**Agenda and Notes**

**SERA 46 Meeting in DC in conjunction with HTF meeting**

**February 5-6, 2020**

**Tuesday, Feb 4, 2020: Hypoxia Task Force meeting.**

1:30-2:30 pm: Hypoxia Task Force Executive Session. SERA46 leaders will present and discuss.

**Wednesday, February 5, 2020**

8:30-10:00 HTF Coordinating Committee and SERA-46 Joint Discussion

10:00-10:15 Break.

10:15 – 11:00 Debriefing from HTF Meeting and Discussion with HTF Coordinating Committee. What ideas for follow-up did we gain?

11:00-11:45 Re-examine Shared Priorities in light of recent discussions – Jane Frankenberger

12:00 – 1:00 Lunch – Food Court

1:00 – 5:00 Impact Writing Workshop – Sara Delheimer

5:00 Adjourn for Day

**Thursday, February 6, 2020**

8:30 – 10:00 Discussion of Potential Future SERA 46 Actions

10:00 – 10:15 Break

10:30 – 11:30 Discussion on Adjusting Shared Priorities. Action Item Assignments / Volunteers and Plans.

Moving forward on Awards Nomination. Wes Burger is nominating SERA 46

12:00 Adjourn

**Summary of notes from the Day and a Half meeting.**

SERA-46 Attendees:

Amanda Gumbert; Beth Baker(via Zoom); Andrew Sharpley(Via Zoom); Katie Flahive; Naveen Adusumilli; Mike Daniels; Jane Frankenburger, Rebecca Power, Jenny Seifert, Matt Helmers, Eric Young.

***SERA-46 attendees at the executive session asked the following Question:***

*What critical issues are you facing that have a research or Extension/outreach component that we should be discussing in the next few days with the Coordinating Committee and our colleagues?*

*Responses received –*

* Mike Naig: Scaling up, accelerating adoption. Connecting to drainage is always useful.
* Jordan Seger: OPTIS (remote sensing interpretation) says that cover crops have greatly increased from 2005-2018. Can research tell how the present situation is different than if cover crops were not adopted?
* Trevor Sample: Our nutrient reduction strategies call for millions of acres of cover crops. Is the seed industry, other infrastructure issues, ready for that level of implementation? Would there be enough cover crop seed? Is anyone producing a strategic plan for what industry is capable of providing? Further, define the benefits of cover crops. Iowa has a private-public partnership on conservation infrastructure. Perhaps they could address it.
* Ryan Benefield: Data needed on nutrient reduction potential on irrigated areas
* David Ross: Address fertilizer discrepancies. Also, precision application is vital, especially with improved weather forecasting. Regionally-specific BMPS. Edge of field monitoring. Trends work. Metrics to tell the story.
* LA representative: We have an interest in post-secondary agricultural education. Education needed on precision technologies.

***On Feb 5, during the SERA-46 meeting, the following were discussed -***

A letter submitted to water sub-cabinet members was discussed ( the letter is uploaded to google drive). Working groups were formed at the HTF meeting to address the needs identified in the letter. Participants were asked to join the 7- groups based on their interests and expertise. The working groups are mentioned below.

Market-based mechanisms were mentioned as a need at the HTF meeting. Other priority needs identified during brainstorming are included.

1. **Monitoring**: *SERA-46 participants*- Matt Helmers and Brian Haggard (tentative) – objective- how to use tracking together with modeling; educate on what monitoring means; recommendations to states, and edge of field monitoring
2. **Research**: *SERA-46 participants*- Matt Helmers, Mike Daniels, Jane Frankenburger- fertilizer recommendation discrepancies, inform funding agencies on priority topics for RFAs, extension publications. Other needs to be addressed
	1. Legacy nutrients
	2. Edge of field to stream - data and relations
	3. Performance of practices- individual and suite
	4. Variables affecting adoption
	5. Effect of more intense storms
	6. Air emissions reductions
3. **Adoption of Innovative BMPs**: *SERA-46 participants*-Reid Christianson- scaling up practices, stories and visuals of the process
4. **Funding**: *SERA-46 participants*-Matt Helmers
	1. Suggestion for collaboration among states with similar needs to “break the basin up.”
	2. Market-based initiatives
	3. Private funds
	4. Low-interest financing
	5. More personnel for research and monitoring
5. **Ecosystem and Social Indicators**: *SERA-46 participants*- Rebecca Power, Wendong Zhang (Tentative), Linda Prokopy (Tentative), Naveen Adusumilli, ken Jenskow
	1. Benchmarking – ecosystem improvements- up basin;
	2. Expand and explore existing indicators
	3. Synthesis and analysis of literature on indicators- metanalysis of BMPs and their economic value
6. **Communications**: *SERA-46 participants*- Jenny Seifert, Amanda Gumbert, Rebecca Power, Naveen Adusumilli, Katie Flahive
7. Multistate statement on challenges faced on mitigations: *SERA-46 participants*-Matt Helmers

Jenny gave a presentation of their project, titled “Sustaining Food, Energy, and Water Security in the Upper Mississippi Basin.” A PowerPoint of the project is uploaded to the google drive.

* Brief outline from jenny on the project - this is a research project out of UW-Madison that Rebecca and I are part of –leading the outreach and stakeholder engagement efforts. SERA-46 and the Hypoxia Task Force are vital groups that we would like to interface with, to get input on the research and its implications, and to help ensure the ultimate results are useful, usable, and used toward increasing food-energy-water security in the region.

Matt Helmers presented slides on nutrient loads, flow. Can Matt share the slides?

* Brief outline from his presentation – nutrient loads have increased in Iowa. With cover crops and other soil management practices on the ground, it is often misunderstood that these practices are not providing their intended benefits. It is essential not to ignore that flow during that time has also increased.

There was an emphasis on “common message from SERA-46.” Members have asked that the unified message account for the sensitiveness of state agencies and commodity boards that support research and extension in the land grant universities.

A shared priorities working document is also uploaded to the google drive.

Products produced as a result of involvement with SERA-46 are requested. An excel file is being populated with these items. The excel file is located in the google drive. Please fill that information by the last week of February. Wes Berger is nominating SERA-46 for an award and would like that information by the end of February.

**HTF Meeting Flipchart Notes
Coordinating Committee Meeting
February 5, 2020**

# Groups

1. Monitoring/Metrics
2. Challenges Faced on Mitigation
3. Adoption of Innovative BMPs
4. General Research
5. Traditional/Nontraditional Funding and Long-Term Work Planning
6. Communications
7. Ecosystem Services and Social Metrics

# Monitoring/Metrics

## Round 1

* How are GS gauges funded? Decisions made?
* How do states best influence based on hypoxia TF work?
* Assistance in design of states’ monitoring networks
* Are there better ways (e.g., technology) to do nutrient monitoring?
* Different organizations doing monitoring in TN—coordination need?
* GS did a basic plan for TN

## Round 2

* Each state has different real (or perceived) need
* Are there common needs across all states?
* Is there a baseline of federal funding/support that could be provided to all states?
* Learning from NRDA; other federal/state partnerships
* Monitoring needs/activities survey of all HTF states- start with what trend work group has done?
* NOAA work
* Not just rivers/loads; also consider Gulf of Mexico
* Models vs. monitoring
* Need to pay attention to phosphorus, not just nitrogen
* Iowa trying predictions based on turbidimeters
* Think about the ability of monitoring systems to capture change as a result of current implementation scale/amount
* Are states interacting much on monitoring?
* It probably would be valuable for states to interact
* Groundwater monitoring- where does this fit? Tiling influence.

# Adoption of Innovative BMPs

* How to shorten adoption time
* Federal Partner? (NRCS)
* NRCS Contacts - Dee Carlson (NRCS-DC) and Martin Lowenfish (NRCS-DC)
* Difference between state NRCS to adopt new practice standards varies significantly
* Is the interim standard bar too high?
	+ 3 years of data collection
	+ HDQTR-Approved
* Ability to use field trial data
* Explore a waiver
* Process
	+ State requirement
	+ HDQTR
	+ Trial/field data (significance of the University developed practices/research)
* Example practices
	+ Heavy Use Areas
	+ Winter feeded rooftop structures
	+ Cascading white water
	+ Expand saturated buffers to other soil types
* 3-Way Memo
* How to change your state’s acceptance of Practices- (e.g. roofed structures)
* Federal programs overlap ability to enhance flexibility
* Case studies on new BMPs - specifications
* Calibrate specs for future precipitation/flows
* How to adapt BMPs to site-specific conditions (applying stream BMPs to ditches)
* Feedback process in NRCS standards/specs? All states?
* Nontraditional delivery- outside NRCS
* Established resource concern request prevents prevention vs. remediation (e.g., livestock expansion- can’t help until there’s a problem)
* Anti-degradation ditch 🡪 stream, not ditch to wetland
* Write stores of new BMPs that have moved from idea 🡪 demo 🡪 research 🡪standard. Many people don’t know how it can work.

# Research

* Legacy of nutrients
* Ph—N research (Lake Erie 🡪 Ohio River)
* Edge of field to stream (data) and relationships
* Performance of practices (individual & suites)
* Variables that increase BMP adoption (e.g., economics, community, peer pressure)
* Literature review - summary (all above)
* Effect of more intense storm events on BMP performance.
* Air emissions reductions (NOx) + effects on atmospheric deposition

# Funding

* Develop a Mississippi River program
* Prioritize NRSs
	+ USDA Programs (CRP, RCPP, EQIP) – Clear!
	+ FEMA, USACE, etc.!
	+ Layered Benefits/Services
	+ 319
	+ State Program
* Market-Based Initiatives
	+ Enabling conditions
	+ Private $
	+ Low-interest financing
* Personnel is the limiting factor
* Collaborate among states with similar needs to “break the basin up” to make the needs messages clear and strong

# Communication

* Engagement with urban and rural audiences
	+ What states + HTF as a whole are doing to these audiences
* Why, purpose for engagement needs to be understood
* Audiences:
	+ Municipalities
	+ Farmers (e.g., MARB leaders)
	+ Commodity groups
	+ State and Federal legislatures
	+ Fisheries communities
	+ Supply chain?
* How to make info memorable + sticky?
* Opportunities to make communication consistent - a process for this
* Where are farmers getting info?
	+ Baseline understanding of communication preferences and circumstances
* Economic benefits - messaging need
* Other messaging “levers” to pull?
* Lay of the landscape of multimedia products, repository of products for other states to use
* Within - HTF Comms
	+ A way to share info internally (e.g., monthly summary)
* Use NOAA Forecast PR as a vehicle for HTF messaging, need to define the messaging and products
* Community conversations at small watershed scale
	+ Need mechanisms to support these and scale them up
		- Support for nested networks
		- Watershed implementation plans
* Recruit a “champion” at legislature level in each state

# Indicators of Success

* Benchmarking
* Ecosystem improvements
	+ Up. Basin
	+ Wildlife habitat
	+ Other systems
	+ Including a “trigger” on management change if benchmarks not met
* Metrics
* Watershed scale
* Natural and social/economic
* Load vs. concentration vs. yield (intensity)
	+ Best measure?
	+ Total factor productivity?
* Must collaborate with existing reporting structures
	+ Can’t start from zero
* NRCS+
* Trackable metrics
* Economic value
	+ Tie percentage reduction to saving
* Practices- remote sensing- ACPF?
* Accounting stance (public good)
* Explore expanding existing Midwest social indicator system (SIDMA?)
	+ Science assessment for other metrics (i.e. carbon, etc.)
* Partner commitment!
* Things farmers and stakeholders care about
	+ Market-based layered benefits
* Document other benefits of practices beyond Water Quality
	+ Also, point source
		- E.g. Ammonia tax
		- SWP
		- Flood resilience
		- Habitat
* Objective evaluation of each baseline data/monitoring
* Collaborate with ESMC? TNC (Floodplain tool?)? SIDMA?