

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.	<p>* Implement management actions necessary to remove Beneficial Use Impairments and delist Areas of Concern.</p> <p>* 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.</p> <p>* Develop opportunities for community members impacted by AOCs to work on remediating them and on beneficial use projects in their community.</p> <p>* EPA to provide additional funds in contracts to provide for job training and apprenticeship programs for underserved communities within AOCs.</p>	<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, for delisting.</p> <p>1.1.4. EPA updates PAC guidance to states so that PAC 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 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.	<p>* Increase the availability and accessibility of information to vulnerable populations that consume Great Lakes fish, wildlife, and harvested plant resources.</p> <p>* Solicit and use TEK in the development of materials and educational opportunities.</p>	<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. <a href="https://www.bia.gov/sites/default/files/dup/assets/bia/wstreg/Guidance_Document_on_TEK_Pursuant_to_the_Great_Lakes_Water_Quality_Agreement.pdf">https://www.bia.gov/sites/default/files/dup/assets/bia/wstreg/Guidance_Document_on_TEK_Pursuant_to_the_Great_Lakes_Water_Quality_Agreement.pdf</a>
	1.3 Increase knowledge about (1) "Chemicals of Mutual Concern" identified pursuant to the Great Lakes Water Quality Agreement's Annex 3; and (2) other priority chemicals that have negatively impacted, or have the potential to negatively impact, the ecological or public health of the Great Lakes.	<p>* Fill critical data gaps for Annex 3 and other priority chemicals in the Great Lakes through discrete monitoring and assessment activities.</p>	<p>1.3.1. Discrete chemical monitoring and assessment activities conducted.</p>	

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<p><b>Focus Area 2: Invasive Species</b></p>	<p>2.1 Prevent introductions of new invasive species.</p>	<p>* Work with Great Lakes states, tribes, local governments, and NGOs to conduct early detection, surveillance, and rapid response actions or exercises. * Manage pathways through which invasive species can be introduced to the Great Lakes ecosystem. *Conduct early detection and surveillance activities.</p>	<p>2.1.1. # Rapid responses or exercises conducted. 2.1.2. Mitigate pathways identified in USACE Great Lakes &amp; Mississippi River Interbasin Study (GLMRIS) through which invasive species can be introduced to the Great Lakes ecosystem. 2.1.3. # Early detection and surveillance activities conducted. 2.1.4. Prevent species' introductions under the Lacey Act and Great Lakes Governor's "least wanted" list. 2.1.5. Identify and share information about latest early detection and surveillance methods with states and tribes.</p>	
	<p>2.2 Control established invasive species.</p>	<p>* Implement and assess control projects for GLRI-targeted invasive species.</p>	<p>2.2.1. # Aquatic/terrestrial acreage controlled on high quality habitats/protected lands.</p>	<p>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.</p>
	<p>2.3 Develop invasive species control monitoring and technologies and refine management techniques.</p>	<p>* Conduct field testing of innovative control technologies and methods to prevent the introduction and to control the spread of invasive species. * 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 methods field tested. 2.3.2. Collaboratives developed/enhanced to control, prevent, and conduct outreach. 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"> <li>* Implement systems of conservation practices on farms and in streams to reduce and treat nutrient runoff.</li> <li>* Increase adoption of enhanced nutrient management practices to reduce risk of nutrient losses from farmland.</li> <li>* Establish collaboratives (using AIS model) to connect upstream and downstream communities to craft cost-effective prevention-oriented solutions.</li> </ul>	<p>3.1.1. # Estimated 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 on nutrient management in priority watersheds.</p> <p>3.2.4 # of Downstream-Upstream Collaboratives established.</p>	
	3.2. Reduce untreated stormwater runoff.	<ul style="list-style-type: none"> <li>* Increase implementation of green infrastructure practices to infiltrate stormwater runoff.</li> <li>* Implement watershed management projects in urban and rural communities to reduce runoff, flooding, and erosion.</li> <li>* Implement projects that have multiple community benefits as identified by communities impacted by flooding and pollution.</li> </ul>	<p>3.2.1. # Estimated 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 # Acres of wetlands restored to intercept untreated stormwater runoff.</p>	
	3.3. Improve effectiveness of nonpoint source control and refine management efforts.	<ul style="list-style-type: none"> <li>* Assess achievement of Great Lakes Water Quality Agreement's Annex 4 nutrient targets.</li> <li>* Evaluate effectiveness of nonpoint source projects.</li> <li>* Develop new or improved approaches for reducing or preventing harmful algal blooms. * Work through existing programs such as the Farm Bill's Regional Conservation Partnership Program, GLWA Annex 4, and others to establish watershed-based water quality measures of progress for reducing nutrient inputs.</li> <li>* Support innovative, performance-based approaches and projects to meet watershed-based water quality measures of progress.</li> </ul>	<p>3.3.1.# Nutrient monitoring and assessment activities conducted.</p> <p>3.3.2.# Nutrient or stormwater runoff reduction practices or tools developed or evaluated.</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.	<ul style="list-style-type: none"> <li>* Support asset inventory of shoreline structures on jurisdiction-by-jurisdiction basis.</li> <li>* Coordinate with other agencies/programs for long-term coastal resilience (acquisition; innovative, nature-based shoreline feature approaches; structural removal, retrofitting, replacement) to advance ecological integrity.</li> <li>* Coordinate with state coastal management programs through NOAA</li> </ul>	<p>3.4.1 Identify risks and assets in disproportionately impacted communities</p> <p>3.4.2. Develop guidance for next gen structures</p> <p>3.4.3. Develop online predictive decision support tools for state, municipal, and tribal decision makers.</p> <p>3.4.4. # Miles (or other measure) of voluntary coastal land acquisition by 2029, with attention given to access for anglers with subsistence fishing needs.</p>	Intended to integrate with and support interagency efforts (e.g., USACE Coastal Resilience Study).

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<p><b>Focus Area 4: Habitat Restoration and Native Species</b></p>	<p>4.1 Protect and restore communities of native aquatic and terrestrial species important to the Great Lakes.</p>	<p>* <b>After consultation</b>, identify habitats that support important Great Lakes species and take actions to restore, protect, enhance, and/or provide connectivity for these habitats.            * <b>Identify national forest and state, municipal, tribal lands for riparian canopy restoration to offset warming waterways and prevent warming of cold water fisheries.</b>            * <b>Identify and protect habitat that supports tribal fishing, hunting and gathering.</b></p>	<p>4.1.1. # Acres of wetlands and other habitats restored, protected and enhanced.            4.1.2. # Miles of connectivity established for aquatic species, <b>with consideration of habitat, and upstream and downstream water quality.</b>            4.1.3 # Acres of riparian canopy restored.            4.1.4 # Tribal acres (or other measures) of habitat is sufficiently protected to support subsistence fishing, hunting, and gathering.            4.1.5 # Stream linear feet/miles of restored streambanks for natural reproduction and optimum habitat.</p>	<p>4.1.1 APIII states, "# Acres of coastal wetland, nearshore, and other habitats restored, protected, or enhanced." We intentionally deleted "coastal" from this measure.</p>
	<p>4.2 Increase resiliency of species through comprehensive approaches that complement on-the-ground habitat restoration and protection.</p>	<p>* <b>Enhance progress in</b> implementing recovery actions for federally threatened, endangered, and candidate species.            * Support population-level protections, enhancements, and re-introductions for state, tribal, and Great Lakes native species of importance.</p>	<p>4.2.1. # Species benefitted where actions have been completed to significantly protect or promote recovery of populations.            4.2.2. # <b>Percent increase for species where actions have been completed to significantly protect or promote recovery of populations.</b>            4.2.3. # <b>Tributary watersheds with resilience goals and objectives established collaboratively for habitat and species diversity.</b></p>	
	<p>4.3 Support habitat restoration and protection in and around historically underserved communities</p>	<p>* <b>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.</b></p>	<p>4.3.1 Identify assets and opportunities in disproportionately impacted rural communities.            4.3.2 # Acres of urban and rural flyway, fish migration, habitat restored, and other corridors restored and permanently protected in historically underserved communities.            4.3.3 # <b>Non-traditional conservation collaborations to support habitat restoration and protection in and around historically underserved communities.</b></p>	<p>(1) This will help with equity but does not run amok of federal law.            "Disproportionately impacted" is not race based but disproportionately impacted communities are often minority communities. (2) 2023 Appropriations language urges work with MPOs.</p>
	<p>4.4 Support self-sustaining native fisheries.</p>	<p>* <b>Identify areas in lakes where focused interdisciplinary research and adaptive management can be applied to improve offshore native fish populations.</b></p>	<p>4.4.1. By 2027, complete the development of quantifiable targets for 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.</p>	<p>By 2027 so that targets can be supported in Action Plan 5.</p>

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<p><b>Focus Area 5: Foundations for Future Restoration Actions</b></p>	<p>5.1. Educate the next generation about the Great Lakes ecosystem.</p>	<p>* Support experience-based learning opportunities for youth to promote Great Lakes stewardship.</p>	<p>5.1.1. Youth impacted through education and stewardship projects.</p>	
	<p>5.2. Conduct comprehensive science programs and projects.</p>	<p>* Assess overall health of the Great Lakes ecosystem and identify the most significant remaining problems. * 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.</p>	<p>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.</p>	
	<p>5.3 Integrate environmental justice practice within GLRI related programs to improve the health and environment of overburdened communities.</p>	<p>* 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.</p>	<p>5.3.1 Incorporate qualitative and narrative data into outcome measures, including TEK.</p>	
	<p>5.4 Support collaboratives to expand GLRI's positive impact within overburdened communities.</p>	<p>* Support peer-to-peer and multi-sector (e.g., academia, business, agencies, foundations) learning to identify environmental justice capacity building.</p>	<p>5.4.1 Support capacity building for outcomes related to public and environmental health protection; economic development; workforce development; sustainable land use; infrastructure investment &amp; resilience planning.</p>	