**2024**

**REQUEST FOR**

**Pre-Proposals**

***Submission Deadline via email\*:***

***by 4 PM, 23 June 2023***

***(Local Time at College Park, Maryland)***

**Expected Funding September 2024**

**In Cooperation with   
USDA  
National Institute of Food and Agriculture (NIFA)**



\*Email submission to [ssadams@umd.edu](about:blank). No hard copies required

**TO: POTENTIAL APPLICANTS FOR NRAC FUNDING**

The Northeastern Regional Aquaculture Center (NRAC) is inviting Pre-Proposals for project funding consideration. This **2024** **Request for Pre-Proposals (RFP)** identifies targeted research areas that NRAC is considering for funding. The NRAC selection criteria, review process and Pre-Proposal submission guidelines are described in the **RFP. Extension is an essential component for success and must be integrated into the pre-proposal’s budget.**

The deadline for submitting Pre-Proposals is

**23 June 2023**. (Local Time in College Park, Maryland)**.** Pre-Proposals will be reviewed to determine which investigators will be invited to submit detailed full proposals for consideration. Eventual funding will require a successful full proposal. Successful proposals are expected to receive funding by **September 2024**.

This round of proposal development and project funding will use funds available from NRAC's grant award from the United States Department of Agriculture, National Institute of Food and Agriculture (NIFA). NRAC will accept pre-proposals in the targeted research priority areas described herein the **RFP**. Proposal funding is contingent on NRAC budget approval by Congress. Research priority areas are recommended to NRAC by representatives of the aquaculture industry in the Northeast through an industry-driven committee process.

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**GENERAL CRITERIA FOR NRAC FUNDING**

In addition to technical and industry merit (and the specific evaluation categories listed on page one), research and project proposals are judged against six criteria. **YOUR PROPOSED RESEARCH OR PROJECT MUST:**

**1.** **SUPPORT COMMERCIAL AQUACULTURE INDUSTRY DEVELOPMENT** in Washington D.C. or the twelve Northeastern states. Your project must be relevant to the targeted research area as determined by industry and listed in this RFA and/or provide evidence of potential economic benefit to the aquaculture industry. NRAC funded research and educational efforts are to be impact or outcome directed.

**2. HAVE THE ASSISTANCE, SUPPORT, OR ENDORSEMENT OF INDUSTRY** in the Northeast. Funded or non-funded industry collaborators are encouraged; letters of endorsement from industry members or associations can provide additional evidence of the value of the proposed project. (Letters are needed for full proposals only)

**3. BE REGIONAL**: **Funded project team members**, advisory panel members, research sites or demonstration-outreach sites must be from at least two, and preferably more, states in the Northeast region. Additional, non-funded participants from outside the region are welcome, as appropriate. All funded individuals must clearly outline their role and deliverables that are critical to the success of the project.

**4.** **HAVE A FUNDED EXTENSION OR OUTREACH COMPONENT** that is integral to the project and will facilitate information dissemination, technology transfer, evaluation of expected outcomes, and/or training to the aquaculture industry throughout the Northeast. The Extension deliverables must be clearly articulated and, while expected to come toward the end of the project life cycle, fully laid out from the beginning of the project.

* Explicit Extension individual(s), goals and objectives, work plan, projected outcomes, and budget must be included in the proposal. NRAC requires an electronic copy of all outputs such as publications that result from the project (e.g., journal articles, Extension Bulletins, Fact Sheets, Curricula, Special Reports, etc.) – include this expenditure in the project budget. Note: Printed copies of publications may no longer be required by NRAC unless specifically requested.

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* NRAC wishes to encourage the use of and the development of services for its website at**:** [www.nrac.org](http://www.nrac.org)

**5.**  **IDENTIFY ROLE OF COLLABORATORS:**

The role of all collaborators and cooperating, non-funded participants must be defined. Token collaborators will not be counted.

1. **MEET BUDGET REQUIREMENTS:**

Any costs not allowed by USDA for NRAC projects are also not allowed to be claimed as matching funds (e.g., indirect costs or overhead, tuition remission, capital costs, etc.). Matching funds or cost sharing funds are not required and **should NOT** be included in the budget sheets.

Please CALL NRAC (301) 405-6917, email [ssadams@umd.edu](about:blank), or consult NRAC’s Website at [www.nrac.org](http://www.nrac.org) if you have any questions regarding these issues, for assistance in building regional teams, or in developing Extension/outreach programs

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**NORTHEASTERN REGIONAL AQUACULTURE CENTER**

**2024 REQUEST FOR PRE-PROPOSALS**

**Background and Authorization**

The NORTHEASTERN REGIONAL AQUACULTURE CENTER (NRAC) located at the University of Maryland was created in 1987 to *“support aquaculture research, development, demonstration and Extension education to enhance viable and profitable U.S. aquaculture production which will benefit consumers, producers, service industries, and the American economy”.* NRAC is one of five Regional Aquaculture Centers established by the U.S. Congress and administered by the U. S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA). NRAC is supported by yearly grants from USDA, which is authorized under Federal legislation (Agriculture and Food Act of 1981, Title IV, Subtitle L, §1440, Pub. L. 97-98) to coordinate efforts in the implementation of the National Aquaculture Act of 1980.

NRAC supports diverse, environmentally responsible research, Extension education, development, and demonstration projects aimed at increasing aquaculture production, profitability, and processing. The NRAC comprises the geographical region of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Washington D.C., and West Virginia. Qualified individuals within the region associated with any state agricultural experiment station, college, university, other research institution or organization, federal agency, private organization or corporation are eligible to participate.

There is approximately $700,000 available from NRAC yearly grants to fund relevant and selected projects. NRAC will fund projects for up to three years with total funding of up to $300,000. The third year should be devoted to completing the Extension/outreach component of the project with its deliverables being an evaluation of its impact. Although NRAC will consider projects of longer duration and larger budgets, such projects will require very strong justification of the time and larger budget.

NRAC funds between two and five projects each year. Research priorities are recommended jointly by NRAC’s Industry and Technical Committees. Targeted research, Extension, and demonstration areas are reviewed by NRAC's Technical and Industry Advisory Council (TIAC) and ultimately approved by NRAC’s Board of Directors and USDA, NIFA.

**Pre-Proposal Submission Guidelines**

**Pre-Proposals:** NRAC encourages short pre-proposals to present ideas, objectives, and working procedures on identified industry problems.

A signed electronic copy in a single WORD or pdf document must be submitted via e-mail to [ssadams@umd.edu](about:blank). *No printed or hard copies are required*.

The following format (see on pages 10 thru 13 below) must be strictly adhered to:

1. A separate title/signature page;
2. The pre-proposal body (not to exceed three [single-sided] pages, in a font not smaller than Times Roman 12 point; margins - top 1", sides and bottom, 0.5" minimum) describing the project in the categories “Why, What, Where, Who, How and When.”
3. **A separate one-page budget summary is now optional at this stage, but will be accepted. If asked to submit a full proposal, the PI will be held accountable for scope and magnitude to reflect objectives in submitted with the pre-proposal. The PI must be realistic in the Scope of Work.** (Do not list ten things in the preproposal when the PI can only realistically complete three due to budget constraints). Matching funds or cost sharing funds are not required and **should not** be shown on the budget sheet.

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1. One page only vita (résumé) for each researcher or cooperator.
2. Please be concise and follow all instructions. Pre-Proposals that do not adhere to the format will not be considered.

**Pre-Proposal Evaluation Criteria:** Pre-proposals will be judged by the NRAC Technical and Industry Advisory Committees in five categories:

|  |  |  |
| --- | --- | --- |
|  | Pre-Proposal Evaluation Criteria | Maximum Points Per Item |
| 1. | *How well does the Pre-proposal address the problem statement* | 25 points |
| 2. | *Benefits and potential economic impact to the aquaculture industry* | 25 points |
| 3. | *Adequacy of the extension plan to disseminate and make the technology available to the industry.* | 20 points |
| 4. | *Overall probability of the team accomplishing the objectives considering qualifications of participants, availability of facilities and equipment, adequacy of requested funding, and proposed time line.* | 20 points |
| 5. | *Overall scientific and technical approach* | 10 points |
| Total | | **100 points** |

The NRAC TIAC will use point totals to rank pre-proposals. The PI’s of the top ranked pre-proposals are usually contacted to develop full proposals. It is expected that approximately twice as many full proposals will be requested as can be funded.

All Pre-proposals will be judged for technical merit and relevance to the identified areas by a review panel of technical, Extension, and industry representatives drawn from the Northeast region. Full proposals, when submitted, will be subject to external peer-review as well as internal review by NRAC.

Individuals submitting pre-proposals, and those pre-proposals selected for full proposal development *are not assured of funding by NRAC*. Ultimate approval for funding of full proposals will be by the NRAC Board of Directors and by the US Department of Agriculture, National Institute of Food and Agriculture (NIFA) and are contingent on availability of Congressional appropriations for NRAC.

Regionality and Extension: NRAC funded projects are OUTCOME driven where the information derived from projects has an immediate or near-term direct application and/or adoption by the industry. To that end, documentation (submission of a Logic Model) of expected change (outcomes) in knowledge, adoption of recommended practices, and/or changes in societal behavior toward aquaculture is a requirement.

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### NRAC requires that all pre-proposals have regional involvement and that all proposed work include an outreach or Extension component to ensure that results or products be transferred or made available to industry or public entities and *how the projected outcomes will be evaluated*.

### *Funded* individuals and institutions must be from two or more northeastern states to participate in NRAC projects. All funded individuals must clearly outline their role and deliverables that are critical to the success of the project. Any exceptions to this rule must be justified. Dissemination of project results to targeted audiences is an expectation as is discussion of Extension/outreach aspects with specialists-agents within the region.

Pre-proposals with strong regional participation that incorporate team-building and Extension activities will be viewed most favorably. All individuals who submit or are included in full proposals will be required to provide a signed letter of intent to participate in the project in their indicated capacity. **Proposals without multistate participation, an Extension component, and Logic Model submission will not be considered.** **Proposals dealing with vertebrate animal research must include some verification of adherence to animal care and use protocols.**

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**Targeted Research Areas:** NRAC is interested in funding selected projects dealing with the research area listed in this RFA. These areas were identified by representatives of the Northeastern regional aquaculture industry and the TIAC. **Pre-Proposals with strong industry support and evidence of industry partnership are favored.**

**Special Considerations: The NRAC program will not pay indirect costs (i.e., overhead) to participating institutions, and will not pay student tuition remission costs. Requests for salary beyond student stipends or cover some summer salary requests are discouraged. Travel costs to attend meetings are to be limited, require justification for more than one individual to attend to present findings, must occur within the project time-frame, and the meeting must be related to the project scope. NRAC expects applicants to have equipment and facilities in place. NRAC will not pay for brick-and-mortar costs per the terms in our Prime Grant through USDA/NIFA.**

Regulations applicable to NRAC grants include the USDA Uniform Federal Assistance Regulations, 7 CFR Part 3015 and Special Terms and Conditions thereto. Once full proposals are approved, all individuals funded by NRAC are required to submit the NIFA-2008 Form (Assurance Statement).

**Project Coordinator (PC) and Principal Investigators (PI):**  One PC (the lead PI) must be identified for each project. The PC’s institute-business is the recipient of the NRAC award, and issues subcontracts to the PI’s of the project. The PC coordinates and monitors the activities and progress of all PI’s, maintains communication among participants, is responsible for overall project reporting to NRAC, is the main contact person on the overall project, and is fiscally responsible to NRAC for the overall project. Each PI is fiscally responsible to the PC’s institution for their subcontract, and is responsible for reporting data and deliverables in a timely manner to the PC. The host institution is responsible for collecting appropriate forms and legal documents (i.e., conflicts of interests, IACUC and/or IBR protocol approvals (if warranted), etc.). An individual may be a PC or PI on more than one proposal. Last, the PC is responsible for timely and complete reporting requirements including annual progress reports and a final report. The final report is due within 90 days of the project termination.

All funded individuals will be required to provide a signed letter of intent to participate in the project in their indicated capacity.

**Conflict of Interest:** NRAC encourages the participation of the best qualified researchers, Extension/outreach personnel, and industry members throughout the Northeastern Region. While NRAC does not intend to exclude Board or TIAC members from involvement on funded projects, there are certain restrictions that are detailed in NRAC’s Conflict of Interest Guidelines. These guidelines are posted on the NRAC website and can be obtained from the NRAC office.

**Data Management and Availability of Results:** NRAC requires all PIs to follow good research practices of Data Management. Since these grants are public trust funds all investigators should be aware that the findings of these project should be made available to the general public for their implementation and adoption. Notwithstanding intellectual property rights followed by your institution-organization and accepted by USDA all projects should consider following the Fair Principles guidelines found at <https://www.go-fair.org/fair-principles/>.

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Clear delineation of how any proprietary or potentially patented results of the findings from NRAC projects must be spelled out in the requested full proposal as to how this information, product, or recommendation will be made available to the public at a reasonable cost.

All inquiries and submissions should be addressed to:

Sharon S. Adams

ssadams@umd.edu

NRAC Coordinator/RFA 2023

Northeastern Regional Aquaculture Center/NRAC

University of Maryland

2113 Animal Sci./Agric. Engineering Building #142

College Park, Maryland 20742-2317

Additional information about NRAC and copies of this RFA are available on the NRAC Web site at [www.nrac.org](http://www.nrac.org).

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**Targeted Research Areas (TRA)**

The following targeted research areas have been prepared by the NRAC Technical and Industry Advisory Council and approved by the Board of Directors. Pre-proposals that address the targeted research area will receive equal consideration. Aquaculture commodities chosen for study should have proven or have viable economic potential for commercial development in the Northeast region. Collaborative partnership(s) with appropriate industry sector(s) or firm(s) is highly encouraged. Projects that promise to produce tangible impact-driven end-products that are of direct use or value to particular aquaculture businesses or addresses key bottlenecks to aquaculture operations or marketing are preferred.

NRAC encourages a diversity of research and investigators to advance aquaculture (including aquaponics) in the Northeast as it relates to species, production systems, applications, and markets. NRAC supports projects that occur in either marine or freshwater environments, at sea or on land, and in urban centers or rural settings. Aquaculture organisms are always primarily aquatic and include finfish, shellfish, or invertebrates, seaweed, other aquatic plants, and microalgae.

**NRAC STATEMENTS OF OPPORTUNITY**

**2023-2024**

**TRA-24-1**

**Goal:** Develop and/or improve aquaculture marketing and sales strategies that facilitate growth of the aquaculture industry, that address issues of supply and market disruption, as well as expanded sales to broader geographic areas.

**Statement of Opportunity:** Identify and exploit marketing strategies aimed at correcting for market disruptions, assisting with growth of traditional markets, and penetration of aquaculture products into non-traditional markets. Expand the range and products provided to sales outlets domestically and internationally. The bulleted suggestions provided below are not arranged in order of priority but suggested project areas could focus on:

* Unique strategies for expanded distribution of aquaculture products including e-commerce, direct retail, CSAs, and regional cooperatives.
* Strategies for industry resilience in the face of vulnerabilities such as market saturation and/or large-scale market or distribution disruptions.
* Developing organic certification standards and assessment of the path towards implementation in the region.
* Developing value-added products from aquaculture and aquaculture waste materials or post-harvest processing.
* Blue carbon/nitrogen credits and the development of one or more regional ecosystem services markets.
* Mechanisms to support more effective crop insurance programs that are directly relevant to aquaculture.

**NRAC funds multistate, outcome-based research. Communicating and disseminating effective science-based information about aquaculture is central to the NRAC mission. Dissemination plans and impact evaluation should be clearly outlined in every proposal. To avoid duplication, all interested individuals should visit** [**http://www.nrac.org**](http://www.nrac.org) **and review current and previously funded projects.**

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**TRA-24-2**

**Goal:** Research and demonstrate opportunities and methods that lead to greater commercial profitability, viability, and/or sustainability of aquatic plants and animals.

**Statement of Opportunity:** Northeast regional aquaculture includes a diversity of species, systems, and industries. NRAC funds projects that focus on all aspects of aquaculture and emphasize outcomes leading to development and sustainable growth of the industry. The bulleted suggestions provided below are not arranged in order of priority but suggested project areas could focus on:

* Lowering input costs (e.g., labor, energy, capital equipment, feeds, biofouling, and space) related to the production of aquatic organisms.
* Working with commercial industry to develop restorative aquaculture products, (e.g., shellfish remediation projects, creating potential for bioremediation, ecological services, and/or ecological restoration using aquaculture products and/or methods, including follow-up study of effectiveness of this work through genetic tracking, shell marking, etc.).
* Demonstrating the effectiveness of breeding and/or strain selection for improving production efficiency and/or product quality on the farm.
* Improving feeds to lower rearing costs, reduce fish-meal protein inputs, improve health, promote growth, and increase survival.
* Eliminating knowledge gaps related to closing the production cycle of species with existing or potential aquaculture value.
* Expanding upon the knowledgebase of infectious and non-infectious diseases and their sources to improve health management and production on the farm.
* Modifying farming and production strategies to mitigate and adapt to environmental change and large-scale disruptions.
* Reducing the environmental footprint of aquaculture, for example through recycling/reuse of aquaculture gear, or by developing alternatives to the use of plastic materials such as Styrofoam, and examining more sustainable materials for use in gear and/or product packaging.
* Addressing issues related to food safety, record keeping, and traceability.
* Optimization of aquaculture systems and gear to withstand environmental and biological challenges.
* Research to optimize recirculating aquaculture and aquaponics systems of multiple scales. Work could include improvement of production systems, optimization of production techniques, and research that leads to greater expansion of RAS commercial farming.
* Addressing the impact of interactions of wildlife with aquaculture farms, including risks to food safety, disease transmission, predation by protected species, and gear losses.

**NRAC funds multistate, outcome-based research. Communicating and disseminating effective science-based information about aquaculture is central to the NRAC mission. Dissemination plans should be clearly outlined in every proposal. To avoid duplication, all interested individuals should visit** [**http://www.nrac.org**](http://www.nrac.org) **and review current and previously funded projects.**

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**TRA-24-3**

**Goal:** Create innovative strategies addressing social barriers to development and create sustainable expansion of the aquaculture industry in the Northeast region.

**Statement of Opportunity:** Social, political, and economic issues, including public perceptions, user conflicts, regulatory and legal issues, can limit the sustainable expansion of the aquaculture industry. NRAC seeks to fund development, implementation, and adoption of innovative approaches that foster regional industry growth and success. The bulleted suggestions provided below are not arranged in order of priority but suggested project areas could focus on:

* Addressing social barriers that inhibit sustainable expansion of the industry, such as public perception or user conflicts, including demonstration of technologies that improve public and regulatory understanding of on-farm production or engagement with other resource users.
* Best Management Practices for siting of new farms.
* Tackling social carrying capacity of the industry including addressing sociological conflicts between aquaculture and other user groups such as fishers, marinas, energy platforms, and protected species and habitats through inclusion of diverse stakeholders.
* Understanding successful litigation strategies in permitting aquaculture, including reviewing case law at the federal and state level (e.g., Right-to-Farm laws, pre-permitting regulatory consultations).
* Developing approaches that simplify permit approval and renewal, decrease regulatory burdens, and promote regulatory harmonization across states in the region while preserving accurate and fair stakeholder input and biological and social sustainability.
* Evaluating and quantifying ecological, economic, social, and cultural benefits of aquaculture and how these may inform regulations, blue carbon credits, mitigate food deserts, and/or other novel opportunities.
* Identify and address issues of equity and access (e.g., knowledge, capital) to the industry, including training and outreach to a broader population of new potential industry members, issues of industry recruitment, retention, and workforce development.
* Studies that foster regional investment and preservation of access to working waterfronts and infrastructure (e.g., dockage, ramps, processing capacity) for commercial aquaculture opportunities.

**NRAC funds multistate, outcome-based research. Communicating and disseminating effective science-based information about aquaculture is central to the NRAC mission. Dissemination plans should be clearly outlined in every proposal. To avoid duplication, all interested individuals should visit** [**http://www.nrac.org**](http://www.nrac.org) **and review current and previously funded projects.**

**NRAC 2024 Pre-Proposal**

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**Title Page**

**Project Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Duration** (months)**:**

**Total Funding Requested from NRAC:**  **$**

**States with Participants in Project (circle / list):**

**CT DE ME MD MA NH NJ NY PA RI VT WV Wash, DC / Other:**

**Project Coordinator** (Lead Principal Investigator) (name/position/institution/address/phone/fax/email):

(one name only)

**Principal Investigator(s)** (name/position/institution/address/phone/fax/email):

**Cooperating, Non-funded Participant(s)** (name/position/institution/address/phone/fax/email):

**Project Coordinator**’s **Signature:**  **Date:**

**NRAC 2024 Pre-Proposal**

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**Description of Project Categories and Body of Pre-Proposal**

**1.0 WHY:** Justify the problem or issue addressed by the proposed project.

**2.0 WHAT:**  State the objectives of the project and their relationship to the problem or issue described above.

2.1 Describe the product, process, or program that will result from successful accomplishment of the project objectives.

2.2 Identify and describe the end-users and beneficiaries of the project results.

2.3 Indicate what measurable economic benefits will result from the use of the product/process/program.

**3.0 WHERE:**  Identify the states and region (e.g., Chesapeake Bay) and describe the environment (land-based system, freshwater, nearshore, etc.) where the project results will be immediately applicable. Where else may the results be transferred to and applied?

**4.0 WHO:** Describe who will be involved in the project and their respective roles and responsibilities. Attach a one page vita of each funded participant. (Number 8 below)



**5.0 HOW:**  Describe how the project will be carried out and achieve the objectives defined above. Describe the supporting facilities that will be made available to the project. How will project results be evaluated? How will the results or products be transferred to industry or public entities?

**6.0 WHEN:** Indicate desired starting and completion dates (months) for the proposed project (i.e., account for seasonality of data collection). Provide a clear time line for completion of objectives with due dates specified for all products (Funding would not be available before August of 2016).

1. **BUDGET SUMMARY:** **OPTIONAL**

NRAC will not pay for indirect costs (overhead), student tuition remission, and capital costs. These may not be included as a component of matching funds. Matching funds or cost sharing funds are not required but if included should be shown on the budget sheet. (Budget totals on the pre-proposal will be expected to be the same as on the full proposal if a full proposal is requested).

**Funds Requested**

Funds Requested

from NRAC

Salaries and Wages

A. Principal Investigators

1. B. Research Assoc./Postdoctorates

C. Graduate/Prebaccalaureate Students

D. Other Professionals (not consultants)

Fringe Benefits

Non-expendable Equipment

Materials and Supplies

Travel

Publication Costs/Page Charges

Other Direct Costs

Lab Analyses

Consultant Services

Subcontracting

Phone/Fax/Photocopy/Postage

**TOTALS**

(Enter these values on the title/signature page)

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1. **VITA (rÉsumÉ) gUIDELINES:**

name

Address Phone

Fax

Email

**EDUCATION**

B.S. (Institution, Year)

M.S. (Institution, Year)

Ph.D. (Institution, Year)

**POSITIONS**

List each position on a separate line from newest to oldest.

**SCIENTIFIC AND PROFESSIONAL ORGANIZATION**

List alphabetically each organization on a separate line.

**SELECTED PUBLICATIONS**

List relevant publications from newest to oldest.

1. **ROLE IN PROPOSED RESEARCH**
2. **OTHER FUNDING:**

Are you applying for funds for this work to other agencies?

If yes, which/how much?

**CHECKLIST FOR SUBMISSION OF PRE-PROPOSALS**

Pre-Proposal Format:

Margins (minimum): top 1", sides and bottom 0.5"

Font not smaller than: Times Roman 12 pt.

Separate title page

Body: limited to 3 (single sided) pages

Separate budget page

Résumé/Vita: 1-page per participant

\_\_\_\_\_ Logic Model

\_\_\_\_\_One Electronic copy submitted as a single WORD or .pdf document

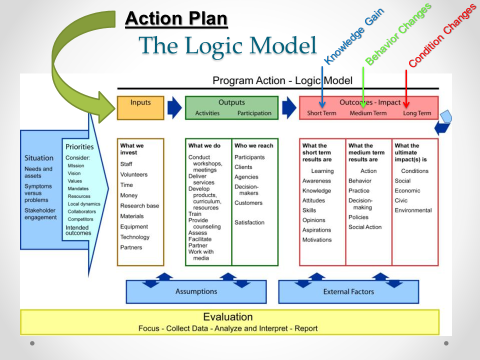
**Do NOT:**

Include bibliography and /or reference material

\_\_\_\_\_ Include matching funds

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Include letters of support (these are to be submitted with full proposals only)

****

**(Logic Model template and directions provided in separate documents.)**

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