

December 11, 2006

To: Project Team and Advisors  
From: Tom Green, Agflex and IPM Institute  
Re: First Quarterly Progress Report: BMP CHALLENGE and Water Quality Trading

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### **Executive Summary**

Our project is designed to meet water resource quality goals by promoting and supporting innovative strategies including the BMP CHALLENGE net returns guarantee and water quality credit trading. We will build broad awareness of these tools and competence in their use by developing and distributing a curriculum and support tools, and training in-state trainers to support conservation district, crop advisory professionals and others who work with farmers. We will manage the BMP CHALLENGE for corn farmers reducing nutrient use and tillage in DE, IA, IL, IN, MD, MI, MN, NC, NE, OH, PA, VA, WI. Water quality credit trading objectives will focus on MN and PA.

To date we have:

- Formed a Minnesota advisor group;
- Held a project planning meeting and two monthly conference calls with project team members and several advisors;
- Held informational meetings with (1) Minnesota River Board; and (2) representatives of MPCA, Minnesota Dept. of Agriculture, Board of Soil and Water Resources and Land Stewardship Project; and (3) Gyles Randall, U MN.
- Adjusted timing of water quality credit trading objectives in MN to match expected roll out of trading rules in 2008;
- Produced 35,000 BMP CHALLENGE brochures and distributed 2000;
- Developed a syllabus and scheduled an initial training workshop for ag professionals for January 11 in New Ulm;
- Developed portions of the curriculum for the January 11 workshop;
- Secured \$390,000 in cash match towards our budgeted \$930,000 in match; and
- Added Jim Klang, formerly of the Minnesota Pollution Control Agency (MPCA) to our project team as a employee of Kieser and Associates.

Over the next quarter we will continue to build awareness of the project, complete our advisory group, identify in-state trainer candidates for MN, recruit for the January 11 workshop, recruit BMP CHALLENGE participants in 13 states and finalize a revised budget and project plan with the PA Dept of Environmental Protection (PA DEP). We will monitor factors that may impact our project including MN trading rules, corn prices, growth in corn acreage and corn-on-corn acres, and corn-belt wide changes in nitrogen rate recs for corn. We will continue to interact with MN state agencies and others on trading rule development and pursue additional funding to meet our match requirement.

The project is funded by USDA NRCS with matching funds from the Minnesota River Board for Minnesota activities, Bush Foundation for trading development in Minnesota and PA DEP for activities in Pennsylvania, with additional funders pending.

## I. Deliverables Update:

<p>1. Diverse advisory panel for quarterly review of plans and progress. <i>PA advisors pending final plan and budget with PA DEP. Our proposal to DEP was funded at 47% of our initial request. We're awaiting assignment of a project office and further information on how they would prefer our plan and budget to be revised to reflect the reduced funding.</i></p>	<p><b>Confirmed:</b>  George Boody, Land Stewardship Project  Paul Burns, MN Dept of Ag  Dennis Fuchs, Stearns County SWCD  Tim Gieseke, MN Project  Marco Graziani, MPCA  Dave Mulla, University of Minnesota  Jeff St. Ores, USDA-NRCS  Mark Scharf, AgStar Financial Services</p> <p><b>Pending invitations:</b>  Minnesota Board of Water and Soil Resources (representative invited)</p> <p><b>Pending identification of candidates:</b>  Minnesota Cooperatives (re ethanol production, Kevin Edberg investigating)  Independent crop advisors (call to Lyn Lagerstadt, reply pending)  Leading progressive producers (Shannon Fisher pursuing)  Wastewater treatment plants</p>
<p>2. WQ trading and BMP CHALLENGE curriculum delivered 12 times to MN state agency, conservation districts, crop advisors and others to equip them to offer these opportunities to their producer clientele. <i>PA activities pending.</i></p>	<p>a. Syllabus and curriculum (powerpoint presentations) to be finalized by January 1 and delivered at January 11 workshop in New Ulm (workshop agenda below). An initial mailing of 250 pieces to MN ag professionals with workshop flier and registration form was completed in November generating four responses. A second mailing to an expanded list of 500 MN professionals will be completed by December 18, along with press releases circulated by the MN River Board and UMN Extension.</p> <p>b. Trading component to be further developed as trading rules are finalized. Interim measure to include meetings with policy makers on issues related the project, i.e., how BMP CHALLENGE processes might support trading by providing a farmer income guarantee and verification process. An initial meeting with MPCA, BOWSR and MDA held on Nov. 21 in St. Paul.</p> <p>c. Curriculum to be offered over the three-year project period in dedicated seminars and as part of other scheduled events.</p> <p>d. Calendar of other potential events is being developed including contact person for program content.</p> <p>e. Extension and Minnesota River Board PR contacts have agreed to circulate press releases for scheduled events.</p> <p>f. An in-house list contact list of potential workshop attendees is being developed including Extension, crop advisors, watershed program managers, soil and water conservation districts, and Dept of Agriculture, Pollution Control Agency and Board of Water and Soil Resources staff. Current count is 276.</p> <p>g. A second mail list of media contacts is under development.</p> <p>h. Mail plan includes direct mail to the in-house list, quarterly email newsletter and press releases.</p>
<p>3. Training plan, three MN public agency/NGO trainees to</p>	<p>a. Candidates being identified whose current responsibilities would be enhanced by developing this capability.</p>

train others on BMP CHALLENGE and WQ credit trading. <i>PA trainers pending.</i>	b. Training plan to include participation in training events, e.g., January 11 workshop, offered by the project team.
4. Support package of existing tools for trainers, subset to be used as handout for seminars and available at <a href="http://www.bmpchallenge.org">www.bmpchallenge.org</a> . <i>PA package pending.</i>	a. Handout package for Jan 11 workshop to include copies of presentations, BMP CHALLENGE brochure; BMP CHALLENGE enrollment, check strip and net returns assessment forms; list of trading resources. b. Additional items for support package under development. c. Website established, materials to be added as they become available.
5. 75,000 brochures, 1000-1500 farmer inquiries generated to state agencies, crop advisors, watershed groups on BMP CHALLENGE and WQ credit trading.	a. 35,000 BMP CHALLENGE brochures have been printed with approx. 2000 distributed to date (PDF and print copies available on request). b. Trading brochures to be developed and distributed once trading rules finalized.
6. Ten point sources in MN prepared to trade, list of trades completed, acres, practices, credits, estimated resource improvements. <i>PA activities pending.</i>	Deferred until trading rules are further developed and PA DEP grant finalized.
7. Inventory of BMP CHALLENGE guarantees implemented, acres, practices, estimated resource improvements.	a. To date, nutrient BMP guarantees have been implemented on approximately 90 farmer fields, resulting in an average 24% reduction in nitrogen fertilizer use. b. The first reduced tillage fields were enrolled in 2006, results pending. c. All results are recorded in a database.
8. Inventory of potential point and non-point source traders, trades, values, credits, rates, forms, implementation and verification procedures. <i>PA activities pending.</i>	To be developed.
9. Reductions of 760K lbs. of N use, 40K lbs. P loading; 30K tons sediment loading; 25K lbs. NO <sub>2</sub> ; 5K tons CO <sub>2</sub> from nutrient and tillage reduction on approx. 34K acres in MN and PA	a. Tracking in place for nutrient use. b. Tracking for other reductions to be developed.
10. Funding development including \$759,464 in matching non-federal funding, \$170,500 in program income and	a. Non-federal match, \$390,000 to date including Bush Foundation, \$75,000; Pennsylvania Department of Environmental Protection, \$225,000; Minnesota River Board, \$90,000; Kieser and Associates match pending. b. Program income, \$29 to date including workshop enrollment fees, farmer

<p>\$944,400 in-kind. Additional funding for program expansion.</p>	<p>contributions (1/3 of net income gain, to a maximum of \$6 per acre), \$0 (pending final 2006 results).</p> <p>c. In kind, will track advisor, workshop participant, collaborator and producer time; tracking database in development.</p> <p>d. Proposal in development for nutrient management work in Pennsylvania, to be submitted December 18 to Pennsylvania Department of Agriculture, Chesapeake Bay Commission and others.</p> <p>e. Verification of farmer participant eligibility for EQIP ongoing.</p>
<p>11. Quarterly and final progress reports including conf call and advisory meeting minutes.</p>	<p>a. Advisory conference calls and meetings scheduled for Mar, Jun, Sep and Dec through Aug 2009, including one in-person meeting per year.</p> <p>b. BMP CHALLENGE team (Arlt, Brandt, Bumans, Green, contractors) meets at least twice monthly by conference call to manage BMP CHALLENGE acreage recruitment and implementation.</p> <p>c. MN BMP CHALLENGE and WQ Credit Trading team (Arlt, Fisher, Green, Kieser &amp; Associates) meets monthly by conference call, second Thursday of each month at 8:30 AM Central. Advisors welcome to participate. Call agenda and post-call notes circulated to project team and advisors.</p>
<p>12. Other</p>	<p>Meeting to be organized with Chicago Climate Exchange to discuss trading issues, roles, possible collaboration.</p>

## II Project Team and Advisors – As of 12/12/06

Andrew Arlt  
CIG Project Assistant  
BMP CHALLENGE<sup>SM</sup>  
1914 Rowley Ave.  
Madison WI 53726  
608 663-4497  
Fax 608 232-1530  
andrew.arlt@bmpchallenge.org

Brian Brandt  
Director  
Agricultural Conservation Innovation Center  
50 W. Broad St.  
Suite 3250  
Columbus OH 43215  
614 221-8610 x201  
Fax 614 221-8620  
Cell 614 271-7193  
bbrandt@farmland.org  
<http://www.farmland.org/resources/innovation/default.asp>

Stan Buman  
Agflex Inc.  
1238 Heires Ave  
Carroll IA 51401  
712 792-6248  
Fax 712 792-6175  
Cell 712 830-7713  
stan.buman@agflex.com  
<http://www.agren-inc.com>

Tom Buman  
Vice-President  
Agflex Inc.  
1238 Heires Ave.  
Carroll IA 51401-3328  
712 792-6248  
Fax 712 792-6175  
Cell 712-8307712  
tom.buman@agflex.com  
<http://www.agren-inc.com>

Dr. Shannon J. Fisher  
Executive Director  
Minnesota River Board and MSU Water  
Resources Center  
184 Trafton Science Center S  
Mankato MN 56001  
507 389-5492  
Fax 507 389-5493  
Cell: (507) 327-1110  
shannon.fisher@mnsu.edu

Thomas Green  
President  
CIG Project Manager  
Agflex  
1914 Rowley Ave.  
Madison WI 53726-4128  
608 232-1528  
Fax 608 232-1530  
Cell 608 209-8298  
tom.green@bmpchallenge.org

Deana Hoeg  
Business Manager  
CIG Project Financial Reporting  
Agren Inc.  
1238 Heires Ave.  
Carroll IA 51401-3328  
712 792-6248  
Fax 712 792-6175  
Cell 712-8307712  
deana.hoeg@bmpchallenge.org  
<http://www.agren-inc.com>

Mark Kieser  
Senior Scientist  
Kieser & Associates, LLC  
536 East Michigan Avenue, Suite 300  
Kalamazoo MI 49007  
269 344-7117  
Fax 269 344-2493  
Cell 269-217-6372  
mkieser@kieser-associates.com  
<http://www.kieser-associates.com/>

James Klang, PE  
Senior Project Engineer  
Kieser & Associates, LLC  
7162 Mill Road  
Centerville, MN 55038  
651 407-0256  
jklang@kieser-associates.com

Laurence Picq  
Project Scientist  
Kieser & Associates, LLC  
536 East Michigan Avenue, Suite 300  
Kalamazoo MI 49007  
269 344-7117  
Fax 269 344-2493  
lpicq@kieser-associates.com  
[www.kieser-associates.com](http://www.kieser-associates.com)

Allan Sommer  
Watershed Economist  
USDA NRCS  
375 Jackson St.  
St Paul MN 55101  
651-602-7886  
Fax 651-602-7914  
Allan.Sommer@mn.usda.gov

### **Advisory Group - Confirmed**

Participation is invited on monthly conference calls and requested for quarterly conference calls and one in-person meetings per year. Role includes reviewing plans and progress, responding to requests for information/assistance from project team.

George Boody  
Executive Director  
Land Stewardship Project  
2200 4th Street  
St. Paul, MN 55110-3011  
Phone: (651) 653-0618  
Fax: (651) 653-0589  
gboody@landstewardshipproject.org

Marco Graziani  
Minnesota Pollution Control Agency  
Wastewater Section – Watershed Planning  
Southwest Regional, Municipal Wastewater  
520 Lafayette Road, St. Paul, MN 55155-4194  
Phone: 651/296-8632  
Fax: 651/297-2343  
marco.graziani@pca.state.mn.us  
<http://www.pca.state.mn.us/index.cfm>

Paul Burns  
Assistant Director, Ag Development Section  
Minnesota Department of Agriculture  
625 Robert Street North  
Saint Paul MN 55155-2538  
651-201-6488  
Paul.Burns@state.mn.us

Jeff St. Ores  
USDA-NRCS  
375 Jackson St. Suite 600  
St. Paul MN 55101  
651 602-7869  
jeff.st.ores@mn.usda.gov

Dennis Fuchs  
Stearns County SWCD  
110 Second Street South, Suite 128  
Waite Park, MN 56387  
Phone: 320-251-7800 x 132  
Cell: 320-290-3854  
Fax: 320-251-9171  
dennis.fuchs@mn.nacdnet.net  
[www.soilandwater.co.stearns.mn.us](http://www.soilandwater.co.stearns.mn.us)

David Mulla  
Professor  
University of Minnesota  
439 Borlaug Hall  
1991 Upper Buford Circle  
St. Paul MN 55108  
612 625-6721  
Fax 612 625-2208  
mulla003@umn.edu

Tim Gieseke  
Agricultural and Environmental Policy Specialist,  
The Minnesota Project  
40322 541 Ave.  
New Ulm, MN 56073  
507 276-8170  
tgieseke@mnproject.org  
<http://mnproject.org>

Mark Scharf  
Financial Services Officer  
AgStar Financial Services  
1921 Premier Drive  
P.O. Box 4249  
Mankato, MN 56002-4249  
Cell: (888) 259-5738  
Fax: (507) 344-5089  
mark.scharf@agstar.co

### **Trainers – To be named**

Three Minnesota and three Pennsylvania public agency or NGO professionals who will be trained to offer the BMP CHALLENGE and WQ Credit Trading curriculum developed as part of this project. Goal is to identify individuals whose current role would be enhanced by this capacity.

### **III. Project Summary from Original Proposal to NRCS CIG**

Our project will build capacity by creating broad awareness and teaching in-state personnel to support CD, crop advisory professionals and others who work with farmers to meet conservation goals using new, innovative strategies. We will highlight, teach and implement BMP performance guarantees for corn farmers reducing both nutrient use and tillage in DE, IA, IL, IN, MD, MI, MN, NC, NE, OH, PA, VA, WI and point-nonpoint water quality credit trading in MN and PA.

BMP performance guarantees will focus on 51 million acres of corn in these 13 states. Our *BMP Challenge* has delivered a 24% nutrient use reduction in seven states over the past four years. We provide a financial safety net for farmers who reduce nutrient and sediment pollution using practices developed and recommended by land-grant scientists and state agencies. These practices save farmers money over time, but in any one year may result in lower yields and income. The program uses a side-by-side comparison in the farmer's field of his or her conventional practice on a "check" strip vs. reduced nutrient or tillage practice on the balance of the field. We compensate the farmer if net income declines as a result. Our 2005 survey indicates that 42% of corn farmers would try these new practices if guarantees were available.

Water quality credit trading is a new opportunity in the Susquehanna and Potomac River Watersheds in PA and the Minnesota River Watershed in MN. Point sources such as wastewater treatment facilities have greatly reduced nutrient emissions over the past 30 years and face very high costs for incremental gains. These funds can be more efficiently invested in improvements by farmers. Adequate controls are needed to ensure water quality goals are met. Accurate and effective education, training and technical support are needed to implement trading effectively.

Our experienced and nationally recognized team will work with state agencies and others to develop and implement a training curriculum, support tools and outreach for these innovative approaches, and work with conservation districts, crop consultants and other key influencers to equip them to competently offer and manage these opportunities with their client farmers. Support tools will include both new and existing materials and trained in-state technical support to help these professionals efficiently identify the best opportunities, calculate economic benefits to farmers and estimate water quality improvements, and verify and report implementation of conservation practices. Outreach will focus on CDs, crop consultants, Extension, ag organizations and other key influencers to drive farmer interest and inquiries to trained CD staff and crop consultants.

We will ease farmer recruiting to trading using our proven model of enlisting crop consultants, Extension and CD staff as recruiters, on-site BMP overseers and/or third-party verifiers for our guarantee program; assure farmers with yield/income guarantees so that they can put a comfortable value on their participation in trades, e.g., farmers are reluctant to trade nutrient use reductions for cash because they can't predict the yield impacts; verify/document credit production by farmers and so provide point-sources/regulators with the assurance they need; discover and institutionalize locally-acceptable credit estimation tools to provide certainty for participants; track multiple environmental benefits/environmental services; aggregate credits from multiple farmers to create a reserve pool such that if any one farmer cannot deliver promised credits for any reason, other credits are available to fill in; and offer this model as a turn key service solution to trading projects in other states as they begin to get ready for trading.