

Focus Area	Objectives	Commitments	Measures of Progress	Comments
Focus Area 1: Toxic Substances & Areas of Concern	1.1. Remediate, restore, and delist Areas of Concern	<ul style="list-style-type: none"> * Implement management actions necessary to remove Beneficial Use Impairments and delist Areas of Concern. * Provide guidance for states to ensure public advisory councils (PACs) fairly represent communities impacted by AOCs, including stipends for EJ participation, and use of traditional ecological knowledge (TEK) where applicable. * Develop opportunities for community members impacted by AOCs to work on remediating them and on beneficial use projects in their community. * EPA to provide additional funds in contracts to provide for job training and apprenticeship programs for underserved communities within AOCs. 	<p>1.1.1. # Areas of Concern where all management actions necessary for delisting have been implemented.</p> <p>1.1.2. # Beneficial Use Impairments removed in Areas of Concern.</p> <p>1.1.3. # Areas of Concern with a complete and approved list of all management actions necessary, including community projects, to facilitate delisting.</p> <p>1.1.4. EPA confirms that states have quantifiable PAC guidance for membership reflects racial, ethnic, and income diversity of communities impacted by AOCs and stipends are provided for participation.</p> <p>1.1.5. Job and apprenticeship requirements, along with additional funds, are included in future Superfund Great Lakes Architecture & Engineering Services (SFGLAES) contracts.</p>	(A) One proposed item for inclusion as commitment was to "get input from communities on the community benefits they would like to see included in the projects. States and PACs are already empowered to do this. E.g., Duluth proposed projects to enhance the recreational value after consulting with community as part of the St. Louis AOC clean up.
	1.2 Share information on the risks and benefits of consuming Great Lakes fish, wildlife, and harvested plant resources with the people who consume them.	<ul style="list-style-type: none"> * Increase the availability and accessibility of information to vulnerable populations that consume Great Lakes fish, wildlife, and harvested plant resources. * Solicit and use TEK in the development of materials and educational opportunities. 	<p>1.2.1. # State and tribal organizations that collect and share information with vulnerable populations regarding the consumption of Great Lakes fish, wildlife, and harvested plant resources.</p> <p>1.2.2. Fish consumption advisories are available in applicable languages in each state</p> <p>1.2.3. TEK incorporated in educational materials.</p>	From GLWQA Annex 10 TEK document on projects underway or in development 'develop interjurisdictional fish consumption advisories that take into account the specific physical, spiritual, cultural, and subsistence needs of Indigenous communities. https://www.bia.gov/sites/default/files/dup/assets/bia/wstreg/Guidance_Document_on_TEK_Pursuant_to_the_Great_Lakes_Water_Quality_Agreement.pdf
	1.3 Increase pollution prevention for Chemicals of Mutual Concern under GLWQA Annex 3, forever chemicals, and plastics.	* Fill critical data gaps for Annex 3 and other priority chemicals in the Great Lakes through discrete monitoring and assessment activities.	1.3.1. Discrete chemical monitoring and assessment activities conducted.	

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Focus Area 2: Invasive Species	2.1 Prevent introductions of new invasive species.	<p>* Work with Great Lakes states, tribes, local governments, and NGOs to conduct early detection, surveillance, and rapid response actions or exercises.</p> <p>* Manage pathways through which invasive species can be introduced to the Great Lakes ecosystem.</p>	<p>2.1.1. # of rapid responses or exercises conducted.</p> <p>2.1.2. Mitigate pathways identified in USACE Great Lakes & Mississippi River Interbasin Study (GLMRIS) through which invasive species can be introduced to the Great Lakes ecosystem.</p> <p>2.1.3. # of early detection and surveillance activities conducted.</p> <p>2.1.4. Prevent species' introductions under the Lacey Act and Great Lakes Governor's "least wanted" list.</p> <p>2.1.5. Identify and share information about latest early detection and surveillance methods with states and tribes.</p>	
	2.2 Control established invasive species, especially lake-to-lake transfers.	* Implement and assess control projects for GLRI-targeted invasive species.	2.2.1. # Acres of aquatic/terrestrial acreage controlled on high quality habitats/protected lands.	It would be helpful to also invest in an opportunity to quantify # of native species reintroduced or grown as a result of the invasives being removed.
	2.3 Develop invasive species control monitoring and technologies and refine management techniques.	<p>* Conduct field testing of innovative control technologies and methods to prevent the introduction and to control the spread of invasive species.</p> <p>* Develop/enhance invasive species-specific collaboratives to support rapid responses and communicate the latest control and management techniques.</p>	<p>2.3.1. Technologies and monitoring methods field tested.</p> <p>2.3.2. Collaboratives developed/enhanced to control, prevent, and conduct outreach.</p> <p>2.3.4. Traditional Ecological Knowledge (TEK) measurements are integrated in to technologies and methods.</p>	

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Focus Area 3: Nearshore Health & Resilience	3.1. Reduce nutrient loads from agricultural lands.	<ul style="list-style-type: none"> * Implement systems of conservation practices on farms and in streams to reduce and treat nutrient runoff. * Increase adoption of enhanced nutrient management practices to reduce risk of nutrient losses from farmland. * Establish collaboratives to connect upstream and downstream communities to craft cost-effective prevention-oriented solutions. 	<p>3.1.1. # of pounds of phosphorus, nitrogen and sediment reduced from entering upstream watersheds and downstream utilities as a result of conservation practice implementation throughout Great Lake watersheds.</p> <p>3.1.2. # Acres receiving technical or financial assistance for conservation practices in priority watersheds.</p> <p>3.1.3 # of Downstream-Upstream Collaborations established that agree to instream water quality targets among communities and other stakeholders.</p>	
	3.2. Reduce untreated stormwater runoff.	<ul style="list-style-type: none"> * Increase implementation of green infrastructure practices to infiltrate stormwater runoff. * Implement watershed management projects in urban and rural communities to reduce runoff, flooding, and erosion. * Implement projects that have multiple community benefits as identified by communities impacted by flooding and pollution. 	<p>3.2.1. # Gallons (in millions) of untreated stormwater runoff captured or treated.</p> <p>3.2.2. # Miles of Great Lakes shoreline and riparian water quality corridors restored or protected.</p> <p>3.2.3 # of acres of wetlands restored to intercept untreated stormwater runoff.</p> <p>3.2.4 # of acres of floodplain restored to reduce flooding, improve water quality, and strengthen other co-benefits.</p>	
	3.3. Improve effectiveness of nonpoint source control and refine management efforts.	<ul style="list-style-type: none"> * Work through existing efforts such as NRCS's Regional Conservation Partnership Program, GLWQA Annex 4, and other programs to establish watershed-based water quality measures. of progress for reducing nutrient inputs. * Support innovative, performance-based approaches and projects through adaptive management to meet watershed-based water quality measures of progress 	<p>3.3.1. # Nutrient monitoring and assessment activities conducted.</p> <p>3.3.2. # Nutrients and stormwater runoff reduction practices or tools implemented.</p>	* Additional nutrient monitoring at edge of field and in small (HUC12) watersheds to determine whether progress is being made toward water quality targets. Farm Bill is requiring more of this. Concern here about how the emphasis will impact projects in high quality waters.
	3.4 Support innovative coastal approaches.	* Support asset inventory of shoreline structures and adaptive approaches on jurisdiction-by-jurisdiction basis.	3.4.1. # of assets at risk identified in underserved communities.	"Assets at risk" refer to hard infrastructure (e.g., breakwaters, jetties, etc.) that are about to, are at, or are past their design life (often about 50 years).
		* Coordinate with other agencies/programs for long-term coastal resilience to advance ecological integrity. * Establish collaborations to connect shoreline communities to craft collective solutions for coastal resilience.	3.4.2. % of inventoried resilient approaches per jurisdictional goals installed	"Resilient approaches" include but are not limited to public shoreline acquisition; nature-based shoreline features; artificial reefs; structure removal, retrofitting, replacement that advance ecological integrity in addition to erosion minimization. The "% of inventoried adaptive approaches" is intended to set a baseline for a quantifiable measure of how much of a jurisdiction's coastline uses resilient approaches (see definition). E.g., 2% of State X's coastline uses nature based shoreline solutions. Other baseline measures might be feasible. <i>This measure is intended to integrate with and support</i>
		* Coordinate with state coastal management programs through NOAA	3.4.3. # of GLRI funded projects that use predictive decision support tools for coastal resilience management decisions.	
		3.4.4. # of miles (or other measure) of voluntary coastal land acquisition by 2029, with attention given to access for anglers with subsistence fishing needs. 3.4.5 # of collaboratives established prioritizing solutions beneficial to coastal resiliency across community boundaries.		

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Focus Area 4: Habitat & Species	4.1 Protect and restore biologically diverse communities of native aquatic and terrestrial species important to the Great Lakes.	<p>* After consultation, identify habitat that support important Great Lakes species and take action to restore, protect, enhance, and/or provide connectivity for these habitats.</p> <p>* Identify national lands and state, municipal, tribal lands for riparian canopy restoration to offset warming waterways and prevent warming of cold water fisheries.</p> <p>* Identify and protect habitat that supports tribal fishing, hunting and gathering.</p>	<p>4.1.1. # of acres of wetlands and other habitat restored, protected and enhanced.</p> <p>4.1.2. # of miles of connectivity established for aquatic species, with consideration of habitat and upstream water quality.</p> <p>4.1.3 # acres of riparian canopy restored.</p> <p>4.1.4 # of tribal acres (or other measures) of habitat is sufficiently protected to support subsistence fishing, hunting, and gathering.</p> <p>4.1.5 # of stream linear feet/miles of restored streambanks for natural reproduction and optimum habitat.</p>	
	4.2 Increase species' resilience through comprehensive approaches that complement on-the-ground habitat restoration and protection.	<p>* Enhance progress in implementing recovery actions for federally threatened, endangered, and candidate species.</p> <p>* Support population-level protections, enhancements, and re-introductions for state, tribal, and Great Lakes native species of importance.</p>	<p>4.2.1. # of indicator species benefiting where actions have been completed to significantly protect or promote recovery of populations.</p> <p>4.2.2. # of percent increase for indicator species where actions have been completed to significantly protect or promote recovery of populations.</p> <p>4.2.3. # of tributary watersheds with resilience goals and objectives established collaboratively for habitat and species diversity.</p>	Use insect populations to help with species indicators.
	4.3 Support habitat restoration and protection in and around historically underserved communities	* Support collaboration between conservation NGOs, metropolitan planning organizations (MPOs), and local interests to inventory areas in and around historically underserved communities with optimum habitat, flood mitigation, and GHG sequestration potential.	<p>4.3.1 Identify assets and opportunities in underserved rural communities.</p> <p>4.3.2 # acres of urban and rural flyway, fish migration, habitat restored, and other corridors restored and permanently protected in historically underserved communities.</p> <p>4.3.3 # of non-traditional conservation collaborations to support habitat restoration and protection in and around historically underserved communities.</p>	(1) This will help with equity but does not run amok of federal law. "Disproportionately impacted" is not race based but historically underserved communities are often minority communities. (2) 2023 Appropriations language urges work with MPOs.
	4.4 Support self-sustaining native fisheries.	* identify areas in lakes where focused interdisciplinary research and adaptive management can be applied to improve offshore native fish populations.	4.4.1. By 2027, complete the development of quantifiable targets for offshore fish spawning habitat and offshore phosphorus concentrations that support healthy, sustainable plankton populations, healthy, sustainable native fish populations; and native fish growth increases* relative to 2020 levels within existing lake-specific offshore phosphorus concentration targets.	By 2027 so that targets can be supported in Action Plan 5. This is intended to follow up on the 2020 IJC Offshore Fish Productivity report.

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Focus Area 5: Foundations for Future Actions	5.1. Educate the next generation about the Great Lakes ecosystem.	* Support experience-based learning opportunities for youth to promote Great Lakes stewardship.	5.1.1. Youth impacted through education and stewardship projects.	
	5.2. Conduct comprehensive science programs and projects.	* Assess overall health of the Great Lakes ecosystem and identify the most significant adaptive management process . * Identify cross-cutting science priorities and implement projects to address those priorities. * Integrate TEK, and climate and economic justice screening tools into the GLRI adaptive management process for decision making.	5.2.1. Annual Great Lakes monitoring conducted and used to prioritize GLRI funding decisions. 5.2.2. Identify and address cross-Focus Area science priorities to support implementation of GLRI and the Great Lakes Water Quality Agreement and its Lakewide Area Management Plans.	
	5.3 Integrate environmental justice practice within GLRI related programs to improve the health and environment of overburdened communities.	* Promote the use of decision support tools for identifying and prioritizing environmental concerns, assessing cumulative impacts and evaluating mitigation options. * Continue to support federally recognized tribes through the Distinct Tribal Program.	5.3.1 incorporate qualitative and narrative data into outcome measures, including TEK.	
	5.4 Support collaboratives to expand GLRI's positive impact within historically underserved communities.	* Support peer-to-peer and multi-sector (e.g., academia, business, agencies, foundations) learning to identify environmental justice capacity building.	5.4.1 # of collaboratives provided with capacity building for outcomes related to public and environmental health protection; economic development; workforce development; sustainable land use; infrastructure investment & resilience planning.	