Quarterly Report 5 - Covering the first quarter of calendar 2006 (January through March)

I. Achievement of Milestones – the following table covers tasks, milestones, or major deliverables scheduled through March 31 *in the original workplan*, although some grouping was done to shorten the list. Open or ongoing tasks from preceding quarters are separated by double bold lines.

TASK	ORIGINAL COMPLETION DATE	ACTUAL COMPLETION DATE	MILESTONES/ DELIVERABLES	COMMENTS
Periodic check-in with Feedlot Management Team	Monthly	Quarterly		As necessary
Communication with Governor's Livestock Task Force	Informal	Thru MPCA Ag Liaison		Communicate with Ag Liaison for now – with Task Force after significant findings
Revise and finalize full project workplan	2/28/05	Open		Workplan for new self-certification phase is presented below
Quality Assurance for Facility Universe	3/28/05	Open		MPCA's database is being updated and will be combined with MDA milk licensure database for purposes of recruitment for self-certification phase
Annual Report 1 (Year 1)	9/30/05	Eliminated		Not required by Cooperative Agreement
EQA technician assistance	3/7/06	Ongoing	On-farm and phone assistance	

II. 2005 - Results and Analysis

1. Activity to date:
   First round of volunteer assessments and forms from accompanying inspectors –
   - Stearns County: 27 of 29 assessments complete (2 no-responses) – 12 accompanying inspection forms – county inspectors did not accompany EQA techs or generate forms for the other 15 sites. This will be addressed by inspections this spring.
   - Winona County: 10 of 11 assessments complete (1 no-response) – accompanying inspection forms complete.

   First round of control group inspections –
   - Stearns: 29 control group inspections complete.
   - Winona: none completed – we have collected the most recent available inspection form for the selected control group sample sites.

2. EQA technicians and CFOs went out to FERP volunteer sites as a team, with our intention being that they communicate about the site's regulatory status prior to the visit, but that the CFO would observe the EQA technician's approach including their assessment of compliance issues. Apparently, the boundaries between the roles were fuzzier than we hoped, with the result that we cannot make definitive statements about the EQA technicians' accuracy in assessing compliance issues.

3. Soil quality: All sites used conservation cropping techniques which enhance soil quality and reduce runoff and pollutants, and most sites received highest ratings for practices which prevent erosion of gullies, streambanks, and pastures.

4. Ground water: Only 3 sites had unused wells requiring proper abandonment; in each of the categories of well conditions, backflow prevention, and water testing, only one farm required correction. All farms scored highly in positioning and separation distance in relationship to pollution sources. Of only six sites with underground storage tanks, EQA techs rated one well-maintained and recommended removal of the others.

5. Hazardous waste and above-ground storage – Only 5 of the 37 sites received recommendations for improvements in hazardous waste management, and all above-ground storage tanks were compliant and well-managed.

6. Odor and air quality – Minnesota's only compliance requirement relating to feedlot air quality is a hydrogen sulfide emissions standard which is difficult to document. Odors have not been defined in terms of enforceable standards and so remain a subjective issue with neighbors. The EQA program takes a proactive approach to this as they investigate odor sources rather than the emissions that the inspections focus upon. The EQA assessment addresses manure management on open lots and in barns, runoff from manure storage piles, the condition of anaerobic or aerobic lagoons, land application methods, and mortality management as factors which require management to prevent odor complaints. There were never more than 4 farms requiring some correction in any of these categories.

7. Manure application – Few of these small farms are required to develop Nutrient Management Plans, and indeed the EQA technicians and county inspectors recommended that, depending on the practice, 16 to 43% of the farms develop plans or improve their recordkeeping, soil and manure testing, spreader calibration, or application rate practices. This relative weakness was offset by strength in the reported manure application practices, which mostly relate to keeping applied manure a prescribed distance away from and/or quickly incorporating (plowing) it near surface water or intakes, sensitive features and soils, or wells and wellhead areas. This demonstrates knowledge of standards.

8. Open lots - EQA technicians gave 13 of 37 sites a "needs correction" rating on their open lots. Much of this appears to relate to deficiencies in preventing clean water from running through open lots. This tracks roughly with the rate at which CFOs identify potential to discharge (suggesting corrections needed). "Needs correction" or "potential to discharge" don't necessarily correlate with negative compliance checkoffs on the inspection checklists, leading to indistinct documentation of compliance status, both with EQA and with the regulatory program.

   The EQA technicians also rated buffers surrounding receiving waters highly, so this could lead us to conclude that under most conditions, runoff is not reaching surface water. However, state and county inspectors are frequently concerned with the condition of filtering vegetation adjacent to the open lots even though remote from receiving waters, questioning how that vegetation will function in more extreme conditions. The EQA program should be adjusted to rate adjacent downslope vegetation for filtering capability.

9. Although fewer than half the sites stored pesticides on site, half of those who did had not completed a pesticide spill plan.

10. Data collected by the regulators and by the EQA program has few overlaps and both sets have gaps. This suggests corrections may be in order on both sides. Implications to the project are that it makes comparison of data collected at the same site by the EQA technician and the inspector difficult.

    Another implication is that we cannot view the EQA program as a one-to-one stand-in for what the regulatory program does now. The regulatory program and the inspector checklist compile points of data important to administer the program, but they do not do a good job of documenting performance and shades of gray where

smaller dairies are moving slowly towards compliance. Conversely, the EQA program does better at describing and rating environmental performance and outcomes (on a whole-farm basis), but does not collect administrative detail.

Therefore, any attempt to use the EQA program as a stand-in for regulatory inspections would require adjustment of expectations and the core measures the MPCA needs when working with small farms.

11. About one-half the number of farms listed within the MPCA's database appear to be actively producing and selling milk. MDA data shows an attrition rate of around 10% per year in recent years. The upside of this unfortunate trend is that delegated counties should be able to inspect their small dairies at least every 2-3 years, suggesting less of a need for an Environmental Results Program-type of self- or third-party certification process in those counties.

12. To supplement project staff supported by state funding, a temporary position paid out of the EPA cooperative agreement will develop an important assistance tool for small feedlots: a guidance document on functional but less-expensive and maintainable "fixes" to runoff compliance issues. While not to the "gold" standard of NRCS corrections, these fixes would improve performance more quickly and on a more widespread basis than the more expensive projects for which small farmers must seek limited state and federal cost-share.

III. Next steps

1. Follow up on 2005 farms as intended, doing as much as possible to correct data uncertainties. This will primarily involve tracking assistance and producer activity as the farms move towards EQA certification.

2. Discussions between project and program staff have produced an additional course of action: pilot true ERP self-certification by volunteer small dairies in 4 different counties. Following are new tasks and 2006-2007 timelines relating to this new self-certification phase.

TASK	LEAD STAFF	PROJECTED COMPLETION DATE	MILESTONES/ DELIVERABLES
Revise and finalize full project workplan	Innes	4/06	Workplan to EPA
Define facility universe; identify facilities for outreach	Innes	Mid 4/06	Mailing list combining MPCA, MDA databases
Recruitment letter	Brigman	Early 5/06	Recruitment letter
Mailings and MPCA web site notice	Innes	Early 5/06	~600-piece mailing
Draft core compliance and performance indicators, and inspector checklist	Brigman/Innes with program	4/06	Draft self-certification and inspector checklist
Dry run self-certification with dairies	Brigman	5/06	
Finalize self-certification and inspector checklist	Brigman/Innes with program	5/06	Checklist with core indicators and project metrics integrated
Review recruitment progress and follow up as necessary	Brigman	5/06	Goal: 40 volunteers
Develop and print Workbook	Brigman/Innes with program & stakeholders	5/06 and 6/06	50 completed workbooks
Review statistical methodology	Innes	5/06	Methodology
Finalize core compliance and performance indicators	Brigman with program	5/06	Final core compliance and performance indicators, including compliance goals
Revise and submit QAPP to EPA	Innes	5/06	QAPP submitted
Generate sample for control group	Innes	Mid 5/06	Complete control group sample
Inspector training	Brigman	5/16/06	6 inspectors and supervisors trained

TASK	LEAD STAFF	PROJECTED COMPLETION DATE	MILESTONES/ DELIVERABLES
Control group inspections	Inspectors	9/06	50 inspections
Develop a procedure for self-certification and inspection data collection and entry	Innes/Brigman with D Olson	Spring 06	Process in revised QAPP - independent databases to start
Get QAPP Approval from EPA	Innes	6/06	
Presentation to MPCA feedlot staff	Brigman	6/06	
Mail self-certifications and workbooks to volunteers	Innes	7/06	Certification mailing
First round of self-certifications and return-to-compliance (RTC) plans	Volunteers	9/06	Goal: 40
"Red flag" screen – incomplete or inconsistent responses	Brigman, Innes	9/06	Data for follow-up
Data entry and quality assurance	Innes support staff	11/06	
Follow-up telephone audits or inspections on RTC plans	Inspectors	Fall 06	Number unknown
MPCA assistance	Inspectors Brigman SBAP?	Summer/fall 2006	On-farm and phone assistance
Presentation to MN Association of County Feedlot Officers conference	Brigman	10/06	
Post-baseline follow-up and analysis	Innes/Brigman	1/07	
Second round: control group inspections	Inspectors	9/07	50 inspections
Second round of self-certifications	Volunteers	9/07	Goal: 40
"Red flag" screen – incomplete or inconsistent responses in certs or RTCs	Brigman, Innes	10/06	Data for follow-up
Data entry and quality assurance	Innes support staff	11/07	
Follow-up telephone audits or inspections on RTC plans	Inspectors	Fall 07	Number unknown
Final project follow-up and analysis	Innes/Brigman	3/08	Project report to stakeholders, EPA

Follow-up on 2005 third-party (MN Milk Producers Association) assessments will continue as described in the original workplan and as altered in subsequent quarterly reports. A no-cost extension of the cooperative agreement's end date from 12/31/06 to 12/31/07 is in process.

IV. Level of Expenditures

Financial Information removed by EPA as confidential business information.

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