

U.S. EPA GREAT LAKES NATIONAL PROGRAM OFFICE
Great Lakes Fish Monitoring and Surveillance Program
2015 Request for Applications

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Funding Opportunity Title: Great Lakes Restoration Initiative Request for Applications
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INTRODUCTION AND OVERVIEW

This Request for Applications (RFA) solicits applications from eligible entities for a cooperative agreement to be awarded pursuant to the Great Lakes Restoration Initiative Action Plan II (<http://glri.us/actionplan/pdfs/glri-action-plan-2.pdf>). Applications are requested for a project to complete chemical analysis in support of the Great Lakes Fish Monitoring and Surveillance Program. This RFA is the first Great Lakes Restoration Initiative (“GLRI” or “Initiative”) for FY2015.

Funding/Awards: Approximately \$6.5 million may be awarded as a cooperative agreement under this RFA, contingent upon funding availability, the quality of applications received and other applicable considerations. However, EPA expressly reserves the right to make no awards under this RFA. Proposed projects **must** be limited to the specified project duration. Awards may be fully or incrementally funded. All incrementally funded awards will be subject to the availability of funding, future appropriations, satisfactory performance of work, and other applicable considerations.

Authorization for GLRI funding is contained in applicable appropriations acts, including the Consolidated and Further Continuing Appropriations Act, 2015, Public Law 113-235. EPA has authority to award grants and cooperative agreements for planning, research, monitoring, outreach and implementation projects in furtherance of the GLRI and the Great Lakes Water Quality Agreement. Nonfederal governmental entities, including state agencies, interstate agencies, federally-recognized Indian tribes and tribal organizations, and local governments as defined in 2 CFR 200 and or 2 CFR 1500; institutions of higher learning (*i.e.*, colleges and universities); and non-profit organizations are eligible to apply for funding under this RFA. Individuals, foreign organizations and governments, nonprofit organizations exempt from taxation under Section 501(c)(4) of the Internal Revenue Code that engage in lobbying, and “for-profit” organizations are not eligible.

Important Dates:

- April 17, 2015 - Applications **must** be received by EPA via Grants.gov (the preferred method), mail, overnight delivery, hand delivery, or courier service by 5:00 p.m. Central Daylight Time / 6:00 p.m. Eastern Daylight Time. See Section IV for further submission information.
- May 2015 – EPA will notify finalist.
- June 2015 – EPA will make official award.

Other Application Information: For your convenience, an RFA web page has been created at <http://www2.epa.gov/great-lakes-funding/great-lakes-fish-monitoring-and-surveillance-program-rfa> where you will find information relating to the RFA process as well as a link to frequently asked questions (FAQs). We encourage all applicants to sign up for our mailing list and register with us at <http://www.epa.gov/greatlakes/maillist>. Further submittal information is described in Section IV.

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I. APPLICATION INFORMATION

Background, Authority, and Funded Activities:

The President, Congress, and the U.S. Environmental Protection Agency (EPA), in conjunction with other federal departments and agencies, have made restoring the Great Lakes a national priority. The Great Lakes Restoration Initiative (“GLRI” or “Initiative”) builds on the prior efforts of federal, state, and local agencies; Indian tribes; businesses; public interest groups; interested citizens; and others to develop a collaborative and comprehensive approach to restoring the Great Lakes. Information about the Initiative can be found at <http://greatlakesrestoration.us/>.

This RFA is expected to result in the award of a cooperative agreement to help implement the GLRI. Cooperative agreements are assistance agreements in which EPA expects to have substantial involvement in completing the project. Authorization for GLRI funding is contained in applicable appropriations acts, including the Consolidated and Further Continuing Appropriations Act, 2015, Public Law 113-235.

EPA has authority to award grants and cooperative agreements for planning, research, monitoring, outreach and implementation projects in furtherance of the GLRI and the Great Lakes Water Quality Agreement (GLWQA). (The statutory authority to take action to implement the U.S. responsibilities under GLWQA is contained in Section 118(c) of the Clean Water Act. The principal goal of GLWQA is the restoration and maintenance of the chemical, physical, and biological integrity of the Great Lakes ecosystem.) Funded activities **must** advance protection and restoration of the Great Lakes ecosystem in support of: (i) the GLRI Action Plan (see http://greatlakesrestoration.us/pdfs/glri_actionplan.pdf) and (ii) EPA’s Strategic Plan.¹ For projects with international aspects, the above statutes are supplemented, as appropriate, by the National Environmental Policy Act, Section 102(2)(F).

This RFA solicits applications from eligible entities for a cooperative agreement to be awarded pursuant to the statutory authorities referenced above and the GLRI Action Plan. Up to \$6.5 million, approximately \$1.3 million per year, may be awarded under this RFA for 1 project contingent on the quality of applications received, funding availability and other applicable considerations.

¹ See EPA’s Strategic Plan for Fiscal Years 2014-2018; Goal 2: *Protecting Americas Waters*; Objective 2: *Protect and Restore Watersheds and Aquatic Ecosystems (Protect, restore, and sustain the quality of rivers, lakes, streams, streams, and wetlands on a watershed basis, and sustainably manage and protect coastal and ocean resources and ecosystems)*. The Plan is available at: <http://www2.epa.gov/planandbudget/strategicplan>.

All projects will be evaluated as described in Section V, which also highlights factors that may result in more favorable evaluations, including:

- Ability to conduct ultra-trace analysis of organic contaminants in aquatic biota; and
- A plan to widely circulate results and information to the Great Lakes community.

Minority Academic Institutions:

All eligible applicants, as defined in Section III, including Minority Academic Institutions (MAIs) as described below, are strongly encouraged to apply for funding under this competition. For purposes of this solicitation, the following are considered MAIs:

1. Historically Black Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. Sec. 1061). A list of these schools can be found at: <http://www.ed.gov/edblogs/whhbcu/one-hundred-and-five-historically-black-colleges-and-universities/>;
2. Tribal Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. Sec. 1059(c)). A list of these schools can be found at: <http://www.ed.gov/edblogs/whiaiane/tribes-tcus/tribal-colleges-and-universities/>;
3. Hispanic-Serving Institutions (HSIs), as defined by the Higher Education Act (20 U.S.C. Sec.1101a(a)(5)). There is no list of HSIs. HSIs are institutions of higher education that, at the time of application submittal, have an enrollment of undergraduate full-time equivalent students that is at least 25% Hispanic students at the end of the award year immediately preceding the date of application for this grant; and
4. Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs), as defined by the Higher Education Act [20 U.S.C. Sec. 1059g(a)(2)]. There is no list of AANAPISIs. AANAPISIs are institutions of higher education that, at the time of application submittal, have an enrollment of undergraduate students that is not less than 10 % students who are Asian American or Native American Pacific Islander.

Subawardees and/or Contractors:

If you name subawardees/ subgrantees and/or contractor(s), including individual consultants, in your application as partners to assist you with the proposed project, pay careful attention to the information in Section III regarding "Coalitions" and to the "Contracts and Subawards" provisions at: http://www.epa.gov/ogd/competition/solicitation_provisions.htm (incorporated by reference in Section IV.J).

RFA Terms:

For purposes of this RFA:

1. The term “**output**” means an environmental activity, effort, and/or associated work product 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 over the term of the cooperative agreement funding period. An output for a contaminant monitoring and surveillance project would be, *e.g.*, the number of new compounds for which an analytical method has been developed, the number of compounds detected, or the establishment of a trend.
2. The term “**outcome**” means the result, effect or consequence that will be achieved by carrying out an environmental activity, effort, and/or associated work product that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related, or programmatic in nature, **must** be quantitative, and may not necessarily be achievable within a cooperative agreement funding period. As an example, an outcome for a contaminant monitoring and surveillance project would be the incorporation of chemical monitoring and surveillance information into actions that will protect human health and the environment.

Funding Opportunity for the Great Lakes Fish Monitoring and Surveillance Program:

General Background: While levels of certain persistent toxic chemicals (*e.g.*, polychlorinated biphenyls (PCBs)) have been significantly reduced in the Great Lakes ecosystem over the past 30 years, these chemicals continue to be present at levels above those considered safe for humans, warranting fish consumption advisories in all five Great Lakes and their connecting channels. New (or emerging) persistent toxic chemicals (*e.g.*, flame retardants) are also being found in the Great Lakes ecosystem that may present a threat to human health and the environment.

The Great Lakes Fish Monitoring and Surveillance Program (GLFMSP) is one of a few long-term contaminant monitoring programs in the Great Lakes. Collectively, these programs address the science and monitoring responsibilities of the United States and Canada to identify and assess the spatial and temporal trends in the atmosphere, aquatic biota, wildlife, water and sediments.

The Great Lakes Fish Monitoring Program (GLFMP) began in 1970 as a cooperative effort by EPA, U.S. Food and Drug Administration (no longer participating), U.S. Fish and Wildlife Service (now the Biological Resources Division of U.S. Geological Survey – no longer participating) and the eight Great Lakes States to monitor and better define the fish contaminant problem in the Great Lakes. The GLFMP has, since its inception, served as a model for interagency cooperation, coordination with other U.S. monitoring and surveillance programs, and coordination with Environment Canada (EC). In 2007, following a peer review, the GLFMP became the Great Lakes Fish Monitoring and Surveillance Program (GLFMSP) to reflect the shift in program priority from fillet analysis to emerging chemical surveillance.

The GLFMSP program consists of two core elements: 1) to monitor legacy and “emerged” contaminants at set locations in each of the Great Lakes (Table 1) and; 1a) to conduct surveillance of emerging chemicals Tables 2a & b) in whole predator fish at the set GLFMSP sampling locations. Special studies can also be conducted as part of the GLFMSP and can aid and or augment the interpretation of information generated by the core elements of the program.

Applications submitted in response to this RFA must address both core elements to be considered eligible.

Element 1, the Open Lakes Trend Monitoring Program for whole fish, is directed at monitoring contaminant trends in the open water of the Great Lakes and evaluating the impacts of contaminants on the fishery. The program provides for collection and analysis of whole-fish composites of:

- lake trout (*Salvelinus namaycush*) in the size range from 600 mm to 700 mm from Lake Michigan, Lake Huron, Lake Ontario, the eastern basin of Lake Erie, and Lake Superior and
- walleye (*Stizostedion vitreum*) in the size range of 400 mm to 500 mm from the western basin of Lake Erie.

Composites of each species, consisting of five whole individual fish, are analyzed for contaminants to assess temporal trends in organic contaminants in the open waters of the Great Lakes, using fish as biomonitors (Table 1). These data can also be used to assess the risks of such contaminants on the health of this important fishery, and on the wildlife that consume them.

Element 1A, the Emerging Chemical Surveillance Program, screens fish tissue for emerging chemicals according to their persistent, bioaccumulative, and/ or toxic chemical properties. This program utilizes samples collected for Element 1 and mega-composites from each lake (representing all samples from a given lake). These data can be used to determine the presence of a contaminant of interest in top predator fish, help to identify and guide state and federal monitoring programs in the development of their analyte lists and priority setting, and improving the Element 1 component of the program by allowing the incorporation of contaminants of concern to be added to the routine analyte list. Additionally, identification of a chemical of interest through Element 1A may result in the PI's access to the GLFMSP historical archive of tissue for a retrospective analysis. The archive contains both whole fish and sport fish fillet samples.

Information generated by the GLFMSP is used by the Great Lakes scientific community and other monitoring and surveillance programs to corroborate results and generate collaborative monitoring and surveillance. In addition, the agencies responsible for issuing health advice associated with fish consumption rely on information generated by the GLFMSP to aid in the prioritization of their limited funds, with particular emphasis on emerging contaminant surveillance. It is expected that the recipient of this cooperative agreement, if awarded, will cooperate and participate in discussions with state and tribal health agencies regarding chemical contaminant surveillance and prioritization.

The Environment Canada National Fish Contaminant Monitoring and Surveillance Program is a critical partner to EPA's GLFMSP. Both programs support activities identified in the 2012 GLWQA, report jointly through the State of the Lakes Ecosystem Conference Reports and the International Joint Commission, and will be collecting and reporting at two joint locations for the

first time under the 2012 GLWQA. For this reason, any data generated pursuant to this cooperative agreement, if awarded, will be provided to EPA and to EC according to the data release policy located at <http://www.epa.gov/grtlakes/monitoring/fish/links.html>.

Special studies conducted as part of the GLFMSP are directed at properly gauging the efforts of remediation and reduction efforts in the Great Lakes. These special studies will support, enhance, and inform the GLFMSP core elements. Examples of the types of special studies that may be proposed include:

- Stable isotope analysis to identify changes over time in food web structure;
- Analysis of chemicals in additional species, such as forage fish. Samples will be provided by EPA;
- Analysis of EPA-provided archived tissue for emerging contaminants to identify and confirm trends;
- Comparison of individual and composite analyses. Samples will be provided by EPA;
- Analysis of chemicals in fish from additional sites. Samples will be provided by EPA;
- Gut content analysis;
- Bioaccumulation and biomagnifications studies for emerging chemicals;
- Omega 3 Fatty Acid analysis;
- Selenium analysis;
- Bioaffects; and
- Participation in Coordinated Science and Monitoring Initiative (<http://epa.gov/research/scievents/lakesci11/activities.htm>).

Additional samples necessary to complete work through the special studies component of the GLFMSP may not be included as part of the GLFMSP sampling agreements and may be the responsibility of the Principal Investigator (PI). The GLFMSP manager will make every attempt to acquire the necessary additional samples, but this cannot be guaranteed.

Additional Information to Assist with Comparability and Continuity:

Applicants are encouraged to use sampling and analytical methods that are comparable to the analytical methods and sampling methods previously used by the GLFMSP (<http://www.epa.gov/greatlakes/glindicators/fishtoxics/fishc.html>) to ensure comparability and continuity in data sets; however, development and optimization of methods are also encouraged. Method development by the Principal Investigator (PI) may be necessary as the analyte list is modified. Existing methods should be used when possible. The annual number of GLFMSP composites to be analyzed is between 50 and 60 (Table 1), plus any necessary additional quality assurance samples, including spikes, duplicates and other typical quality assurance samples. An additional 10 to 20 samples per year may also be necessary for comparison studies between EC, or other partnering labs, for cross-comparison across the basin. Prior to the receipt or analysis of any environmental samples, the award recipient will need to demonstrate comparability with existing data sets collected under this program through the analysis of a minimum of 10 check samples. These data will be received and evaluated by the EPA Project Officer prior to analysis of actual environmental samples. At the discretion of the EPA Project Officer, the PI may need to conduct a pre-award performance evaluation through the analysis of a standard reference sample to be provided by the EPA Project Officer. Potential PIs are recommended and

encouraged to provide suggestions for changes and/or improvements to the GLFMSP collections; however, continuity between the historical GLFMSP and future data is required.

Table 1. Element 1 & 1A sampling locations.

| Lake | Estimated Number of Composite Samples | Sample Type | Location and Grid Number | Year | Size |
|-------------|--|--------------------|---------------------------------|-------------|--------------|
| Superior | 10 + 1 mega lake composite per site | Lake Trout | Apostle Islands #1311 | Even | 600 – 700 mm |
| | | | Keewenaw Pt. #4028 | Odd | 600 – 700 mm |
| Michigan | 10 + 1 mega lake composite per site | Lake Trout | Saugatuck #2210 | Even | 600 – 700 mm |
| | | | Sturgeon Bay #0906 | Odd | 600 – 700 mm |
| Huron | 10 + 1 mega lake composite per site | Lake Trout | Rockport # 0710 | Even | 600 – 700 mm |
| | | | Port Austin #141 | Odd | 600 – 700 mm |
| Erie | 10 + 1 mega lake composite per site | Walleye | Middle Bass Island #0904 | Even | 400 – 500 mm |
| | | Lake Trout | Dunkirk # 0424* | Odd | 600 – 700 mm |
| Ontario | 10 + 1 mega lake composite per site | Lake Trout | Oswego #0623* | Even | 600 – 700 mm |
| | | | North Hamlin # 0713 | Odd | 600 – 700 mm |

*Data generated at these locations will be provided to EC according to the cooperative agreement's data release policy and within 10 months of receipt of sample to address EC reporting requirements. Individual lake trout data will be provided by EC to the PI in even years at Dunkirk #424 and Oswego#623 in odd years to augment GLFMSP data.

Table 2a. List of chemicals to be analyzed in fish for from the Open Water Trend Monitoring element of the GLFMSP and estimated Method Detection Limit (MDL) expressed as ng/g wet fish tissue.

| Analyte | MDL, ng/g | Analyte | MDL, ng/g |
|----------------------|-------------|------------------|-----------------|
| PCB congeners | 0.002 – 1.0 | pp,-DDT | 0.66 |
| PCB co-planars | 0.002 – 1.0 | pp,-DDE | 0.74 |
| Total PCB | | pp,-DDD | 0.52 |
| Total HBCD* | - | Total DDT | |
| Omega 3 fatty acids | | PBB-153 | 0.1 - .2 |
| Mirex | 1.52 | PFCs | |
| Toxaphene & homologs | 24.6 | Percent Moisture | |
| PBDEs | 0.001 – .10 | PCDD/Fs | 0.3 - 25 |
| Hg | 0.521 | Fraction lipid | 5% |

*This compound is to be analyzed in both archived tissue, to be provided by EPA, and in routine samples collected as part of the GLFMSP.

Table 2b. List of chemicals to be analyzed in fish from the Emerging Contaminant Surveillance Element of the GLFMSP and estimated Method Detection Limit (MDL) expressed as ng/g wet fish tissue.

| Analyte* | MDL, ng/g |
|--------------------------|-----------|
| NP and their ethoxylates | |
| PCN | 0.2-6.0 |
| HBCD | |

***A scan for of additional analytes, such as musk fragrances, APEs, pharmaceuticals and other personal care products (pseudo-persistence), other flame retardants, etc., will be required each year in support of the GLFMSP and Great Lakes States' health advisory programs. Potential PIs are encouraged to recommend additional or alternative analytes for emerging chemical surveillance and /or for retrospective analysis in support of the Great Lakes Restoration Initiative.**

Beginning in 2015, EPA and EC will be jointly collecting and analyzing contaminants in fish from the Dunkirk Lake Erie site and the Oswego, Lake Ontario Site. Sample analysis numbers will not be revised, but additional data from Environment Canada will be provided to the GLFMSP in even years (Lake Erie) and Odd Years (Lake Ontario) to augment GLFMSP Data. Data provided by EC will be for individual lake trout. Inversely, GLFMSP data will be provided to the EC program in odd years (Lake Erie) and Lake Ontario (even years) according to the specification for timely reporting and according to the GLFMSP data release policy. A comparability study of these data was conducted by the program managers and showed that over a 5 year period of comparison

(2008-12), data comparability ranged from $\pm 3 - 36\%$ across both locations for all parameters. The range in differences between programs was similar in magnitude to the range in intra-annual coefficients of variation for the parameters observed in both programs. Despite differences in measurements between programs (composite samples v. individuals) the intra-annual variation was, for the most part, comparable between EC and the EPA.

Goals and Objectives: EPA expects to provide up to approximately \$6.5 million for one cooperative agreement over a 5-year period, consisting of incremental funding of about \$1.3 million per year, to support the GLFMSP. The goals of the GLFMSP are to track the overall effectiveness of Great Lakes source reduction and remediation activities and prioritize future Great Lakes toxic reduction efforts. These goals are accomplished through the following objectives:

- Monitor, with a specified degree of confidence, temporal trends in bioaccumulative organic chemicals in the Great Lakes using top predator fish as biomonitors;
- Screen, with a specified degree of confidence, top predator fish for new compounds of concern entering the Great Lakes ecosystem;
- Assess potential human exposure to persistent, bioaccumulative and or toxic chemicals found in top predator fish in the Great Lakes.

Applicants are expected to conduct activities in support all of these objectives through the five main elements of the GLFMSP (Sample Collection; Sample Analysis; Quality Assurance and Quality Control; Data Management, Interpretation, Statistical Analysis, and Report Writing; and Research), as detailed in Section IV.C.2.b.

Required Activities:

To be eligible under this request, applicants **must** demonstrate how they will:

- Analyze homogenized fish tissue from all 10 GLFMSP stations. A Quality Assurance Project Plan (QAPP) will need to be approved by the GLNPO Quality Assurance Manager prior to analysis of any samples. EPA's guidance on QAPPs can be located at <http://www.epa.gov/region03/esc/qa/qapp.htm>;
- Conduct retrospective analysis of archived tissue for HBCD and other compounds of interest;
- Perform chemical analyses to retain comparability and continuity with historical GLFMSP data. The GLFMSP's Quality Assurance Project Plan and Standard Operating Procedures (<http://www.epa.gov/grtlakes/monitoring/fish/links.html>) detail the analytical methodology currently used in the GLFMSP;
- Submit quality-assured analytical results within 10 months or less of receipt of samples in their laboratory (*i.e.*, submit data on all 2015 samples to the GLFMSP Data Manager by October 2016);
- Communicate and Collaborate with the GLFMSP manager to revise and redefine the contaminants included in Element 1A (Emerging Contaminant Surveillance) according to state and tribal health department priorities.

Ineligible Activities

- Sampling and analysis for contaminants beyond the scope of delisting criteria for generation of Beneficial Use Impairment data.

Outputs must include one or more of the following and **must** link to the GLRI Action Plan's Measures of Progress or goals and objectives:

- A quantification of persistent toxic chemicals in Great Lakes fish tissue samples, with attention to continuity and consistency of those measurements, so that trend data are not biased by changes in program operations or personnel;
- An evaluation of the spatial and temporal trends of persistent toxic chemicals in Great Lakes fish tissue;
- The discovery of new emerging chemical threats to the Great Lakes;
- Sample collection, sample analysis, data management, data interpretation, statistical analysis, and report writing;
- Development of Great Lakes scientists through the education of graduate and undergraduate students in Great Lakes ecosystem science;
- Dissemination of results via peer-reviewed journal articles and other media.

Applicants must also demonstrate how their proposed project will achieve one or more of the following outcomes:

- Increased understanding of persistent toxic chemical trends in Great fish tissue;
- Increased understanding of how concentrations and trends of persistent toxic chemicals in Great Lakes fish tissue relate to other media such as air, water, and sediment;
- Increased understanding of the effects of persistent toxic chemicals on the health of the Great Lakes ecosystem.

II. AWARD INFORMATION

Amounts, Targets, and Number of Projects: Approximately \$6.5 million in EPA funding is expected to be awarded under this RFA for 1 project. Project funding under this RFA will be based on the quality of applications received, the availability of funding, and other applicable considerations. **Please note, however, that the specified maximum amount in Section I that will be awarded for a project establishes the limit for the EPA funding; applications seeking funding in excess of that amount will be rejected. In addition, an application for a multi-phase project will be treated as a request for the full amount for all phases. If that combined amount exceeds the specified maximum, the application will be rejected.**

EPA reserves the right to reject all applications and make no awards pursuant to this RFA.

Anticipated Project Start and End Dates: This Request for Applications instructs applicants to submit certifications and other documentation required for a full and complete funding package so that their projects could, if selected, proceed expeditiously. Applications should specify a

start date on or around August 3, 2015 and **must** specify an end date no later than September 30, 2020.

Award Funding: The award will be made incrementally and is based on funding availability, future appropriations, satisfactory performance of work, program priorities, and other applicable considerations.

Funding Type: A successful applicant will be awarded a cooperative agreement². A cooperative agreement is an assistance agreement that is used when there is substantial federal involvement with the recipient during the performance of an activity or project. EPA awards cooperative agreements for those projects in which it expects to have substantial interaction with the recipient throughout the performance of the project. EPA will negotiate the precise terms and conditions of “substantial involvement” as part of the award process. Federal involvement may include close monitoring of the recipient’s performance; collaboration during the performance of the scope of work; review of proposed procurements in accordance with 2 CFR 200 and or 2 CFR 1500; reviewing qualifications of key personnel; and/or review and comment on the content of printed or electronic publications prepared. EPA does not have the authority to select employees or contractors employed by the recipient. The final decision on the content of reports rests with the recipient.

Future Funding: Selection or award of funding under this RFA is not a guarantee of future funding.

Partial Funding: In appropriate circumstances, EPA reserves the right to partially fund applications by funding discrete portions or phases of proposed projects. If EPA decides to partially fund an application, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the application, or portion thereof, was evaluated and selected for award, and, therefore, maintains the integrity of the competition and selection process.

III. ELIGIBILITY INFORMATION

Applicant Eligibility (CFDA 66.469): Non-federal governmental entities, including state agencies, interstate agencies, federally-recognized Indian tribes and tribal organizations, and local governments as defined in 2 CFR Section 200.64; institutions of higher learning; and nonprofit organizations are eligible to apply for funding under this RFA. Individuals, foreign organizations and governments, nonprofit organizations exempt from taxation under section 501(c)(4) of the Internal Revenue Code that engage in lobbying, and “for-profit” organizations are not eligible. A “nonprofit organization,” as defined at 2 CFR Section 200.70, is any corporation, trust, association, cooperative, or other organization that: (1) is operated primarily for scientific, educational, service, charitable, or similar purposes in the public interest; (2) is not organized primarily for profit; and (3) uses its net proceeds to maintain, improve, and/or expand its operations. Applicants **must** meet all eligibility criteria at the time of their submission,

² While the award being offered pursuant to this RFA will be a cooperative agreement, throughout the remainder of the RFA the terms “grant” and “cooperative agreement” are synonymous.

including an active registration in both the System for Award Management (SAM) and Data Universal Numbering System (DUNS).

Coalitions: Groups of two or more eligible applicants may choose to form a coalition and submit a single application under this RFA; however, one entity **must** be responsible for the grant. Coalitions **must** identify which eligible organization will be the recipient of the grant and which eligible organization(s) will be subawardees of the recipient. Subawards and subgrants **must** be consistent with the definitions of those terms in 2 CFR 200 and/or 2 CFR 1500. The recipient **must** administer the grant, will be accountable to EPA for proper expenditure of the funds and reporting, and will be the point of contact for the coalition. As provided in 2 CFR 200 and/or 2 CFR 1500, subrecipients or subgrantees are accountable to the recipient or grantee for proper use of EPA funding.

Coalitions may not include for-profit organizations that will provide services or products to the successful applicant. For-profit organizations are not eligible for subawards. For-profit organizations are eligible to receive contracts. Any contracts for services or products funded with EPA financial assistance **must** be awarded under the competitive procurement procedures of 2 CFR 200 and/or 2 CFR 1500, as applicable. The regulations also contain limitations on consultant compensation. (Please see 2 CFR 200 and 2 CFR 1500, as applicable.) For additional information, please review the following Federal Register: <http://edocket.access.gpo.gov/2004/pdf/04-7867.pdf> .

Eligible Activities: Unless specifically excluded under this RFA, assistance is available to eligible applicants for planning, research, monitoring, outreach, and implementation of the GLRI and GLWQA. Proposed projects **must** also either: (i) protect, enhance, and/or restore the Great Lakes, including projects impacting connecting waterways such as Lake St. Clair and the St. Lawrence River (at or upstream from the point at which the St. Lawrence River becomes the international boundary between Canada and the United States); or (ii) protect Great Lakes ecosystem health, including human health. Information about the GLRI can be found at <http://www.epa.gov/greatlakes/glri>. Applications for other activities will be rejected.

Ineligible Activities: If an application is submitted that includes any ineligible activities, including, but not limited to, those listed below and in Section I, that portion of the application will be ineligible for funding and may, depending on the extent to which it affects the application, render the entire application ineligible. The following are ineligible activities:

- Sampling and analysis at Areas of Concern for the purpose of developing or otherwise addressing Beneficial Use Impairments.

Match or Cost-Share: There is no cost-sharing or matching requirement as a condition of eligibility under this RFA. However, see Section IV.C.2.b.iii and Section V for additional information regarding applicants who propose voluntary matches and additional funds/resources to support the project.

Although cost-sharing/matching is not required as a condition of eligibility under this competition, pursuant to Section V of this RFA, EPA will consider voluntary cost-sharing/matching and other leveraging as a part of the criterion for collaboration and plans.

Leveraging generally refers to situations where an applicant proposes to provide its own additional funds/ resources or those from third party sources to support or complement the project they are awarded under the competition which are above and beyond the EPA grant funds awarded. Any leveraged funds/resources, and their source, **must** be identified in the proposal (See Section IV of the RFA). A letter of support should also be included in the application package to document any proposed leveraging. Leveraged funds and resources may take various forms as noted below.

Voluntary cost share is a form of leveraging. Voluntary cost sharing refers to situations where an applicant voluntarily proposes to legally commit to provide costs or contributions to support the project when a cost share is not required. Applicants who propose to use a voluntary cost share **must** include the costs or contributions for the voluntary cost share in the project budget on the SF-424. If an applicant proposes a voluntary cost share, the following apply:

- A voluntary cost share is subject to the match provisions in the grant regulations (2 CFR Section 200.306);
- A voluntary cost share **must** be eligible and allowable;
- The recipient may not use other sources of federal funds to meet a voluntary cost share unless the statute authorizing the other federal funding provides that the federal funds may be used to meet a cost share requirement on a federal grant;
- The recipient is legally obligated to meet any proposed voluntary cost share that is included in the approved project budget. If the proposed voluntary cost share does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR 200 and/or 1500.

Other leveraged funding/resources that are not identified as a voluntary cost share should not be included in the budget and the costs need not be eligible and allowable project costs under the EPA assistance agreement. While this form of leveraging should not be included in the budget, the grant workplan should include a statement indicating that the applicant expects to produce the proposed leveraging consistent with the terms of the announcement and the applicant's proposal. This form of leveraging may be met by funding from another federal grant, from an applicant's own resources, or resources from other third party sources. If applicants propose to provide this form of leveraging, EPA expects them to make the effort to secure the leveraged resources described in their proposals. If the proposed leveraging does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR Parts 200 or 1500.

Threshold Eligibility Criteria: These are requirements that if not met by the applicant by the time of application submission will result in elimination of the application from consideration for funding. Only applications for eligible activities from eligible entities (see above definitions of **applicant eligibility**, **eligible activities**, and **ineligible activities**) that meet these criteria by the

time of application submission will be evaluated against the ranking factors in Section V of this RFA. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified by e-mail within 15 calendar days of the ineligibility determination.

1. a. Applications **must** substantially comply with the application submission instructions and requirements set forth in Section IV of this RFA or else they will be rejected. Where a page limit is stated for the Narrative Proposal in Section IV, pages in excess of the limitation will not be reviewed.

b. Applications **must** be submitted to EPA through <http://www.grants.gov> (or any approved alternate means as discussed in Section IV.B). Applicants are responsible for ensuring that their applications are received by the deadline identified in Section IV. Faxed submissions will not be accepted.

c. An application received after the deadline will be considered late and rejected without further consideration unless the applicant can clearly demonstrate and document that its application was late due solely to EPA mishandling or technical problems attributable to Grants.gov.
2. Applicants may submit more than one application under this RFA so long as each application is for a different project and is separately submitted.
3. Applications seeking funding in excess of \$6.5 million over 5 years will be rejected. In addition, an application for a multi-phase project will be treated as a request for the full amount for all phases. If that combined amount exceeds the specified maximum, the application will be rejected.
4. Applications exceeding the maximum end date of September 30, 2020 will be rejected.
5. Applications that do not address both Elements 1 and 1A, all 3 objectives, and all Required Activities, as defined in Section I of this announcement, will be rejected.

Applicants should contact the applicable individuals listed in Section VII with any questions about the threshold eligibility requirements.

IV. APPLICATION AND SUBMISSION INFORMATION

A. How to Obtain an Application Package:

Applicants can download individual grant application forms from EPA's Office of Grants and Debarment website at: <http://www.epa.gov/ogd/AppKit/application.htm>.

B. Mode of Application Submission:

Applicants, except in the limited circumstances noted below, **must** submit their applications electronically through <http://www.grants.gov>, and the application **must** be submitted by the applicant's authorized official representative as explained in the Appendix I grants.gov instructions. Applicants who do not have the technical capability to apply electronically through www.grants.gov **must** contact Michael Russ (312-886-4013 / GLRI-RFA@epa.gov) as soon as possible to request alternate submission instructions. Any applications submitted through alternate means **must** still comply with all the requirements, instructions and deadlines in this RFA.

All applications **must** be prepared and include the information as described below in Section IV.C "Content of Application Package Submission." Applications **must** meet the submission requirements specified below and be received by the submission deadline.

For technical questions about electronic submittal of applications via <http://www.grants.gov> contact the Grants.gov Contact Center at 1-800-518-4726 or email Grants.gov at support@grants.gov. For calls from outside the United States, please dial 606-545-5035 to speak with a Contact Center representative. For questions regarding EPA's receipt of your application, see the general RFA contact information in Section VII of this RFA.

C. Content of Application Package Submission:

1. Necessary Grant Application Forms:

All application submissions **must** contain: a) completed and signed grant application forms (listed in Appendix I) and b) a **Narrative Proposal** (including the **Summary Information Page, Workplan, and Detailed Budget Narrative**), as described below. Application materials, including attachments, **must be submitted as pdfs**. The grant application forms are available at <http://www.epa.gov/ogd/AppKit/application.htm>.

2. Narrative Proposal:

Narrative Proposals (including the **Summary Information Page, Workplan, and Detailed Budget Narrative**) **must** include the items below in the requested order. Each Narrative Proposal **must** be formatted for 8½" x 11" paper and should use no smaller than an 11-point Times New Roman font with 1" margins. Do not use a "double column" (aka newspaper) format. Readability is of paramount importance. Do not include more than one application in any file. Please do not zip the file or use a zip extension for your file because it will not be accepted.

Do not include confidential business information in your application.

A. Summary Information Page:

Funding Opportunity Number. The RFA number is EPA-R5-GL2015-1.

- i. Project Title.** Please limit to 60 characters. EPA reserves the right to change the project title for its administrative convenience.
- ii. Applicant Information.** Include applicant (organization) name, address, contact person, phone number, and e-mail address. *Do not include private information.*
- iii. Proposed Funding Request.** The total dollar amount requested from EPA- make sure it is within the limits specified or your application will be rejected.
- iv. Project Duration.** Provide beginning and ending dates. See “Anticipated Start and End Dates” in Section II.
- v. Brief Project Description.** Summarize the proposed project in 100 words or less in a clear and succinct manner in PLAIN LANGUAGE, including expected outputs, outcomes and environmental benefits resulting from implementation of the project. 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. EPA reserves the right to make unilateral changes to conform to posting requirements. See <http://greatlakesrestoration.us/projects/index.html> for examples.
- vi. Project Location.** Specify a single, representative project location within the Great Lakes basin, including 8- or 12-digit HUC code (available from <http://water.usgs.gov/wsc/reg/04.html>) and latitude and longitude specifying decimal degrees (available from <http://apply.glnpo.net/map>). **Please identify a single, representative location within the Great Lakes basin even if the work will be done at multiple locations or by applicants who are located outside the Great Lakes basin. Please include the reason for the location you identify if that is not self-evident.**

B. Work Plan. The Work Plan for each proposed project **must** explicitly describe how the proposed project meets the guidelines established in Sections I-III of this RFA (including the threshold eligibility criteria in Section III) and **must** address each of the evaluation criteria set forth in Section V. Each Work Plan should be organized in the order and with the headings and information requested below. Details and associated point values for each section of the workplan are described in RFA Section V.A (Application Review) below.

- i. Project Summary and Approach
- ii. Technical Ability and Sample Analysis
 - 1. Element 1
 - 2. Element 1A
 - 3. Special Studies and Research
- iii. Data management, Interpretation, Statistical analysis, and Report writing
- iv. Quality Assurance and Quality Control
- v. Results
 - 1. Outputs
 - 2. Outcomes
- vi. Collaboration and Plans
- vii. Programmatic Capability and Past Performance
 - 1. PI past history of managing agreements
 - 2. Institution past history of managing agreements
 - 3. PI history of meeting reporting
 - 4. Institution history of meeting reporting requirements
 - 5. Past Project expenditure rate
 - 6. Staff Expertise
- viii. Education/Outreach
- ix. Budget
 - 1. Detailed Budget Narrative
 - 2. Expeditious Spending and Sufficient Progress in the use of GLRI Funds

C. **Other Attachments.** The additional attachments listed in Appendix I are not part of the Narrative Proposal and are not included in the 20 page limit; however, they may, as appropriate, be considered during evaluations. For additional information about each of these attachments, see the descriptions contained in Appendix I.

D. **Submission:** Eligible applicants **must** submit applications through <http://www.grants.gov> per the instructions in Appendix I or through any approved alternate method as discussed above in Section IV.B.

E. **Submission Deadline:** Applications **must** be received by EPA through <http://www.grants.gov> by 5:00 p.m. Central Daylight Time / 6 p.m. Eastern Daylight Time, on April 17, 2015.

F. **Notification:** Within two weeks after the due date, EPA intends to post a link to project information (including title and identification number) to: <http://www2.epa.gov/great-lakes-funding/great-lakes-fish-monitoring-and-surveillance-program-rfa> . ALL APPLICANTS SHOULD CHECK THIS POSTING TO VERIFY THAT THEIR SUBMISSIONS HAVE BEEN INCLUDED IN EPA'S DATABASE. See Section VII for contact information if you do not receive a confirmation or if your project is not posted. All applicants will be contacted

following selections to tell them whether or not they have been selected. Selection information will also be posted to a page linked to: <http://www2.epa.gov/great-lakes-funding/great-lakes-fish-monitoring-and-surveillance-program-rfa> .

G. **Information provided to EPA.** Before applying for an award, applicants should be aware that under Public Law No. 105-277, data produced under an award, and any information provided to EPA, is subject to the Freedom of Information Act.

H. **Communications.** See:

http://www.epa.gov/ogd/competition/solicitation_provisions.htm for general provisions regarding communications with applicants. Submit questions using the form available from <http://www2.epa.gov/great-lakes-funding/great-lakes-fish-monitoring-and-surveillance-program-rfa>. EPA will respond to questions received through April 10, 2015, but cannot guarantee that it will respond to questions received thereafter.

I. **Intergovernmental Review:** Executive Order 12372, Intergovernmental Review of Federal Programs, may be applicable to awards resulting from this announcement. Applicants selected for funding may be required to provide a copy of their application to their State Point of Contact (SPOC) for review, pursuant to Executive Order 12372. This review is not required before submitting an application and not all states require such a review. A listing of State Point of Contacts (SPOC) may be viewed at: http://www.whitehouse.gov/omb/grants_s poc

J. **Additional Provisions For Applicants Incorporated Into RFA.** Additional provisions that apply to this RFA and/or awards made under this RFA, including but not limited to those related to confidential business information, application assistance and communications, management fees, contracts and subawards under grants, and duplicate funding can be found at: http://www.epa.gov/ogd/competition/solicitation_provisions.htm.

These, and the other provisions that can be found at the website link, are important, and applicants **must** review them when preparing proposals for this RFA. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this RFA to obtain the provisions.

V. APPLICATION REVIEW AND SELECTION PROCESS

A. Application Review:

Applications meeting the threshold eligibility criteria in Section III will be evaluated based on the criteria set forth below. Applicants should directly and explicitly address these criteria as part of their Narrative Proposal and application submission. Each submittal will be rated under a point system, with a total of 100 points possible. Applicants will be evaluated based on the quality and extent to which the work proposed will address the criteria; the failure to provide applicable information in the application may affect the score assigned for a criterion.

1) **Project Summary and Approach (5 points)**

Describe with specificity the nature of the proposed project including what will be done, by whom, how, and when it will be accomplished. Outline the steps to be taken and the significant milestones to be achieved to complete the proposed project as well as the estimated dates of these achievements, including the submittal of the final report.

Include a statement of the project's relevance to the Great Lakes, particularly (1) the needs and priorities of the GLRI Action Plan II (<http://glri.us/actionplan/pdfs/glri-action-plan-2.pdf>), or (2) Great Lakes protection and restoration pursuant to Objective 2.2 (Protect and Restore Watersheds and Aquatic Ecosystems) of the Fiscal Year 2014-2018 EPA Strategic Plan (<http://www2.epa.gov/planandbudget/strategicplan>). (It is sufficient for the purpose of clause (ii) to include a general statement of how the project will protect and restore the Great Lakes ecosystem without specifying a connection to the strategic measures for the Great Lakes that are included in the EPA Strategic Plan.)

2) **Technical Ability and Sample Analysis (20 points)**

Describe with specificity the process by which the applicant will analyze all samples provided through the GLFMSP.

a) **Element 1 (7.5 points)**

Applicants are expected to analyze all collected samples for a suite of persistent toxic chemicals, see Tables 1 and 2a.

Applicants are expected to demonstrate how they will retain comparability and continuity with historic GLFMSP data sets. Applicants are also expected to detail the analytical methodology they will employ to measure priority toxic chemicals in tissue samples, and how these methods are comparable to (or better than) current GLFMSP procedures. Applicants are expected to identify the analytical equipment they intend to use (or purchase) to analyze samples. Applicants are also expected to demonstrate how they will store and archive sample extracts.

A summary of the current analytical methods can be found in the GLFMSP Quality Management Plan found online at http://www.epa.gov/grtlakes/monitoring/fish/reports/GLFMSP_QMP_Version%202_Fin

[al_111312_508.pdf](#) and in the published literature:

- Crimmins, B.S., Pagano, J.J., Xia, X., Hopke, P.K., Milligan., M.S., Holsen., T.M. Polybrominated diphenyl ethers (PBDEs) in Great Lakes trout: Turning the corner on PBDEs in the Great Lakes 1980-2008., (2012) *Environ Sci Technol* 46, 9890-9897 [dx.doi.org/10.1021/es302415z](https://doi.org/10.1021/es302415z)
- Chang, F., Pagano, J.J., Crimmins, B.S., Milligan, M.S., Xia, X., Hopke, P., K., Holsen, T., M., Temporal Trends of Polychlorinated Biphenyls and Organochlorine Pesticides in Great Lakes Fish, 1999-2009 (2012) *Sci Tot Environ* 439, 284-290
- Znananski,T.J., Holsen, T.M., Hopke, P.K., Crimmins, B.S., Mercury temporal trends in top predator fish of the Laurentian Great Lakes (2011) *Ecotoxicology* 20,1,1568-1576

b) Element 1A (7.5 points)

Applicants are expected to analyze all collected samples for a suite of persistent toxic chemicals, see Tables 1 and 2b. A description of the applicant's ability to conduct low level contaminant analysis should be included in this section. This list may be revised and/or expanded in the future depending on available resources, advancements of methods, and the priorities of the network and recipient. Applicants may suggest modifications to this list if accompanied by a supporting rationale. Suggestions for entirely new chemicals should be included in this section. A summary of the current analytical methods can be found in the GLFMSP Quality Management Plan found online at

http://www.epa.gov/grtlakes/monitoring/fish/reports/GLFMSP_QMP_Version%202_Fin_al_111312_508.pdf and in the published literature:

- Crimmins, B.S., Pagano, J.J., Xia, X., Hopke, P.K., Milligan., M.S., Holsen., T.M. Polybrominated diphenyl ethers (PBDEs) in Great Lakes trout: Turning the corner on PBDEs in the Great Lakes 1980-2008., (2012) *Environ Sci Technol* 46, 9890-9897 [dx.doi.org/10.1021/es302415z](https://doi.org/10.1021/es302415z)
- Chang, F., Pagano, J.J., Crimmins, B.S., Milligan, M.S., Xia, X., Hopke, P., K., Holsen, T., M., Temporal Trends of Polychlorinated Biphenyls and Organochlorine Pesticides in Great Lakes Fish, 1999-2009 (2012) *Sci Tot Environ* 439, 284-290
- Znananski,T.J., Holsen, T.M., Hopke, P.K., Crimmins, B.S., Mercury temporal trends in top predator fish of the Laurentian Great Lakes (2011) *Ecotoxicology* 20,1,1568-1576

- Xia, X., Crimmins, B.S., Hopke, P.K., Pagano, J.J., Milligan, M.S., Holsen, T.M. Toxaphene Analysis in Great Lakes Fish: A Comparison of GC/MS techniques (2009) *Anal Bioanal Chem* 395:457-463

c) **Special Studies and Research (5 points)**

Applicants are also expected to discuss how they might conduct additional special studies and/or make enhancements to the GLFMSP. Research activities are not required for a successful application; however, applicants may score higher in the Project Summary and Approach criteria to the extent they demonstrate an appropriate rationale and workplan for the proposed additional research. Research topics may include an expansion of the GLFMSP chemical list on a routine or screening basis; measurement of persistent toxic chemicals in other biota; or other research identified in the Special Studies section of the General Background statement above. Applicants should discuss how these activities contribute to the Cooperative Science and Monitoring Initiative (CSMI).³

3) Data management, Interpretation, Statistical analysis, and Report writing (10 points)

With large quantities of data being generated, a comprehensive and efficient data management system is necessary. Every year, the previous year's final data is submitted to the EPA project officer and the GLFMSP database manager in a format that is compatible with the Great Lakes Environmental Database (GLENDa). Data will be made publicly available through GLENDa according to the data release policy. Applicants must demonstrate how they will submit quality-assured analytical results within 10 months of receipt of samples in their laboratory (*i.e.*, submit data on all 2015 samples by October 2016).

The Great Lakes Water Quality Agreement (GLWQA) directs the United States and Canada to “establish and maintain comprehensive, science-based ecosystem indicators to assess the state of the Great Lakes, to anticipate emerging threats and to measure progress...” GLWQA also directs the United States and Canada to identify and assess “the occurrence, sources, transport and impact of chemicals of mutual concern, including spatial and temporal trends in the atmosphere, in aquatic biota, wildlife, water and sediments.” Applicants are expected to demonstrate how they will work with the EPA Project Officer and EC to report on the status and trends of persistent and toxic chemicals in fish in the Great Lakes.

A key project component is to ensure that the surveillance information generated is made available to the Great Lakes community in a wide variety of formats, including journals and internet products. It is also important that any new information generated be placed in a historical perspective so that determinations may be made of how chemical concentrations

³ The Cooperative Science and Monitoring Initiative (CSMI) is a joint United States and Canadian effort to provide environmental managers with needed information on each Great Lake. The lakes are visited one per year in a five-year rotation. In 2015, CSMI will be focused on Lake Michigan. In subsequent years (2016-2019), CSMI will focus on Lake Superior, Lake Huron, Lake Ontario, and Lake Erie.

and loads are changing over time and place. EPA will provide all GLFMSP historical data for these purposes. Applicants will be evaluated on the extent to which their proposed work will further the development of the body of knowledge related to persistent toxic chemicals in Great Lakes fish in a timely manner. The advancement of scientific knowledge may include the use of ancillary data to identify sources; publishing project results in scientific journals; collaboration with other long-term contaminant monitoring programs, and further education of graduate students and post-doctoral candidates in the Great Lakes ecosystem research.

4) Quality Assurance / Quality Control (10 points)

Applicants will be evaluated on how well they demonstrate how they will develop, implement, and maintain a Quality Assurance Project Plan (QAPP). The QAPP details project organization and responsibility, sampling procedures, sample custody, analytical procedures, data reduction, validation, internal quality control checks and preventative maintenance. Applicants should discuss their plans for ensuring the continuity and consistency of GLFMSP measurements through reproducible quality assurance and quality control samples (*e.g.* laboratory duplicates, laboratory blanks, and matrix spikes). A summary of the current analytical methods can be found in the GLFMSP Quality Management Plan found online at

http://www.epa.gov/grtlakes/monitoring/fish/reports/GLFMSP_QMP_Version%202_Final_111312_508.pdf and in the published literature:

- Crimmins, B.S., Pagano, J.J., Xia, X., Hopke, P.K., Milligan, M.S., Holsen, T.M. Polybrominated diphenyl ethers (PBDEs) in Great Lakes trout: Turning the corner on PBDEs in the Great Lakes 1980-2008., (2012) *Environ Sci Technol* 46, 9890-9897 [dx.doi.org/10.1021/es302415z](https://doi.org/10.1021/es302415z)
- Chang, F., Pagano, J.J., Crimmins, B.S., Milligan, M.S., Xia, X., Hopke, P., K., Holsen, T., M., Temporal Trends of Polychlorinated Biphenyls and Organochlorine Pesticides in Great Lakes Fish, 1999-2009 (2012) *Sci Tot Environ* 439, 284-290
- Znananski, T.J., Holsen, T.M., Hopke, P.K., Crimmins, B.S., Mercury temporal trends in top predator fish of the Laurentian Great Lakes (2011) *Ecotoxicology* 20,1,1568-1576
- Xia, X., Crimmins, B.S., Hopke, P.K., Pagano, J.J., Milligan, M.S., Holsen, T.M. Toxaphene Analysis in Great Lakes Fish: A Comparison of GC/MS techniques (2009) *Anal Bioanal Chem* 395:457-463

Applicants will also be evaluated on how well they demonstrate that they will maintain and improve GLFMSP's quality program. This includes: evaluation of common reference and calibration standards; analysis of archived tissue; and other appropriate inter-laboratory comparisons.

5) Results (15 points)

Please describe with specificity your plan for achieving high quality and timely results for the project.

a) Output (10 points)

Specify the estimated quantitative outputs of the proposed project including but not limited to those specifically identified in Section I, any other applicable objectives or measures from the GLRI Action Plan II, and the approach and measurements that will be used to track and measure your progress towards achieving the applicable outputs. Demonstrate how the project will achieve the desired results.

b) Outcome (5 points)

Specify the estimated qualitative output of the proposed project and how the output factors into the goals of the GLRI Action Plan II, the 2012 GLWQA, and EPA's goal of protecting human health and the environment. Please identify how the project outcomes can be assessed and tracked. Demonstrate how the project will achieve the desired results.

6) Collaboration and Plans (5 points)

Applicants will be evaluated on their approach for promoting and/or obtaining collaboration and support from other academic institutions or environmental monitoring programs in performing the project. Applicants should 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's staffing, funding, design and implementation. Describe the type of collaboration/support proposed, how you will ensure that it will materialize during project performance, and what role it will play in the overall project. (Any letters demonstrating evidence of collaboration and support from the public or private sector should be attached as part of item 9 of the Application Materials listed in Appendix I.) Describe how you will coordinate activities of the project with related or complementary projects and studies. **IF YOU INTEND TO PROVIDE EPA FUNDS TO ANY COLLABORATING ORGANIZATION, PLEASE CAREFULLY REVIEW PROVISIONS ON "CONTRACTS AND SUBAWARDS" at: http://www.epa.gov/ogd/competition/solicitation_provisions.htm**

Applicants will be evaluated on how well they demonstrate how the project will effectively disseminate data and reports for use by local, state and tribal environmental managers and academia. The applicant must also specify plans for timely information transfer, including annual interpretive reports, presentations at meetings and conferences, journal articles, textbooks, Internet postings, and peer-reviewed publications.

Applicants proposing to provide a voluntary cost-match or other form of leveraging to demonstrate collaboration and support for the project should describe that in this section in accordance with the voluntary cost share requirements in Section III of this announcement.

7) **Programmatic Capability and Past Performance (15 points)**

Submit a list (of no more than 5 each) of federally-funded assistance agreements⁴ (including but not limited to previous GLRI awards from EPA or other federal sources) similar in size, scope and relevance to the proposed project that the applicant and the applicant's institution has previously performed.

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 of for these factors (a neutral score is half of the total points available in a subset of possible points). Failure to indicate this may result in 0 points for these factors.

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).

a) PI past history of managing agreements (2 points)

Describe whether, and how, the PI has been able to successfully, and in a timely manner, complete and manage those agreements in accordance with the initial project schedule.

b) Institution past history of managing agreements (1 points)

Describe whether, and how, your institution was able to successfully, and in a timely manner, complete and manage those agreements in accordance with the initial project schedule.

c) PI history of meeting reporting requirements (2 points)

Describe the PI's history of meeting the reporting requirements under those agreements, including whether the PI adequately and timely reported on progress towards achieving the expected outputs and outcomes of those agreements (and if not, explain why not), and how you adequately complied with the terms and conditions of previous awards. Please include a description of your past history of submitting acceptable final technical reports.

d) Institution history of meeting reporting requirements (2 points)

Describe your institution's history of meeting the reporting requirements under those agreements, including whether your institution adequately and timely complied with the terms and conditions of previous awards (and if not, explain why not).

e) Past Project expenditure rate (3 points)

If you or your institution has previously received a GLRI award or awards issued in 2010, 2011, 2012, 2013, or 2014 please provide an explanation of and documentation supporting the project's quarterly rate of expenditure on those prior GLRI projects.

⁴ For purposes of this section, assistance agreements include federal grants and cooperative agreements, but not federal or other contracts.

f) Staff Expertise (5 points)

Provide information on your staff expertise/qualifications, staff knowledge, and resources (or the ability to obtain them) to successfully achieve the goals of the proposed project. Applicants should also demonstrate expertise in low-level persistent toxic chemical measurements through publications in the literature relevant to the Great Lakes and environmental science, chemistry and technology.

8) Education/Outreach (5 points)

Describe how project results will be disseminated to interested stakeholders; your demonstrated track record of outreach to citizens on environmental issues; and the potential of the project for transferability and applicability to other places in accordance with the application review criteria in Section V.A.6.

9) Budget (20 points)

Describe with specificity your plan for how EPA funds will be used.

a) Detailed Budget Narrative (15 points): (Also see Appendix II, Budget Sample).

Use this section to provide a narrative description of the budget found in the SF-424A. Applicants will be evaluated according to the reasonableness and adequacy of the proposed budget and requested period of support relative to the proposed work. Applicants **must** itemize costs related to personnel, fringe benefits, contractual costs, travel, equipment, supplies, other direct costs, indirect costs, and total costs. Applicants should use whole dollar amounts. If applicable, applicants should include costs for quality system documentation (*i.e.*, quality assurance project plans or quality management plans) and environmental and regulatory compliance (*e.g.*, costs for assisting EPA with compliance by conducting surveys and analysis to identify whether protected resources are in the project location and, if so, whether there will be any effects; costs associated with potential mitigation measures; *etc.*). Applicants that do not include such costs may have to fund these and other overlooked costs out of their own funds.

Management Fees: The rules for including management fees and similar charges are at: http://www.epa.gov/ogd/competition/solicitation_provisions.htm.

b) Expeditious Spending and Sufficient Progress in the use of GLRI Funds (5 point)

As part of the detailed budget narrative, applicants should explain their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner. Please include an explanation of expenditure projections, with quarterly fiscal projections and milestones, for the life of the grant.

B. Selection Process:

1. Evaluation:

Applications will first be evaluated against the threshold factors listed in Section III. Only those applications which meet all of the threshold factors will be evaluated using the evaluation criteria listed above. There will be a review panel, composed of federal agency staff, established to assess an applicant's ability to perform the proposed project successfully based on the criteria above. Evaluation methodology used for award selection will ensure that all applications are fairly and objectively evaluated against the stated criteria. Eligible applications will be evaluated by the review panel members independently based on the criteria above. Following independent assessment by review panel members, the panel will be convened to discuss the merits of each proposal and develop a preliminary funding recommendation via consensus for the selection official.

Final funding decisions will be made by the selection official(s). In making the final funding decisions, the selection official(s) will consider the review panel rankings and recommendations and may also consider program priorities at the time of selection.

VI. AWARD ADMINISTRATION

A. Award Notices and Status: Following evaluation of applications, all applicants will be notified regarding their status, as follows:

EPA anticipates notification to *unsuccessful* applicants will be made via email or postal mail to the original signer of the application or the project contact listed in the application.

EPA anticipates that notification to *finalists* will be made via email to the original signer of the application or the project contact listed in the application. The notification will advise them that their proposed project has been evaluated and forwarded to the EPA approving official for further consideration and possible award. This notification, which advises finalists that their proposed project has been forwarded to the approving official, **is not and should not be considered as** an authorization to begin performance. Applicants are cautioned that only the EPA award official is authorized to bind the Government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization, funding, or other issues discovered during the award process may affect the ability of EPA to make an award to an applicant. The award notice signed by the EPA award official is the authorizing document and will be provided through postal mail. The applicant may need to prepare and submit additional documents and forms, which **must** be approved by EPA, before the grant can officially be awarded. The time between notification to finalists and award of a grant can take up to 90 days or longer.

B. Administrative and National Policy Requirement: The successful applicants will be required to adhere to federal grants requirements, particularly those found in 2 CFR 200 and/or 2 CFR 1500 on Cost Principles (A-21, A-87, or A-122), Administrative Requirements (A-102 or 110), and Audit Requirements (A-133) available from <http://www.whitehouse.gov/omb/grants>.

This includes government-wide requirements pertaining to accounting standards, lobbying, minority or woman business enterprise, publication, meetings, construction, and disposition of property. EPA regulations governing assistance programs and recipients are codified in Title 40 of the Code of Federal Regulations. A listing and description of general EPA regulations applicable to the award of assistance agreements may be viewed at: http://www.epa.gov/ogd/AppKit/applicable_epa_regulations_and_description.htm.

C. Quality System Documentation: Quality system documentation (*i.e.*, quality assurance project plans or quality management plans) is required for grants involving the use or collection of environmental data. EPA **must** have this documentation within 90 days of award and it **must** be approved **before grantees commence activities associated with the use or collection of environmental data**. Applicants should budget time and resources for developing quality system documentation. **Applicants that do not do so may have to fund the quality system documentation and any necessary project changes out of their own funds.** A significant percentage of EPA's previously awarded GLRI grants required quality system documentation. For specific guidance on GLNPO's quality requirements please see <http://www.epa.gov/greatlakes/quality/index.html>.

E. Reporting Requirements: Applicants selected for funding shall provide narrative technical progress reports addressing financial and work progress. Applicants may be required to input data directly into an online Great Lakes Accountability System database that was developed for the purpose of collecting and reporting information about GLRI. Special conditions requiring financial and progress reporting and a detailed final technical report, will be added to awards. Applicants should budget time and resources for these activities.

PLEASE NOTE: If selected, applicants may be asked to revise their anticipated fiscal expenditure projections on a quarterly basis in order to monitor the progress of the awarded project. These projections should be submitted as a part of the fiscal and technical reporting.

F. Other Programmatic Requirements: Additional applicable programmatic terms and conditions will be included in grant agreements, including provisions for: signage for on-the-ground projects, and EPA pre-approval of subcontracting and of conference participation. Applicants should budget time and resources for these activities.

J. Issuance of Awards: EPA reserves the right to negotiate appropriate changes in project terms and amounts (*i.e.*, changes that do not affect the integrity of the competition or materially change the application) consistent with EPA Order 5700.5A1 and other applicable policies, before making final decisions and awards. EPA reserves the right to reject all applications and make no awards. Applicants may be asked to include greater detail and specificity for their work plans before final awards are issued. Applicants may also be requested to satisfy data quality or peer review requirements before or shortly after the awarding of grants.

K. Additional Provisions For Applicants Incorporated Into RFA. Additional provisions that apply to this RFA and/or awards made under this RFA, including but not limited to those related to human subjects, data access and information release, nonprofit administrative capability, subaward and executive compensation reporting, SAM and DUNS requirements, unliquidated

obligations, website references, tax liabilities and felony convictions, unfair competitive advantage, exchange network, disputes, copyrights, restrictions on use of federal funds, and competency of organizations generating environmental measurement data, can be found at: [http://www.epa.gov/ogd/competition_provisions.htm](http://www.epa.gov/ogd/competition/solicitation_provisions.htm).

These, and the other provisions that can be found at the website link, are important, and applicants **must** review them when preparing proposals for this RFA. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this RFA to obtain the provisions.

VII. AGENCY CONTACTS

General RFA Contacts: (For administrative, eligibility, and other general RFA questions):

- Michael Russ, 312-886-4013 / GLRI-RFA@epa.gov

Technical Contacts:

- Elizabeth Murphy, 312-353-4227 / murphy.elizabeth@epa.gov

VIII. OTHER INFORMATION

GLNPO will send an e-mail announcement of these and any of its funding opportunities to all who register at <http://www.epa.gov/greatlakes/maillist>.

Appendix I

Grants.gov Submission Instructions

Please follow the instructions for applying for grant opportunities through Grants.gov at <http://www.grants.gov/applicants/apply-for-grants.html>

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information on the registration requirements that must be completed in order to submit an application through grants.gov, go to <http://www.grants.gov> and click on “Applicants” on the top of the page and then go to the “Get Registered” link on the page. If your organization is not currently registered with Grants.gov, please encourage your office to designate an Authorized Organization Representative (AOR) and ask that individual to begin the registration process as soon as possible. Please note that the registration process also requires that your organization have a DUNS number and a current registration with the System for Award Management (SAM) and the process of obtaining both could take a month or more. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through grants.gov and should ensure that all such requirements have been met well in advance of the submission deadline. Registration on grants.gov, SAM.gov, and DUNS number assignment is FREE.

To begin the application process under this grant announcement, go to <http://www.grants.gov> and click on “Applicants” on the top of the page and then “Apply for Grants” from the dropdown menu and then follow the instructions accordingly. Please note: To apply through grants.gov, you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader-compatibility.html>

You may also be able to access the application package for this announcement by searching for the opportunity on <http://www.grants.gov>. Go to <http://www.grants.gov> and then click on “Search Grants” at the top of the page and enter the Funding Opportunity Number, EPA--r5-GL2015-1, or the CFDA number that applies to the announcement (CFDA 66.469), in the appropriate field and click the Search button. Alternatively, you may be able to access the application package by clicking on the Application Package button at the top right of the synopsis page for the announcement on <http://www.grants.gov>. To find the synopsis page, go to <http://www.grants.gov> and click “Browse Agencies” in the middle of the page and then go to “Environmental Protection Agency” to find the EPA funding opportunities.

Proposal Submission Deadline: Your organization’s AOR must submit your complete application package electronically to EPA through Grants.gov (<http://www.grants.gov>) no later than April 17, 2015 5:00 p.m. Central Daylight Time / 6:00 p.m. Eastern Daylight Time. Please allow for enough time to successfully submit your application process and allow for unexpected errors that may require you to resubmit.

Please submit all of the application materials described below using the grants.gov application package that you downloaded using the instructions above. For additional instructions on completing and submitting the electronic application package, click on the “Show Instructions” tab that is accessible within the application package itself.

Application Materials

The following forms and documents are required under this announcement:

Mandatory Documents:

1. Application for Federal Assistance (SF-424)
2. Budget Information for Non-Construction Programs (SF-424A)
3. Assurances for Non-Construction Programs (SF-424B)
4. Grants.gov Lobbying Form
5. EPA Key Contacts Form 5700-54
6. EPA Form 4700-4 – Preaward Compliance Review Report
7. Narrative Proposal (Project Narrative Attachment Form)-prepared as described in Section V of the announcement

Optional Documents:

8. Disclosure of Lobbying Activities (SF-LLL), if applicable
9. Other Attachments, if applicable
10. Other Attachments, if applicable

Applications submitted through <http://www.grants.gov> will be time and date stamped electronically. If you have not received a confirmation of receipt from EPA (not from grants.gov) within 30 days of the application deadline, please contact Elizabeth Murphy via email at: murphy.elizabeth@epa.gov. Failure to do so may result in your application not being reviewed.

Appendix II Budget Sample

Budget Detail

This section of the work plan is a detailed description of the budget found in the SF-424A, and **must** include a detailed discussion of how EPA funds will be used. Applicants **must itemize** costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs.

If the project budget includes any voluntary cost share, the Budget Detail portion of the narrative proposal **must** include a detailed description of how the applicant will obtain the cost-share and how the cost-share funding will be used. If EPA accepts an offer for a voluntary cost-share, applicants **must** meet their sharing commitment as a legal condition of receiving EPA funding. If the proposed cost-share is to be provided by a third-party, a letter of commitment is required. Any form of cost-share included in the Budget Detail **must** also be included on the SF 424 and SF 424A. Please see Sections III and Section IV.C.2.B.iii of this RFA for more detailed information on cost-share.

Applicants should use the following instructions, budget object class descriptions, and example table to complete the Budget Detail section of the work plan. Use only whole dollar amounts.

- 1. Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.** This category includes only direct costs for the salaries of those individuals who will perform work directly for the project (generally, paid employees of the applicant organization). If the applicant organization is including staff time (in-kind services) as a cost share, this should be included as Personnel costs. Personnel costs do not include: (1) costs for services of consultants, contractors, consortia members, or other partner organizations, which are included in the “Contractual” category; (2) costs for employees of subrecipients under subawards, which are included in the “Other” category; or (3) effort that is not directly in support of the proposed project, which may be covered by the organization’s negotiated indirect cost rate. The budget detail **must** identify the personnel category type by Full Time Equivalent (FTE), including percentage of FTE for part-time employees, number of personnel proposed for each category, and the estimated funding amounts.
- 2. Fringe Benefits - Identify the percentage used, the basis for its computation, and the types of benefits included.** Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to the cost of leave, employee insurance, pensions and unemployment benefit plans.
- 3. Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State and international (include specific international locations), number of**

travelers, and other costs for each type of travel. Travel may be integral to the purpose of the proposed project (*e.g.*, inspections) or related to proposed project activities (*e.g.*, attendance at meetings). Travel costs do not include: (1) costs for travel of consultants, contractors, consortia members, or other partner organizations, which are included in the “Contractual” category; (2) travel costs for employees of subrecipients under subawards, which are included in the “Other” category.

- 4. Equipment - Identify each item 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.** Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts. These types of proposed costs should be included in the “Other” category. Items with a unit cost of less than \$5,000 should be categorized as supplies, pursuant to 2 CFR 200 and or 2 CFR 1500. The budget detail **must** include an itemized listing of all equipment proposed under the project.
- 5. Supplies - “Supplies” means all tangible personal property other than “equipment”.** The budget detail should identify categories of supplies to be procured (*e.g.*, laboratory supplies or office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the “Other” category.
- 6. Contractual - Identify each proposed contract and specify its purpose and estimated cost.** Contractual/consultant services are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. Leased or rented goods (equipment or supplies) should be included in the “Other” category. The applicant should list the proposed contract activities along with a brief description of the scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or noncompetitive), if known.
- 7. Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.** This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and subaward costs. Subawards (*e.g.*, subgrants) are a distinct type of cost in this category. The term “subaward” means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies,

insurance, or direct appropriations. Subcontracts are not subawards and belong in the contractual category. Applicants **must** provide the aggregate amount they propose to issue as subaward work and a description of the types of activities to be supported.

8. Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base.

Indirect costs are those incurred by the grantee for a common or joint purpose that benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant **must** have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or **must** have submitted a proposal to the cognizant federal or state agency. Examples of Indirect Cost Rate calculations are shown below:

- Personnel (Indirect Rate x Personnel = Indirect Costs)
- Personnel and Fringe (Indirect Rate x Personnel & Fringe = Indirect Costs)
- Total Direct Costs (Indirect Rate x Total direct costs = Indirect Costs)
- Direct Costs minus distorting or other factors such as contracts and equipment
- (Indirect Rate x (total direct cost – distorting factors) = Indirect Costs)

Example Budget Table

| | EPA Funding | Cost-Share |
|--|----------------|-------------|
| Personnel | | |
| (1) Project Manager @ \$40/hr x 10 hrs/week x 52 wks | | \$20,800 |
| (5) Project Staff @ \$30/hr x 40 hrs/week x 40 wks | \$244,000 | |
| TOTAL PERSONNEL | \$244,000 | \$20,800 |
| Fringe Benefits | | |
| 20% of Salary and Wages | 20%(\$244,000) | 20%(20,800) |
| - Retirement, Health Benefits, FICA, SUI | \$48,800 | \$4,160 |
| TOTAL FRINGE BENEFITS | \$48,800 | \$4,160 |
| Travel | | |
| In State travel for Project Manager and staff: 500 mi/mo @ \$0.55/mi x 12 mos. | \$3,300 | |
| Out of State (IL, WI, IA)Travel for Project Staff: 20 trips per month x \$2,500 per trip | \$600,000 | |
| SOLEC Meeting (Toronto, Canada) Travel for Project Manager: 2 trips/year x \$3,500 each | \$7,000 | |
| TOTAL TRAVEL | \$610,300 | |
| Equipment | | |
| Transducer, coupling, and software package | \$25,700 | |
| Electrofishing boom shocker (2 x \$7,500each) | \$15,000 | |
| 1 Project Vehicle | \$25,000 | |
| 1 Project Boat | \$15,000 | |
| TOTAL EQUIPMENT | 81,100 | |

| | | |
|---|--------------|----------|
| Supplies | | |
| Office and related supplies to support training | \$400 | |
| Office computer and printer | \$2,500 | |
| TOTAL SUPPLIES | \$2,900 | |
| Contractual | | |
| ABC Support Services Contract | \$100,000 | |
| XYZ Land & Water Conservation | \$66,400 | |
| TOTAL CONTRACTUAL | \$166,400 | |
| Other | | |
| Travel for 3 representatives to attend workshop training – 100 trips x \$1,000 each | \$100,000 | |
| Travel for 4 representatives to attend workshop training – 200 trips x \$2,000 each | \$400,000 | |
| TOTAL OTHER | \$500,000 | |
| Indirect Charges | | |
| Federal Negotiated Indirect Cost Rate = 10% (Indirect Rate x Personnel = Indirect Costs; as negotiated) | \$26,480 | |
| TOTAL INDIRECT | \$26,480 | |
| TOTAL FUNDING | \$1,679,580 | \$24,960 |
| TOTAL PROJECT COST | \$1, 704,540 | |

** Any voluntary cost-share funds, while not required under this RFA, **must** also be included on the SF-424A as detailed in Section IV.C.2.B.iii of this RFA. Federal funds are not allowed to be used for cost share; please identify the source of the cost share in your budget narrative.

Expeditious Spending and Sufficient Progress in the use of GLRI Funds: Include an explanation of how, if the applicant is awarded a grant, they will ensure that the funding will be used expeditiously.