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Communication, Partnerships, and the Role of Social Science: Conservation Delivery in a Brave New World

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Introduction

Nonpoint source pollution, primarily from agricultural sources, remains the leading cause of water quality impairment in the United States; preventing and remediating this pollution often proves to be a complex and intractable problem (Dowd 2008). The use of conservation practices is a common approach to mitigate agricultural nonpoint source pollution and achieve various environmental and soil health goals (Prokopy et al. 2019). Conservation practices such as cover crops, conservation tillage, vegetated or riparian buffers, grade stabilization structures, and nutrient management practices have been used and promoted for individual agricultural producers (Eanes et al. 2017b, Dowd et al. 2008). Unlike traditional environmental policies, U.S. agri-environmental policies focused on nonpoint source pollution generally lack a direct regulatory control and oversight, and are primarily based on voluntary approaches designed to incentivize individual farmers to adopt conservation practices (Reimer and Prokopy 2014). Farmers can adopt practices that work best for their farms, and conservation intermediaries such as governmental agencies and land grant universities extension offices (hereafter Extension), help farmers adapt generalized practices to specific site characteristics for maximum effectiveness (Dowd et al. 2008).

The traditional model of conservation delivery entails governmental agencies such as the Natural Resources Conservation Service (NRCS), Soil and Water Conservation Districts (SWCDs), and Extensions providing information, technical guidance, and financial support to individual farmers in order to persuade them to voluntarily adopt conservation practices (Eanes et al. 2019). However, at least two related factors complicate this traditional approach to

conservation: 1) decades of decreasing state and federal financial support for public-sector

entities like NRCS and SWCDs (Samy et al. 2003; Wang 2014); and 2) the steadily changing

structure of agriculture that has resulted in increasing reliance on private sector actors for the

provisioning of goods, services, and information (Carolan 2016). These two factors, coupled

with the persistent severity and extent of water quality impairments, have pushed agricultural

actors to explore alternative models of conservation delivery. Evidence from recent studies

shows that crop advisors (CAs) have significant influence on farmers' management decisions,

including conservation adoption. CAs are independent or retail affiliated entities counselling

farmers, ranchers, or other agricultural entities on crop production process, pest damage,

pesticide distribution, nutrient management, etc. (MABA, 2019). As such, CAs have the

potential to be complementary conservation delivery partners in alternative agri-environmental

models designed to maximize program impact (Arbuckle and Rosman 2014; Church et al. 2018;

Prokopy et al. 2015; Stuart et al. 2018). However, additional research has pointed to the potential

for mistrust and a lack of role clarity when multiple sectors enter into similar terrain (e.g.,

Floress et al., 2011; Eanes et al. 2019).

Background

Based on increasing evidence about the need for innovative approaches to managing

agricultural nonpoint source pollution in the Great Lakes Basin, especially in intensely

agricultural watersheds, the Saginaw Bay Watershed Conservation Partnership was organized as

an alternative model to address water quality impairments in the Saginaw Bay watershed (Fales

et al. 2016). The partnership, led by the Michigan Chapter of The Nature Conservancy (hereafter

TNC) and the Michigan Agri-Business Association (MABA), with support from 43 other

agricultural and conservation organizations, sought to develop and deploy an innovative

approach for delivering conservation incentives to farmers—one that relied on non-traditional, but trusted, private sector advisors to serve as conservation intermediaries in order to accelerate conservation adoption in the watershed (Eanes et al. 2017a). Under the auspices of the United States Department of Agriculture (USDA), through the 2014 Farm Bill, the Saginaw Bay Watershed Conservation Partnership received a Regional Conservation Partnership Program (RCPP) grant in 2015 to test this alternative, non-traditional conservation delivery method. The initiative is comprised of a group of conservation organizations, agronomists, universities, commodity groups, and agribusinesses that came together to collaboratively address water quality impairments in the Saginaw Bay watershed (Fales et al. 2016).

Several conservation social scientists (affiliated with one of the universities within the partnership) conducted an in-depth social science evaluation of the RCPP initiative. The evaluation was an iterative process that informed program implementation and adaptation by providing real-time feedback from the research to the project partners. Very much in line with the collaborative nature of the initiative, in this paper we – a group of academics and practitioners – jointly reflect on the evolution and adaptation of the Saginaw Bay RCPP through the social science evaluation process. We present our reflections along three key lessons learned: vertical and horizontal communication challenges; contextual and structural constraints; and barriers that remain between private and public sector entities for this and alternative conservation-delivery models that may be explored in the future. We conclude by discussing the role of iterative social science in program adaptation, and recommendations for designing similar collaborative initiatives in the future.

Setting and Context: The Saginaw Bay Regional Conservation Partnership Program

The Saginaw Bay Watershed, as the largest drainage basin in the State of Michigan, covers 22 counties and encompasses approximately 8700 square miles (approx. 22, 533 km^2). In addition to being home to 1.4 million people, the Saginaw Bay and its tributaries serve as a source of water for agricultural production and the primary source of drinking water, supports a wide variety of terrestrial and aquatic wildlife, and provides a range of other ecosystem services for the communities and industries in the region (Fales et al. 2016). However, high levels of phosphorus and sediments in the watershed adversely affects water quality and freshwater ecosystem health throughout the region (Sowa et al. 2011).

Challenges in addressing nonpoint source pollution in the watershed are the same as other places. These challenges include reluctance of farmers to participate in conservation programs (Ranjan et al. 2019; Prokopy et al. 2019), and the politically contentious nature of targeting critical areas for conservation (Arbuckle 2013; Kalcic et al. 2014; Wardropper et al. 2015). Continued concerns over water quality issues in the watershed have led public and private partners to seek out collaborative opportunities to accelerate the rate of conservation practice adoption in the region. The Saginaw Bay RCPP, is one such collaborative effort formed to address water quality in critical areas in the watershed.

TNC, in partnership with MABA co-led this 5-year outcome-based RCPP conservation effort that provided "a total investment of $20 million, including $8 million in direct financial assistance and $12 million in technical assistance" (TNC 2015, 2). The initiative includes three innovative strategies: (1) setting outcome-based goals for conservation implementation; (2) leveraging agribusiness and crop advisors to facilitate conversations with growers about conservation practices; and (3) using web-based tools to monitor and track progress toward those conservation goals. The partnership selected six sub watersheds as eligible for funding and

established a short-term (5-year) goal of enrolling 25,550 acres (approx.104 km^2) and reducing

2,695 tons (approx. 2.4 million kilograms) of sediment across the sub watersheds based on

available funding and pragmatic planning. The RCPP program provides cost share dollars to

eligible and qualifying farmers to adopt specific conservation practices such as cover crops,

reduced tillage, and nutrient management plans (Eanes et al. 2017b). Local agribusinesses and

CAs, based on their existing relationships with farmers, helped recruit eligible farmers into the

program.

Social Science Evaluation and Program Implementation

To assess the functioning and outcomes of the regional collaboration, the Natural

Resources Social Science (NRSS) Lab at the Department of Forestry and Natural Resources at

Purdue University conducted a multi-year evaluation of the Saginaw Bay RCPP. A mixed-

methods social science research method was used to test the efficacy of this conservation

approach. The purpose of this evaluation was to discover, define and track communication gaps

and challenges experienced, and gauge program receptiveness and adaptiveness among key

project partners in delivering this type of new public-private conservation effort. We specifically

focused on the program's reliance on CAs as conservation intermediaries, and tracked changes in

behavior and/or perceptions of Saginaw Bay farmers regarding RCPP conservation practices

over the project period. Data were collected through random-sample surveys, in-person

interviews, and observations. Data collection and analysis involved an iterative process that

informed program implementation and adaptation by providing real-time feedback to the project

partners during the project period. Table 1 summarizes the evaluation process and timeline. The

lessons that we present here are drawn from the entirety of the evaluation process. However, for

the purposes of clarity, we note in the table the lessons that are drawn from each stage of the

evaluation. Note that in addition to the social science evaluation, TNC also measured

environmental impacts. For a detailed review of data collection and analysis methods please refer

to Eanes et al (2017a), Eanes et al (2017b), Eanes et al (2019), and Samanta et al (2018).

[Insert table 1 about here]

TNC started implementing some of the recommendations emerging from the social

science evaluation starting in 2017, including organizing quarterly 'Lunch and Learn'

networking lecture series, hosting field days, and constituting a Farmer Advisory Group. In

addition, TNC and Purdue University jointly hosted a forum in June 2017, to which all project

partners were invited (with more than 50 project stakeholders in attendance). The purpose of this

forum was to promote mutual learning among all stakeholders and to share and discuss

evaluation results from the first full year of the Saginaw Bay RCPP implementation. The

partnership will continue implementing the recommendations through early 2020, at the end of

which a summative evaluation will be performed. The lessons that we present below will inform

the design of future collaborative/multi-stakeholder watershed management efforts.

Fundamental Lessons Learned and Reflections

Lesson #1: Communication challenges

Vertical communication and framing by authorities affect the flow of information and

project related knowledge and expectations within organizations, and effective communication

ensures meeting of statutory program goals (Serra et al. 2011). Vertical communication speaks to

the legitimacy of the program and ensures accountability at all organizational levels. Horizontal

communication ensures good cooperative behavior among partners (Cheng and Sturtevant 2012).

Establishing clear protocols for both vertical and horizontal communication is key for program and partnership success (Serra et al. 2011). Planning regular project update check-ins among partners can be a way to achieve this.

Early on, the formative assessment in Saginaw Bay revealed a communication gap regarding the type and amount of funding incentive availability, which was clear at the institutional level (including those administering the RCPP program like the NRCS), but unclear at the operational level (for instance at the level of CAs working with farmers). This communication gap persisted as the program progressed. Years two and three of evaluation results indicated that there was a need to address vertical communication within organizations (e.g. agribusinesses, NRCS) – that is, between organizational leaders and the mid-level managers and on-the-ground actors who actually implement the program (Samanta et al. 2018). Key actors reported that there was a lack of clear direction and communication vertically (top-down) within organizations i.e., from state-level NRCS leadership to on-the-ground county-level NRCS staff, and from MABA to the CAs affiliated with them that directly work with farmers. An NRCS county-level staff describes this as, "Well, you know, it makes me shake my head a little bit, is again, one of the things that I feel about RCPP is there may have been very good communication at the top, but there's very poor communication for the people that actually have to be on the ground and do the work." We should note that the structure and function of MABA (as a membership organization of entities that manufacture, distribute and retail agricultural materials such as seed, fertilizer, grain, food processors, as well as retailers and advisors) is different than NRCS (in this case Michigan NRCS, a government agency with state-level office and specialists, and county-level service centers comprising of district conservationists and technicians). However, the state-level leadership in both organizations has been involved with RCPP project

planning and implementation with the understanding and commitment that they will communicate program details, implementation plans, etc. with their members/affiliates (for MABA) and district conservationist staff (for NRCS). Such a vertical-type of organizational direction and communication is key to ensuring success of both program implementation and partnership-building among organizations, which was not evident in the implementation of the Saginaw Bay RCPP.

Challenges at the horizontal-level included value- and goal-alignment among the stakeholders, particularly across sectors (e.g. public, private), which arguably led to communication and trust issues between organizations (NRCS and agribusiness). Additionally, the formative evaluation indicated that rules regarding requirements of program implementation seemed clear, however, rules regarding communication were unclear with all participating partners. Years two and three of the program evaluation identified that there was a perceived gap in communication and exchange of relevant information between key project partners regarding training and agribusiness events organized in the watershed. An NRCS district staff noted, "I've never been invited to any sort of meeting, either from seed guys or chemical guys or the elevators, I know they have them. I've driven by…" Conversely, a MABA staff member reported that "They'll [NRCS] tell us in a meeting that – Yes, we'll let you know when the trainings are. We'll all do it together – and then they go and hold them [the trainings] without telling us." Project partners concurred that this was a missed opportunity, as these trainings could facilitate relationship-building opportunities between CAs and NRCS staff.

The evaluation determined that there need to be more opportunities for active communication (one-on-one interactions) between RCPP project partners and farmers. Emails and flyers have been the primary method for communication with farmers, traditionally, and

have been used by the RCPP partnership as well. These are, however, passive modes of communication (although these modes of disseminating information are low cost and can reach a large number of farmers). The farmers that respond to and use the information provided through these passive channels of communication, are likely to be conservation-minded and already participating in conservation programs. Reaching the next layer of farmers that are currently not participating in conservation programs remains a persistent challenge. Responding to this feedback about types of communication for outreach, TNC created previously mentioned opportunities for active face-to-face communications (e.g., quarterly Lunch and Learns, field days). Though not casual, implementing these and other recommendations have collectively helped accelerate the acceptance of the program, based on the program enrollment trends. TNC however concurs that these face-to-face and small group communication efforts still typically draw farmers that are already interested in conservation, and are yet to identify an effective way to get farmers currently not using conservation practices to attend these events (this is a common problem with these types of events, see Singh et al. 2018).

The definition and indicators of program success differed across RCPP partners and participants. Meanings of program success ranged from the success of the partnership itself, the number of acres enrolled in RCPP, the amount of conservation dollars spent, to the ultimate water quality and environmental outcomes achieved. When discussing success in terms of relationship and partnership building, several interviewees concurred that Saginaw Bay RCPP did not meet expectations due to communication challenges, both across program partners, and vertically within organizations. An example of some of these communication gaps was in the form of information about acreage enrollment in RCPP projects. We heard from NRCS and

SWCD staff with concerns about low acreage enrollment, while TNC reported the number of acres enrolled in conservation surpassed the original target of the program.

Lesson #2: Contextual and structural constraints

Much political economy literature has theorized, empirically described, and evaluated the decades-long restructuring and corporate concentration of agriculture, and its effects on farm viability, agricultural decision making, and information flows (see Constance, 2009 for a helpful review). While a thorough exploration of the ways in which this massive restructuring has influenced the Saginaw Bay RCPP is beyond the scope of this paper, this lesson discusses three specific ways in which the broader agricultural context has affected the formation and functionality of RCPP's partners.

First, funding for public actors and agencies — e.g. NRCS, SCWDs, Extension—has steadily eroded at federal and state levels, leading to high staff turnover and vacancies for many county-level positions. Most of our interviews with public-sector staff referenced this precariousness at some point, and described how it has diminished capacity for providing farm-gate services, lowered professional morale, and blunted opportunities for long-term employees to keep up with the latest agricultural and conservation science. Several scholars (e.g. Buttel 1985; Gardner 1990; Hightower 1973) have pointed out the ways in which public entities — specifically land-grant universities and Extension systems — have been complicit in the trend towards agriculture's increasing economic concentration and focus on production. This has diminished the public sector's reputation in the eyes of some farmers, and heightened territorial suspicion and friction between NRCS/SWCDs and their private-sector counterparts (i.e. CAs) in the process of RCPP's design and implementation.

Second, the rapidly shifting landscape of agricultural information delivery and service provision has led to a fracturing and overall erosion of the all-encompassing advisory role that CAs were ostensibly envisioned to fulfill. This is especially occuring with technologies and practices that broadly fall under the realm of precision agriculture, such as the use of sensors, information systems, and enhanced machinery to optimize agricultural production (Gebbers and Adamchuk 2010). Some of these shifts are connected to the notion of certification (a subset of all CAs are Certified Crop Advisors (CCAs), provided by the Agronomy Society of America). The once-exclusive advisory role of CCAs is increasingly parceled out into the services provided by fertilizer, pesticide, and equipment salespeople, who often have access to the same digital (and in some cases real-time) data pertaining to soil, nutrient, crop, and weather conditions (Eanes et al. 2019). Such horizontal role fragmentation and merging with retail services has led many CAs to see less and less value in the time and money spent on continuing education to maintain the official CCA certification, and growing competition (and occasionally conflict) between independent CCAs and those affiliated with agricultural product/input sales (Eanes at al. 2017a). One Saginaw Bay CA, for example, described how "by and large most of the CCA's around the industry will say that there's no value in the designation. At least, it hasn't been for the last 20 years. The guy that pulls in the driveway after me that's not a CCA — he can do the same things that I do." To be successful, any conservation program designed to include private agriculture information intermediaries must account for the potential mistrust and suspicion between certified independent crop advisors and those who sell agricultural inputs/products and may or may not be officially certified advisors. In other words, treating private-sector information brokers as a monolithic group evades important perceived and actual differences. Underlying all of this are the real and perceived conflicts of interest that can arise when

responsibility for conservation-related advice and decision making is placed in the realm of advisors whose primary function is selling agronomic inputs that may not align with conservation objectives.

Finally, macro-scale changes to the policy and economic climate have increased farmers' sense of vulnerability and this affects their willingness to participate in conservation initiatives like RCPP. Biofuel mandates and other economic pressures that raise grain prices, for example, incentivize farmers to pull their land out of set-aside programs like buffer initiatives and the Conservation Reserve Program (Stuart and Gillon 2013). Conversely, the convergence of phenomena such as high rental rates in competitive land markets, high input costs, and relatively low commodity prices can act as barriers to the adoption of conservation practices like cover crops that require immediate and often costly investments in equipment, seed, and operator time (Ranjan et al. 2019; Roesch-McNally et al. 2018). Interviews with farmers revealed that their willingness to enter into RCPP contracts was influenced by the degree to which they perceived RCPP to afford sufficient operational flexibility in the face of uncertain economic and policy environments. The social science evaluation process -- particularly the deliberate and reflexive connections between what we were hearing from farmers on the ground and the theories and discussions available to us in the political-economic academic literature – was essential for identifying, contextualizing, and responding to these broader structural factors.

Lesson #3: Mixed results from a public-private partnership

Like the political-economy of structural changes to agriculture, much has been written about the failings of so-called "public-private partnerships" across a variety of economic sectors, including agriculture (Hall 2006). Although we take these criticisms seriously, when judged by

reliable indicators of progress — such as the amount and/or percentage of the Saginaw Bay watershed's high-priority acres enrolled in conservation practices— towards desired conservation outcomes, this RCPP's public-private experiment cannot be categorically dismissed. As of November 2018, Saginaw Bay RCPP recruited and enrolled 104 projects for 59,650 acres (approx. 241 km^2) into conservation. While most of these acres were recruited via conventional means and traditional partners—i.e. through NRCS and/or SWCDs—33% of these acres were recruited by agribusiness sources. In the first year of the RCPP program, agribusiness recruited 15% of RCPP projects. By 2018, agribusiness recruitment had increased to 36% of all projects. These results have been achieved despite assumptions from public-sector RCPP partners (e.g. NRCS, SWCDs) that CAs, by virtue of their affiliation with the private sector, would only be interested in short-term profits, and thus either avoid RCPP altogether, or advise their farmer-clients to only adopt practices for which CAs could seek profits.

Successes notwithstanding, significant challenges to this nontraditional cross-sector partnership remain. As Eanes et al. (2019) have reported, CAs remain broadly dissatisfied with the application and funding process of NRCS in general and RCPP in particular, noting that the vast amount of paperwork and lengthy processing time make them hesitant to participate. These CAs perceived traditional public-sector conservation actors, including NRCS, SWCDs, and Extension, as "inefficient, overly bureaucratic, out of touch with the majority of farmers, rule-oriented, organizationally understaffed and dysfunctional, and … [unable to] operate on the cutting edge of agricultural research or provide adequate customer service" (ibid: 367). Many NRCS and SCWD staff and some independent CAs, correspondingly, remain skeptical about the ability of retail-affiliated CAs to overcome what some view as inherent conflicts of interest in their dual role as purveyors of both conservation advice and production-related inputs (ibid).

These cross- and within-sector perceptions generate a sense of territoriality that, in combination with diminishing funding for the public sector institutions described above in Lesson #2, complicates the trust- and relationship-building required for the execution and maximized impact of the Saginaw Bay RCPP. The social science evaluation process was instrumental in both identifying the barriers and motivations to cross-sector collaborations (via interviews with key stakeholders) as well as, in some cases, quantifying through survey data the extent and significance of these dynamics throughout our populations of interest. The richness of these mutually-supporting qualitative and quantitative approaches exceeded what could have been learned by either of these alone, and certainly more than might have been learned by the sort of administrative data (e.g. acres enrolled, farm size, location, etc.) typically generated and tracked internally by the program staff themselves.

Discussion and Conclusion

One of our key emergent lessons from the evaluation process is the importance of integrating social science research in conservation practice. Rather than being used as an ad-hoc approach, we demonstrate how social science evaluation was integrated into conservation planning and practice, hence increasing the salience and legitimacy of the conservation social science within collaborative watershed management. The use of social science research and collaboration with social scientists in developing conceptual and simulation tools have become more common in improving conservation and land-use management (Nyhus et al. 2002; Stidham et al. 2014). However, "the integration of social science insights into conservation practice still remains limited" (Bennett et al. 2017, 2). Effective use of conservation social science can contribute to an enhanced understanding and improvement of conservation practice, policy, and

outcomes (Bennett et al. 2017). Our study makes a valuable contribution to this nascent and limited field.

We demonstrate the value of an iterative learning process on the part of the project partners in general and TNC in particular. The role of reflection and learning is key here, where partners and stakeholders updated and adjusted the collaboration based on new and emergent knowledge and built it into program implementation (Samanta and Kellogg 2017). For example, based on innovation literature (Steelman 2010, deLeon and deLeon 2002, Deyle 1994, O'Toole Jr. 1997), initial recommendations for the program emphasized paying particular attention to the extent to which motivated individuals were able to operate within an institutional setting by leveraging discrepancies between the existing state of the Saginaw Bay watershed and the preferred RCPP ecological health goals. This recommendation was used by key project partners to reframe ecological discrepancies as opportunities to innovate.

TNC effectively integrated several of the key recommendations in tweaking, changing, updating, and redesigning certain program elements and delivery approaches, however, challenges remain in sharing this knowledge gained and mobilized by the TNC with other RCPP partners. We should also acknowledge that social science evaluations such as the one we demonstrate here, while valuable in improving conservation practice and outcomes, can also be expensive and difficult to implement. Further, Nyhus et al (2002) note that ideological, institutional, knowledge, and capacity related barriers prevent sufficient funding and meaningful integration of social science perspectives and research into conservation. However, it must be noted that the practitioners involved on this team believe that the money was well spent as it greatly improved project outcomes. They hope to continue designing projects with an ongoing and iterative social science evaluation component in the future.

While our findings reveal that vertical and horizontal communication challenges remain, we also acknowledge that the reported and perceived communication gaps speak more to trust issues between partners. We outline that broader structural changes in policy and economic climate constrain farmers' ability to adopt innovative but potentially risky conservation practices. These structural changes include decades long restructuring and corporate concentration of agriculture, steadily eroding funding for public actors and agencies at the state and federal levels, biofuel mandates, and other economic pressures that raise grain prices. Further, such changes collectively influence farmer behavior, complicate cross-sector trust and relationship building, and impact overall partnership outcomes.

Broader economic and policy-level challenges, notwithstanding, some of the communication and partnership-related changes can be addressed anticipatorily at the program planning stage. We recommend that prior to program rollout, a key task for organizational partners is to plan around technical, social, and organizational components pertaining to the program. This would include 1) clearly defining program goals and expected outcomes and articulating similarities and differences with previous programs, etc.; 2) using lessons from formative stages of social science evaluation to anticipate stakeholder concerns, accounting for resistance and workarounds, and planning integration with existing organizational and work practices; and 3) communicating realistic expectations within and across organizations (vertically and horizontally) and incorporating periodic partner check-ins during program planning. These components should be revisited periodically between partners throughout the program implementation period. Other recommendations that can potentially inform the design of future collaborative/multi-stakeholder watershed management efforts are: including a "partnership facilitation" period to anticipatorily address some of the communication challenges that might

arise, aligning RCPP incentives for private-sector advisors that account for nuances and

differences within this broader sector, and having sufficient operational flexibility in programs

such as the RCPP in the face of uncertain economic and policy environment

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	Formative Assessment (2015 - 2016)	Continuing Evaluation -Year 1 (2016 - 2017)	Continuing Evaluation - Years 2 and 3 (2017 - 2018)
Goals	Gauge program receptiveness and adaptiveness among key agricultural, conservation, and academic project partners. Provide recommendations on implementing the RCPP initiative.	Create a baseline understanding of attitudes and perceptions regarding conservation and the RCPP program through a comprehensive evaluation.	Review program implementation progress to-date and the challenges that remain in communication and partnership-building.
Data collection methods	Interviews with key project partners (n=10)	Surveys a) Farmers (n=1,461) b) Crop advisors (n=81) c) NRCS/SWCD staff (n=55) Interviews a) Farmers (n=22) b) Crop advisors (n=12)	Observations (n=6) (e.g., RCPP promotion and training events geared towards CAs, CA-client interactions, and other RCPP related on-farm demonstration events) Interviews (n=12) (with farmers, CAs, and governmental agency staff)
Data analysis scheme	Qualitative coding and analysis for key themes	Surveys: Summary statistics, cross-tabs, factor analysis Interviews: Qualitative coding and analysis for key themes	Observations: Coding and thematic analysis Interviews: Qualitative coding and analysis for key themes
Lessons	Lesson #1	Lessons #2 and #3	Lessons #1 and #3

Table 1: Social science evaluation process for the Saginaw Bay RCPP