



Minutes of the NREC Council
December 10, 2015
ASMARK Center – Bloomington, IL
10:00 a.m.

Council Members Present: Dale Hadden, Howard Brown, Ed Corrigan, Marcia Willhite, Jessica Dexter, Cindy Skrukud, Chuck Cawley, Jenny Mennenga, Andy Knepp, German Bollero, Chris Matlock. Also present were Dr. Robert Hoeft (NREC Research Advisor), Jean Payne (NREC Administrator), Julie Armstrong (NREC Executive Director), Lauren Lurkins (ILFB), Liz Hobart (GROWMARK), Amy Roady (ISA), Tom Kentner (ISA), Rodney Weinzierl (ICGA).

Chairman Hadden called the meeting to order at 10:07 am. The Council and guests introduced themselves and Chairman Hadden reviewed the purpose of the meeting.

Secretary Chuck Cawley reviewed the minutes from the August 18th meeting and asked for a motion to approve the minutes as submitted. Ed Corrigan moved to approve the minutes, Chris Matlock seconded and the motion carried.

Chairman Hadden asked for the group's consensus to rearrange the order of the meeting in order to accommodate schedules and improve meeting flow. Consensus was granted.

In the absence of Treasurer Ted Mottaz, Executive Director Julie Armstrong reviewed the financial statements with the Council and provided both an updated budget report and a current Profit & Loss Statement.

Chuck Cawley reported that the Illinois Department of Agriculture is still projecting a total of \$2.36M in assessment collections for 2015 and aside from just a couple of outliers, the majority of the funds have already been collected.

Group discussion was held on the outlook for Spring 2016 fertilizer applications and Ed Corrigan shared his insights into a strong Fall season and projections for a potential smaller application in Spring. This is impacted by many factors but commodity prices are an important driver.

Chairman Hadden then turned the meeting over to Dr. Hoeft to review proposals and lead discussion on individual proposals. The discussion began with a review of renewal projects and a discussion around the closing of two of the University of Illinois research stations.

5-16 UI Cover Crops Continuation – This project has made good progress and with the project ending in 2016, it will not be impacted by the closing of the Dixon Springs center.

6-16 UI Updating P and K response and crop removal numbers for Illinois – This project is moving well and while they had difficulty getting samples in years 2 and 3, that has improved. Chuck Cawley asked if

Illinois Crop Improvement is doing the testing and Dr. Hoeft indicated that he believes that to be the case.

8-16 UI Multifunctional Buffer Continuation – Dr. Hoeft informed the Council that this project will be impacted by the research center closures and the two locations will combine into the Urbana location. He discussed the fact that we will want to get data published from the projects that are the locations to be closed in order to capture that data. This project will need to be restarted in a new location. Dr. Bollero will have funds available to cover the cost of this move.

Dr. German Bollero provided an update on the University of Illinois Research Centers and group discussion followed. Dr. Bollero shared that the research farms have been a great asset to the University for many years but that they have also seen that more and more research is moving to independent farm cooperators. This is the 13th year of budgets cuts while has led to these closures plus a loss of human capital. The goal is to refocus efforts and make the Champaign/Urbana and Monmouth locations state of the art. Dr. Bollero reviewed the investment that was made in the Dudley Farm to install specialized drainage and shared that they are looking to do a similar thing in Urbana. He also reinforced the commitment to helping to transition projects during this move.

Dale Hadden shared the feedback that he has received that we need more research on Southern Illinois soils. Dr. Bollero discussed how the Dixon Springs location may not be a good representation of S. Illinois and the University has been looking at other locations for 9-10 years.

Discussion continued on the need for a business model for doing research that looks at things like loss of yield potential, cash rent, and a more efficient potential use of dollars. It was shared that research proposals need to account for the total cost of doing research and connect researchers with farmer cooperators. Dale Hadden reinforced the value of farmer cooperators and how that allows for a more dynamic opportunity. Andy Knepp talked about the importance of human capital and how critical that we have the people to do the research. This was reinforced by Dr. Bollero sharing that they have gone from 48-35 faculty members.

Discussion returned to reviewing projects.

9-16 UI Corn N Research Program Continuation/10-16 UI Residue Mgmt Tillage Continuation/12-16 UI Soil N Tracking Continuation – These are Emerson's projects and they continue to build upon this research. Most all of this is being done at either Urbana or with farmer cooperators.

17-16 Nitrogen management systems in tile-drained fields: Optimizing yields while minimizing losses – This has been a flagship project for NREC and is going well. It is on the Douglas County farm and this will be the first full year of treatments. NREC and U of I were able to work out an agreement to allow for payments directly to farmers – allowing for faster payments and less paperwork for all parties.

18-16 SIU N Leaching Continuation – This project was amended to include N-15.

20-16 SIU Late Application nitrogen management – This project is moving well but they are not seeing consistency from location to location.

21/22 – ISU Projects – Shalamar Armstrong is at Purdue but is able to continue to work with ISU and on the NREC projects. Jean Payne shared that he is very excited about being able to collaborate and Dr.

Hoeft and Marcia Willhite reinforced the concept of collaboration and how necessary this is for success and getting work done.

Chuck Cawley asked for clarification on Dan Schaefer’s engagement with Shalamar’s projects and how IFCA was paid for that time. Jean explained that Dan and Bob Fish worked with Shalamar to get the studies in and completed and helped to support his farmer engagement.

26 -16 ISU Purdue N Mgmt Research Farm Continuation – Dr. Hoeft reviewed the peer review feedback and shared that the peer reviews were not positive on the amendment (adding N-15). The specific concerns were the size of the plot (too big), the expense, the amount of coaching that will be required of the research team, the relatively new tile (installed in 2013) and overall concerns around variability. It was discussed that this is a valuable site and has potential to house other projects. The Council needs to be able to leverage their investment for future projects.

35-16 UI Soil Nitrous Oxide Emissions – Dr. Hoeft shared that Dr. Pittelkow is new faculty who is very enthusiastic and they are getting great work from him.

37-16 The Wetlands Initiative – The first wetland is installed and they are planning on doing another. This is a Two-Phase Project that focuses on Analysis (N&P coming off the wetland in real time through a nitrate sensor) and Demonstration. This site will be a good place to look at how multiple projects in a watershed can impact water quality.

Howard Brown moved and Ed Corrigan seconded to approve funding for all renewal projects for a total cost of \$1,880,223. The motion was approved.

APPROVED RENEWAL PROJECTS

2016 Proposal Number	Institution	PI	Project Title	2016
05-16	UI	Villamil	Agronomic and environmental assessment of cover crops in Illinois	\$ 218,548.00
06-16	UI	Villamil	Updating P and K response and crop removal numbers for Illinois	\$ 99,313.00
07-16	UI	Villamil	Measuring soil quality changes in corn and soybean rotations	\$ 42,721.00
08-16	UI	Lovell	Multifunctional buffers on marginal farmland to improve the environmental profile of agriculture and diversify production opportunities	\$ 120,867.00
09-16	UI	Nafziger	A comprehensive corn nitrogen research program for Illinois	\$ 57,590.00
10-16	UI	Nafziger	Residue management, tillage, and nitrogen responses in continuous corn	\$ 49,508.00
12-16	UI	Nafziger	tracking soil nitrogen loss and availability	\$ 147,570.00

13-16	UI	Gentry	Evaluating nutrient loss reduction strategies: longer rotation with cover crops and bioreactor	\$ 138,376.00
17-16	UI	David	Nitrogen management systems in tile-drained fields: Optimizing yields while minimizing losses	\$ 259,780.00
18-16a	SIU	Cook	Nitrate leaching in cover crops and corn/soybean systems in Southern Illinois	\$ 84,457.00
18-16b	SIU	Cook	Nitrate leaching in cover crops and corn/soybean systems in Southern Illinois - ADDENDUM	\$ 39,941.00
20-16	SIU	Cook	Late application nitrogen management in corn stems to optimize yields and reduce nutrient losses in southern Illinois	\$ 52,188.00
21-16	ISU	Spaulding	Analysis of farmer's N management practices using farmer survey data and the SSI KIC fertilizer reporting system in the Lake Bloomington Watershed and Evergreen Lake Watershed	\$ 37,955.00
22-16	ISU	O'Reilly	The effect of cover crops on surface water quality: A paired watershed experiment in the Lake Bloomington watershed	\$ 179,662.00
26-16	ISU	Armstrong	Field scale comparison of nitrogen efficiency within conventional and alternative nitrogen management systems	\$ 129,782.00
35-16	UI	Pittelkow	An agronomic assessment of soil nitrous oxide emissions in Illinois: increasing nutrient utilization while reducing impacts on air quality	\$ 81,965.00
37-16	TWI	Kostel	Demonstration and monitoring of nutrient-removal wetlands in the Big Bureau Creek watershed	\$ 140,000.00

Jenny Mennenga asked for clarification around how the rankings that came out of the research committee were determined. The research committee members that were present then reviewed their personal approach and Julie reviewed the ranking system that was used (attached). Andy Knepp asked about the conflict of interest and how that was addressed during the meeting. Dale Hadden reviewed the process that was used.

Dr. Hoelt then reviewed each of the new projects.

NREC 14-16 UI Dissolved Reactive P Study and **NREC 31-16 UI Dissolved P in tile drainage** – The Research Committee asked that these two researcher coordinate and work together to provide a report on their work. Project 14 builds on another NREC project and 31 is a literature review. Andy Knepp

asked if literature review would be in scope with what NREC should fund and after discussion, it was decided that in some cases it fits in scope. Dale asked for clarification on if this could lower the budget if they work together.

15-16 Industry University Partnerships Program – Jean Payne provided an update on the status of N-Watch and shared that GROWMARK initiated the program and then shared with C-BMP. GROWMARK will continue with this program but will share with IFCA for utilization. Jean was asked to leave the room for discussion. Group discussion was held on the importance of this coordination, the transparency provided by accounting for Dan’s time through this type of proposal and Marcia Willhite pointed out to the group that this type of work is important for information flow.

NREC 34-16 Macon SWCD Cover Plot Plots – this is a demo plot program for a local SWCD. Marcia Willhite said that the IEPA would be interested in this project because of the fact that some of these plots would be in critical watersheds.

NREC 23-16 UI Nitrate Reduction to Ammonium in Soils – Reviewed that this is a forward thinking project but may have some merit.

NREC 27-16 UI Assessing Synergies Tradeoffs for BMPs – Dr. Hoeft reviewed the value of looking across several BMP’s and seeing where synergies may be gained.

NREC 29-16 ICGA Field Lab Network for BMPs – Rodney Weinzierl was asked to step out of the room for discussion on his organization’s proposal. Significant discussion was held on the feasibility of this type of project and if this type of work is within the scope of the NREC mission. Howard Brown asked about doing regional type projects and how that would fit with the mission. Jessica Dexter raised questions about how many of these types of sites are needed in the state and how would they be managed? Would NREC manage them through contract? Andy Knepp added questions regarding people and project management and how that would be facilitated. Howard Brown commented that he sees more value in investing in the University system for this type of research. The Council asked Rodney to come back into the room to answer questions regarding the proposal. Rodney shared that ICGA has 29 partners for this project and \$13M has been raised (cash/in-kind) and they are focused on accelerating delivery of BMP’s to farmers. The group raised questions about wanting more data to show how BMP’s impact water quality and how the ability to link multiple sites is valuable. Jessica Dexter asked for examples of where this type of funding structure is in place and being used successfully. The example of using public funds to build a private school was cited. Dale Hadden asked about the feasibility of the University doing this type of work and Marcia Willhite indicated her discomfort with funding tile installation. German Bollero and Andy Knepp contributed that they do not feel that NREC is ready for this of project but that it needs to be looked at in a 10-20 year plan.

NREC 33-16 UI Protecting N in P Fertilizers with Cover Crops – Dr. Hoeft shared that this project looks at DAP/MAP in Southern Illinois and these products are not heavily utilized in Southern Illinois.

Julie Armstrong reviewed funding commitments and the Council discussed the “line” for approvals and which projects should be moved forward.

Ed Corrigan moved to approve total 2016 funding at \$2,861,085 and Jenny Mennenga seconded.

Discussion was held on the motion. Howard Brown indicated his willingness and interest in supporting the Champaign Co SWCD proposal. Group discussion was held on the merits of localized funding versus state-wide funding and concerns about the methods planned for data collection.

Howard Brown amended the motion to add the Champaign County SWCD projects (4-16 and 11-16) to the approved funding source to make the total 2016 funding \$2,886,085. Chris Matlock seconded the motion.

The Council directed Julie Armstrong and Howard Brown to work with Champaign County SWCD staff on data collection methods.

The amended motion passed.

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14-16	Arai	Arai	Understanding mechanisms and processes of dissolved reactive phosphate (DRP) loss in Illinois tile-drained fields	\$ 160,709.00
15-16	IFCA	Schaefer	Ind./University Partnership & KIC 4R Programs	\$ 394,849.00
19-16	SIU	Schoonover	The two stage saturated buffer: Integrating the use of cover crops into saturated buffer designs for nitrogen mitigation	\$ 110,938.00
34-16	Macon Co. SWCD	Baskerville	Conservation cropping demo plots in Macon Co.	\$ 14,912.00
23-16	UI	Kent	Dissimilatory nitrate reduction to ammonium: An unexplored microbial pathway for nitrate retention in agricultural soils	\$ 96,671.00
31-16	UI	Christianson	Dissolving uncertainty: A comprehensive evaluation of dissolved P in tile drainage	\$ 21,559.00
27-16	UI	Pittelkow	Assessing synergies and tradeoffs of recommended BMPs to reduce nutrient loss	\$ 181,224.00
04-16	Champaign SWCD	Manuel	"What I can do"	\$ 20,000.00
11-16	Champaign Co SWCD	Manuel	Finding today's baseline for agriculture in Champaign County soil and water	\$ 5,000.00

Julie Armstrong reviewed the proposed 2016 budget and outlined variances from the 2015 budget and actuals.

Andy Knepp moved and Ed Corrigan seconded to approve the budget as presented. The motion carried.

Jean Payne reviewed the agenda for the upcoming IFCA Convention and invited NREC Council members and Research Committee members to participate in the program on January 19th in Peoria. Julie will send out the information and see how many people are able to attend.

Dale Hadden reviewed his idea for a Research Forum to be held in February or March. This would be an opportunity to bring together the Council, Research Committee, and researchers to talk through projects and priorities. Julie and Dr. Hoeft will explore this concept and put together an agenda.

Dale Hadden asked Julie Armstrong to review the current financial services arrangement and outline the options to be considered. Julie reviewed that IFCA, in their capacity as NREC Administrator has been managing the financial services of NREC. Upon the end of the current contractual agreement, Julie requested that options be considered for management of finances moving forward.

Jean Payne reviewed the role that IFCA has played in managing the books for NREC and expressed her disappointment in receiving a certified letter notifying her of the end of the IFCA/NREC contract. She then outlined the statutory requirement for retailers to submit the tonnage assessment and reviewed the need for confidentiality back to the industry. In order to maintain this confidential arrangement, IFCA is interested in bidding on the following activities: opening mail, processing checks and reconciling books. Jean then had to leave the meeting due to a prior commitment.

Julie addressed Jean's concerns regarding the certified letter and indicated that she was following the notification requirements detailed in the contract and indicated that she meant no ill-will through the process but wanted to make sure that she met the obligations of all NREC contracts. Julie then outlined three different scenarios to consider for the management of NREC finances going forward.

- 1) Hire a CPA firm to completely manage all aspects of NREC finances
- 2) Have IFCA process checks (as outlined in Jean's proposal) and utilize a CPA firm for reporting, tax issues, payroll, etc.
- 3) Have Julie process checks and utilize a CPA firm for the day-to-day management of NREC finances.

Andy Knepp asked if a letter that assures confidentiality could be included with the invoice. (*this already happens*)

Discussion was held around proper checks & balances and it was suggested that policies be reviewed with the auditors.

The physical address for NREC will also need to be updated.

Chuck Cawley moved that RFP's be sent out to seek a firm to manage NREC finances and that Julie Armstrong process assessment payments. Howard Brown seconded and the motion passed.

Julie will have the new attorney review the RFP and will also work with the auditor to review policies and procedures.

Julie Armstrong reviewed the RFP responses that were received in regards to hiring new legal representation. Chuck Cawley reviewed the four RFP's that were received in detail and talked through the review process that was conducted by the NREC Executive Committee. Chuck outlined that Dan Wright from Brown, Hay & Stephens was recommended by Jennifer Tirey based on her experience with him at C-BMP and it was confirmed that there was no conflict between NREC and C-BMP.

Chuck Cawley moved and Howard Brown seconded that NREC retain Dan Wright of Brown, Hay & Stephens as legal counsel to NREC. *Jessica Dexter asked for confirmation that there is no conflict with C-BMP. Motion Passed.*

Howard Brown moved and Chuck Cawley seconded that the Council go into Executive Session. The motion passed.

EXECUTIVE SESSION

Julie Armstrong presented a proposal for communications partnership with C-BMP that includes utilizing Frontline Communications as a third-party vendor. Julie reviewed the proposal and outlined the advantages of using C-BMP to carry the message of NREC. The total proposal is for \$4,500/month or \$54,000 annually.

Howard Brown moved and Andy Knepp seconded to accept the communications partnership with C-BMP for a total annual cost of \$54,000. The motion passed.

The Council then moved on to discussions around committee size and structure. Dale Hadden asked Chuck Cawley, Chair of the Governance Committee, to set up a governance meeting and to begin looking at policies, procedures and overall governance issues.

The Council then discussed the Research Committee and Chairman Hadden asked for Council input on the size of the Council. Howard Brown indicated that he is happy with the makeup of the committee and the process. Jessica Dexter indicated that she thinks it's a good size group and Ed Corrigan added that he likes the diversity of the group. Discussion was held on replacing Matt Hughes, who is no longer on the Council, with Jenny Mennenga.

Andy Knepp moved and Chuck Cawley seconded to adjourn the meeting at 4:35 p.m. Motion carried and meeting was adjourned.