

Request for Proposals (RFP) – 2024 (FY25)

Iowa Nutrient Research Center at Iowa State University is requesting proposals to address nitrogen and phosphorus nutrient losses to Iowa surface waters. The INRC is an Iowa Board of Regents center established in response to the legislation passed by the 2013 Iowa Legislature which states: The purpose of the center shall be to pursue a science-based approach to nutrient management research that may include but is not limited to evaluating the performance of current and emerging nutrient management practices, and using an adaptive management framework for providing recommendations for the implementation of nutrient management practices and the development of new nutrient management practices.

Proposals must address the legislatively defined purpose of the center. For the 2024 RFP cycle, the following topics are identified as priorities based on input from stakeholders representing diverse interests, including academia, industry, farmers and landowners, agencies, and conservation groups.

- 1) Sociological, economic, and policy incentives for nutrient practices that benefit both operators and landowners:
 - a) Evaluate opportunities and barriers to new crop implementation.
 - b) Understand and address barriers to conservation practice implementation.
- 2) Floodplain management and/or in-channel processes impact on nutrient export.
- 3) Marginal land use alternatives to maximize biodiversity, environmental benefits, and nutrient reduction.
- 4) Changing weather patterns effect on nutrient fluxes and/or practice performance.
- 5) Crop and livestock systems research:
 - a) Evaluate the impact of manure and nutrient management practices on N and P loss and profitability.
 - b) Optimize cover crops by identifying appropriate crop varieties, assessing planting methods, and/or synergizing timing of cover crop planting with nutrient application.
 - c) Examine economic and environmental performance of integrated crop/livestock systems and/or diversified cropping systems.
- 6) Cumulative impacts of nutrient reduction practice implementation:
 - a) Assess watershed scaling of N and P flux and effectiveness of nutrient reduction practices and/or stacked practices at larger, delivery scale.
 - b) Examine effectiveness of batch and build efforts at the watershed/landscape scale.
 - c) Assess the level of conservation practice implementation at the large scale (e.g. HUC 8, state level).
- 7) New technologies:
 - a) Evaluate nutrient reduction models for assessing farm and watershed scale nutrient exports.
 - b) Explore impacts of drainage water recycling on nutrient reduction.
 - c) Explore impacts of two-stage ditches on nutrient reduction.
 - d) Explore alternative bioreactor source materials and monitoring.
 - e) Develop methods for removal of P from tile drainage and from shallow lakes.

Important information about the RFP process

Who may submit a proposal?

Investigators representing any *Iowa* nonprofit organization/agency and/or educational institution (such as soil and water conservation districts, schools and colleges, and regional development groups). The Center strongly encourages the involvement and collaboration with faculty or staff at one of the Regent universities.

What to include in your proposal? Please refer to the focus areas to find the appropriate fit for your proposal. Prepare a four-page concept paper with these required elements. References are not counted towards the four-page limit. (Note: Letters of support or commitment are not accepted).

- 1) Separate **cover page** with project title, complete contact information of the principal investigator including mailing address, phone number and email address; dollar request per year; and the focus area that best fits your proposal. (Note: The cover page is not counted as part of your page total).
- 2) **Justification** — Why is this specific research needed?
- 3) **Objectives** — What will be achieved? This must be clearly defined and measurable.
- 4) **Brief Description of the Methodology** – System setup, experiment design, data collection (frequency), data management, and data analysis.
- 5) **Anticipated Deliverables and Outcomes** — What will be the outcomes, both end-of-project and long-term, if you achieve your objectives? How will the proposal contribute to improvement of water quality?
- 6) **Outreach** — How and with whom will you share the project results? You are strongly encouraged to outline plans to work with universities, agencies, non-governmental organizations, etc. to help disseminate information about your work.
- 7) **Budget** — Itemized listing and brief justifications of project budget. (Note: The budget and budget justification are not counted as part of your page total).

Successful PI's will receive a budget and budget justification template to be used during the contract development stages.

Budgets can be for up to two years, starting August 15, 2024. Note that **INRC does not pay indirect cost**. Investigators whose proposals are selected for funding may be asked for more details.

No Match Required - The INRC has **NO** matching requirement. INRC will not factor matching resources into the review process as an evaluation criterion.

Proposals submitted as MS WORD documents are due close of business May 3, 2024 to malcolmr@iastate.edu. An email acknowledgement will be sent upon receipt of your proposal (otherwise, contact Malcolm or Matt to inquire). Investigators funded in 2023 for multiple years do not have to reapply. Investigators requesting funding to continue monitoring on a project funded by INRC earlier should submit a formal proposal. Questions should be directed to Matt Helmers (515.294.6717 or mhelmers@iastate.edu) or Malcolm Robertson (515.294.5692 or malcolmr@iastate.edu). Award decisions will be made in July.