



EPA STAR RFA

*Approaches to Reduce Nutrient
Loadings for Harmful Algal Blooms
Management*

Informational Webinar for Applicants

October 6, 2019

2 PM EDT



Webinar Objectives

- Go over application Information in the EPA STAR RFA.
APPROACHES TO REDUCE NUTRIENT LOADINGS FOR HARMFUL ALGAL BLOOMS MANAGEMENT
- (Technical, Eligibility, Submission).
- There will be no new information, this is an overview what has already been provided in the RFA.

Webinar Ground Rules

- Please hold your questions till all EPA presentations have been made.
- No specific research project or idea can be discussed, but clarifying questions regarding what is written in the RFA announcement may be answered.



ORD's Safe and Sustainable Water Resources Research Program

Clean Water Act

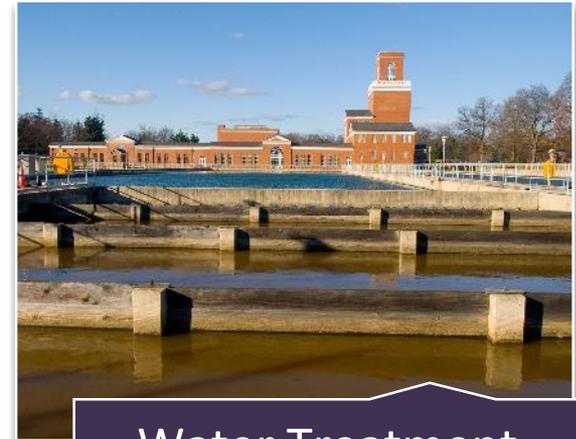
Safe Drinking Water Act



Watersheds



**Nutrients and
Harmful Algal Blooms**



**Water Treatment
and Infrastructure**

<https://www.epa.gov/aboutepa/about-safe-and-sustainable-water-resources-research-program>



Award Information

- Estimated Number of Awards:

Approximately 6 awards

Anticipated Funding Amount:

Approximately \$6 million for all awards

- Potential Funding per Award:

Up to a total of \$1,000,000 per award, including direct and indirect costs, with a maximum duration of 3 years



Research Areas

- 1) Effectiveness of existing nutrient treatment technologies.
- 2) Evaluate the scale-up of emerging nutrient treatment technologies.
- 3) Develop best management practices to help both rural and urban communities control nutrients in their watersheds.



Research Area 1: Determine the effectiveness of existing nutrient treatment technologies

1. How effective at reducing excess nutrient loading are existing nutrient treatment technologies?
2. How can the effectiveness of existing nutrient treatment technologies be maintained or improved over time?
3. How do the simplicity or complexity of operation and maintenance and life cycle cost of existing nutrient treatment technologies compare to each other?
4. How can approaches be improved or what new approaches can be developed to evaluate the effectiveness of nutrient treatment technologies?
5. How can effectiveness be measured on a watershed scale vs. a farm scale?



Research Area 2: Evaluate the scale-up of emerging nutrient treatment technologies and develop new technologies.

1. How can nutrient treatment technologies already in use be scaled-up?
2. What new nutrient treatment technologies can be further developed and successfully implemented?
3. What new and affordable technologies or practices can reduce nutrient releases from onsite wastewater systems, especially in areas less suitable for traditional septic systems (e.g., areas with a shallow groundwater table or rocky or poorly-drained soils)?



Research Area 3: Develop best management practices to help both rural and urban communities control nutrients in their watersheds

1. Comprehensively evaluate components of watershed-level nutrient reduction plans to determine their effectiveness for meeting watershed nutrient reduction goals.
2. How can improved monitoring and modeling inform best management practices for mitigating excess nutrient loading from snowmelt, changing spatial and temporal rainfall patterns, inherent landscape vulnerability to nutrient loss, and legacy nutrient sources?
3. How can watershed-level monitoring and assessment tools be improved to evaluate the effectiveness of nutrient reduction strategies?
4. How can large scale data opportunities (e.g., LiDAR, aerial photography) be used to better automate planning and implementation tracking of various nutrient technologies at the watershed scale?



Expected Outcomes

- Improved understanding of the effectiveness and durability of approaches to reduce or eliminate point sources and nonpoint sources of nutrients from U.S. waters.
- Implementation of new treatment technologies for removal of nitrogen and phosphorus.
- Improved control of nitrogen and phosphorus runoff into waterways which will reduce the occurrence of HABs and hypoxia in U.S. waterways and coastal areas.



Innovation and Sustainability

- Research applications must include a discussion on how the proposed research is innovative:
 - Innovative research can take the form of wholly new applications or applications that build on existing knowledge and approaches for new uses.
- Research applications must include a discussion on how the proposed research will seek sustainable solutions that protect the environment and strengthen our communities.
 - The goal of sustainability is to “create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.” U.S. National Environmental Policy Act of 1969 (NEPA),



Eligibility Information

Public and private nonprofit institutions/organizations, public and private institutions of higher education, and hospitals located in the U.S., state and local governments, Federally Recognized Indian Tribal Governments, and U.S. territories or possessions are eligible to apply. Profit-making firms and individuals are not eligible to apply.



Additional Regulatory Concerns

- Technologies using physical or chemical means to control algae (or other pests including microorganisms), even indirectly through nutrient reduction, are likely pesticide devices or pesticides regulated under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA).
- Regulation of these products is done by EPA's Office of Pesticide Programs in the Office of Chemical Safety and Pollution Prevention. Additionally, states may also have additional regulatory requirements for these products prior to sales or distribution of the product.
- Questions may be directed to:
OPPDeviceDeterminations@epa.gov



Application Materials

- To apply under this solicitation, use the application package available at Grants.gov (for further submission information see [Section IV.F. Submission Instructions and other Submission Requirements](#)).
- Note: With the exception of the current and pending support form (available at Research Funding Opportunities: How to Apply and Required Forms), all necessary forms are included in the electronic application package. Make sure to include the current and pending support form in your Grants.gov submission.



Other Information

- Please refer to [Section IV. Application And Submission Information](#).
- Please refer to [Section V. Application Review Information](#).
- **Solicitation Closing Date:**
[December 10, 2019 : 11:59:59 pm Eastern Time](#)



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