Iowa Nutrient Research Center Advisory Council

August 23, 2017

Hansen Ag Student Learning Center, Room 1128

2516 Mortensen Road, Ames, Iowa

2:00 pm – Wendy Wintersteen called the meeting to order.

Introductions

1. Hongwei Xin, Interim Director, Iowa Nutrient Research Center, Assistant Dean for Research, College of Agriculture and Life Sciences, Distinguished Professor, Agricultural and Biosystems Engineering, Iowa State University
2. Malcolm Robertson, Program Coordinator, Iowa Nutrient Research Center, Iowa State University
3. John Lawrence, Interim Vice President, ISU Extension and Outreach, Professor, Department of Economics, Iowa State University
4. Mark Johnson, ANR Extension Field Agronomist representing Greg Brenneman, Agricultural Engineering Extension Field Specialist, Iowa State University Extension and Outreach
5. Matt Lechtenberg, IDALS – Water Quality Initiative representing Jim Gillespie Director, Division of Soil Conservation, Iowa Department of Agriculture and Land Stewardship
6. Bill Northey, Iowa Secretary of Agriculture, Iowa Department of Agriculture and Land Stewardship
7. Maureen Clayton, Associate Professor, Department of Biology representing Daryl Smith, UNI
8. Keith Summerville, Deputy Provost, Drake University (not present)
9. Chris Jones, Research Engineer, Water Quality Monitoring & Research, IIHR - Hydroscience and Engineering, University of Iowa
10. Adam Schnieders, IDNR Water Quality Coordinator representing Bruce Trautman, Deputy Director, Iowa IDNR
11. Wendy Wintersteen, Dean, College of Agriculture and Life Sciences, Iowa State University

Not present: Keith Summerville, Deputy Provost, Drake University

Approval of the 2015 minutes

John Lawrence moved to approve the minutes and Bill Northey seconded the motion. The August 2016 minutes were approved by the Council. The minutes are on the Center website - https://www.cals.iastate.edu/sites/default/files/misc/183759/inrc083115.pdf

Budget Review and Center Function

Xin reviewed the budget and explained the Center's funding is now coming from the Agricultural Management Account (AMA) of the State of Iowa (via four quarterly payments). The amount will be dependent on pesticide and fertilizer sales.

Xin shared that the Center needs additional support for project management, accounting and communications (demonstrating value of research and coordinating with extension and Outreach to educate producers about proven strategies). At this point, the estimated costs have not been determined. Council members encouraged these costs to be appropriate given the overall budget.

Jones reviewed the budget for sensor network ($367,000) that is managed by IIHR.

Northey shared a vision for the INRC to develop funding partnerships and to demonstrate leverage. Members share several examples of where INRC funding has leveraged additional grants and contracts.

Council agreed that product testing of commercial products is not a priority for the INRC.

Wintersteen provided a review of the Leopold Center transition which includes moving some water and soil related projects to the INRC. In addition, she shared that a series of listening sessions have been held or will be held to receive feedback from stakeholders.

The Leopold Center's state funding should be closed by the end of the calendar year. At that time the Advisory Council will receive an updated budget.

Wintersteen shared that requests have been made for the Center to receive feedback from farmers regarding the INRC's research and related activities. What are the next research priorities? Options discussed include: regional Extension Conferences, question on Farm and Rural Life Poll, questionnaire to commodity boards, watershed coordinators meetings, soil and water conservation districts (and CDI), Water Resources Coordinating Council, etc. Should we invite farmers to the Collaborator's meeting to participate in the discussion with the research scientists?

Council agreed that stakeholders will be invited to the Collaborators meeting. Stakeholder groups included: ISA, ICGAs, IFB, AAI, PFI, CDI and land managers who work with land owners. Prefer that organizations send farmers to the meeting.

Lawrence reminded the Board that based on the founding legislation, the INRC's research must be focused on implementing the Nutrient Reduction Strategy.

2016 Project Update
Xin encouraged the Advisory Council members to review the 2016 project reports on the Center's website - https://www.cals.iastate.edu/nutrientcenter

2017 RFP and proposal review
See attached information.

Should the RFP be modified in some way? Agreed that all projects must be highly relevant. Agreed that it might be appropriate to fund a mix of small and large projects. This issue will be discussed at the Collaborator meeting.

2017 Funded Projects
See attached information.

Council Discussion
Chris Jones and John Lawrence provided an update on the HUD project.

Bill Northey moved to adjourn the meeting, John Lawrence moved to 2nd the motion, and all members voted yes to adjourn the meeting. Meeting adjourned at 3:45 pm.

Iowa Nutrient Research Center Request for Proposals 2017

Iowa Nutrient Research Center is requesting proposals from faculty and staff at Iowa State University, University of Iowa, and University of Northern Iowa to address nutrient losses to surface water. The Center at Iowa State University is an Iowa Board of Regents center established in 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 purpose of the legislation. This year preference will be given to proposals in the follow themes:

- Evaluation of current and emerging practices to improve their effectiveness and predictability including adaptive management strategies and tools to assist farmer decision making. Examples may include: water quality impact of variable rate and sensor technology; precision placement of nutrients and conservation; and relationship between soil health and nutrient cycling and loss.
- Assessment of barriers to practice implementation including quantifying barriers and incentives to practice adoption; assessing management of least productive areas of fields and impact on nutrient loss and profitability; evaluate methods to monetizing conservation and ecosystem services and prioritize public investment on private lands such as reverse auctions, environmental benefits indices; policy; and economics.
- Evaluation and modeling of the effectiveness of multiple or stacked nutrient reduction practices at delivery scale including sub-watershed levels; modeling of practice and water quality data in priority watersheds to better understand impact of practices on in-stream concentration and loads of nutrients or nutrient processing in non-productive lands such as road ditches, flood plains, drainage ditches or ponds.
- Identify and quantify emerging contaminants and their relationship to existing practices including but not limited to dissolved reactive phosphorus (DRP) (fractions and affecting factors) and Iowa mass balance of N and P.

In addition to funding the ongoing projects, the Center has approximately $500,000 to award new competitive projects. Budgets can be for up to two years. Proposals should be no more than two pages and identify the title, investigators, justification, objectives, expected deliverables, and budget. Investigators whose proposals are selected for funding may be asked for more details. Proposals are due close of business **June 23, 2017** to hxin@iastate.edu. Investigators funded in 2016 for multiple years do not have to reapply. Investigators requesting funding to continue monitoring on a project funding by INRC earlier should submit formal proposal. Questions should be directed to Hongwei Xin at 515.294.4240 or hxin@iastate.edu.

Iowa Nutrient Research Center Proposal Evaluation

Proposal Title:

Reviewer's Name & Institution:

Date of Review:

I. Relevance and scientific merit

- Does the proposed research address an issue that will contribute to the development and/or adoption of Iowa Nutrient Reduction Strategy (specific to nitrogen and phosphorus loss)?

- Explanation/awareness of previous work of research on the subject

- Are objectives or hypotheses clearly stated?

- Scientific validity of the methodology
  - Experimental design
  - Sampling protocols, sampling size or repetition to ensure statistical soundness
  - Analytical procedures/methods

II. PI and Co-PI quantifications

- PI/Co-PI's technical background/expertise to carry out the proposed study

- Does the research team have all the essential expertise for successful implementation

III. Research facility/setup

- Is the facility/setup adequate for conducting the study?

IV. Timeline

- Is the proposed timeline reasonable?

V. Budget

- Is the proposed budget reasonable?

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VI. Likelihood of the project success and useful deliverables

- Does the project have a low, medium or high likelihood of success and useful deliverables? Why

VII. Funding priority

High _____ Medium_____ Low_____ Don't fund _____

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