**Project/Activity Title:** Catalysts for Water Resources Protection and Restoration: Applied Social Science Research

**Period Covered:** 10/01/2015-09/30/2016

**Date of This Report:** 8/1/2016

**Annual Meeting Date(s):** 6/1/2016 – 6/3/2016

**Participants:** Arbuckle, Jr., J. Gordon (Arbuckle@iastate.edu) – Iowa State University; Brasier, Kathryn J (kbrasier@psu.edu) – Pennsylvania State; Brehm, Joan (jmbrehm@ilstu.edu) – Illinois State University; Burbach, Mark E. (mburbach1@unl.edu) – University of Nebraska; Davenport, Mae (mdaven@umn.edu) – University of Minnesota; Floress, Kristin M. (kfloress@fs.fed.us) – USDA Forest Service; Gasteyer, Stephen (gasteyer@msu.edu) – Michigan State University; Genskow, Kenneth (kgenskow@wisc.edu) – University of Wisconsin; Hoag, Dana L (dhoag@colostate.edu) – Colorado State University; Kaufman, Eric K. (ekaufman@vt.edu) – Virginia Cooperative Extension; Knutson, Cody L (cknutson1@unl.edu) – University of Nebraska; Margerum, Rich (rdm@uoregon.edu) – University of Oregon; Morton, Lois Wright (lwmorton@iastate.edu) – Iowa State University; Onal, Hayri (h-onal@illinois.edu) – University of Illinois; Prokopy, Linda S. (lprokopy@purdue.edu) – Purdue University; Ribaudo, Marc (mribaudo@ers.usda.gov) – USDA-ERS/RED; Rissman, Adena (adena.rissman@wisc.edu) – University of Wisconsin-Madison; Sanderson, Matthew (mattrs@ksu.edu) – Kansas State University; Ulrich-Schad, Jessica (jessicad.ulrich@gmail.com) – South Dakota State University;

**DAY 1: THURSDAY JUNE 2, 2016**

INTRODUCTIONS BY ALL PARTICIPANTS

**PROJECTS**

1. Synthesis paper:
   1. Lead: Ask Nick if he still wants to lead it
   2. Willing to participate: Linda, Adena, Chloe, Rich, Kristin, Lois, Stephen, Jenny
2. Groundwater:
   1. Leading: Mae Davenport or whoever they decide
   2. Interested in participating: Ken Genskow, Rich Margerum, Matt Sanderson, Stephen Gasteyer
   3. Issues
      1. Well – testing in Ohio
      2. Wisconsin central sands, surface-groundwater relationships
      3. Ogallala aquifer – where groundwater supports surface water flows, ephemeral wetlands are critical for migratory birds on playas. Working with farmers to conserve those areas.
3. Adaptation
   1. Urban
   2. Rural
   3. Climate
   4. Stormwater
   5. Septic systems
   6. Adena, Mae, Stephen, Sarah, Rebecca Power, Tanya, J. Arbuckle, Chloe
4. Food-Energy-Water Nexus
   1. Big funding opportunity
   2. Reframing catalysts work in terms of this nexus
   3. How are decisions made? Voluntary vs. mandates? Sustainability supply chain.
   4. How to pair a systems approach with traditional social science approach?
   5. Next steps: write an overview paper highlighting social science need. Undergrad experience grant?
   6. Pitch an INFEWS-like project? Methodologies and implications.
   7. Linda, Doug(?), Adena(?)
5. Leveraging accidental, large-scale, high-profile events for creating change (aka Katrina)
   1. Toledo
   2. Talked about Des Moines waterworks in context
   3. Could overlap with the Catalyst framework paper
6. Rural/urban divide : Rissman leads paper
   1. Update: came up with case studies, started lit review
   2. Larger question: what is the divide? What causes it? what bridges it?
   3. Suggestion: could look at Kramer-Walsch’s work on the politics of resentment
   4. Yahara case, Des Moines case, Linda’s farm/urban tours, certification?, drinking water
   5. Adena, Linda, Sarah, Jessica, Joe, Francis, Van, Chloe, Kristen, J.
   6. Adena will send out a doodle for scheduling call
7. Book!
   1. How social science can help inform management. Book for practitioners. Different sectors. Case studies. Methodologies.
8. Attitude/behavior split/disconnect
   1. What are behavioral measures? When is it appropriate to use certain measure? Design/evaluation context
   2. Linda, Kristen, Mae, Mark, Matt, Riva, Doug, J., Francis (some earlier names on last year’s list including Adam Reimer)
9. Schneider and Ingraham policy tools
   1. WQ outcomes expected from policy tools
   2. Ken lead. Mae, Kristin, Ken, Rich, Chloe, Adena, Stephen, Mark B.

New ideas:

1. Data privacy issues
2. Structural issues and supply chains
   1. Doug.

Des Moines waterworks issue

* N concentration in river high. Waterworks burdened by the cost.
* Bill Stowe, CEO of waterworks filed a lawsuit against 3 counties with 13 drainage districts for responsibility in N contribution
* Last year the expensive cleaning system ran for 177 days of the year

Question: could we achieve 40% nutrient reduction without regulation?

PROJECTS THAT DON’T HAVE A LEAD NOW

1. Metadata of case studies
   1. Lead: Ask Kristin if she wants to do it

**FRIDAY JUNE 3, 2016**

**COLLABORATION AND CIVIC ENGAGEMENT SKILLS FOR LEADERS IN WATERSHED MANAGEMENT**

**Joe Bonnell**

Literature review, interviews with leaders identified as successful

Handout has values associated with engagement and collaboration: democratic process, considering local context, diversity, learning, critical thinking, conflict management

Team continuing to communicate on this

**SARE 46 – Ken Genskow and Rebecca Power**

Rebecca was co-chair of it for a few years;

Ken – funding to tie social science to Gulf of Mexico Hypoxia

SARE 46 is an extension and research activities committee multi-state committee. Established as part of a nonfunded coop agreement between land grant universities and the hypoxia task force. The task force is federal and state agencies addressing nutrient reduction needs. State reps or Dept of Ag or DEQ, EPA, etc. Lots of person-power at the hypoxia task force table. Momentum in the invitation to collaborate with the land grants. Experiment station directions and extension directors in the north central and southern regions of the US signed onto this. Administrative commitment from the universities. 1 research and 1 extension delegate from each of the 12 states (Ken and Rebecca are Wisconsin’s delegates). One accomplishment is a list of shared priorities with the hypoxia task force. Looking now at modifying the shared priorities. Anyone can belong to SARE46 just like NC1190.

Social science panel at UMinn to hypoxia task force (Ken, Mae Dav, etc). EPA has directed some discretionary funding to the initiatives outlined. EPA call for proposals for 100-200K. Ken and Mae were involved in a couple of those proposals. Over 3 years, 300,000 mostly to Mississippi State to expand social research – inventory of state actions, successes and challenges. Miss State wants to present to our meeting next year and brainstorm how to make it more relevant for the south, in YR1. YR2: Indicators of civic engagement. Question: should we expand into a half-day with materials sent in advance?

GOAL: get NC1190 group feedback on social indicators research to find consistent measures across the whole basin and to update the social indicators. Facilitated discussion to get feedback – expand social indicators to include community capacity (organizational, programmatic). Travel support would be provided as part of the grant for whoever might need travel funds (grad students). Product that could also be claimed as the NC1190 project. J – interesting to him to see a presentation of the social indicators and that it would be valuable.

State nutrient reduction strategies – driving interest is to get people to adopt the state nutrient reduction strategies. Need to work with people to increase adoption. Understand different states’ approaches to improving voluntary adoption. Should we add as a small breakout group – social science component of the bigger question

Rebecca – building capacity for watershed leadership. How do farmer leaders fit into the leadership indicators context? How do we frame these leadership visions for farmers; how do we talk about leadership with farmers? Ohio and Arkansas – pilot projects. Gaps in trainings and developing trainings. 2 summits. Strengthen networks with farmers and with crop consultants.

**GROUP BREAKOUT SESSIONS**

4 groups:

**GROUP 1: Groundwater - Get notes from Mae**

Groundwater discussion: Mae, Tonya, Richard, Joe, Doug, Ken, Matt

Research questions discussed:

1. What are conditions that bring together multiple and diverse stakeholders around groundwater management (voluntary or involuntary—mandated collaboration).
2. How do we increase awareness of ground water-surface water connections among landowners, resource users, local officials, SWCDs
3. What are structural barriers to getting broad-based engagement
4. Who is/should convene people and collaboratives?

Next actions: Matt will coordinate a conference call.

**GROUP 2: Nutrient Management / SARE 46**

Nutrient Management/Reduction Strategy Discussion

* Opportunities for partnership with other states engaged in nutrient reduction strategy work
* How have state nutrient reduction strategies in each state been developed, evolved, and catalyzed new partnerships? Common visions have been developed between ag and environmental groups where there had been historic distrust
* Chloe- interviews of SWCDs across states, implementing the NRS- some states have processes in place and others don’t
* Illinois is using the voluntary structure to catalyze action- we can do this without regulation approach
* Interviews in all 12 states, survey
* Cross state comparisons useful in individual states
* In some states the ag groups do not feel ownership of the strategies
* How did the partnerships influence content, perceptions and outputs?
* State level case studies and cross state comparison, potential book
  + Comparison of goals and timelines
  + Nebraska could be a control state, they have a nutrient strategy but were not required

Action Items

* Create a summary
* Explore opportunities with McKnight or Walton Family Foundation
  + J. will contact Walton
  + Rebecca will contact McKnight
  + Linda will read RFA and convene a conference call to explore preparing proposal

Rebecca, Adena, J., Jeff, Francis, Sarah, Chloe, Linda, Mark, Vanessa, Mae, Jamie will be part of a call- June 20th

**GROUP 3 Adaptation – Get notes from Mae D**

Adaptation discussion: Mae, Sarah, J., Tonya, Matt, Jeff, Vanessa, Francis, Chloe, Rebecca

Research questions discussed:

1. At what scales (temporal, spatial) do adaptations become maladaptations and how does an ecosystem services framework help in this evaluation?
2. Do people consider and learn about multiple ecological processes, services and tradeoffs when adapting?
3. What are the cultural impacts of climate and climate adaptation?
4. What role does community and place identity/attachment have in climate adaptation behaviors?

Next actions: Sarah will coordinate a conference call.

**GROUP 4 Catalysts – INFEWS, supply chains, structural issues**

Role of catalysts

Supply chains

Lessons learned and the way forward

Typology paper, Nick Babin’s paper

Need baseline conditions

How can catalysts happen?

Over time catalyst?

Structural catalyst

Drought of 2012 could have been perfect catalyst to promote adaptation, but because of crop insurance, farmers had no incentive to change

Structures- social, culture, commodity

Event catalysts

They way structure and governance responds

Structure of the venue can promote change or diffuse catalyst event

Resiliency of a system- when a catalytic event takes place, the system can evolve or maintain status quo

Indicator to evaluation different structures

To what extent do they represent a variety of interests?

If narrow, they could suppress the catalyst

Network structure- centralized or decentralized

Actors- individuals or organizations, water outcomes

Comparative work, case studies

Consistent set of questions that could be asked across projects to collect a large dataset

SESMAD? Check into questions, Cox, Dartmouth?

IFRI- database of forestry outcomes

Build on existing databases

Ken- Localized effect of livestock agriculture on private wells, strong livestock industry which makes it difficult to change, potential case study or scale dimension? Could compare to Toledo

Are there control cases?

Catalytic events- West Virginia-what were the structures in place prior to that event and what were the outcomes?

**CATALYST Next Steps**

INFEWS- proposal next year?

Continue seeking funding for ideas

Continue conversation next year

Plan for follow up in 6 months on the urban-ag interface- Doug will email the listserv in 6 months

**DATES FOR CONFERENCE IN MADISON IN 2017**

**2 full days including terrace time, dairy visit, small breakout groups, ½ day on social indicators organized by Ken and Mae**

Easier if attached to a weekend (Mon-Tues or Thurs-Friday)

May 31 – June 2 (Thurs - Friday in the week after Memorial Day)

June 5-9 no conflicts – maybe Kathy could come then?

May 22 – May 26 – Tanya said this was trickier – not Friday before Memorial Day

Watch for doodle poll on the listserv

Other conferences:

RSS and ASA are in August – sometimes concurrently and sometimes not – Aug 19-23

SWC end of July

Ag and Human Values, ISSRM

CONFIRM THE WEEK

FINALIZE BEFORE ISSRM AND SEND TO THE LISTSERV

Thank yous – J for hosting, Adena for secretary and submitting the report, Linda for chairing

Checkout – something you enjoyed from the meeting