

Ohio Sea Grant College Program

Call for Research Proposals: 1 February 2024 – 31 January 2026

The Ohio Sea Grant College Program is requesting proposals for one- or two-year research projects on Great Lakes issues with particular significance to Lake Erie and its watershed. Specific research funding priorities are outlined below. Proposals should not exceed **\$100,000 per year**, including indirect costs. Approximately \$600,000 is available in each project year (1 February 2024 to 31 January 2025 and 1 February 2025 to 31 January 2026).

PRE-PROPOSAL DEADLINE: Ohio Sea Grant must receive a PDF version on its web page ohioseagrant.osu.edu/research/submit by **5:00pm Eastern Thursday 2 March, 2023**.

FULL PROPOSAL DEADLINE: Ohio Sea Grant must receive a PDF version on its web page ohioseagrant.osu.edu/research/submit by **5:00pm Eastern Thursday 18 May, 2023**.

Ohio Sea Grant's Strategic Plan and Funding Priorities

Ohio Sea Grant is one of 34 state Sea Grant programs that are part of the National Sea Grant College Program (National Oceanic and Atmospheric Administration, U.S. Department of Commerce). Ohio Sea Grant has four main research foci: 1) Healthy Coastal Ecosystems, 2) Sustainable Fisheries and Aquaculture, 3) Resilient Communities and Economies, and 4) Environmental Literacy and Workforce Development. Ohio Sea Grant also works with the Ohio Lake Erie Commission (LEC), Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) to align our research portfolio with the needs of the state. Any proposal that addresses: 1) Ohio Sea Grant's priorities (listed below; OHSG), 2) Ohio's state agency priorities (listed below; LEC, OEPA, ODNR), or 3) Ohio Sea Grant's strategic plan (ohioseagrant.osu.edu/research) will be considered.

We encourage applicants of all ages, races, ethnicities, national origins, gender identities, sexual orientations, disabilities, cultures, religions, citizenship types, marital statuses, job classifications, veteran status types, and income, and socioeconomic status types to apply for this competitive research opportunity. Projects that build or strengthen partnerships with communities or organizations that hold similar goals to build inclusive research programs are highly valued, including partnerships with community colleges, Minority Serving Institutions, Tribal Colleges, community-based organizations, and more. We encourage applicants to clearly identify how this research will have broader societal impacts on the community including priority audiences from underrepresented or underserved communities.

Ohio Sea Grant and Stone Laboratory staff combine research, education, and outreach, in collaboration with Great Lakes communities, to inform decisions regarding Lake Erie and the region's most important environmental and economic issues with impartiality. We are committed to fostering culturally and intellectually diverse experiences which value people and local knowledge to reach new audiences, increase participation, and broaden our impact so all members of our community reach their full potential.

Research Priorities:

Aquaculture

- Research to address (1) aquaculture/aquaponics economics and profitability, (2) technology and production methods, and (3) on-farm safety, security, and sustainability (OHSG). On-farm trials and research that can be applied to commercial scale operations are especially encouraged. More specifically:
 - Removing barriers (economic, infrastructure, etc.) and solutions to increased food fish production in Great Lakes aquaculture
 - Sustainable, economical ways to implement biosecurity from seed to sale. Example: Non-chemical disinfection methods for eggs, fry, or fingerlings coming on to the farm (for example, UV disinfection)
 - Advancements in on-farm, rapid detection and diagnosis of disease and delivery of treatments
 - Comparative studies of pond and aquaponics production methods in terms of fish health, yields, and product quality for food fish markets
 - Farm-level tools and technology advancements to maximize yields and increase production system efficiencies and sustainability
 - Reducing fish meal inclusion in fish feed

Marine Debris and Emerging Contaminants

- Effects/impacts of plastics on aquatic species and humans (OHSG)
- Environmental impacts of various trash trapping technologies (positive and negative, i.e., bycatch, sand ecosystems) (OHSG)
- Effectiveness of SeaBin, BeBot and Pixie Drone at removing items from the environment (OHSG)
- Biosolids residual management regarding emerging contaminants (PFAS, etc.) (OEPA)

Economics and Coastal Community Development

- Economic feasibility of shrink wrap recycling program (OHSG)
- Proposals that support development of just and equitable decision support tools for community-based restoration (OHSG)
- Social science proposals that document the social, economic, and environmental benefits of restoration projects that address nutrient runoff, habitat enhancement, public access, and disposal of dredged material (OHSG)
- Further work on beneficial reuse of dredge material. This can build on previous work for agricultural applications or development of new uses. For example, research on small scale disposal options for beneficial use of dredged material (i.e., for marinas that are allowed to open lake dispose but would like to find a way to participate in beneficial use) (LEC, OHSG)
- If a business becomes certified as sustainable (i.e., Clean Marinas, 4R Nutrient Stewardship, Clean Ports initiative, ODNR Sustainability Plan, etc.) are people more likely to support them and/or is it motivational (OHSG)
- Economic impact of coastal resilience as defined by the specific restoration projects (e.g., AOC projects and Lake Erie Commission grant projects) (OHSG, LEC)
- Are Ohioans willing to pay more to support environmental efforts (i.e., fee for shrink wrap recycling, environmental fee on vessels to support ADV recycling, added cost to pay for an aquatic invasive species boat wash station, etc.)?

Environmental Education

- Identifying and removing barriers for educators and their classes to engage with Lake Erie (OHSG)
- Identifying and removing barriers for educators to bring what they are doing/learning at the lake to their own local watersheds (OHSG)

Climate Change Resiliency

- Impacts of climate change on coastal and riverine management institutions in the Great Lakes. Focus on climate justice and resource allocation, specifically seeking opportunities to bolster equitable representation of underserved communities in decision-making processes (OHSG, LEC)
- Municipal sanitary/stormwater collection system climate change resiliency. Are current systems able to adapt to climate change scenarios? How will the current infrastructure building design specifications hold up against the impacts of climate change? How do we design systems to deal with a changing climate (OEPA)
- Cost-benefit analysis of green and gray infrastructure (LEC)
- Impact of climate change on recruitment and population dynamics of economically important sport fishes, with a focus on cool and cold-water fishes in Lake Erie (ODNR)

Healthy Coastal Ecosystems

- Understanding of percid spawning and recruitment, especially relative to the dynamics that seem to produce such different hatches in each basin (ODNR)
- Evaluating near-shore, “nature-based” shoreline practices for erosion reduction (ODNR)
- Factors influencing the nutrient filtering efficiency of coastal wetlands. For projects related to the H2Ohio Wetland Program please reach out to Ohio Sea Grant to align with current initiative (ODNR)
- Research on conservation/reintroduction/monitoring of imperiled native species and endemic ecosystems, particularly those associated with the islands – including plants, birds, mammals, non-game fishes, mussels, dragonflies, etc. (OHSG, LEC)
- Effect of cyanobacteria/cyanotoxins on an economically and ecologically important bait fish species – Emerald Shiner. This species is known to first start feeding on blue-green algae after the yolk sac is absorbed in July/August (OHSG)
- Effects of wetland creation/mitigation/rehabilitation on native fish, bird, herp, mammal and invertebrate populations. If you build it, will they come? (OHSG, LEC)
- Create a coastal sustainable development program that will evaluate and monitor sustainable design concepts for combined residential/agricultural lands (ODNR)
 - Old Woman Creek National Estuarine Research Reserve and Office of Coastal Management can connect research team with identified a private landowner. Please contact Janice Kerns (Janice.Kerns@dnr.ohio.gov) for more information.

Hypoxia

- Influence of hypoxia on distribution and behavior of Lake Erie fish assemblages (ODNR)
- Develop an efficient and effective monitoring and reporting program for hypoxic zone in Lake Erie (Western and Central basins) to measure progress towards reducing size and duration. Note: NOT modeling – this should be empirical work to accurately describe and display observed

hypoxia and can include biological indicators such as the size distributions of dreissenid mussels and presence of oligochaete and chironomid chimneys or tubes, etc. (OEPA, LEC)

Any harmful algal bloom related research projects that are not specifically addressed in the priorities below are encouraged to apply for Ohio Department of Higher Education - Harmful Algal Bloom Research Initiative funding (ohioseagrant.osu.edu/research/funding).

FUNDING SCHEDULE AND SUMMARY

- **Thursday, 2 March 2023 by 5:00pm ET**– Applicants should submit a PDF version of their pre-proposal by accessing ohioseagrant.osu.edu/research/submit, selecting “2024-2026 Large Grant pre-proposal”, and uploading one PDF file.
- **Friday, 24 March 2023** – Applicants will be notified of the status of their pre-proposal (encouraged or discouraged from submitting a full proposal).
- **Wednesday, 12 April 2023 at 1:00pm ET**– Ohio Sea Grant will host a webinar for investigators to discuss the full proposal process, ask questions and explore possible opportunities for collaboration.
- **Thursday, 18 May 2023 by 5:00pm ET**– Applicants should submit a PDF version of their full proposal by accessing ohioseagrant.osu.edu/research/submit, selecting “2024-2026 Large Grant full proposal”, and uploading one PDF file.
- **Thursday, 10 August 2023** – Applicants receive copies of external peer reviews.
- **Thursday, 17 August 2023 by 5:00pm ET** – Deadline for Ohio Sea Grant to receive comments (one copy) from investigators wishing to respond to peer reviews.
- **Friday, 15 September 2023** – Applicants will be notified as to whether their proposal will be included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office.

PRE-PROPOSAL INSTRUCTIONS

The pre-proposal process allows investigators to outline projects and receive feedback without spending the time required to prepare a full proposal. Pre-proposal submissions are required to submit a full proposal. Pre-proposals will either be encouraged or discouraged to submit a full proposal; however, any pre-proposal that is submitted by the pre-proposal deadline is eligible to submit a full proposal. Successfully completing the pre-proposal process, and being encouraged to submit a full proposal, does not guarantee funding.

The initiation date for new projects in this two-year submission can be 1 February 2024 or 1 February 2025 (one-year projects only). While projects can be approved for more than one year, funding is approved annually and is dependent upon federal appropriations. Contact Kristen Fussell (fussell.10@osu.edu) if you have any questions regarding this process.

A PDF version of the pre-proposal (with all pieces of the pre-proposal merged into one PDF document) must be submitted to Ohio Sea Grant by **5:00 p.m. EST on Thursday, 2 March 2023**. Applicants should submit by accessing ohioseagrant.osu.edu/research/submit, selecting “2024-2026 Large Grant pre-proposal” and uploading files. **Pre-proposals should include, in one single PDF document, the following:**

- I. Cover page: A cover page that includes the project title, and the name, affiliation, address, telephone numbers, and email address of each investigator.
- II. Project summary: A maximum of three pages of summary narrative (literature cited is not included in page maximum), which must include the objectives, methodology, and rationale for the proposed project.
 - a) Rationale: should be a concise statement of why this is an appropriate Sea Grant project. That is, what problem or opportunity is being addressed and why is it important. Discuss how the proposed project addresses one or more of the Ohio Sea Grant and/or agency priorities listed in the instructions. Include the potential end users (management agencies, private sector, etc.) of the project information to be developed if they have been identified. Collaboration with state, regional, and federal agencies is encouraged.
 - b) Objectives: should state what the investigator(s) intends to do. Measurable objectives are preferred. Quantifiable and hypothesis-based objectives are well received.
 - c) Methodology: should outline the steps and approaches to be taken. The methodology should be specific enough to allow peer reviewers to accurately evaluate your pre-proposal but not too detailed that only content experts can evaluate the strength and value of your proposed work.
- III. Budget form*: A budget is required for each year of the project. The budget form will calculate a summary budget combining years. The budget must have the approval of appropriate university administrators (i.e., Sponsored Program Officer) at the full proposal stage, but NOT for the pre-proposal.
- IV. Budget justification: A budget justification describing all expenses for each year of the project.
- V. A two-page curriculum vita for each investigator/project member
- VI. Demographics: You must complete [this google form](#) prior to submission to collect demographic information for all named collaborators on your proposal. Results are anonymous and not shared with the form host.
- VII. Letters of collaboration from partners are not required at the pre-proposal stage. A Letter of Collaboration form* will be strongly encouraged from all project partners at the full proposal stage.

*** Required form can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding)**

PRE-PROPOSAL REVIEW PROCESS: A panel of science and agency experts will review all pre-proposals. Full proposals submissions will be encouraged from those investigators receiving high reviews. However, those pre-proposals that are discouraged are not prohibited from submitting full proposals. The number of pre-proposals encouraged to submit full proposals is based on the quality of the pre-proposals and the amount of funding available. We expect to fund six full proposals and will encourage submission of full proposals by at least twice that number. The first investigator listed on each pre-proposal will be contacted with the results of the review on Friday, 24 March 2023.

Ohio Sea Grant uses the four criteria listed below for evaluating pre-proposals. Each criterion will be awarded points (see below; 50 points total). The total score will be divided by five to get a total score on a scale of 0-10 with 10 being the highest possible rating. Pre-proposals will also be rated on a qualitative +, 0, - scale, with the (+) score meaning this is something we should encourage for a full proposal, (0) is neutral, and (-) stating this pre-proposal should not be encouraged to submit a full proposal.

RATIONALE (15pts): the degree to which the proposal addresses the priorities of the National Sea Grant Program (seagrant.noaa.gov) and Ohio Sea Grant's 2024-2027 strategic plan (ohioseagrant.osu.edu/research/funding), and important state, regional, or national constituencies.

SCIENTIFIC MERIT (15pts): the degree to which the activity will advance the state of the science or discipline through use and extension of state-of-the-art methods.

INNOVATIVENESS (15pts): the degree to which new approaches to solving problems and exploiting opportunities in resource management or development, or in public outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

QUALIFICATIONS AND PAST RECORD OF INVESTIGATORS (5pts): the degree to which investigators are qualified by education, training, and/or experience to execute the proposed activity and their record of achievement with previous funding.

Additional Information

- Funding may not be used for routine program implementation, regulatory compliance or mitigation, land acquisition, or on-the-ground restoration or construction.
- Proposals will not be accepted from investigators who are not current with their reporting requirements on previous projects funded by Ohio Sea Grant.
- Submitting electronic pre-publication manuscripts to our office of work resulting from your NOAA funding is a part of investigators' reporting requirements. Please cite related Ohio Sea Grant project numbers with reprint submission.

FULL PROPOSAL INSTRUCTIONS

Full proposals will be due by **5:00 p.m. EST on Thursday, 18 May 2023** and will require the following sections:

- I. Project summary (3-page max)
- II. Project Narrative (15-page max)
 - a) Rationale
 - b) Objectives
 - c) Methodology
 - d) Anticipated outcomes and results
 - e) Project timeline
 - f) Outreach and education plan
 - g) Literature cited (not included in page limit)
- III. Budget form*
- IV. Budget justification
- V. A two-page curriculum vita for each investigator/project member
- VI. NOAA's Data Sharing Directive – Proposal Submission Phase*
- VII. Approval from your university with appropriate authorized signatures. At OSU this is the PA-005. For investigators outside of Ohio State University, please 1) complete the Subrecipient Letter of Intent form*, 2) 3B forms* and 3) include your university's indirect cost rate agreement.
- VIII. Letters of Collaboration are not required but are **highly encouraged** from all project partners*

* Required form can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding)

I. Project Summary

You can use the project summary you submitted for the pre-proposal stage and modify that based on suggestions from reviewers and the project narrative you are submitting. Keep the total length of the objectives, methodology, and rationale combined to a maximum of three pages.

II. Project Narrative

The maximum length for the narrative is 15 pages. The length requirement includes tables, figures, and images. Pages can be either single- or double-spaced. Please use 11-point times new roman or an equivalent serif font with 1-inch margins and include page numbers. Additional pages will not be considered. The project narrative must include the following subsections: (a) Rationale, (b) Objectives, (c) Methodology, (d) Project Timeline, (e) Outreach and Education Plan, (f) Related Work, and Literature Cited. The literature cited section is not included in the 15-page length maximum. A description of the required contents of each subsection is provided below.

Included in project narrative:

- a. **Rationale:** Provide a description of the need for the proposed research, background information, and how the proposed project addresses one or more of the Ohio Sea Grant and/or agency priorities listed in the pre-proposal instructions. It is important to describe the anticipated benefits to resource managers, industry, the general public, or other constituent groups.
- b. **Objectives:** These can be taken directly from your project summary form or reworked for the proposal body. The objectives should state what the investigator(s) intends to do. Objectives that allow hypothesis-based testing have been well-received and measurable objectives are preferred.
- c. **Methodology:** Outline the methods, approaches, and techniques that will be used to meet the stated objectives/outcomes. The investigator should demonstrate the technical qualities of the proposed approach so that the review panel can adequately assess the features of the proposed work. Be sure to describe any collaboration between universities and the public and/or private sector. It is highly recommended that any collaborations include a Letter of Collaboration form with proposal submission.
- d. **Anticipated outcomes and results:** What are the expected outcomes and results related to the creation of scientific knowledge? Provide a list of expected outcomes and deliverables that will result from your project. Explain how these outcomes will be directly and beneficially applied to the current and future needs of communities and local interested parties.
- e. **Project Timeline:** Include a timeline or schedule for the project in a format of your choosing.
- f. **Outreach and Education Plan:** Projects must include an outreach and education component and/or product development (tools, services, and training). For assistance with developing a compelling outreach and education plan, please contact Ohio Sea Grant outreach and extension experts. Contact information is included on the last page of this document and on the Ohio Sea Grant website.

Additionally, proposals that support undergraduate and graduate students are encouraged. If students will be supported through this funding, please include the number of students, level

(undergraduate vs graduate), and a short mentoring plan. Examples of mentoring activities include but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.

- g. Literature Cited: References are required if cited in the text of the proposal; citation of literature is essential to establish the familiarity and expertise of the project leader(s) to the subject in the proposal. Include full citation: name of authors, title, and location in the literature. This section does not count towards the 15-page limit.

III. Budget Form

A budget is required for each year of the project. The budget form will calculate a summary budget combining years. Individual budgets are also required for all sub-awards on your project. The budget form and instructions are available on Ohio Sea Grant's website (ohioseagrant.osu.edu/research/funding).

IV. Budget Justification

Your budget justification should specifically address what the funds you are requesting will be used for. Please describe each line used on the budget form. Instructions for the budget justification can be found on the Ohio Sea Grant website (ohioseagrant.osu.edu/research/funding).

V. Vita

The maximum length is one page for each investigator, co-investigator, and collaborator. Each vita must contain the investigator's complete address, telephone, and e-mail address. Beyond this, we are quite flexible in the style of this document. A listing of current research support that is closely related to the project is typically a good idea. Listings of current and past positions held and honors are also often helpful. Publications written by the investigator, especially those that are peer reviewed and related to the research project proposed should be listed.

VI. NOAA Data Sharing Directive

Proposals submitted in response to this announcement must include a Data Management Plan describing how these requirements will be satisfied. To comply with this requirement, the Principal Investigator (PI) must complete the form "NOAA Data Sharing Directive Policy – Proposal Submission Phase" available on Ohio Sea Grant's webpage (ohioseagrant.osu.edu/research/funding). This will allow PIs to explain how the data and metadata will be provided and must include information for all applicable datasets related to your project(s). If funding is required for data curation and archiving, please make sure that funds are budgeted in the project proposal for data management. All data generated through Sea Grant funded projects are required to be completely QA/QC'ed (Quality Assurance and Quality Control) and made publicly accessible by two years after the end date of the project. If the proposed research will not generate environmental data, then a Data Management Plan will need to be stated as such: "*This project will not generate any environmental data.*"

VII. Subrecipient Letter of Intent and Indirect Cost Rate Agreement, or OSU's PA-005

Proposals submitted at the full proposal stage need to show approval of your proposed work and budget by your university with appropriate authorized signatures. If the proposal PI is not affiliated with Ohio

State University (OSU), please complete the “Subrecipient Letter of Intent” and “3B” forms available on Ohio Sea Grant’s webpage (ohioseagrant.osu.edu/research/funding) and obtain the appropriate signatures. Additionally, please include a copy of your university’s federally negotiated indirect cost rate agreement. If the proposal PI is affiliated with OSU, please attach a completed copy of the university’s PA-005 form.

VIII. Letters of Collaboration

Ohio Sea Grant **highly recommends** a completed Letter of Collaboration form from all project partners that are committing time and/or resources to your project. The Letter of Collaboration form can be found on Ohio Sea Grant’s webpage (ohioseagrant.osu.edu/research/funding).

Submission

Full proposals will be due by **5:00 p.m. ET on Thursday, 18 May 2023** and will be immediately sent to reviewers. Please submit all materials in **one PDF document**. Applicants should submit by accessing ohioseagrant.osu.edu/research/submit, selecting “2024-2026 Large Grant full proposal”, and uploading the file.

Review Panel

Experts from academia, state and federal management agencies, and/or non-governmental organizations will review full proposal submissions at both a written and panel review stage. Written reviews of the proposal (a minimum of two) will be emailed to the investigators on **Thursday, 10 August 2023** and written comments from investigators are due back to Ohio Sea Grant (emailed to Kristen Fussell; fussell.10@osu.edu) by **Thursday, 17 August 2023 by 5:00pm ET**. The written reviews and your comments to the reviews will be included in the proposal packets read by the review panel members.

Ohio Sea Grant uses the six criteria listed below for evaluating full proposals. Each criterion listed below will be awarded points as listed below (60 points total). Point totals are then divided by six to get a total score on a scale of 0-10 with 10 being the highest possible rating. Full proposals will also be rated on a qualitative +, 0, - scale, with the (+) score meaning this is something we should fund, (0) is neutral, and (-) stating this full proposal should not receive funding at this time.

Scores for all reviewed proposals will be ranked from highest to lowest. Projects recommended for funding (i.e., included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office) will be selected in rank order until funding is exhausted with the following possible exceptions: (1) proposal was well written and highly ranked but was given a qualitative “-” score because of a fatal flaw (i.e.; research doesn’t fit our strategic plan, is duplicative of projects already underway, does not address a critical issue in Lake Erie, is outside the Lake Erie watershed) (2) PI is not in good standing, (3) to distribute funding across research topics and/or (4) the proposal was well written and highly ranked but the review panel knew of a duplicative project recommended for funding under a different call for proposals. The later occasionally occurs because many of our review panel members sit on other funding review panels.

We expect to fund at least six full proposals (depending on duration and budget of those selected). Investigators will be notified as to whether their proposal will be included in the omnibus proposal submitted by Ohio Sea Grant to the National Sea Grant Office on **Friday, 15 September 2023**. Proposals selected for inclusion in the Ohio Sea Grant omnibus will need to complete an Abbreviated Environmental

Compliance Questionnaire and supply any necessary permits required to conduct the research. Research funding may be delayed until all necessary permits are received.

Proposal Evaluation

Sea Grant uses five criteria for evaluating proposals:

RATIONALE (15pts): the degree to which the proposal addresses the priorities of the National Sea Grant Program (seagrant.noaa.gov) and Ohio Sea Grant's 2024-2027 strategic plan (ohioseagrant.osu.edu/research/funding), and important state, regional, or national constituencies.

SCEINTIFIC METRIT (15pts): the degree to which the activity will advance the state of the science or discipline through use and extension of state-of-the-art methods.

INNOVATIVENESS (15pts): the degree to which new approaches to solving problems and exploiting opportunities in resource management or development, or in public outreach on such issues will be employed; alternatively, the degree to which the activity will focus on new types of important or potentially important resources and issues.

QUALIFICATIONS AND PAST RECORD OF INVESTIGATORS (5pts): the degree to which investigators are qualified by education, training, and/or experience to execute the proposed activity and their record of achievement with previous funding.

USER REALTIONSHIPS (10pts): the degree to which users or potential users of the results of the proposed activities have been brought into the planning of the activity, will be brought into the execution of the activity, or will be kept appraised of progress and results. Letters of Collaboration are highly encouraged.

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- Submitting electronic pre-publication manuscripts to our office of work resulting from your NOAA funding is a part of investigators' reporting requirements. Please cite related Ohio Sea Grant project numbers with reprint submission.

NATIONAL SEA GRANT REVIEW: The staff of the National Sea Grant College Program will review all full proposals, external reviews, and investigator's comments obtained by Ohio Sea Grant and will ascertain that the 34 state Sea Grant programs are not duplicating research. The National Sea Grant College Program funding decisions should be made by late 2023.



**THE OHIO STATE
UNIVERSITY**



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Ohio Sea Grant works with communities and industries through its Extension and Education specialists. For more information on specific areas of expertise, please visit our website at ohioseagrant.osu.edu/about/people:

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