part of the decision framework from contaminated sediment and floodplain remediation to habitat projects
 - Local buy-in and partner in long-term O&M
- Transparency in our actions and manage expectations for recovery Implement projects *with* a community and not *to* a community.
- Nutrients and Invasive species addressed by those workgroups.
- Habitat restoration and protection
 - Support work by the Coastal Assembly wetlands team.
 - Add Coastal assembly definition and link.
 - Science for measuring progress in wetland restoration and protection resilient to natural variability of water levels.
 - Nexus with invasive species work
 - Nexus with nutrients
 - Nexus with emerging contaminants, PBDE PFOS etc.
 - Coastal wetlands and resilience.
 - Beach health – support beach programs in states.
 - Focus on safe public access – water quality, currents
 - Green infrastructure and stormwater runoff management
 - Focus on DEI for access to the beach and waterfront.
 - Hardening of shorelines – climate change resilience, loss of natural shore – water connection
 - Support coastal resilience studies as a collaboration between state, tribal and federal agencies for practical local decision making for coastal habitat and protection under climate change scenarios.
 - Updated precipitation, river hydrology and lake level models
 - Nexus with invasive species, nutrients and impacts to infrastructure and communities e.g. flooding.
 - Close communication and collaboration with agencies in the Great Lakes Basin working on climate change and coastal resilience.

- NOAA, USGS, USACE, GLNPO, States, GLC, IJC, USDA, FWS, NRCS, FEMA, Coast Guard etc.
- Management Program Support Funding for States and Tribes to hire boots-on-the-ground social scientists for each lake through LAMP funding.
 - The scientists in these positions would support the monitoring, implementation, prioritization, and long-term O&M of our GLRI actions and work closely with PACs working through AOC delisting to life-after AOC actions. Not just social scientist, environmental community advocate e.g. Urban ecology center.
- Need to manage expectations for these longer-term problems and solutions – e.g. nutrient reductions, Invasive species
 - Natural variability – e.g. temperature variation
- Recommend using Blue Accounting for evaluating status and progress, i.e. how we are moving the needle. INCLUDE BA LINK
- Access to clean water
 - beaches are open more often
 - HABs are greatly reduced
 - Lower costs for drinking water treatment.
- Sound decision making is always a function of the quality and quantity of data.
 - Determine monitoring done now to show recovery from GLRI projects and actions
 - Continue improving networking between Federal agencies, States, Universities and others to coordinate science in the Great Lakes basin
 - Enhance and fund science networks established for each lake under the LAMP.
 - Support collaboration and communication between LAMP coordinators.
 - Blue Accounting can be one mechanism.
 - GLWQA Annex subcommittee work.
 - Work with social scientists to evaluate data sources for social metrics. Nexus with GLRI Community workgroup.
 - What with business / economic development community for data sources regarding the economic conditions. Nexus with GLRI Community workgroup.
- Recommend establishing a Cabinet Level position for Water as we do for Energy.
 - FW Cabinet level.

Recommendations for Charge Question # 6

If one looks at the fabric of these three GLRI Charge Questions they begin to show some common threads and a need for a better environmental-social-economic understanding.

- Incentivize programs that can be leveraged through greater flexibility of implementation and partnership with state, local and federal partners.
 - Brownfields

- States and communities examine their existing Brownfields sites and develop an action plan that can build off of the Legacy Act program relative to augmenting remedial actions through the GLRI.
 - Opportunity Zones
 - Support this program in close coordination with the community to meet the challenge of equitable outcomes.
 - Look for where GLRI ecological projects can be leveraged with Brownfields, Opportunity Zones or other local planned actions.
 - This underscores the need for funding boots-on-the-ground social scientist positions at the state and local level.
 - Justice40 initiative "goal that 40% of overall benefits flow to disadvantaged communities" from "certain federal investments" in areas such as clean energy and energy efficiency, public transit, and affordable and sustainable housing.
 - Revise the Legacy Act or develop a companion program to address contaminated sediment sites anywhere in the Great Lakes Basin.
 - Continue to prioritize AOCs.
 - State and Tribal GLRI priority setting with GLNPO would be used to evaluate non-AOC contaminated sediment sites.

Recommendations for Charge Question 3 (nexus with GLRI Community Workgroup)

- Greater use of LAMPs
 - AOCs are a subset of LAMPs and "life after AOCs" is the connective tissue
 - Additional outreach to state, local communities, businesses and public for each lake.
 - Identify stakeholders that we have not been reaching and identify improved engagement approaches.
 - Suggest improved communication of GLRI accomplishments
 - Evaluate how GLRI actions meet community needs and interests.
 - Public Advisory Councils
 - Ensure community representation by setting standards, including demographic and socioeconomic indicators
 - Hold accountable
 - Enlist them in decision-making to ensure robust community engagement
 - Provide funding to implement changes
 - Identify stakeholders that we have not been reaching and identify improved engagement approaches.
 - Environmental justice communities
 - Disadvantaged communities
 - First Nations communities
 - Note: Seek contact lists from each state's:

- Environmental quality agency, at minimum, among those communities represented in SRF applications.
 - Environmental justice (EJ) council, committee and/or similar environmental rights bodies.
- Potential for states/EPA/etc. to be more inclusive in their outreach in the AOCs. Non-profits that the current stakeholders/EPA/states can consult with in order to develop a more inclusive environmental stewardship and outdoor experience. Intersectional environmentalism to be exact. The following National or (other) State organizations might have local chapters or individuals or have ideas regarding how to be more inclusive.
 - <https://www.intersectionalenvironmentalist.com/>
 - <https://outdoorafro.com/>
 - <https://groundworkusa.org/>
 - <https://www.cdeinspires.org/>
 - <https://www.greenlatinos.org/>
 - <https://www.culturalsurvival.org/> (international)
- This is just a small handful of organizations focused more on the racial/cultural demographics of Gary-E.Chicago-Hammond, currently. Try to represent a more intersectional opinion on what's happening in Northwest Indiana (for example), what's needed, and encourage more stewardship and engagement.
- Suggest improved communication of GLRI accomplishments
 - Make better use social media.
 - Increase budgets for traditional television, radio and/or print paid media, particularly within broadband limited and/or digital divide communities.
 - Identify more voices for accomplishments
 - Youth
 - Students
 - Local communities
 - Are the voices representative across these subpopulations or are they area or issue specific?
 - Identify different measures of determining accomplishment across populations, regions, ecosystems.
 - Percentage of goal, determine milestones, correction to protection - remediation to restoration.
 - Accomplishments will mean different things to different people and places.
 - Improving outreach is both a communication process and a measurable outcome.
- Reduce the local sponsorship match requirement (% match) for Great Lakes Legacy Act sediment remediation projects in Areas of Concern when those communities and/or state

governments are the local sponsor and the project is within an Environmental Justice community and that community is a local sponsor for the project. The biggest hurdle to completing large complex contaminated sediment dredging projects is coming up with the matching money required for local sponsors in the tens of millions of dollars. Flexibility and creativity in match are needed e.g. non-federal sponsors engagement and involvement working with the community.

- Establish better connection with business and industry.
 - Many of our Great Lakes businesses have sustainability plans and vision.
 - Meet with the business sectors to identify opportunities to leverage our goals e.g. nutrient reduction and sustainable agricultural practices. (nexus with nutrient workgroup.
 - Further evaluate the nexus between food, energy and water. Transportation.
 - Public private partnerships
 - Kay – business community engage more closely with community
- GLRI Investment in state and local coordinators.
 - Additional State and Tribal Management funding through investment in social-economist LAMP/AOC partner positions in support of the ecological AOC and LAMP coordinators currently funded.
- Communicate through investments in Great Lakes education
 - Focus on education for youth
 - Opportunities for underrepresented education and field trip experiences – visit the lake to know the lake! Toes in as it were.
- NPS targets.