

GRANTS REQUIREMENTS/INSTRUCTIONS (HI4)
U.S. EPA Region 5/GLNPO

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Please Note: These are generic instructions which may not be applicable in all instances. If there is a conflict, the provisions of specific Requests for Applications supersede these generic instructions.

PART I - SUPPLEMENTAL INSTRUCTIONS

Numbered items correspond with the Checklist and provide additional instructions beyond those contained on the Forms themselves. We have found that these items are frequently the cause of errors, confusion, or delay. Forms in the Application Package are available from GLNPO’s website: <http://www.epa.gov/grtlakes/fund/appforms.html>

If you have the full adobe acrobat software, you can save and open the “pdf” files and fill in the appropriate blanks using your computer, rather than hunting for a typewriter. If you have only the free adobe acrobat reader, you can view the forms, type in the forms, print the forms, and even mail the printed forms to us; however, you may not be able to save them electronically. This would save the hunt for the typewriter, but there may be no way to go back later once your computer shuts down.

- 1. Transmittal Letter.** Please contact your EPA Project Officer for specific discussions regarding your proposal and any changes that need to be made. We encourage you to share drafts of all of your application documents, especially your work plan, with the Project Officer, in advance of submitting your full application package. Applications should be submitted as early as possible (within 30 days from your receipt of EPA’s email inviting you to submit a federal assistance application). Once the Project Officer reviews your project work plan and makes a “completeness” determination, please send a “pdf” of the signed package to the Project Officer via *email* (cc:brail.lawrence@epa.gov), followed by a *final* application packet with *original* signatures to:
Attn. Lawrence Brail

United States Environmental Protection Agency
Great Lakes National Program Office (G-17J)
77 West Jackson Boulevard
Chicago, IL 60604-3590

GLRI Applicants whose EPA Project Officers are located in the EPA Region 2 Office in New York are required to send their *final* application packet with *original* signatures to:

Mr. Roch Baamonde, Chief
Grants and Contracts Management Branch
U.S. Environmental Protection Agency, Region 2
290 Broadway, 27th Floor
New York, New York 10007-1866

Please send **one copy** of the final application packet directly to your EPA Project Officer.

2. SF-424 - Application for Federal Assistance (OMB Control Number 4040-0004)

Please take a note to include the following information on your SF424:

- Block 8 (c) D-U-N-S number, available to you without cost at: <http://www.dnb.com/us/>
- Block 10: Federal Agency: Insert "USEPA – Great Lakes National Program Office".
- Block 11: CFDA Title and Number: Insert "66-469 - Great Lakes Program"
- Block 12: Funding Opportunity Number (and Title): Great Lakes Restoration Initiative Request for Proposals EPA-R5-GL2010-1
- Block 13: Competition Identification Number (Title): Leave Blank
- Block 14: Areas Affected by Project: Identify the geographic area in which the project will be conducted. The largest geographic area should be identified. If the application is for a state program include the term STATEWIDE; if the project is to be conducted in a multi-state area include MULTISTATE.
- Block 16: Congressional District of the Applicant and Program/Project - available from <http://nationalatlas.gov/index.html>
- Block 19: Applicants from the State of **Michigan** must comply with the applicable intergovernmental review procedures in 40 CFR part 29, including sending a copy of the SF424 and the proposal narrative to the applicable State Single Point of Contact, at or before submission of their applications to USEPA¹. Applicants from *other* Great Lakes

¹Intergovernmental Review provisions of 40 CFR Part 29 apply when a grant program has been selected by the State in which an applicant resides. These regulations implement Executive order 12373 "Intergovernmental Review of Federal Programs" and are

States should check "No - Program Has Not Been Selected by State for Review."
Michigan applicants should check "Yes" in Block 19 and send a copy of the SF424 and the proposal narrative to:

Mr. William Parkus
Southeast Michigan Council of Governments
535 Griswold, Suite 300
Detroit, MI 48226
Phone: 313-961-4266
Fax: 313-961-4869
parkus@semcog.org

3. **SF424A - Budget Information (OMB Control Number 0348-0044):** USEPA only requires that Sections B and F of this form be completed. Sections A, C, D, and E should be completed if the recipient's internal process requires that information. Section B should be supported with an addendum which provides detail, by object class category, to support the total amount in each object class category - see item 6 for more information. In particular, please note the following:

Section B Line 6 (a-k). Enter TOTAL of both federal and non-federal requirements for each object class. Remember to include the "match."

Section F Line 22. If your project exceeds \$100,000, please enter three pieces of information or, if applicable, attach a copy of your federally approved indirect cost negotiation agreement which includes the information:
- the type of indirect rate (provisional, predetermined, final or fixed)
- the estimated amount of the base to which the rate is applied
- the total indirect expense.

EPA's indirect cost and special rate policy for assistance to non-profits and educational institutions is at: <http://www.epa.gov/ogd/recipient/EPATraineeIndirect.pdf>. If you do not have a federally approved indirect cost rate, submit a copy of your indirect cost rate proposal. Please refer to item 11 (below) for more information on "how to obtain" an indirect cost negotiation agreement.

Section F Line 23. Indicate the **time covered** under your most recent OMB Circular A-133 audit, the **date** that the audit report was sent to the cognizant Federal Agency, and the name of the **cognizant Federal agency**. [In accordance with OMB Circular A-133 (see 40 CFR Part 31 Appendix A), State and local governments, as well as Nonprofit Institutions expending

intended to foster an intergovernmental partnership and a strengthened Federalism by relying on state processes and on a state, area wide, regional and local coordinated revisit of proposed Federal financial assistance and proposed direct Federal development. Once a state process is adopted, EPA will use it to determine official views of state and local elected officials, communicate with said officials early in the planning cycle to explain specific plans and actions, and accommodate state and local officials' concerns with proposed Federal activities. State Single Point of Contacts and addresses are available at <http://www.whitehouse.gov/omb/grants/spoc.html>.

\$300,000 or more a year in Federal funds, must have a single or program specific audit for that year.]

4. **SF 424B - Assurances for Non-construction Grant Programs - (OMB Control Number 0348-0040):** Certifies as to authority, access to books and records, establishment of an accounting system, completion of work, and compliance with numerous laws. Must be signed and submitted.

Workplan: Applications must include a narrative statement which specifies the scope of work, milestones (preferably a schedule in chart or table format), the project budget, environmental outcomes and results, and your plan for measuring progress toward achieving outputs and outcomes (See Environmental Results Order 5700.7 at <http://www.epa.gov/ogd/grants/award/5700.7.pdf>) Please contact your USEPA Project Officer (“PO”) to discuss what, if any, changes need to be made to the proposal narrative you previously submitted. *For your convenience, we have marked some items below (with “*”), which were not previously requested as part of the RFP.*

Note that projects involving the use of existing environmental data or collection of new environmental data must meet quality requirements (http://www.epa.gov/quality1/qa_docs.html) before such work begins. This will affect the timing of and budget for such projects. Note also that you may be able to save time and effort by preparing your workplan in the form of a quality assurance project plan (QAPP) - **as described in Part V of this document (HI4).**

Following is an *example* of acceptable **workplan format for a project that does not involve** the use of existing environmental data or collection of new environmental data. If a specific Request for Proposals or Applications calls for a different format, you may use that format instead of this one.

- a. **Project Title:** 60 character limit. EPA reserves the right to change the name for its administrative convenience. Applicants who are submitting separate, complementary applications, may wish to each use a proposal title with the same first words followed by a hyphen and a unique project title.
- b. **Total Project Funding**
- c. **Benefit to Organization*:** Describe how this project supports the mission of your organization. (Federal grants are not intended to principally benefit the Federal government.)
- d. **Point of Contact(s):** Individual and organizational unit name, business address, phone number, fax number, E-mail address.
- e. **Programmatic Capability:** The technical capability of the applicant to successfully carry out a project taking into account such factors as the applicant's (1) past performance in successfully completing projects similar in size, scope, and relevance to the proposed project that your organization performed within the last three years (no more than 5 agreements, and

preferably EPA or other federal agreements) and describe whether, and how, you were able to successfully complete and manage those agreements, (2) history of meeting reporting requirements on prior or current assistance agreements and submitting acceptable final technical reports, applicable closeout documentation, and how you reported on whether you were making progress towards achieving the expected results (e.g., outputs and outcomes) under those agreements. (3) organizational experience and plan for timely and successfully achieving the objectives of the project, and (4) staff expertise/ qualifications, staff knowledge, and resources of the ability to obtain them, to successfully achieve the goals of the project - EPA Order 5700.8 http://www.epa.gov/ogd/grants/award/5700_8.pdf.

- f. Brief Project Description:** Summarize the proposed project in a clear and succinct manner. Include environmental KEY TERMS that could be used as search terms (e.g., water quality, toxins, mercury, etc.). Do not use acronyms. Should the proposal be selected and a grant awarded, this description may be posted to the EPA web, which has a 595 character limit to this field; EPA reserves the right to make unilateral changes to posting requirements.
- g. Problem Statement*:** Describe the issue that will be addressed and its relevance to the GLRI Action Plan's corresponding Focus Area Problem Statement.
- h. Project Location*:** Please specify the project location, if applicable, including 8 or 12 digit HUC code; latitude and longitude; and State, county, city, and 5 digit zip code.
- i. Proposed Work*:** Describe with specificity the nature of the proposed project including what will be done, how, and when. Include a statement of the project's relevance to the Great Lakes, particularly to the needs and priorities of the following: (i) the Great Lakes Restoration Initiative <http://www.epa.gov/glnpo/glri/index.html> ; (ii) Sub objective 4.3.3 (Improve the Health of Great Lakes Ecosystems) of EPA's Strategic Plan <http://www.epa.gov/ocfo/plan/plan.htm> and (iii) the Great Lakes Regional Collaboration Strategy to Protect and Restore the Great Lakes <http://www.gllrc.us/strategy.html> . Outline the steps to be taken and the significant milestones to be achieved to complete the proposed project as well as the estimated schedule of these achievements, including submittal of the final report, with dates. Include a discussion of whether and how the project is designed to be performed by the Applicant in a cost effective manner to facilitate EPA oversight and administration of the project. This section should also include a discussion of an education/outreach plan to disseminate project results to interested parties and the potential of the project for transferability. If your proposed project is for a program activity that requires specific information described in Appendix I of the GLRI Request for Proposals (RFP) <http://epa.gov/greatlakes/fund/2010rfp01>, include that information (e.g., demonstrations of comparability and compatibility with the existing program are required as part of a proposal pursuant for the Great Lakes Fish Monitoring and Surveillance Program.
- j. Environmental Results:** Specify the quantitative and qualitative expected outcomes, outputs and results of the proposed project, including those identified in the RFP (<http://epa.gov/greatlakes/fund/2010rfp01>) Section I for the different focus areas and those identified in Appendix I for the different program areas and what measurements will be used

to track and measure your progress towards achieving the applicable outcomes, outputs, and results Specify the estimated quantifiable environmental and economic outcomes, outcomes, and results of the proposed project, including affected pollutants, industry sectors, economic impacts, habitats, and/or species. Include an estimate of the amount of chemicals to be "collected or prevented," acres protected or restored, etc. Describe the quality of that estimate, including applicable limitations.

k. Measuring Progress*: Describe your plan for measuring progress toward achieving outputs and outcomes as it relates to the GLRI Action Plan “Measures of Progress” for corresponding Focus Area. See Environmental Results Order 5700.7 - <http://www.epa.gov/ogd/grants/award/5700.7.pdf>

l. Project milestones*: A schedule in chart or table format.

m. Description of Coordination and leveraging of project matching support: As per Section IV. B. 10 of the RFP (<http://epa.gov/greatlakes/fund/2010rfp01>). Describe your plans for promoting and/or obtaining collaboration and support from the public, private, and independent sectors in performing the project in order to expand its impact, and also describe whether and how your project complements other projects or activities being performed to achieve a larger beneficial impact from your project. List the proposed groups that will be involved in the project and any related projects and studies, and what each of the groups’ roles will be in the project staffing, funding, design and implementation. Describe the type of collaboration /support proposed, how you will ensure that it will materialize during grant performance, and what role it will play in the overall project. Describe how you will coordinate activities of the project with related or complementary projects and studies.

If the project is part of any applicable overarching plan for protection and restoration of an important Great Lakes place-based effort, including LaMPs, RAPs, State Great Lakes plans, and watershed management plans, describe the purpose and effect of the project in such plan. (Such plans may cross over one or more focus areas.) Provide the URL (web address) for that overarching plan or, if a URL is not available, attach the written plan. A cover letter which provides this information may constitute such an overarching plan. For Nearshore and Nonpoint Source Pollution projects which are part of an overarching, comprehensive plan, describe the targeted restoration potential, including the extent to which: identifiable impairments have been identified and the causes for those impairments have been clearly established; solutions to remediation of the impairments have been identified; broadly supported implementation activities have been designed; and there is potential for significant measurable results.

If the applicant is proposing to provide a voluntary match or other form of additional funds/resources to demonstrate support for the project, they should describe that in this section of the application. They should also describe how they will ensure that the match or other funds/resources will be provided during grant performance, and what role they will play in the overall project. Any additional funds/resources including voluntary matches, and their source, must be identified in the proposal and as appropriate on grant application forms

for selected applicants. The additional funds or other resources need not be for eligible and allowable project costs under the EPA assistance agreement unless the Applicant proposes to provide a voluntary cost match. If EPA accepts an offer for a voluntary cost match, applicants must meet their sharing commitment as a condition of receiving EPA funding. The recipient is legally obligated to meet any proposed voluntary cost match that is included in the approved project budget because the grant agreement includes the voluntary cost match. Applicants may use their own funds or other resources for a voluntary cost match if the standards at 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. Only eligible and allowable costs may be used for voluntary cost matches. Other Federal grants may not be used as voluntary cost matches without specific statutory authority (e.g. HUD's Community Development Block Grants).

For bundled projects: Applicants who have been invited to submit assistance application packages for more than one proposal may consider whether there is a benefit to bundling the proposals in an application package for a single award. Note that any “bundled” proposals must still be discrete, identifiable elements within a common workplan; separate workplans may still be necessary; and reporting into the Great Lakes Accountability System on a project basis will generally still be required. Before submitting an application for “bundled” proposals, please contact your project officer(s) to discuss whether and how that would be done.

- n. **Project Budget:** Specify in a chart with a column that totals to the total cost of the proposal, how the total of the proposed project funds, including any Applicant matching funds, will be used for the following “budget object classes”.
 - a. **Personnel/Salaries.**
 - b. **Fringe Benefits.**
 - c. **Travel.**
 - d. **Equipment.**
 - e. **Supplies.**
 - f. **Contract costs.**
 - g. **Other Costs.**
 - h. **Total Direct Charges.**
 - i. **Indirect Charges.**
 - j. **Total Cost.**

If the recipient proposes to make a sub-contract or sub-award, that even if the sub-awardee is going to have personnel or other costs, the sub-awardee's costs fall into the “**contractual or the other**” category, as appropriate. The only salaries that show up in the budget as “Personnel/Salaries” category are those of the primary award recipient. Salaries of a contractor are lumped with other contract costs in the contractual category.

If the project will include a conference or workshop, the following questions should be answered and included as part of the project workplan:

- How will the conference/workshop be advertised?
- Whose logo will be on the agenda and materials?
- What is the percentage of Federal /recipient /public participation?
- Is the recipient going to prepare/disseminate the proceedings?

To provide sufficient information to determine the reasonableness and allocability of the budget to the work to be done, you will likely need sub-categories for the main budget categories identified in item 5 (n) above. For example, “Personnel” may have several entries such as Project Administrator, or Grant Overseer.

- o.** The **Itemized Object Class Category Budget Narrative** you prepare will be a separate, narrative description for each of the main budget categories above which describes those categories in more detail. Note that for all awards (even those less than \$100,000), the application instructions (HI4) require detailed narrative for each budget object class.

The only funding which should be included in the budget chart is funding requested from USEPA-GLNPO and match. Other funding can be included as an added piece of information but should not be totaled in the budget chart or in budget form SF424. *Other federal moneys shall not be used as part of the applicant match.* Please carefully read the “Guide to Preparing Object Class Category Budget Detail” included in this Application Kit.

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6. Itemized Object Class Category Budget Narrative: For all grants, please submit a narrative document which provides detail, by object class category, to support the total amount in each object class category in SF 424A Section B. For example, the total budget for the personnel object class category should be supported with a list of job titles and chargeable salaries; the budget for equipment should be supported with a detailed list of proposed purchases and the estimated cost of each item; and, similar justifications should be provided for the other object class categories that comprise the total budget. Budgets will be reviewed vis-à-vis the guide to ensure costs are reasonable and necessary.

When there is a match or cost-sharing requirement, the provisions of 40 CFR 31.24 for state and local applicants or 30.307 for all other applicants must be met. All in-kind contributions used to meet match or cost-sharing requirements shall be fully documented and must comply fully with these regulations.

Allowability of all costs is governed by applicable cost principles set forth in **40 CFR 31.22** or **30.410 (and corresponding OMB Circulars A-87, A-21, A-122)**.

Personnel - Line 6a: Identify each type of staff position by job title and the number of employees in each type of staff position. Enter the annual salary for each type of staff position, percentage of time assigned to the project, and total cost for the budget period. Do not include costs of consultants or personnel costs of subgrantees or subcontractors.

Fringe Benefits - Line 6b: Enter the total cost of fringe benefits unless treated as part of an approved indirect cost rate. Provide break-down of amounts and percentages that comprised fringe benefit costs, such as health insurance, F.I.C.A., retirement insurance, etc.

Travel - Line 6c: Identify the number and purpose of trips for program activities; e.g., inspection, monitoring, enforcement, etc., and administrative activities; e.g., attendance at specific conferences, meetings, training, etc. Specify the cost for each activity and the basis for determining the cost. For example, list the number of trips and average cost per trip based on last year's data or specify the location, duration and estimated cost of attending an annual conference, based on air fare and applicant per diem rates. Enter the total cost for travel.

Equipment - Line 6d: Identify each item of equipment to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year. An applicant may use its own definition of equipment provided that such definition would at least include all equipment defined above. Enter individual, as well as total, cost for equipment.

No equipment may be purchased without the expressed approval of U.S. EPA. The assistance agreement shall indicate the total approved amount of the agreement which may be expended for equipment. Any equipment purchases proposed after award must be approved by U.S. EPA in writing.

If equipment purchased wholly or in part with assistance agreement funds is to be used on more

than one project/program, acquisition costs or usage fees must be approved and allocated properly.

Supplies - Line 6e: List all tangible personal property other than “equipment” as defined above. The budget detail should be as descriptive as possible. Categories of supplies to be procured, e.g., laboratory supplies or office supplies, are acceptable, are acceptable if items cannot be reasonably separated. Enter individual, as well as total, cost of supplies.

Contractual - Line 6f: Identify each proposed contract and specify its purpose, nature, period of performance and estimated cost. Do not include procurement contracts which are reflected in other object class categories such as equipment, supplies, etc. If funds allocated to this object class category include proposed expenditures not usually categorized as services to be procured at the market place, explanatory footnotes must be included. Enter total cost for contracts.

Construction - Line 6g: Construction costs are generally not allowable in non-construction assistance programs. U.S. EPA will provide additional guidance upon request.

Other - Line 6h: List each item of cost in sufficient detail for U.S. EPA to determine its reasonableness and allowability. Such costs, where applicable, may include, but are not limited to, insurance, space rental, equipment rental, printing, publication, computer use, training fees, utilities, telephone, and any cost an applicant customarily identifies as other cost. Enter individual, as well as total, cost for other.

Total Direct Charges - Line 6i: Show the totals of Lines 6a through 6h.

Indirect Charges - Line 6j: Enter the total amount of indirect costs. If indirect charges are budgeted, indicate the approved rate and its base on line 22 of section F - Other Budget information (SF 424A). It is important to note that when indirect costs are budgeted, those costs included in the indirect cost pool cannot also be charged as direct costs to the assistance agreement. Finally, include a copy of your current indirect cost agreement which reflects the approved rate.

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7. SF LLL-A: EPA Form 6600-06 (6/2008 Edition) - Certification Regarding Lobbying. Any grant or cooperative agreement in excess of \$100,000 awarded after December 22, 1989, is subject to the Anti-Lobbying Act and interim final guidance. Section 319 of this Act generally prohibits recipients of Federal contracts, grants and loans from using appropriated funds for lobbying the Executive or Legislative Branches of the Federal government in connection with a specific contract, grant or loan. In order to assure meeting this requirement, at least until a final regulation is published, a term and condition will be included on each assistance award over \$100,000. By accepting the assistance award, the recipient will certify that it will comply with the Anti-Lobbying Act. **Applicants must sign and submit the Certification Regarding Lobbying.**

8. SF LLL: - (OMB Control Number 0348-0046): Disclosure of Lobbying Activities. An SF LLL is required to disclose lobbying activity, in accordance with 31 USC 1352. The SF LLL is not required if the applicant does not lobby.

9. EPA Form #4700-4 - (OMB Control Number 2030-0020): Pre-award Compliance Review Report for Applicants Requesting Federal Financial Assistance. See the instructions on the back of the form. Note that some items may not be applicable, in which case you can write NA.

10. Letters of Support: If applicable, submit letters of support from proposed project partners.

11. Indirect Cost Rate Agreement: Applicants wishing to claim indirect costs on federal grants must have a federally approved indirect cost rate or proposal. A separate proposal is required for each applicant fiscal year for which costs are to be claimed.

- State and Local Governments are covered by OMB Circular A-87 and OASC-10 (U.S. Department of Health and Human Services procedures that are applicable to grants awarded by all Federal agencies). There are different requirements for States than for localities with respect to the submission of indirect cost proposals to the Federal government:

(1) All State department/unit indirect cost proposals must be submitted to the cognizant Federal agency for approval.

(2) Local department/unit indirect cost proposals need be submitted for approval only when requested by the cognizant Federal agency or its authorized representative. Local governments not instructed to submit proposals, nevertheless must substantiate claims for indirect cost reimbursement. A prepared indirect cost proposal must be available as of the time a claim is made and must be retained in accordance with the retention requirements. In general, the retention requirements stipulate that financial records, supporting documents, statistical data, and all other records pertinent to Federal programs be retained for a period of three years. The retention period for cost allocation plans which are prepared and retained by a local government, starts on the last day of the fiscal year (or other accounting period) covered by the plan.

Indirect cost proposals must be submitted to the cognizant Federal agency within six months after the close of each fiscal year. It is essential that proposals be submitted in a timely fashion. Upon specific request of a State or local department/unit, an extension of time for submittal of the proposal may be granted by the cognizant Federal agency. Failure of a State or locality to prepare, and submit as required, a timely proposal will cause that State or locality to become delinquent. Grant and contact awards made to a delinquent State or locality may not provide for indirect costs and indirect costs claimed against awards already made may be subject to disallowance. If a grant award made to a delinquent state or locality provides for indirect costs in the approved budget(s), the award will be conditioned to prohibit charging or claiming for reimbursement any indirect costs until a current acceptable indirect cost rate has been negotiated with the cognizant Federal agency.

"States" use the guidelines applicable to State governments. "Locals" and federally recognized Indian Tribal governments use the guidelines applicable to local governments.

Please include in the application package a copy of the applicant's current federally approved indirect cost negotiation agreement which reflects the approved rate and base.

- Non-profit organizations are covered by OMB Circular A-122. A nonprofit organization must develop an indirect cost proposal if it wishes to claim indirect costs on Federal grants or contracts. A separate proposal is required for each applicant fiscal year for which costs are to be claimed. Nonprofit organizations must substantiate claims for indirect cost reimbursement. The EPA indirect cost and special rate policy for grants and cooperative agreements awarded to non-profit organizations and educational institutions is at: <http://www.epa.gov/ogd/recipient/EPATraineeIndirect.pdf>.

An indirect cost negotiated agreement will be executed only when required by the cognizant Federal agency or its authorized representative.

Nonprofit organizations should include in their application package either (i) the current federally approved indirect cost negotiation agreement, or (ii) if a rate has not been formally reviewed and approved, an indirect cost proposal which supports the rate proposed in the assistance application.

PART II - ADMINISTRATIVE TERMS AND CONDITIONS

Following are some of EPA's "Administrative Terms and Conditions" applicable to its assistance agreements. These terms and conditions will vary based on entity (State/Local government, Non-Profit Organization, Educational Institutions, etc) and activities funded (Project scope, domestic/international, etc) by the assistance agreement. We expect all applicable Administrative Terms and Conditions to be included in the Award Document.

SUSPENSION & DEBARMENT - RESPONSIBILITIES OF PARTICIPANTS REGARDING TRANSACTIONS

Recipients shall fully comply with Subpart C of 40 CFR Part 32, entitled "Responsibilities of Participants Regarding Transactions." Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 40 CFR Part 32, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Recipient acknowledges that failing to disclose the information required under 40 CFR 32.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.

Recipients may access the Excluded Parties List System at <http://www.epls.gov> . This term and condition supersedes EPA Form 5700-49, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters."

SUBAWARDS

- a. The recipient agrees to:
 - (1) Establish all subaward agreements in writing;
 - (2) Maintain primary responsibility for ensuring successful completion of the EPA-approved project (this responsibility cannot be delegated or transferred to a subrecipient);
 - (3) Ensure that any subawards comply with the standards in Section 210(a)-(d) of OMB Circular A-133 and are not used to acquire commercial goods or services for the recipient;
 - (4) Ensure that any subawards are awarded to eligible subrecipients and that proposed subaward costs are necessary, reasonable, and allocable;
 - (5) Ensure that any subawards to 501(c)(4) organizations do not involve lobbying activities;
 - (6) Monitor the performance of their recipients and ensure that they comply with all applicable regulations, statutes, and terms and conditions which flow down in the subaward;
 - (7) Obtain EPA's consent before making a subaward to a foreign or international organization, or a subaward to be performed in a foreign country; and
 - (8) Obtain approval from EPA for any new subaward work that is not outlined in the approved work plan in accordance with 40 CFR Parts 30.25 and 31.30, as applicable.

- b. Any questions about subrecipient eligibility or other issues pertaining to subawards should be addressed to the recipient's EPA Project Officer. Additional information regarding subawards

may be found at <http://www.epa.gov/ogd/guide/subaward-policy-part-2.pdf> . Guidance for distinguishing between vendor and subrecipient relationships and ensuring compliance with Section 210(a)-(d) of OMB Circular A-133 can be found at <http://www.epa.gov/ogd/guide/subawards-appendix-b.pdf> and <http://www.whitehouse.gov/omb/circulars/a133/a133.html> .

c. The recipient is responsible for selecting its subrecipients and, if applicable, for conducting subaward competitions.

MANAGEMENT FEES

Management fees or similar charges in excess of the direct costs and approved indirect rates are not allowable. The term "management fees or similar charges" refers to expenses added to the direct costs in order to accumulate and reserve funds for ongoing business expenses, unforeseen liabilities, or for other similar costs which are not allowable under this assistance agreement. Management fees or similar charges may not be used to improve or expand the project funded under this agreement, except to the extent authorized as a direct cost of carrying out the scope of work.

INTEREST PENALTIES

Federal funds may not be used by the recipient for the payment of interest penalties to contractors when bills are paid late nor may interest penalties be used to satisfy cost sharing requirements. Obligations to pay such interest penalties will not be obligations of the United States.

TRAVEL FOR FEDERAL EMPLOYEES

The recipient understands that none of the funds for this project (including funds contributed by the recipient as cost sharing) may be used to pay for the travel of Federal employees or for other costs associated with Federal participation in this project. Except however, if a Federal agency is selected through the recipient's procurement process to carry out some of the work as a contractor to the recipient, funds may be used to allow necessary Federal travel and other costs associated with Federal participation in this project.

UNLIQUIDATED OBLIGATIONS - FINAL FFR - PART 30 RECIPIENTS

Submission of final Federal Financial Report (FFR) Pursuant to 40 CFR 30.52(a)(1) and 30.71(a), EPA recipients shall submit a final Federal Financial Report (SF-425) to EPA no later than 90 calendar days after the end of the project period. The form is available on the internet at <http://www.epa.gov/ocfo/finservices/forms.htm>. All FFRs must be submitted to the Las Vegas Finance Center: US EPA, LVFC, PO Box 98515, Las Vegas, NV 89193, or Fax:(702)-798-2423. The LVFC will make adjustments, as necessary, to obligated funds after reviewing and accepting a final Federal Financial Report. Recipients will be notified and instructed by EPA if they must complete any additional forms for the closeout of the assistance agreement. EPA may take

enforcement actions in accordance with 40 CFR 30.62 if the recipient does not comply with this term and condition.

REIMBURSEMENT LIMITATIONS

EPA's financial obligations to the recipient are limited by the amount of federal funding awarded to date as shown on line 15 in its EPA approved budget. If the recipient incurs costs in anticipation of receiving additional funds from EPA, it does so at its own risk.

LOBBYING AND LITIGATION - ALL RECIPIENTS

The chief executive officer of this recipient agency shall ensure that no grant funds awarded under this assistance agreement are used to engage in lobbying of the Federal Government or in litigation against the United States unless authorized under existing law. The recipient shall abide by its respective OMB Circular (A-21, A-87, or A-122), which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities.

CONSULTANT CAP

Payment to consultants. EPA participation in the salary rate (excluding overhead) paid to individual consultants retained by recipients or by a recipient's contractors or subcontractors shall be limited to the maximum daily rate for a Level IV of the Executive Schedule (formerly GS-18), to be adjusted annually. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. As of January 1, 2010, the limit is \$596.00 per day and \$74.50 per hour. This rate does not include transportation and subsistence costs for travel performed (the recipient will pay these in accordance with their normal travel reimbursement practices).

Subagreements with firms for services which are awarded using the procurement requirements in 40 CFR 30 or 31, as applicable, are not affected by this limitation unless the terms of the contract provide the recipient with responsibility for the selection, direction, and control of the individuals who will be providing services under the contract at an hourly or daily rate of compensation. See 40 CFR 31.36(j) or 30.27(b).

ASAP PAYMENT METHOD

In order to comply with the Debt Collection Improvement Act of 1996, the recipient must complete and return the attached information to the Las Vegas Finance Center for enrollment in the Automated Standard Application for Payments (ASAP) system. You may fax or e-mail this information to Rich Sherburne, Financial Specialist, at Sherburne.Richard@epamail.epa.gov or fax (702-798-2423).

COPYRIGHTED MATERIAL

In accordance with 40 CFR 31.34 for State, local and Indian Tribal governments or 40 CFR

30.36 for other recipients, EPA has the right to reproduce, publish, use, and authorize others to use copyrighted works or other data developed under this assistance agreement for Federal purposes.

Examples of a Federal purpose include but are not limited to: (1) Use by EPA and other Federal employees for official Government purposes; (2) Use by Federal contractors performing specific tasks for the Government; (3) Publication in EPA documents provided the document does not disclose trade secrets (e.g. software codes) and the work is properly attributed to the recipient through citation or otherwise; (4) Reproduction of documents for inclusion in Federal depositories; (5) Use by State, tribal and local governments that carry out delegated Federal environmental programs as “co-regulators” or act as official partners with EPA to carry out a national environmental program within their jurisdiction and; (6) Limited use by other grantees to carry out Federal grants provided the use is consistent with the terms of EPA’s authorization to the other grantee to use the copyrighted works or other data.

Under Item 6, the grantee acknowledges that EPA may authorize another grantee(s) to use the copyrighted works or other data developed under this grant as a result of :

- a. the selection of another grantee by EPA to perform a project that will involve the use of the copyrighted works or other data or;
- b. termination or expiration of this agreement.

In addition, EPA may authorize another grantee to use copyrighted works or other data developed with Agency funds provided under this grant to perform another grant when such use promotes efficient and effective use of Federal grant funds.

UTILIZATION OF SMALL, MINORITY & WOMEN'S BUSINESS ENTERPRISES

General Compliance, 40 CFR, Part 33

The recipient agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements, contained in 40 CFR, Part 33.

Fair Share Objectives, 40 CFR, Part 33, Subpart D

A recipient must negotiate with the appropriate EPA award official, or his/her designee, fair share objectives for MBE and WBE (MBE/WBE) participation in procurement under the financial assistance agreements.

Current Fair Share Objective/Goal

The dollar amount of this assistance agreement, or the total dollar amount of all of the recipient’s financial assistance agreements in the current federal fiscal year from EPA is \$250,000, or more. The Indiana Department of Environmental Management has

negotiated the following, applicable MBE/WBE fair share objectives/goals with EPA as follows:

COMBINED RATE: MBE: 5% - WBE: 6%

Negotiating Fair Share Objectives/Goals, 40 CFR, Section 33.404

If the recipient has not yet negotiated its MBE/WBE fair share objectives/goals, the recipient agrees to submit proposed MBE/WBE objectives/goals based on an availability analysis, or disparity study, of qualified MBEs and WBEs in their relevant geographic buying market for construction, services, supplies and equipment.

The recipient agrees to submit proposed fair share objectives/goals, together with the supporting availability analysis or disparity study, to the Regional MBE/WBE Coordinator within 120 days of its acceptance of the financial assistance award. EPA will respond to the proposed fair share objective/goals within 30 days of receiving the submission. If proposed fair share objective/goals are not received within the 120 day time frame, the recipient may not expend its EPA funds for procurements until the proposed fair share objective/goals are submitted.

Objective/Goals of Loan Recipients

As a recipient of an EPA financial assistance agreement to capitalize revolving loan funds, the recipient agrees to either apply its own fair share objectives negotiated with EPA to identified loans using a substantially similar relevant geographic market, or negotiate separate fair share objectives with its identified loan recipients. These separate objectives/goals must be based on demonstrable evidence of the availability of MBEs and WBEs in accordance with 40 CFR, Part 33, Subpart D.

The recipient agrees that if procurements will occur over more than one year, the recipient may choose to apply the fair share objective in place either for the year in which the identified loan is awarded or for the year in which the procurement action occurs.

The recipient must specify this choice in the financial assistance agreement, or incorporate it by reference therein.

Six Good Faith Efforts, 40 CFR, Part 33, Subpart C

Pursuant to 40 CFR, Section 33.301, the recipient agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to ensure that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:

- (a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State

and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

(b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

(d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

(e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

(f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

MBE/WBE Reporting, 40 CFR, Part 33, Sections 33.502 and 33.503

The recipient agrees to complete and submit EPA Form 5700-52A, "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements and Interagency Agreements" beginning with the Federal fiscal year reporting period the recipient receives the award and continuing until the project is completed. Only procurements with certified MBE/WBEs are counted toward a recipient's MBE/WBE accomplishments. The reporting period is semiannual, with reporting periods ending March 31st and September 30th. The reports must be submitted within 30 days of the end of the semiannual reporting periods, April 30th and October 30th.

Recipients of financial assistance agreements that capitalize revolving loan programs agree to require entities receiving identified loans to submit their MBE/WBE participation reports on a semiannual basis to the financial assistance agreement recipient, rather than to EPA.

Reports should be sent to:

Adrienne M. Callahan, Region 5 MBE/WBE Coordinator
USEPA, Acquisition and Assistance Branch

77 West Jackson Boulevard (MC-10J)
Chicago, IL 60604

Final MBE/WBE reports must be submitted within 90 days after the project period of the grant ends. Your grant cannot be officially closed without all MBE/WBE reports.

EPA Form 5700-52A may be obtained from the EPA Office of Small Business Program's Home Page on the Internet at www.epa.gov/osbp.

DRUG-FREE WORKPLACE CERTIFICATION FOR ALL EPA RECIPIENTS

The recipient organization of this EPA assistance agreement must make an ongoing, good faith effort to maintain a drug-free workplace pursuant to the specific requirements set forth in Title 40 CFR 36.200 - 36.230. Additionally, in accordance with these regulations, the recipient organization must identify all known workplaces under its federal awards, and keep this information on file during the performance of the award.

Those recipients who are individuals must comply with the drug-free provisions set forth in Title 40 CFR 36.300.

The consequences for violating this condition are detailed under Title 40 CFR 36.510.

Recipients can access the Code of Federal Regulations (CFR) Title 40 Part 36 at http://www.access.gpo.gov/nara/cfr/waisidx_06/40cfr36_06.html.

INDIRECT COST - PARTIAL RATE

The effective period of the recipient's current federally approved indirect cost rate is from MM/DD/YYYY to MM/DD/YYYY. For indirect costs incurred after this effective period and during the current assistance agreement budget period, the recipient will not charge nor claim for reimbursement any indirect costs until an acceptable indirect cost rate has been negotiated with the cognizant Federal Agency. The recipient must submit a copy of the Indirect Cost Rate Negotiation Agreement to the EPA Region 5, Acquisition and Assistance Branch, within 30 days after the indirect cost rate has been accepted, in order to be eligible to claim indirect costs against this assistance agreement.

HOTEL-MOTEL FIRE SAFETY

Pursuant to 40 CFR 30.18, if applicable, and 15 USC 2225a, the recipient agrees to ensure that all space for conferences, meetings, conventions, or training seminars funded in whole or in part with federal funds complies with the protection and control guidelines of the Hotel and Motel Fire Safety Act (PL 101-391, as amended). Recipients may search the Hotel-Motel National Master List at <http://www.usfa.dhs.gov/applications/hotel/> to see if a property is in compliance (FEMA ID is currently not required), or to find other information about the Act.

RECYCLED PAPER

In accordance with the polices set forth in EPA Order 1000.25 and Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management (January 24, 2007), the recipient agrees to use recycled paper and double sided printing for all reports which are prepared as a part of this agreement and delivered to EPA. This requirement does not apply to reports prepared on forms supplied by EPA, or to Standard Forms, which are printed on recycled paper and are available through the General Services Administration.

RECYCLED PRODUCTS

Any State agency or agency of a political subdivision of a State which is using appropriated Federal funds shall comply with the requirements set forth in Section 6002 of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6962). Regulations issued under RCRA Section 6002 apply to any acquisition of an item where the purchase price exceeds \$10,000 or where the quantity of such items acquired in the course of the preceding fiscal year was \$10,000 or more. RCRA Section 6002 requires that preference be given in procurement programs to the purchase of specific products containing recycled materials identified in guidelines developed by EPA. These guidelines are listed in 40 CFR 247.

TRAFFICKING VICTIMS OF 2000 - PART 31 RECIPIENTS

To implement requirements of Section 106 of the Trafficking Victims Protection Act of 2000, as amended, the following provisions apply to this award:

(a) We, as the Federal awarding agency may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity: (1) is determined to have violated an applicable prohibition in the Prohibition Statement below; or (2) has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in the Prohibition Statement below through conduct that is either: (a) associated with performance under this award; or (b) imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, “OMB Guidelines to Agencies on Government wide Debarment and Suspension (Nonprocurement),” as implemented by our agency at 2 CFR part 1532.

You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in the Prohibition Statement below.

(b) Our right to terminate unilaterally that is described in paragraph a of this award term: (1) implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and (2) is in addition to all other remedies for noncompliance that are available to us under this award.

(c) You must include the requirements of the Prohibition Statement below in any subaward you

make to a private entity.

Prohibition Statement - You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not engage in severe forms of trafficking in persons during the period of time that the award is in effect; procure a commercial sex act during the period of time that the award is in effect; or use forced labor in the performance of the award or subawards under the award.

SINGLE AUDIT ANNUAL REPORTING REQUIREMENT

In accordance with OMB Circular A-133, which implements the single Audit Act, the recipient hereby agrees to obtain a single audit from an independent auditor if it expends \$500,000 or more in total Federal funds in any fiscal year. Within nine months after the end of a recipient's fiscal year or 30 days after receiving the report from the auditor, the recipient shall submit a copy of the SF-SAC and a Single Audit Report Package. For fiscal periods 2002 to 2007 recipients are to submit hardcopy to the following address:

Federal Audit Clearinghouse
1201 East 10th Street
Jeffersonville, IN 47132

For fiscal periods 2008 and beyond the recipient MUST submit a copy of the SF-SAC and a Single Audit Report Package, using the Federal Audit Clearinghouse's Internet Data Entry System. Complete information on how to accomplish the 2008 and beyond Single Audit Submissions you will need to visit the Federal Audit Clearinghouse Web site:
<http://harvester.census.gov/fac/>

PART III - PROGRAMMATIC TERMS AND CONDITIONS

Applicable requirements (including Quality System Documentation, Electronic & Paper Data Reporting) should be incorporated into your budget development and project work plan to ensure that people working on the programmatic aspects of projects are aware of these requirements. Applicable requirements will also be incorporated into EPA Award Document as Special Conditions. These terms and conditions will vary based on entity (State/Local government, Non-Profit Organization, Educational Institutions, etc) and activities funded (Project scope, domestic/international, etc) by the assistance agreement. The three types of programmatic (special) conditions are:

- Part III A: Conditions applicable to all GLRI assistance awards**
 - Part III B: Conditions applicable on a “case-by-case” basis**
 - Part III C: State Capacity Cooperative Agreement requirements**
-

Part III A: Conditions applicable to all GLRI assistance awards

COMMUNITY INVOLVEMENT COSTS

Costs for promoting community involvement activities are allowable to the extent consistent with the EPA approved scope of work and applicable regulations. As authorized by 40 CFR 30.25(c)(2)(v) or 40 CFR 31.30(d)(4), EPA is granting prior approval for subawards of financial assistance to non-profit organizations or local governments representing residents in the area in which the recipient will carry out its project, or who would otherwise be affected by or benefit from the project, even if those subawards were not described in the application and funded in the award. The recipient must notify EPA's project officer of the identity of the subrecipient and the purpose of the subaward when it makes the subaward.

QUALITY SYSTEM DOCUMENTATION

Projects involving the use of existing environmental data or collection of new environmental data (use or collection of environmental data) must meet the American National Standard Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC E4-2004. The term “Quality System Documentation” includes a Quality Management Plan (QMP), a Quality Assurance Project Plan (QAPP), or such other documentation which demonstrates compliance with ANSI/ASQC E4-2004.

- No work involving direct measurements or data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology shall be initiated under this project until the EPA Project Officer, in concert with the EPA Quality Manager, has approved the Quality System Documentation.
- Organizations having an approved QMP are delegated the authority to approve individual QAPPs. Individual QAPP approval must be documented in the project files and available for review by EPA.
- It is the grantee's responsibility to assure that the grant is implemented as proposed and that any modifications include appropriate Quality System Documentation. If at any time additional steps must be taken to comply with ANSI/ASQC E4-2004, the grantee will take those steps and adjust its implementation schedule accordingly. The grantee will notify GLNPO's Quality Assurance Manager of those steps. If possible, notification shall be at least 15 days in advance of implementation. (40 CFR 30.54 or 31.45 as

appropriate).

- This project has been determined to involve use of existing environmental data or collection of new environmental data (use or collection of environmental data). Acceptable Quality System Documentation must be submitted to the EPA Project Officer within 90 days of the acceptance of this agreement.

- Contact GLNPO's Quality Manager, Louis Blume (312) 353-2317 with questions or to request sample documentation. Further guidance is available in the Grants Requirements/Instruction from < http://www.epa.gov/quality/qa_docs.html >, which includes the documents "QA/R-5: EPA Requirements for Quality Assurance Project Plans" and "QA/R-2 EPA Requirements for Quality Management Plans."

MEETINGS / CONFERENCES

Time and travel costs along with participation in professional meetings and conferences funded under this agreement shall be approved by the EPA Project Officer in advance. Although EPA Project Officer may have approved this type of activity as a component of the workplan, the recipient (or its representative) seeking to attend professional meetings and conferences not covered/approved in the original scope of work, needs to obtain prior approval from an EPA Project Officer.

SUBCONTRACTING

No portion of this work shall be subcontracted, without the explicit notification and written approval by the EPA Project Officer.

SIGNAGE

The recipient shall ensure that a visible project identification sign (with EPA approved GLRI logo) is erected as appropriate at each on-the-ground protection or restoration project. Each sign must give project information and credit the Great Lakes Restoration Initiative and appropriate federal agencies for funding. The recipient will determine the design, placement, and materials for each sign.

LOCATION INFORMATION

Location information (latitude and longitude) shall be reported for all areas of interest in this agreement (ex: sampling sites/areas, restoration sites/areas, etc.) according to the format available on the Internet at < www.epa.gov/glnpo/fund/ldp.html >. Contact Pranas Prankevicius at (312) 353-3437 with questions.

Copies, formats, etc. 3 printed, camera-ready copies of all reports and supplemental data, text, and graphics shall be submitted along with either:

- (i) Original electronic copy on disk or CD. Both Macintosh and Windows are acceptable.

All major word processing and desktop publishing formats are acceptable. Digital graphics should be submitted in their original form. Any special fonts used within the document should also be provided. **OR**

- (ii) Hypertext markup language (HTML) or Portable Document File (PDF) version.

All environmental monitoring data collected under this agreement shall be reported to GLNPO in spreadsheet format, preferably using Microsoft Excel. Contact Louis Blume (312) 353-2317 or Kenneth Klewin (312) 886-4794 with questions or to receive a hard copy of the format for environmental monitoring data.

http://www.epa.gov/glnpo/monitoring/data_proj/glenda/index.html

REPORTING

The recipient agrees to comply with the provisions of the 2010 Great Lakes Guidance upon its development. The model for the Guidance is the Chesapeake Bay Guidance and its 11 attachments, which are available from: <http://www.epa.gov/region3/chesapeake/grants.htm#2009>. **Semi-annual progress reports** shall be submitted electronically to the EPA Project Officer by the 30th day after each six month period following the start date of the project. Progress reports shall document progress under the project in writing and in pictures. Item **M2** in the online application materials kit provides a suggested outline, addressing (1) work accomplished for the period, quantifying results; (2) Object Class Category changes; (3) corrective actions; (4) projected new work; (5) percent completion of scheduled work; (6) percent of budgeted amounts spent; (7) any change in principal investigator; (8) any change needed in project period, (9) date and amount of latest drawdown request; and (10) delays or adverse conditions which materially impair the ability to meet the outputs/outcomes specified in the assistance agreement work plan.

The reports must contain information in order to ascertain that the Scope of Work (SOW) is being carried out as specified in the grant. The EPA Project Officer must be able to determine that all mission support products, services, information or data generation and use, including technology development and verification, is performed in accordance with EPA policies and the grant.

Final Report: The Final Report shall incorporate project outputs and summarize the nature and extent of the project, methodologies employed, significant events and experiences, and a compilation of the data collected. The final report shall also include analysis of the data, conclusions, and recommendations. The final report shall incorporate photo documentation of the project and environmental progress under the project at appropriate phases, and appropriate illustrations, diagrams, charts, graphs, and maps to express the data and findings. The draft Final Report will be submitted electronically to the EPA Project Officer no later than 45 days before the end of the project period for review and comment. Electronic and paper versions of the Final Report shall be submitted no later than the end of the project period. All work products shall carry attribution to the U.S. EPA Great Lakes Restoration Initiative for funding assistance and should also acknowledge significant contributions by others.

Upon submission of the Final Report, the recipient shall provide:

- A database (Excel or similar format) of field and laboratory data including but not limited to lat-long, date, time, field observations, parameter data, laboratory analysis, QA duplicates/replicates
- Model files including input-output data, model code, model output, and peripheral and post-processing utilities.

ACCOUNTABILITY/PERFORMANCE SYSTEM

EPA has developed an electronic accountability and performance system called the “Great Lakes Accountability System (GLAS). The GLAS is an internet based system designed to track GLRI projects in order to assess the GLRI’s effectiveness. The Conference Report accompanying Public Law 111-88, House Report 111-316, required EPA to develop a process that “ensures monitoring and reporting on the progress of the GLRI. The GLAS system will include program and project information including project location, environmental progress and results and additional project statistics and such other matters as are agreed to by EPA and the Recipient.

In addition to the semi-annual progress reports, the recipient shall ensure that the information is reported **quarterly** into the GLAS database pertaining to its contributions (including those from contracts and grants) to Goals, Objectives, and Measures under the GLRI Action Plan. Recipients and sub-recipients (contractors, sub-awardees, etc.) shall be responsible for inputting their project information into the GLAS database using specified formats and timeframes. The website for the database will be accessible through the Great Lakes Restoration Initiative website (<http://greatlakesrestoration.us>) or directly at <https://restore.glnpo.net/glas/login.htm>. For more information (including a video demonstration on GLAS reporting mechanism, please visit <http://greatlakesrestoration.us/?p=714>.

Part III B: Conditions applicable on a “case-by-case” basis

The EPA Project Officer should coordinate with designated technical contacts and program leads (list available at <http://www.epa.gov/glnpo/>) to determine which of these conditions apply.

BEST MANAGEMENT PRACTICE

Recipient agree to properly operate and maintain any best management practices or management practices implemented through this award in accordance with design standards and specifications.

PRE-AWARD COSTS

The recipient may be reimbursed for pre-award costs incurred within 90 days prior to the budget and project start date identified in the assistance agreement; however, you incur these costs at your own risk since all pre-award costs must be consistent with the requirements set forth in OMB Circular A-87 and EPA requirements (costs be reasonable, allocable and allowable). Within 30 days of the award of this assistance agreement, the recipient must submit a written justification and supporting budget narrative and the costs must be approved by EPA prior to reimbursement.

INCREMENTAL GRANT FUNDING

This action approves the work plan and anticipated total budget of \$ _____ proposed in the application dated _____ and amended on _____. Federal funds obligated by this action, in the amount of \$ _____, represent less than the full federal share, i.e., \$ _____ of the anticipated total budget. Approved object class category costs of the application have been reduced to reflect the initial incremental award. An EPA award for the balance of the total budget at a later date is subject to appropriations and availability of federal funds, changes in Program Office priorities, and satisfactory progress as certified by the EPA Project Officer upon review of the project and progress reports. If additional funds are not available for any of these reasons, it is understood that the scope of work and the federal and non-federal shares will be renegotiated to reflect the amount awarded. The work done by the recipient must be severable such that upon completion of the work funded by each increment, lasting environmental progress, commensurate with the amount of obligated funds, has been achieved. That progress must advance the purposes of the award and support achievement of the goals, objectives, and/or targets of the Great Lakes Restoration Initiative (GLRI).

HEALTHY, SAFETY, AND ENVIRONMENTAL COMPLIANCE

All health, lab and field activities conducted for this project must be in accordance and compliance with all applicable health, safety and environmental laws, regulations and guidelines.

DISPOSITION OF WASTES

Disposal of all wastes will be in accordance with State and Federal regulations, and is the responsibility of the recipient.

SPREADSHEET TOOL FOR ESTIMATING POLLUTANT LOAD

To measure the progress and success of the funded activity, the recipient will generally need to use at least two sets of measures. These include measures to indicate progress towards: 1) the milestones set by the recipient in its work plan; and 2) reductions in nonpoint source pollutant associated with the implementation of the work plan. Recipient agrees to use either the EPA Region 5 or STEPL (Spreadsheet Tool for Estimating Pollutant Load) methods for estimating the pollutant (sediment, nutrients) load reduction associated with the implementation of GLRI supported best management practices or management practices. Load reductions are to be

reported semi-annually and annually in consistent units regardless of the method used for the estimation (lbs/year for nutrients and tons/year for sediment).

WATER QUALITY DATA USING EPA'S STORET SYSTEM

Recipient agrees to use the Agency's STORET system to annually provide all the water quality data collected and in support of through the funded activities.

Part III C: State Capacity Cooperative Agreement Requirements

These requirements, in addition to applicable requirements in Part III A & B, will apply to negotiated non-competitive cooperative agreements with States and Tribal organizations.

STATE ACTIVITIES FOR RAP/AOC PROGRAM – PROGRESS REPORT

State agency is required to report on progress of the AOC program, including milestones and measures of progress on the implementation of the AOC program that will be included in the Great Lakes Accountability System (GLAS) and other reporting systems as jointly developed among (Federal and State Areas of Concern Council (FEDSTACC). The State agency should also provide assistance in assessing local conditions and developing AOC related fact sheets regarding progress at AOCs (Update websites as appropriate).

STATE CAPACITY FOR LAKE-WIDE BASIN PROGRAMS

Through “State Lake-wide Program” capacity funding, states are required to develop work plans that include:

- Provide statewide coordination and management direction across multiple agencies and programs on priority goals, projects and resource allocation;
- Involvement in planning, coordination and outreach/education activities to advance Great Lakes restoration and support full involvement in ecosystem protection and restoration;
- Implement and participate in LaMP meetings, workshops and conference calls/webinars (EPA to provide training and establishment of additional electronic outreach tools);
- Participate and provide state input into progress reporting through LaMP documents such as the Five-Year LaMP Plan, annual LaMP updates and the LaMP Five-Year Work plan;
- Participate and provide public outreach and education on specific local issues, including facilitating opportunities for public engagement through the LaMP Forum, public participation meetings, “State of the Lake” conferences, on-board education and other

lake-specific meetings, workshops and partnerships;

- Provide analytical support and scientific/technical expertise on LaMP goals, programs and implementation projects;
- Participate in LaMP-related programs such as the Binational Executive Committee (BEC), the Cooperative Science and Monitoring Initiative (CSMI) and other monitoring committees, the Binational Toxics Strategy, and the State of the Lake Ecosystem Conference; and
- Follow the State's Quality Assurance Program and the Great Lakes Restoration Initiative accountability and reporting programs.

STATE CAPACITY FOR GREAT LAKES RESTORATION INITIATIVE - STATE RESPONSIBILITIES FOR QUALITY ASSURANCE AND ACCOUNTABILITY

- Acts as a liaison between the organization and GLNPO's Quality Staff on matters of quality policy.
- Develops a Great Lakes QMP and revises it as necessary.
- Reviews QAPPs for all projects, work assignments, grants, cooperative agreements, and inter-agency agreements involving data acquisition, data generation, and/or measurement activities that are funded by EPA.
- Approves all QAPPs for implementation in all applicable projects, work assignments, grants, cooperative agreements, and inter-agency agreements.
- Coordinates the correction of deficient QAPPs with the PO and his/her management, and assures through appropriate procedures (e.g., contract, financial assistance) that no data collection operations commence before a QAPP is approved.
- Ensures that audits/reviews are accomplished to assure adherence to approved quality system documentation and to identify deficiencies in QA/QC systems.
- Implements peer review component of quality system.
- In Partnership with EPA assists staff scientists and project managers in developing quality system documentation and in providing answers to technical questions by providing training and peer to peer meetings.
- Tracks the status of all quality system documentation using GLNPO's QA Track Database to be provided.

- Populate GLNPO QA Track inventory system for all QA documentation - Web version available as of April 2010.
- Develops a QA Scope of Work for the cooperative agreement and provide semi-annual Reports.
- Tracks and reports into the GLRI accountability system.

PART IV - MISC. FEDERAL GRANT REQUIREMENTS APPLICABLE TO GRANT

COST PRINCIPLES (OMB CIRCULARS A-21, A-87, OR A-122), ADMINISTRATIVE REQUIREMENTS, (OMB CIRCULARS A-102 OR 110), AND AUDIT REQUIREMENTS (A-133). Applicable to All Applicants. All grantees must adhere to requirements for accounting, administration, and audits found in the applicable OMB circulars, available from <http://www.whitehouse.gov/omb/grants/>.

Audits: In accordance with OMB Circular A-133 (as contained in 40 CFR Part 31 Appendix A), State and local governments, as well as Nonprofit Institutions expending \$300,000 or more a year in Federal funds must have a single or program specific audit for that year. Audits shall be made annually unless the state or local government has, by January 1, 1987, a constitutional or statutory requirement for less frequent audits. For those governments, the cognizant agency shall permit biennial audits, covering both years, if the government so requests. Only nonprofit organizations that had biennial audits for all biennial periods ending between July 1, 1992 and January 1, 1995 may elect a biennial audit.

NONDISCRIMINATION - 40 CFR Parts 7 and 12 - Applicable to All Applicants: This rule implements statutes which prohibit discrimination on the grounds of race, color, national origin, sex and handicap. Instead of a separate rule to implement each statute; the consolidated rule includes all requirements of the statutes and clarifies the requirements imposed on EPA assistance.

This rule stipulates that no person shall be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color, national origin, or on the basis of sex or handicap in any program or activity receiving EPA assistance.

GENERAL ASSISTANCE REGULATIONS - 40 CFR Part 30 - Applicable to “Other Than State and Local Government” Applicants: These regulations inform applicants, other than state and local governments, how to apply for and manage an EPA project, describe EPA involvement in the process, and identify recipient responsibilities.

ADMINISTRATIVE REQUIREMENTS - 40 CFR Part 31 - Applicable to State, Local, and Tribal Governments: This part establishes uniform administrative rules for federal grants and cooperative agreements to State, local and Indian Tribal governments. Items addressed include:

- Pre-Award Requirements
- Post-Award Requirements, including,
 - Financial Administration (standards for financial management systems, payment methods, matching, etc.)
 - Changes (budget & program) and Property Management
 - Reports, Records, Retention, and Enforcement
- After-the-Grant Requirements

PART V. QUALITY ASSURANCE

In general, projects involving use of existing environmental data or collection of new environmental data (use or collection of environmental data) must meet the “American National Standard Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC E4-1994.” To demonstrate conformance to this standard, EPA requires two forms of documentation:

- Documentation of the organization quality system (usually called a Quality Management Plan or QMP), and/or
- Documentation of the application of QA and QC activities to an activity-specific effort (usually called a Quality Assurance Project Plan or QAPP).

GLNPO uses the term “Quality System Documentation” to include a Quality Management Plan (QMP), a Quality Assurance Project Plan (QAPP), or such other documentation which demonstrates compliance with ANSI/ASQC E4-1994.

- No work involving direct measurements or data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology shall be initiated under a project until

the EPA Project Officer, in concert with the EPA Quality Manager, has approved applicable Quality System Documentation.

- Organizations having an approved QMP are delegated the authority to approve individual QAPPs. Individual QAPP approval must be documented in the project files and available for review by EPA.
- It is the grantee's responsibility to assure that the grant is implemented as proposed and that any modifications include appropriate Quality System Documentation. If at any time additional steps must be taken to comply with ANSI/ASQC E4-1994, the grantee will take those steps and adjust its implementation schedule accordingly. The grantee will notify GLNPO's Quality Assurance Manager of those steps. If possible, notification shall be at least 15 days in advance of implementation. (See 40 CFR 30.54 OR 31.45 as appropriate).

For projects involving environmental data collection, there may be some potential for savings and efficiency if you prepare the workplan for your proposal in the form of a QAPP. The general outline of a QAPP is included on the following page on Table I. For your convenience, Table 2 provides a format which includes all required elements of both the project workplan and a QAPP.

In addition, the applicant should assure that all QMP elements are covered in some fashion in the proposal. The elements to be addressed in a QMP include: management and organization; quality system and description; personnel qualifications and training; procurement of items and services; documentation and records; computer hardware and software; planning; implementation of work processes; assessment and response; and quality improvement. Following the QAPP outline should allow coverage of most of the QMP elements.

Guidelines for Quality Management Plans and Quality Assurance Project Plans for **non-EPA organizations** can be found on the web at: http://www.epa.gov/quality1/qa_docs.html
Descriptions of each element are included in Chapter 3 of both documents.

TABLE I - REQUIRED ELEMENTS IN A QUALITY ASSURANCE PROJECT PLAN (QAPP)

Elements		Requirements
PROJECT MANAGEMENT		
A1	Title and Approval Sheet	Title and approval sheet.
A2	Table of Contents	Document control format.
A3	Distribution List	Distribution list for the QAPP revisions and final guidance.
A4	Project/Task Organization	Identify individuals or organizations participating in the project and discuss their roles, responsibilities and organization.
A5	Problem Definition/ Background	1) State the specific problem to be solved or the decision to be made. 2) Identify the decision maker and the principal customer for the results.
A6	Project/Task Description	1) Hypothesis test, 2) expected measurements, 3) ARARs or other appropriate standards, 4) assessment tools (technical audits), 5) work schedule and required reports.
A7	Data Quality Objectives for Measurement Data	Decision(s), population parameter of interest, action level, summary statistics and acceptable limits on decision errors. Also, scope of the project (domain or geographical locale).
A8	Special Training Requirements/ Certification	Identify special training that personnel will need.
A9	Documentation and Record	Itemize the information and records that must be included in a data report package, including report format and requirements for storage, etc.
MEASUREMENT/DATA ACQUISITION		
B1	Sampling Process Designs (Experimental Design)	Outline the experimental design, including sampling design and rationale, sampling frequencies, matrices, and measurement parameter of interest.
B2	Sampling Methods Requirements	Sample collection method and approach.
B3	Sample Handling and Custody Requirements	Describe the provisions for sample labeling, shipment, chain-of-custody forms, procedures for transferring and maintaining custody of samples.
B4	Analytical Methods Requirements	Identify analytical method(s) and equipment for the study, including method performance requirements.
B5	Quality Control Requirements	Describe routine (real-time) QC procedures that should be associated with each sampling and measurement technique. List required QC checks and corrective action procedures.
B6	Instrument/Equipment Testing Inspection and Maintenance Requirements	Discuss how inspection and acceptance testing, including the use of QC samples, must be performed to ensure their intended use as specified by the design.
B7	Instrument Calibration and Frequency	Identify tools, gauges and instruments, and other sampling or measurement devices that need calibration. Describe how the calibration should be done.
B8	Inspection/Acceptance Requirements for Supplies and Consumables	Define how and by whom the sampling supplies and other consumables will be accepted for use in the project.
B9	Data Acquisition Requirements (Non-direct Measurements)	Define the criteria for the use of non- measurement data such as data that come from databases or literature.
B10	Data Management	Outline the data management scheme including the path and storage of the data and the data record-keeping system. Identify all data handling equipment and procedures that will be used to process, compile, and analyze the data.
ASSESSMENT/OVERSIGHT		
C1	Assessments and Response Actions	Describe the assessment activities needed for this project. These may include DQA, PE, TSA, MSR/ PR/RR
C2	Reports to Management	Identify the frequency, content and distribution of reports issued to keep management informed.
DATA VALIDATION AND USABILITY		
D1	Data Review, Validation, and Verification Requirements	State the criteria used to accept or reject the data based on quality.
D2	Validation and Verification Methods	Describe the process to be used for validating and verifying data, including the chain-of-custody for data throughout the lifetime of the project.
D3	Reconciliation With Data Quality Objectives	Describe how results will be evaluated to determine if DQOs have been satisfied.

GLNPO note: The above elements are minimum requirements for a QAPP, and therefore, should be used during QAPP development.

Table II - Workplan in Form of Quality Assurance Project Plan

Elements	Requirements
PROJECT MANAGEMENT	
1. Title and Approval Sheet [QAPP Element A1]	Include a signature and date line for your Project Manager, other individuals in your organization who will be making protocol decisions regarding the project, the EPA Project Officer and the EPA-GLNPO Quality Assurance Manager (Louis Blume).
2. Table of Contents [QAPP Element A2]	Document control format.
3. Distribution List [QAPP Element A3]	Distribution list for the QAPP revisions and final guidance. Include everyone who will receive a copy of the Work Plan / Quality Assurance Project Plan (QAPP). This should include everyone on the Approval Page (item 2), and anyone else who will have direct responsibility for ensuring that the work is conducted in a manner consistent with this work plan/ QAPP. If specific staff members have not been hired yet, you can identify them by the title of their position(s), e.g., field assistant
4. Project/Task Organization [QAPP Element A4]	Identify individuals or organizations participating in the project and discuss their roles, responsibilities and organization.
5. Collaboration and Leveraging [QAPP Element A4]	Describe plans and status of collaboration amongst the public, private, and independent sectors. List the proposed groups that will be involved in this project and what each of the groups' roles will be in the project staffing, funding, design and implementation. Describe how you will coordinate the use of EPA funding with other Federal and/or non Federal sources of funds to leverage additional resources to carry out the proposed project(s) and/or (ii) that EPA funding will complement activities relevant to the proposed project(s) carried out by the applicant with other sources of funds or resources. Leveraged funding or other resources need not be for eligible and allowable project costs under the EPA assistance agreement unless the Applicant proposes to provide a voluntary cost share or match. If EPA accepts an offer for a voluntary cost share/match/participation, applicants must meet their matching/sharing/participation commitment as a condition of receiving EPA funding. Applicants may use their own funds or other resources for voluntary match/cost share/participation if the standards at 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. Only eligible and allowable costs may be used for voluntary matches/cost shares/participation. Other Federal grants may not be used as voluntary matches or cost shares without specific statutory authority (e.g. HUD's Community Development Block Grants). Any form of proposed leveraging that is evaluated under a section V ranking criteria must be included in the proposal and the proposal must describe how the applicant will obtain the leveraged resources and what role EPA funding will play in the overall project.
6. Problem Definition/ Background [QAPP Element A6]	1) State the specific problem to be solved or the decision to be made. 2) Identify the decision maker and the principal customer for the results.
7. Project/Task Description [QAPP Element A6]	Describe what will be done and how. - Include a statement of the project's relevance to [a] GLRI Action Plan's corresponding Focus Area, or [b] Needs and priorities in Sub objective 4.3.3 (Improve the Health of Great Lakes Ecosystems) of EPA's 2006-2011 Strategic Plan http://www.epa.gov/ocfo/plan/plan.htm and to the Great Lakes Regional Collaboration http://www.epa.gov/glnpo/collaboration/strategy.html . - Include: 1) Hypothesis test, 2) expected measurements, 3) ARARs or other appropriate standards, 4) assessment tools (technical audits), 5) work schedule and required reports, including the date by which EPA would receive a final report on the project, 6) your plan for measuring progress toward achieving outputs and outcomes of the project, including those identified in Section I of the announcement, 7) discussion of a communication plan for distributing the project results to interested parties.

8. Benefits/Outcomes	Specify the quantitative and qualitative outcomes of the project, including what measurements you will use and how you will measure and evaluate the results of your project to prove that you have achieved the outcomes. Pursuant to EPA Order 5700.7 http://www.epa.gov/ogd/grants/award/5700.7.pdf on environmental results, “outcome” means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related or programmatic in nature, but must be quantitative. They may not necessarily be achievable within an assistance agreement funding period.
9. Benefits/Outputs	Specify the estimated quantifiable environmental and economic outputs of the project, including affected pollutants, industry sectors, economic impacts, habitats, and/or species. Include an estimate of the amount of chemicals to be "collected or prevented." Describe the quality of that estimate, including applicable limitations. Pursuant to EPA Order 5700.7 http://www.epa.gov/ogd/grants/award/5700.7.pdf on environmental results, “output” means an environmental activity, effort, and/or associated work products related to an environmental goal and objective, that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.
10. Data Quality Objectives for Measurement Data [QAPP Element A7]	Decision(s), population parameter of interest, action level, summary statistics and acceptable limits on decision errors. Also, scope of the project (domain or geographical locale).
11. Special Training Requirements/ Certification [QAPP Element A8]	Identify special training that personnel will need.
12. Documentation and Record [QAPP Element A9]	Itemize the information and records that must be included in a data report package, including report format and requirements for storage, etc.
MEASUREMENT/DATA ACQUISITION	
13. Sampling Process Designs (Experimental Design) [QAPP Element B1]	Outline the experimental design, including sampling design and rationale, sampling frequencies, matrices, and measurement parameter of interest.
14. Sampling Methods Requirements [QAPP Element B2]	Sample collection method and approach.
15. Sample Handling and Custody Requirements [QAPP Element B3]	Describe the provisions for sample labeling, shipment, chain-of-custody forms, procedures for transferring and maintaining custody of samples.
16. Analytical Methods Requirements [QAPP Element B4]	Identify analytical method(s) and equipment for the study, including method performance requirements.
17. Quality Control Requirements [QAPP Element B5]	Describe routine (real-time) QC procedures that should be associated with each sampling and measurement technique. List required QC checks and corrective action procedures.
18. Instrument/Equipment Testing Inspection and Maintenance Requirements [QAPP Element B6]	Discuss how inspection and acceptance testing, including the use of QC samples, must be performed to ensure their intended use as specified by the design.
19. Instrument Calibration and Frequency [QAPP Element B7]	Identify tools, gauges and instruments, and other sampling or measurement devices that need calibration. Describe how the calibration should be done.
20. Inspection/Acceptance Requirements for Supplies and Consumables [QAPP Element B8]	Define how and by whom the sampling supplies and other consumables will be accepted for use in the project.
21. Data Acquisition Requirements (Non-direct Measurements) [QAPP Element B9]	Define the criteria for the use of non- measurement data such as data that come from databases or literature.

22. Data Management [QAPP Element B10]	Outline the data management scheme including the path and storage of the data and the data record-keeping system. Identify all data handling equipment and procedures that will be used to process, compile, and analyze the data.
ASSESSMENT/OVERSIGHT	
23. Assessments and Response Actions [QAPP Element C1]	Describe the assessment activities needed for this project, including your plan for measuring progress toward achieving outputs and outcomes of the project, including those identified in Section I of the announcement. Data assessment activities may include DQA, PE, TSA, MSR/ PR/RR.
24. Reports to Management [QAPP Element C2]	Identify the frequency, content and distribution of reports issued to keep management informed.
DATA VALIDATION AND USABILITY	
25. Data Review, Validation, and Verification Requirements [QAPP Element D1]	State the criteria used to accept or reject the data based on quality.
26. Validation and Verification Methods [QAPP Element D2]	Describe the process to be used for validating and verifying data, including the chain-of-custody for data throughout the lifetime of the project.
27. Reconciliation With Data Quality Objectives [QAPP Element D3]	Describe how results will be evaluated to determine if DQOs have been satisfied.
APPLICANT INFORMATION	
28. Past Performance – Programmatic Capability	<p>Submit a list of federally funded assistance agreements (assistance agreements include Federal grants and cooperative agreements but not Federal contracts) similar in size, scope and relevance to the proposed project that your organization performed within the last three years (no more than 5, and preferably EPA agreements) and describe (i) whether, and how, you were able to successfully complete and manage those agreements, (ii) your history of meeting the reporting requirements under those agreements including submitting acceptable final technical reports, and (iii) how you documented and/or reported on whether you were making progress towards achieving the expected results (e.g., outputs and outcomes) under those agreements. If you were not making progress, please indicate whether, and how, you documented why not..</p> <p>In evaluating applicants under these factors in Section V, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current and prior Federal agency grantors (e.g., to verify and/or supplement the information provided by the applicant). If you do not have any relevant or available past performance or reporting information, please indicate this in the proposal and you will receive a neutral score for these factors under Section V – failure to indicate this may result in 0 points for these factors.</p> <p>In addition, provide information on your organizational experience and plan for timely and successfully achieving the objectives of the proposed project, and your staff expertise/qualifications, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project.</p>
29. Quality Management Plan	Indicate whether the Applicant has an approved Quality Management Plan (see http://www.epa.gov/quality/index.html) and where that plan may be found. If an applicant is selected, GLNPO may require the applicant to submit its Quality Management Plan or similar documentation to the Project Officer. If a selected Applicant has proposed a project in which it will coordinate with, or make sub-awards to, multiple entities or organizations to achieve the proposed results, it will be required to describe how the various organizations will work together to achieve those results. This type of overarching quality management documentation could constitute a Quality Management Plan or Quality Program Plan.
30. Curriculum Vitae	Include Curriculum Vitae for Principal Investigator(s).

PART VI - Great Lakes Restoration Initiative (GLRI) Action Plan
Summary of Goals –Objectives –Measures - Principal Actions of Progress

Focus Area 1: Toxic Substances and Areas of Concern

Long Term Goals

1. Areas of Concern are cleaned up, restoring the areas and removing the beneficial use impairments.
2. The release of toxic substances in toxic amounts is prevented and the release of any or all persistent toxic substances (PTS) to the Great Lakes basin ecosystem is virtually eliminated.
3. Exposure to toxic substances from historically contaminated sources is significantly reduced through source reduction and other exposure reduction methods.
4. Environmental levels of toxic chemicals are reduced to the point that all restrictions on the consumption of Great Lakes fish can be lifted.
5. The health and integrity of wildlife populations and habitat are protected from adverse chemical and biological effects associated with the presence of toxic substances in the Great Lake Basin.

Objectives

1. By 2014, delist five Areas of Concern.
2. By 2014, 46 Beneficial Use Impairments (BUIs) will be removed in Areas of Concern.
3. By 2011, 15 million pounds of electronic waste and 15 million pills of unwanted medicines will be collected or their release will have been prevented.
4. By 2014, 45 million pounds e-waste, 45 million pills of unwanted medicines, and 4.5 million pounds of household hazardous waste in the Great Lakes basin will have been collected or their release will have been prevented.
5. By 2014, 9.4 million cubic yards of contaminated sediments will be remediated.
6. Through 2014, an annual average of up to 5% annual decline will be maintained or improved for the trend (year 2000 and on) in average concentrations of PCBs in whole lake trout and walleye samples.

Measures of Progress

The Great Lakes Restoration Initiative will significantly accelerate pollution prevention and reduction in the Great Lakes ecosystem. The measures by which progress will be evaluated in this focus area are:

Measure	Baseline/ Universe¹	2010 Target	2011 Target	2012 Target	2013 Target	2014 Cumulative Target
1. Number of Areas of Concern in the Great Lakes where all management actions necessary for delisting have been	Baseline: 1 AOC Universe: 31 AOCs	1 AOC (no change)	1AOC	3AOCs	4 AOCs	5 AOCs

¹ Baseline represents the starting point for the measure. Universe represents all that is likely possible to protect, restore, enhance, etc.

implemented – (cumulative)						
2. AOC BUIs removed (cumulative). ²	Baseline: 11 BUIs Universe: 261BUIs	20 BUIs	26 BUIs	31 BUIs	41 BUIs	46 BUIs
3. BUI delisting project starts at AOCs (cumulative). ³	Baseline/Universe: 30 national and bi-national AOCs Universe: 261BUIs	60 projects	80 projects	110 projects	140 projects	170 projects
4. Cubic yards (in millions) of contaminated sediment remediated in the Great Lakes (cumulative). ⁴	Baseline: 5.5 million cubic yards (2007) Universe: 46 million cubic yards	6.3 million cubic yards	7.0 million cubic yards	7.2 million cubic yards	8.6 million cubic yards	9.4 million cubic yards
5. Pollution (in pounds) collected through prevention and waste minimization projects in the Great Lakes basin (cumulative).	Baseline: 0	10 million pounds	15 million pounds	25 million pounds	35 million pounds	45 million pounds
6. Cumulative percentage decline for the long term trend in average concentrations of PCBs in Great Lakes fish. ⁵	Baseline: (2000) 0%	34%	37%	40%	43%	46%

Principal Actions to Achieve Progress

New actions for FY 2010 to 2014 to protect the Great Lakes from toxic substances, clean up sediments and restore Areas of Concern include:

- *Restore Areas of Concern/Remediate Contaminated Sediments* – Accelerate the rate of sediment cleanup in AOCs throughout the Great Lakes basin through programs such as the Great Lakes Legacy Act, Water Resources Development Act, Natural Resource Damage Assessment, and Superfund. Restore and delist AOCs through strategic actions identified in Remedial Action Plans to restore individual beneficial uses. EPA will develop an enhanced management structure and ultimately increase our effectiveness in managing sediment remediation in AOCs. As other sediment sites may be identified, we will explore opportunities and authorities to address remediation at those sites.
- *Strategic Pollution Prevention and Reduction Projects* – Prevent toxic and potentially toxic pollutants from entering the Great Lakes through a variety of new strategic actions, working

² This is an existing measure under the Government Performance Results Act.

³ These projects represent on-the-ground actions that are being implemented in order to remove BUIs. For example, sediment removals, Superfund cleanups, habitat projects and others.

⁴ This is an existing measure under the Government Performance Results Act.

⁵ The annual decline is 5% per year. This is based on an existing measure under the Government Performance Results Act. In FY 2010, 2008 data is compared to 2000; in FY 2011, 2009 data is compared to 2000; and so forth. PCBs are one indicator for a broader suite of persistent toxic substances and one of a number being tracked.

closely with state, tribal and local governments. Initiate toxic reduction activities targeting mercury in emissions, products and waste, and expand Clean Sweep, and other collection programs and prevention practices to promote the safe disposal and elimination of pesticides, pharmaceuticals and other waste stream pollutants that can cause impairments.

- *Protect Human Health through Safer Fish Consumption* – Increase protection of Great Lakes fish consumers from harmful chemicals such as mercury and PCBs, with sound and sensible advice provided through enhanced and expanded state and tribal fish advisory programs. Work closely with the Great Lakes medical and health communities to educate the general public regarding the benefits and risks of Great Lakes fish consumption.
- *Measuring Progress and Assessing New Toxic Threats* – Measure progress in cleaning up toxics in the Great Lakes environment through comprehensive monitoring and assessment. Coordinate with efforts to update the Toxic Substances Control Act to ensure national programs take into account threats developing in the Great Lakes. Identify significant sources and impacts of new toxics to the Great Lakes ecosystem through robust surveillance as well as laboratory and field studies, in order to devise and implement effective control strategies.

Focus Area 2: Invasive Species

Long Term Goals

1. The introduction of new invasive species to the Great Lakes basin ecosystem is eliminated, reflecting a “zero tolerance policy” toward invasives.
2. The risk of introduction of species, which are imported for various uses, into the Great Lakes is minimized.
3. The spread of invasive species, by means of recreational activities, connecting waterways, and other vectors, beyond their current range is prevented.
4. A comprehensive program for detection and tracking newly identified invasive species in the Great Lakes is developed and provides up-to-date critical information needed by decision makers for evaluating potential rapid response actions.
5. An effective, efficient and environmentally sound program of integrated pest management for invasive species is developed and implemented, including program functions of containment, eradication, control and mitigation.

Objectives

1. By 2011, eight state ANS management plans will be established or revised to include rapid response capabilities. By 2014, eight state-based, multi-agency rapid response plans will be implemented and 22 mock exercises to practice responses carried out under those plans and/or actual response actions will be completed.
2. Six technologies that prevent the introduction of invasive species and four technologies that either contain or control invasive species will be developed or refined and piloted by 2011. Ten technologies that prevent the introduction of invasive species and five technologies that either contain or control invasive species will be developed or refined and piloted by 2014.
3. By 2011, methodology and protocols will be piloted for the coordinated monitoring methodology and shared protocols for basinwide invasive species surveillance. By 2014, a

basinwide surveillance program with shared sampling protocols and methodologies to provide early detection of non-native species will be operational.

4. By 2014, a 40 percent reduction in the yearly average rate of invasive species newly detected in the Great Lakes ecosystem will be achieved, compared to the period 2000-2009.
5. By 2014, invasive species populations within the Great Lakes Ecosystem will have been controlled and reduced, as measured in populations controlled to a target level in 6,500 acres of managed area and by removing 5,000 pounds of invasive species from the Great Lakes ecosystem.
6. By 2014, approximately 10 million recreation and resource users will be educated on best practices that prevent the introduction and spread of invasive species.

Measures of Progress

The Initiative will significantly advance efforts to prevent new introductions of invasive species in the Great Lakes basin and to stop the further spread of invasive species in the Great Lakes basin.⁶ Great Lakes Interagency Task Force agencies will work to further develop the initial set of measures by which progress will be evaluated in this focus area. While the Great Lakes community has pioneered many approaches to address invasive species, governmental programs and local efforts are still evolving to meet this threat. The GLRI will build upon and expand these programs, adapting our management approaches as we learn from our efforts. The measures by which progress will be evaluated in this focus area are:

Measure	Baseline/ Universe	2010 Target	2011 Target	2012 Target	2013 Target	2014 Target
1. Rate of nonnative species newly detected in the Great Lakes ecosystem.	Baseline: 1.3 species per year Universe: 181 species	1.3 species per year	1.1 species per year	1.0 species per year	1.0 species per year	0.9 species per year
2. Acres managed for populations of invasive species controlled to a target level. (cumulative)	Baseline: 0 acres	1,000 acres	1,500 acres	3,000 acres	4,500 acres	6,500 acres
3. Number multi-agency plans established, mock exercises to practice rapid responses carried out under those plans, and/or actual rapid response actions (cumulative).	Baseline: 0 rapid response exercises/actions	4 rapid response exercises/actions; and 8 plans established	7 rapid response exercises/actions	12 rapid response exercises/actions	17 rapid response exercises/actions	22 rapid response exercises/actions
4. Number of recreation and resource users contacted on best practices that prevent the introduction and	Baseline: 0 users	1,000,000 users	1,750,000 users	4,750,000 users	7,250,000 users	9,750,000 users

⁶ While the regulatory tools of various agencies will also help advance these efforts, they are not currently a focus of this plan.

spread of invasive species. (cumulative)						
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Principal Actions to Achieve Progress

Principal actions for FY 2010 to 2014 to prevent new introductions of ANS in the Great Lakes basin and stop the further spread of ANS include:

- *Develop Ballast Water Treatment that Protects Freshwater Ecosystems* – Develop a coordinated approach to the development of ballast water treatment suitable for freshwater ecosystems, though the use of laboratory, land-based and/or ship-board testing, and verification of treatment technologies in coordination with the maritime industry. Support work to reduce ship-mediated introductions through hull and anchor chain fouling.
- *Implement Early Actions to Address Water Pathways Vectors* – Identify key waterways that could introduce ANS to the Great Lakes and implement actions such as ecological separation to reduce this risk. Existing canals and extreme storm events can form hydrological connections that may introduce invasive species into the Great Lakes. Models and analysis of hydrological connections under different weather conditions are needed to identify and minimize risks of these connections.
- *Prevention by Broad Stakeholder Outreach and Education* – Promote actions, including coordinated education and outreach, which will prevent the introduction and spread of invasive species through recreational uses such as hunting, fishing and recreational boating.
- *Develop and Demonstrate Innovative Control Technology* – Promote the development and use of new control technologies, including biological control methods, which will significantly reduce the cost and/or increase the effectiveness of invasive species control measures.
- *Support States’ Role in Invasive Species Prevention and Control* – Support the development and on-the-ground implementation of ANS Management Plans for each of the Great Lakes states.
- *Control Key Invasive Species and Investigate Causal Mechanisms by which ANS impact Native Species* – Develop a better understanding and models of ecosystem interactions and management options for minimizing the impact of ANS, including new treatment or control methods.
- *Establish Early Detection and Rapid Response Capability* – Work with government agencies to initiate surveillance activities to detect new ANS and establish the capacity, methods and contingency plans for a rapid response. Joint planning will allow the mobilization of shared resources to create the best opportunity for eradicating species before they become established.

No effort to pursue these goals in the Great Lakes can ignore the rapidly changing situation involving Asian Carp. The migration of Asian Carp through the Chicago Area Waterway System is the most recent and most acute ANS threat facing the Great Lakes today. This species has wreaked permanent havoc on the Mississippi River Basin, where the fish’s rapid expansion of population and range has overwhelmed the river ecosystem by consuming plankton, a vital part of the food chain. As large populations of Asian carp have become established, the cumulative effects of these species have reduced food for native fishes, caused risks to human safety, and created impacts to regional economies that rely on fishing and boating.

The fish is now threatening similar damage to the ecosystem of the Great Lakes, as well as significant economic damage to the Great Lakes sport fishing industry. The Great Lakes community faces an urgency to prevent this threat from materializing.

An inter-governmental Regional Coordinating Committee has been established to oversee the implementation of an Asian Carp Control Strategy Framework, which is a cooperative effort by local, state, provincial, federal and even binational entities. The Framework is intended to provide direction for implementation efforts to prevent the establishment of ANS from migrating through artificially-connecting waterways that exist in the Chicago area, as well as other parts of the Great Lakes watershed, and if already in the basin, to work to implement efforts that might prevent further migration into the system.

The federal partners are working quickly to incorporate Carp and other ANS control efforts into the Initiative. This work pursues the objectives and measures of progress described in this section.

Focus Area 3: Nearshore Health and Nonpoint Source Pollution

Long Term Goals

1. Nearshore aquatic communities consist of healthy, self-sustaining plant and animal populations dominated by native and naturalized species.
2. Land use, recreation and economic activities are managed to ensure that nearshore aquatic, wetland and upland habitats will sustain the health and function of natural communities.
3. The presence of bacteria, viruses, pathogens, nuisance growths of plants or animals, objectionable taste or odors, or other risks to human health are reduced to levels in which water quality standards are met and beneficial uses attained to protect human use and enjoyment of the nearshore areas.
4. High quality bathing beach opportunities are maintained by eliminating impairments from bacterial, algal and chemical contamination; effective monitoring for pathogens; effective modeling of environmental conditions, where appropriate; and timely communications to the public about beach health and daily swimming conditions.
5. A significant reduction in soil erosion and the loading of sediments, nutrients and pollutants into tributaries is achieved through greater implementation of practices that conserve soil and slow overland flow in agriculture, forestry and urban areas.
6. High quality, timely and relevant information about the nearshore areas is readily available to assess progress and to inform enlightened decision making.

Objectives

1. By 2010, EPA will compile and map the highest priority watersheds for implementation of targeted nonpoint source pollution control measures.
2. By 2014, remediation, restoration and conservation actions in at least one targeted watershed in each Great Lake basin will control erosion, reduce nutrient runoff from urban and agricultural sources, and improve habitat to protect nearshore aquatic resources.
3. By 2014, a baseline will be established for total suspended solids loadings from targeted tributaries.

4. By 2014, a measurable decrease will be achieved in soluble phosphorus loading from 2008 levels in targeted tributaries.
5. By 2014, the causes of nutrient-related nearshore biological impairments will be better understood, and following local or watershed remedial actions, the number and severity of incidences of harmful algal blooms (HABs), avian botulism, and/or excessive *Cladophora* growth will be significantly reduced from 2008 levels.
6. By 2014, a comprehensive nearshore monitoring program will have been established and implemented, including a publicly accessible reporting system, based on a suite of environmental indicators.
7. By 2014, 50 percent of high priority⁷ Great Lakes beaches will have been assessed using a standardized sanitary survey tool to identify sources of contamination.
8. By 2014, 20 percent of high priority Great Lakes beaches will have begun to implement measures to control, manage or remediate pollution sources identified through the use of sanitary surveys.
9. By 2014, rapid testing or predictive modeling methods (to improve the accuracy of decisions on beach postings to better protect public health) will be employed at 33 percent of high priority beaches.
10. By 2014, the area of agricultural lands in conservation and/or utilizing conservation tillage practices will increase by 50 percent over 2008 levels.

Measures of Progress

The Initiative will significantly improve the health of Great Lakes nearshore areas and will advance the reduction of nonpoint source pollution to levels that do not impair nearshore waters. The measures by which progress will be evaluated in this focus area are:

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⁷ Beaches that the states identify as most frequently used and/or that have the highest risk. In 2008, there were 356 high priority beaches out of a total of 1,411 total beaches in the U.S. Great Lakes.

Measure	Baseline/ Universe	2010 Target	2011 Target	2012 Target	2013 Target	2014 Target
1. Five year average annual loadings of soluble reactive phosphorus ⁸ from tributaries draining targeted watersheds.	Baseline: 2003-7 Fox River: 212 Saginaw R: 133 Maumee R: 623 St. Louis R: ** ⁹ Genesee R: 85 ¹⁰	0% reduction Fox: 212 Saginaw: 133 Maumee: 623 St. Louis: ** Genesee: 85	0.5% Fox: 211 Saginaw: 131 Maumee: 617 St. Louis: ** Genesee: 85	1.5% Fox: 209 Saginaw: 130 Maumee: 611 St. Louis: ** Genesee: 84	2.5% Fox: 207 Saginaw: 129 Maumee: 604 St. Louis: ** Genesee: 83	4.5% Fox: 202 Saginaw: 126 Maumee: 592 St. Louis: ** Genesee: 81
2. Percentage of beaches meeting bacteria standards 95% or more of beach days.	Baseline: 86% (2006) Universe: 100%	86%	87%	87%	88%	89%
3. Extent (sq. miles) of Great Lakes Harmful Algal Blooms.* ¹¹	Baseline: 2008 estimate TBD	0% reduction	4% reduction	7% reduction	8% reduction	12% reduction
4. Annual number of days U.S. Great Lakes beaches are closed or posted due to nuisance algae. ¹²	Baseline: 200 beach days (estimate)	0% improvement : 200 days	4% improvement : 192 days	7% improvement: 186 days	8% improvement: 184 days	12% improvement : 176 days
5. Annual volume of sediment deposition in defined harbor areas in targeted watersheds (cu yards). ¹³	Baseline: 2008 Toledo Harbor: 1 million cubic yards	0% improvement : 1 million cubic yards	1% improvement : 0.99 million cubic yards	1% improvement: 0.99 million cubic yards	2% improvement: 0.98 million cubic yards	2.5% improvement : 0.975 million cubic yards
6. Acres in Great Lakes watershed with USDA conservation practices implemented to reduce erosion, nutrients and/or pesticide loading under Farm Bill Programs. ¹⁴	Baseline: 165,000 acres	2% increase 168,300 acres	10% increase 181,500 acres	25% increase 206,250 acres	40% increase 231,000 acres	50% increase 247,500 acres

⁸ Metric tons per year. Total phosphorus will also be measured. Targeted watersheds will receive focused efforts toward restoration activities, e.g., agricultural best management practices.

⁹ **Calculations in progress, to be delivered 2010.

¹⁰ Data for Genesee River are from 2006 and 2007 only.

¹¹ Biological responses to nutrients loadings are also dependent on other factors such as water temperature, timing and intensity of precipitation, and hydrologic features. Year-to-year variability in these features may mask local improvements in nutrients management. Satellite imagery may provide data for days during which HABs are reported by shoreline observers or boaters.

¹² This metric will be added to national surveys for beach managers for 2010. Nuisance algae can include *Cladophora*, HABs or other species, all of which are believed to be aggravated by elevated levels of phosphorus in the water.

¹³ USACE dredges the federal shipping channel at Toledo Harbor each year. This area receives the highest rate of sedimentation in the Great Lakes, coming from the Maumee River watershed. Even small improvements in the rate of sedimentation here would reflect considerable efforts in the watershed to reduce erosion and farm runoff. Alternately, USACE conducts bathymetric surveys of commercial harbors each year, from which the volume of new fluvial sediment can be calculated for targeted watersheds. Because USACE does not dredge every location of every harbor each year, the estimated accumulation from a designated area over time will reflect the relative amount of sediments deposited from the tributary. This approach is currently in development.

¹⁴ This measure reflects annual (not cumulative) implementation of conservation practices (from the Environmental Quality Incentives Program and Conservation Technical Assistance program) that will contribute to long term improvements of the listed outcomes.

Principal Actions to Achieve Progress

The principal actions to improve the health of nearshore areas and reduce nonpoint source pollution to levels that do not impair nearshore Great Lakes waters include:

- *Targeting Watershed Plan Implementation* - Significant progress has been made nationally and in the Great Lakes basin in addressing soil erosion and in reducing nutrient or other contaminant loads to tributaries to the Great Lakes through the existing state and federal programs. Water quality problems still exist, however, with loadings of sediment and nutrients still unacceptably high in a number of areas and degraded watershed conditions linked to impaired nearshore biological communities. This results in increased costs for navigation dredging of harbors, and in localized environmental problems such as mats of rotting algae on swimming beaches and along the shore. Initiative efforts in this area will address high priority watersheds, performing scientific analyses to strategically target where on-the-ground actions can be most effective, and providing supplemental funding to implement those actions. Innovative actions may include green infrastructure, low-impact development solutions, and containment of wastes from confined animal feedlot operations. This will involve close collaboration between state programs, Great Lakes tribal governments, the U.S. Department of Agriculture's Natural Resources Conservation Service and U.S. Forest Service; the U.S. Army Corps of Engineers; Department of Interior's U.S. Fish and Wildlife Service and U.S. Geological Survey; and EPA.
- *Identify sources and reduce loadings of nutrients and soil erosion* - These activities will contribute to the reduction or elimination of the number and severity of incidences of ecosystem disruptions, including *Cladophora*, HABs, botulism and other issues associated with eutrophication. Activities will include: applying research and modeling to identify the most effective actions to prevent incidences of *Cladophora*, HABs and botulism; enhancing or implementing watershed practices to reduce export of nutrients and soils to the nearshore waters; and establishing and implementing total maximum daily loads (TMDLs) for phosphorus, scaled from river reaches to watersheds.
- *Improve Public Health Protection at Beaches* - Humans are put at risk when exposed to pathogenic bacteria. These activities will reduce risk to human health at swimming beaches by reducing the abundance of pathogenic organisms to levels below established criteria, increasing the effectiveness of monitoring for pathogens, modeling environmental conditions likely to result in elevated levels of bacteria, or enhancing communications to the public about daily swimming conditions.
- *Generate Critical Information for Protecting Nearshore Health* - The nearshore environment of the Great Lakes is highly varied, including relatively unspoiled shorelines, highly urbanized reaches, tributary mouths, bays, wetlands and other environmental features. These activities will promote the collection of data about nearshore conditions and stresses, the assessment of information and management implications, or the dissemination of information to all potential users in the Great Lakes community.

Focus Area 4: Habitat and Wildlife Protection and Restoration

Long Term Goals

1. Protection and restoration of Great Lakes aquatic and terrestrial habitats, including physical, chemical, and biological processes and ecosystem functions, maintain or improve the conditions of native fish and wildlife.

2. Critical management activities (such as stocking native fish and other aquatic species, restoring access of migratory fish species at fish passage barriers, and identifying and addressing diseases) protect and conserve important fish and wildlife populations.
3. Sound decision making is facilitated by accessible, site specific and landscape-scale baseline status and trend information about fish and wildlife resources and their habitats.
4. High priority actions identified in strategic plans (such as state and federal species management, restoration and recovery plans, Lakewide Management Plans, Remedial Action Plans, and others) are implemented, lead to the achievement of plan goals, and reduce the loss of fish and wildlife and their habitats.
5. Development activities are planned and implemented in ways that are sensitive to environmental considerations and compatible with fish and wildlife and their habitats.

Objectives

1. By 2014, 4,500 miles of Great Lakes rivers and tributaries will be reopened and 450 barriers to fish passage will be removed or bypassed.
2. By 2014, 82% of recovery actions for federally listed priority species will be implemented.
3. By 2014, 53 percent of populations of native aquatic non-threatened and endangered species are self sustaining.
4. By 2014, 97,500 acres of wetlands, wetland-associated uplands, and high priority coastal, upland, urban, and island habitats will be protected, restored or enhanced.
5. By 2014, 100 percent of U.S. coastal wetlands in the Great Lakes basin will be assessed.
6. By 2014, 30 habitat-related beneficial use impairments will be delisted across the Areas of Concern.

Measures of Progress

The Initiative will significantly accelerate Great Lakes habitat and wildlife protection. The measures by which progress will be evaluated in this focus area are:

Measure¹⁵	Baseline/ Universe	2010 Target	2011 Target	2012 Target	2013 Target	2014 Target
1. Miles of rivers reopened for fish passage.	Baseline: 0 Universe: 20,000 miles	1,000 miles	1,500 miles	2,500 miles	3,500 miles	4,500 miles
2. Number of fish passage barriers removed or bypassed.	Baseline: 0 Universe: 5,000 barriers	100 barriers	150 barriers	250 barriers	350 barriers	450 barriers
3. Number of species delisted due to recovery	Baseline (2009): 0 species Universe: 28 listed species-Great Lakes	0	1 ¹⁶	1	1	2

¹⁵ Out year targets for these measures are cumulative. The Universe represents all that is likely possible to protect, restore, enhance; baseline represents the number of acres etc. that are already protected, restored, enhanced. All measures of progress included here are interim figures until final baselines are established.

4. Percent of recovery actions implemented for priority listed species	Baseline (2009): 0 Universe: 414 recovery actions ¹⁷	16% 68/414	33% 138/414	51% 211/414	67% 277/414	82% 338/414
5. % of populations of native aquatic non-threatened and endangered species self-sustaining in the wild.	Baseline (2009): 27% 39/147 populations ¹⁸ Universe: 147 populations	33% 48/147 populations	35% 52/147 populations	41% 60/147 populations	47% 69/147 populations	53% 78/147 populations
6. Number of acres of wetlands and wetland-associated uplands protected, restored and enhanced.	Baseline: 0 Universe: 550,000 acres	5,000 acres	7,500 acres	12,500 acres	17,500 acres	22,500 acres
7. Number of acres of coastal, upland, and island habitats protected, restored and enhanced.	Baseline: 0 Universe: 1,000,000 acres	15,000 acres	20,000 acres	35,000 acres	50,000 acres	75,000 acres
8. % of U.S. coastal Great Lakes wetlands assessed.	Baseline: 0 Universe: 100%	20%	40%	60%	80%	100%
9. Number of habitat-related BUIs removed from the 27 U.S. AOCs so impaired ¹⁹ .	Baseline: 4 Universe: 75 so impaired	9 BUIs removed	12 BUIs removed	18 BUIs removed	24 BUIs removed	30 BUIs removed

Principal Actions to Achieve Progress

The principal FY 2010-2014 actions to protect and restore habitat and wildlife include the following. Agencies will work together with states, tribes, municipalities, non-governmental organizations and industry to:

¹⁶ Lake Erie Watersnake 2011, Pitcher's thistle 2014.

¹⁷ Numerator: # recovery actions implemented for Great Lakes priority listed species. Denominator: Total recovery actions for Great Lakes priority listed species, as defined in species recovery plans. Note that many recovery actions are implemented annually (i.e., update landowner records, monitor current populations, evaluate threats, etc.). Recovery actions are implemented until the threshold for action "completion" is met, as defined in each species recovery plan.

¹⁸ Numerator: # of populations of native aquatic non-T&E and non-candidate species that are self-sustaining in the wild. Denominator: total # of native aquatic non-T&E and non-candidate populations.

¹⁹ Also captured under Measure 2, Focus Area 1.

- *Improve Aquatic Ecosystem Resiliency* – Protect and restore aquatic habitats for fish and wildlife populations by reconnecting habitats through corridors to enhance biological diversity, reducing sediment and nutrient inputs, restoring natural hydrological processes, improving water quality, restoring ecosystem services, and increasing populations of native fish and wildlife through coordinated management actions.
- *Maintain, Improve or Enhance the Populations of Native Species* - Implement restoration actions identified in species recovery and management plans; quantify habitat needs for depleted migratory bird species; propagate lake trout, coaster brook trout, lake sturgeon and other similar fingerlings for suppressed fish populations, assessing fish populations; and protect and restore culturally significant species.
- *Enhance Wetlands, Wetland-Associated Uplands, and High Priority Coastal, Upland and Island Habitats* – Protect, restore, or enhance habitats by acquiring properties that are important to sustain fish and wildlife populations, restoring natural hydrological regimes, improving water quality, and restoring the chemical, physical, and biological integrity of ecosystems in each Great Lake basin.
- *Identify, Inventory, and Track Progress on Great Lakes Habitats, Including Coastal Wetlands Restoration* – Assess progress toward restoring Great Lakes habitats by establishing baseline conditions and tracking trends; highlight the importance of coastal wetland conservation and restoration by implementing a long-term coastal wetland monitoring program and enhancing the National Wetlands Inventory.
- *Restore Habitat Functioning in Areas of Concern* – Improve habitats in degraded urban environments and Areas of Concern where beneficial use impairments limit ecosystem functioning by restoring habitats for native species populations and removing or isolating contaminants.

Focus Area 5: Accountability, Education, Monitoring, Evaluation, Communication, Partnerships

Long Term Goals

1. A cooperative monitoring and observing system provides a comprehensive assessment of the Great Lakes ecosystem.
2. The necessary technology and programmatic infrastructure supports monitoring and reporting, including Great Lakes Restoration Initiative project deliverables by all agencies and participating stakeholders. Data and information are provided in reports that are public friendly, timely and available on the Internet. Reports present integrated and scaled data from watersheds to lakes to Great Lakes basinwide.
3. Increase outreach and education for the Great Lakes, and provide ongoing K-12 education for students to understand the benefits and ecosystem functions of the Great Lakes so they are able to make decisions to ensure that restoration investments are enhanced over time.
4. Expand the range of opportunities for Great Lakes stakeholders and citizens to provide input to the governments and participate in Great Lakes issues and concerns.
5. Work under the goals and objectives of the Great Lakes Water Quality Agreement is coordinated between the U.S. and Canada through Lakewide Management Plans (LaMP) and other binational processes, programs, and plans.

Objectives

1. By 2011, opportunities for collaboration, planning, data accessibility and accountability will be increased through the expanded use of internet-based technology.
2. By 2011, an Accountability System will be developed and implemented for the Initiative. The system will integrate and make transparent strategic planning, budgeting and results monitoring.
3. By 2011, a satellite remote sensing program will be implemented to assess Great Lakes productivity and biological (e.g., algal bloom) events.
4. By 2011, outreach and education efforts are increased, including identifying and revising existing curricula to incorporate sustainable education needs for the Great Lakes that meet state and other relevant learning standards.
5. By 2011, a refined suite of science-based indicators for development of a comprehensive assessment of Great Lakes ecosystem health will be identified, monitoring programs for those indicators will begin to be implemented, and restoration and protection actions tied to those assessments and programs assured.
6. By 2011, social media access opportunities for basinwide public involvement in the Initiative will be in place.
7. By 2012, education efforts under existing curricula that meet state and other relevant learning standards will be coordinated across states, and a system for tracking student and teacher outreach (quantitatively and qualitatively) for their use.
8. By 2012, improved coordination with Canada will take place for programs under the Great Lakes Water Quality Agreement, particularly under the LaMPs, which will result in the achievement of 5-10 priority LaMP goals and actions.
9. By 2014, a statistically valid and comprehensive assessment, using a probability-based design, of Great Lakes water resources, will be established. The system will integrate shipboard monitoring, remote sensing, automated sampling, and other monitoring or observing efforts. By 2016, the system will be in place for all of the Great Lakes and capable of providing a scientifically justifiable assessment of Great Lakes water resources.
10. By 2014, timely data and information will be provided to decision makers at multiple scales within a framework of established baselines, targets, indicators of progress, and monitoring.

Measures of Progress

The Initiative will significantly improve collaborative Great Lakes decision making, transparency, and accountability for Great Lakes information. Representatives of the federal agencies below will work together to determine which existing agency inventory and monitoring data can be used to establish baselines for the various performance goals and to identify needed additional research and monitoring, outreach, and implementation. The measures by which progress will be evaluated in this focus area are:

Measure	Baseline/ Universe	2010 Target	2011 Target	2012 Target	2013 Target	2014 Target
1. Improvement in the overall aquatic ecosystem health of the Great Lakes using the Great Lakes 40-point scale. ²⁰	Baseline: 20 points Universe: 40 points	23 points	23.4 points	23.9 points	24.3 points	24.7 points
2. Number of priority LaMP projects that are completed.	Baseline: 0 projects	10 projects	12 projects	15 projects	18 projects	20 projects
3. Number of educational institutions incorporating new or existing Great Lakes protection and stewardship criteria into their broader environment education curricula. ²¹	Baseline: 0	0 institutions	2 institutions	6 institutions	10 institutions	16 institutions

Principal Actions to Achieve Progress

The principal actions for FY 2010 to 2014 to achieve significant, measurable objectives include:

- *Develop Great Lakes Restoration Accountability System* – Develop and implement a transparent accountability system for the Great Lakes Restoration Initiative, including easy access to information and linkages to planning, budgeting, and results. With our new accountability system, partner agencies will report quality controlled information regularly on Initiative progress in meeting the objectives and targets of this Action Plan. Progress will also be reported with and through the LaMPs on the Great Lakes as a whole, as well as on each of the Lakes and Connecting Channels, and public forums will be harnessed to assist with the transfer and dissemination of information to the public.
- *Measure and Evaluate the Health of the Great Lakes Ecosystem using the best available science* – Enhance existing programs that measure and assess the physical, biological, and chemical integrity of the Great Lakes, including the Connecting Channels. Develop and implement a statistically valid assessment, using a probability-based design, of Great Lakes water resources, coinciding with intensive cooperative science and monitoring efforts for the Lakes. Implement strategic components relevant for Great Lakes decision making of the U.S. contribution to the Integrated Earth Observation System and the Integrated Ocean Observing System as part of the Global Earth Observing System of Systems. Develop a coordinated federal approach to address on the key scientific priorities needed to fully assess the impacts climate change may have on the health of the Great Lakes ecosystem and better manage those impacts. Promote the development and implementation of science-based indicators that will better assess and provide a better measure of accountability of actions to improve the health of the Great Lakes ecosystem.
- *Support Great Lakes restoration education* – Develop coordination mechanism(s) for Great Lakes restoration education efforts that meet state and other relevant learning standards. Identify the suite

²⁰ This is an existing measure under the Government Performance and Results Act. The Great Lakes Index uses select Great Lakes ecosystem indicators (i.e., coastal wetlands, phosphorus concentrations, AOC sediment contamination, benthic health, fish tissue contamination, beach closures, drinking water quality, and air toxics deposition) and is based on a 1 to 5 rating system for each indicator, where 1 is poor and 5 is good. Improvements in the index and measures would indicate that fewer toxics are entering the food chain; ecosystem and human health is better protected; fish are safer to eat; water is safer to drink; and beaches are safer for swimming.

²¹ Educational institutions include: state departments of education, primary and secondary school districts, colleges, universities, zoos, aquaria, museums, and nature/resource centers. Curricula will meet relevant official standards.

of participating educators and facilities (e.g., formal classroom teachers, homeschoolers, public and private community service learning programs, non-traditional education outlets such as nature centers, national lakeshore visitor centers, zoos, aquariums, museums, and urban community centers, etc.). The number of educators who participate in teacher trainings and, as a result the number of participating students, is increasing. These trends should be made to translate into more institutions incorporating Great Lakes lessons into their curricula. Ensure metrics are included the Great Lakes Restoration Accountability System.

- *Enhance Partnerships* – Enhance coordination and collaboration among Great Lakes partners to help ensure that actions, projects and programs under the Great Lakes Restoration Initiative are efficient, effective and in furtherance of the U.S. - Canada Great Lakes Water Quality Agreement. Partnerships will be advanced and resources and capabilities leveraged through existing collaborative efforts such as the U.S. - Canada Binational Executive Committee, the State of the Lakes Ecosystem Conference, the U.S. - Canada Great Lakes Binational Toxics Strategy, Lakewide Management Plans, Four Agency Agreements, the Coordinated Science Monitoring Initiative, and Great Lakes Fisheries management. This principal action will also stress building ownership and a sense of joint responsibility among agencies, institutions and the public across the Great Lakes basin. Partners and stakeholders will be encouraged to suggest refinements to the Initiative, to monitor and judge progress, and to help adjust objectives and actions as progress is made. Existing mechanisms, such as the U.S. Policy Committee, will be used and new ones developed, if needed, to enable that participation.

Acronyms

ANS	Aquatic Nuisance Species
AOC	Area of Concern
BUI	Beneficial Use Impairment
EPA	U.S. Environmental Protection Agency
GLRC	Great Lakes Regional Collaboration
GLRI	Great Lakes Restoration Initiative
GPRA	Government Performance and Results Act
HAB	Harmful Algal Bloom
LaMP	Lakewide Management Plan
RFP	Request for Proposals
SRF	State Revolving Fund

PART VII – Great Lakes Accountability System (GLAS)

How to Enter your Project Data in to EPA's GLAS

The Conference Report accompanying Public Law 111-88, House Report 111-316, requires EPA to develop a process that “ensures monitoring and reporting on the progress of the Great Lakes Restoration Initiative” (GLRI). EPA’s Great Lakes National Program Office is developing the Great Lakes Accountability System (GLAS) as the primary mechanism for collecting information to monitor and report on GLRI progress. The GLAS is a web-based reporting system has been *modeled on EPA’s Chesapeake Bay Registry* (see <http://www.epa.gov/region3/chesapeake/grants.htm#2009>) and it will be available to the public online later this summer (or by certain date). What will GLAS do?

- It will be the clearinghouse for information on all projects funded with GLRI monies, including grants, co-operative agreements, Interagency Agreements, and contracts.
- It will be the primary responsibility of the first-level recipient, e.g. non-for-profit group or State partner, to provide data for all mandatory fields and update these on a quarterly basis. EPA will then verify the accuracy of this data before it is available to the public.
- Projects will be reported at the “level of aggregation” of data, i.e. the amount of acres placed in conservation easements in a hydrologic unit as opposed to the specific information for each piece of land encompassed by this project.
- Each project will be linked to one of the long term goals, and an objective or measure, outlined in the Great Lakes Action Plan. For example, pollution prevention projects will be linked to Long Term Goal 1.1.2, pollution prevention, and Measure of Progress 1.3.5, a metric for the amount of pollution in pounds collected in the basin each year.
- Each of the 28 measures listed in the Great Lakes Action Plan can be tracked through GLAS, either totally or partially with augmentation from other sources.
- Eventually, GLAS will provide “dashboard indicators” (akin to Chesapeake Bay’s system) which will provide a visual representation of how well we’re doing for each of the metrics.
- Management will be able to adjust priorities based upon data aggregated in GLAS.

Through the Information Collection Request process required by the Paperwork Reduction Act, we have sought to ensure that GLAS reporting is not overly burdensome for the recipients and to the degree possible, we are seeking to coordinate GLAS with data systems used by other Federal partners. We are striving to make GLAS as useful as possible for the recipients, as well, so that issues regarding project quality documentation approval, for example, are memorialized in the system.

In conclusion, GLAS will provide “one-stop shopping” for anyone seeking to see who has received GLRI funding, how and where GLRI dollars are spent, what they are spent on, and what progress has been made in achieving the goals of the Great Lakes Action Plan.

For more information (including a video demonstration on GLAS reporting mechanism, please visit the following URL - <http://greatlakesrestoration.us/?p=714>. Additional GLAS reporting updates will be available during summer of 2010.