## Approaches to Reduce Nutrient Loadings for Harmful Algal Blooms (HABs) Management Informational Webinar

## Questions and Answers (Q&As)

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, aims to promote scientific progress towards preventing and controlling HABs by seeking applications proposing research to: (1) determine the effectiveness of existing nutrient treatment technologies; (2) evaluate the scale-up of emerging nutrient treatment technologies; and (3) develop best management practices to help both rural and urban communities control nutrients in their watersheds.

For additional questions not addressed below, information about the RFA process, please contact Ben Packard at <u>packard.benjamin@epa.gov</u> or 202-564-7673.

Below are the questions from the November 86, 2019 Approaches to Reduce Nutrient Loadings for Harmful Algal Blooms (HABs) Management Informational Webinar.

**Questions and Answers** 

1. Can a for profit-making firm be an industrial partner without requesting budget for a proposal?

A: A profit-making firm can supply advice or support. If the firm is not consulting or receiving funds, it does not need to be included in the budget. The applicant may include a letter of support or intent as well. If the firm is providing material support (money, equipment, etc.) for the research, the applicant should account for it as an in-kind contribution. Please contact us directly is you need to discuss additional details.

- For the new or emerging technologies: does the technology have to been demonstrated at pilot or full-scale already? Or at lab-scale level?
   A: We do not specify the level of readiness of technologies proposed or the scale at which they need to have been demonstrated/evaluated; however, the research should result in improved understanding of the effectiveness and durability of approaches and implementation of new technologies.
- Is a public wastewater treatment facility eligible?
   A: If the facility is operated by a state or local government agency, then that agency is eligible to receive funding.
- Are letters of support required or recommended?
   A: Letters of support from potential collaborators are not required, but will enhance the application

- P.8 states major interest is in Great Lakes, Florida, Midwest. If field sites are not in these areas are applications encouraged, how much of a disadvantage?
   A: Applicants are encouraged to work on projects that are "relevant" to the areas listed. Thus, applicants not proposing projects in those areas should describe how the proposed research is relevant to those areas.
- Does this proposal require a full-scale demonstration on site, if we choose the focus area 2 upscaling a new technology?

A: We are not specifically requiring a full-scale demonstration; however, please review the outputs/outcomes on pg. 8 of the RFA. To achieve these outcomes, demonstrations may very well be needed.

- Is Grants.gov through Workspace?
   A: Grants.gov is a separate website. You need to have a registration with it to apply for the grant. For technical help, please call 1-800-518-GRANT (4726).
- 8. Does a proposal on area #3 need to be focused on BOTH point and non-point source? BOTH agricultural and urban landscape?

A: There is no requirement for proposals to address both; however, we are asking applicants in question1/research area 3 to comprehensively evaluate watershed -level components. Additionally, question 2-4 in research area 3 addresses the watershed scale which may require inclusion of both point and non-point sources.

- 9. Is mathematical modeling for the technology/process required as part of the scope? A: No, this is not a requirement.
- 10. Can a lead PI/Applicant apply to more than one research area without any integration A: First of all, an institution can submit more than one application, and a researcher may serve as PI on more than one application. Second, one application may address more than one research area, with or without integration. It is recommended, however, that the application be coherent in its research goals as that is more likely to be successful during peer review.
- 11. The RFA explicitly encourages a focus on the Great Lakes, Florida, and the Midwest regions does that preclude other regions with urgent HABs issues/challenges are at a disadvantage or discouraged?

A: Applicants are encouraged to work on projects that are relevant to the areas listed above. Applicants not proposing projects in those areas should describe how the proposed research is relevant to those areas.

12. Within Research Area 2, would EPA consider funding the evaluation of a scale-up of NON-point source nutrient treatment technology?

A: Yes, agriculture conservation practices and best management practices include nonpoint source treatment technologies.

- 13. Since midwest and great lake were mentioned side by side in the RFP, what is the difference between the two in terms of the importance as a research target?A: We are not assigning a difference, or evaluating proposals addressing either Midwest and Great Lakes differently. Thus, research addressing HAB problems in either region could be considered responsive.
- 14. Outputs/Outcomes sounds much like USDA Logic Model approach. Is that where this came from because of Ag Conservation Practices (BMPs)?
  A: Including BMPs in the RFA did not come specifically from the USDA Logic Model; however, outcomes described in the RFA are similar in that outcomes expected are to apply, adopt, and implement treatment technologies to reduce HABs and hypoxia in U.S. waterways and coastal areas.
- 15. What is the expected duration of the grant?A: Performance period for this grant is up to three years.
- 16. Can the NY Finger Lakes region be included?A: Yes please also refer also to question 11.
- 17. Are wastewater treatment devices that remove nutrients regulated under FIFRA? A:
- 18. Can you discuss requirements to address the geographical target areas: Florida, Midwest, Great Lakes?A: Please see question 11
- 19. Are you expecting on-field demonstrations?A: Given the outcomes listed in the RFA, we would expect that many proposals would include demonstrations although, this is not a requirement.
- 20. Does a proposal need to include field demonstration or pilot scale tests in research areas of 1 and 2?A: Please see question 19.
- 21. Will innovative treatment technologies that also accomplish nutrient recovery and reuse be encouraged for the sustainability factor?A: Yes.
- 22. For the proposal, how the discharge of the septic tank would be defined as 'point source' or 'diffuse source', especially to differentiate with the discharge from

## wastewater treatment plants?

A: Septic systems are considered diffuse sources.

23. Can treatment technologies be applied to coastal waters instead of further upstream in the watershed?

A: Yes. Treatment technologies applied to coastal areas would be responsive to the RFA.

- 24. For the scale-up in Research Area 2: Does it have requirement for how many acres fields should be demonstrated?A: There is no requirement on the size/scope of a demonstration; however, proposed demonstrations should be sufficient in size to provide new information on the effectiveness and durability of the approaches/technologies demonstrated.
- 25. Can you repeat the foreign entity exclusions? Great Lakes border Canada and there are international agencies chartered to address HABs. Can these US-Canada agencies participate as key personnel or subcontractors/consultants? A:
- 26. Can one proposal cover multiple nutrients sources, such as sewage and ag run off, etc. A: Yes
- 27. Should focus be on nutrient reduction, or is it okay to focus on recovery aspect? A: Yes, recovery in addition to nutrient reduction is encouraged.

## 28. Is there a minimum duration?

A: There is no legal minimum, only a maximum of three years. Please be sure that you can accomplish your research in the amount of time you propose.

- 29. How important is it to tie results of technology to in-field HAB reductions? A: This is important given the intended outcomes listed for the grant including reducing the occurrence of HABs and hypoxia in U.S. waterways and coastal areas.
- 30. Would you please re-state the anticipated time frame of the research projects selection and funding / notification to proceed?

A: Peer review is scheduled to take place in late February. Internal Agency review will take place approximately a month later. After that, grants to be funded must receive approval from our management and be processed internally. It is likely that funding will start in summer/fall 2020.

31. Water quality trading was mentioned in the background section; however, it was not mentioned in the three research areas. Could you please clarify?A: Water quality trading was mentioned to illustrate a watershed/basin approach to managing nutrients.

- 32. Could you clarify the budget for travel to annual and final meetings? How many staff should or typically attend the DC meetings?A: Generally, 1-4 staff attend annual meetings a good estimate might be 2-3 people.
- 33. For research area#1, I am right that it does not ask for any experimental work or technology demonstration?A: Experimental work can be included as part of the research; however, we do not expect that this would be the primary focus of the research given that effectiveness and scale-up of existing technologies.
- 34. Is there a minimum point source flow rate for a treatment technology to be considered pilot testing?

A: No, there is no minimum flow rate.

- 35. When you mention existing nutrient recovery technologies, does it comprise technologies in the US or worldwide?A: We do not distinguish between technologies found inside and outside of the U.S.
- 36. Can a focus on improved monitoring and modeling apply for the grant? A: Yes, please see Research Area 3.
- 37. Thinking past this RFA, can you comment on the future of this funding source for subsequent years?A: We cannot currently provide information future funding opportunities in this area.
- 38. Can a National Lab participate in the proposal (i.e. Argonne, Los Alamos, etc.)?A: Excerpt from the RFA, Section III.A.:

National laboratories funded by Federal Agencies (Federally-Funded Research and Development Centers, "FFRDCs") may not apply. FFRDC employees may cooperate or collaborate with eligible applicants within the limits imposed by applicable legislation and regulations. They may participate in planning, conducting, and analyzing the research directed by the applicant, but may not direct projects on behalf of the applicant organization. The institution, organization, or governance receiving the award may provide funds through its assistance agreement from the EPA to an FFRDC for research personnel, supplies, equipment, and other expenses directly related to the research. However, salaries for permanent FFRDC employees may not be provided through this mechanism.

39. Is inclusion of both point and non-point sources in one proposal encouraged?A: Yes; however, we are requesting research on treatment technologies and approaches.

- 40. Our treatment technology does not focus on addressing point/nonpoint source nutrient pollution. What it does is decrease nutrients that are already in the body of water, in turn decreasing the prevalence of HABs. Is this an eligible technology for the RFA? A: yes, in situ approaches are acceptable proposals.
- 41. How much of the proposal should emphasize fundamental science hypothesis driven and how much should be more like USDA and DOE where process is not very important, and result is much more important?

A: Research should support outputs/outcomes described in 1.D. to that end, proposals, can describe hypothesis driven, or results driven models.

- 42. Q: If I decide not to apply but am interested in becoming a peer reviewer for the applications you do receive, whom do I contact?
  - A: Contact Ron Josephson at josephson.ron@epa.gov.