

Agriculture Workgroup (AgWG)

December 15th, 2016

10:00 AM – 3:30 PM

Face-to-Face Meeting Summary

Meeting materials: <http://www.chesapeakebay.net/calendar/event/24633/>

Actions & Decisions:

DECISION: The AgWG reached consensus to officially close the work of the Phase 6 Nutrient Management Panel.

DECISION: The AgWG approved the Turkey Characterization Pilot Project report.

DECISION: The AgWG approved the Manure Incorporation/Injection panel report as-presented, with the understanding that the AgWG requests to re-evaluate the interaction of this BMP with other BMPs after Phase 6 model runs, and that the AgWG is still open to considering additional addendum proposals after the approval as-written.

DECISION: The AgWG approved a motion to charge the Manure Incorporation/Injection expert panel to re-evaluate the proposal put forward by NY relating to immediate high disturbance incorporation for P, and to use best available science and professional judgement to determine a resolution.

DECISION: The WTWG approved the Manure Incorporation/Injection Panel's report and Appendix A pending revisions to land use eligibility for the practices and an explanation of how the BMPs are combined.

DECISION: The AgWG approved the Conservation Tillage Panel report as-written.

DECISION: The WTWG approved the Conservation Tillage Panel report Appendix A, as-written, with edits to be made on which BMPs can and cannot be combined.

DECISION: The AgWG approved the Animal Waste Management Systems report.

DECISION: The WTWG approved the Animal Waste Management Systems report Appendix A.

DECISION: The AgWG approved the Pennsylvania Conservation Survey methodology for use in reporting and crediting verified practices in the model. Ag conservation practices that have been proven to be statistically defensible will be reported as RIs with the RI designated lifespans.

DECISION: The AgWG approved of the PA NRCS remote sensing methodology as a proof of concept and tasks the AgWG with defining the minimum observation level and the acceptable levels of the metrics provided in the Tetra tech evaluation report (CSI, HR, FAR), as well as any other statistical metrics, for use in future reporting to the Bay Program. The AgWG also recommends this methodology align itself with a CBP verification protocol.

10:00 **Welcome, introductions, roll-call, review meeting minutes**

Workgroup Chairs

- Minutes from the November 21st meeting were approved.
- The AgWG agreed to continue holding monthly meetings on the 3rd Thursday of each month.
- Ed Kee thanked the AgWG for their continued hard work and dedication during the past year.

10:10 **Update on Phase 6 Nutrient Management BMP Panel Final Report**

M. Dubin

Mark Dubin provided an update on the decision made by the WQGIT on November 28th in regards to the Phase 6 Nutrient Management BMP Expert Panel's final report. The revised recommendation that permits the use of book values in the case that book values are demonstrably more conservative than manure analysis testing.

- Jill Whitcomb: We've been working with EPA to achieve a common goal – we're slightly disappointed in where we are at this stage, so we're working toward that goal. At the WQGIT meeting, we discussed the possibility of PA working with EPA on what we would need to provide before 12/31 to see if we can submit our data before the calibration deadlines.
- Frank Coale: Since the panel report's being pushed further up the ladder in its entirety and unchanged, the panel decided that the actions in place now are purely policy actions and not scientific actions. So the panel would appreciate a motion from the group to conclude their work.
- Tim Sexton and Kelly Shenk motioned to sunset the work of the Phase 6 Nutrient Management panel.

DECISION: The AgWG reached consensus to officially close the work of the Phase 6 Nutrient Management Panel.

- Jason Keppler: Is there any guidance that EPA has given to PA that can be shared with the workgroup?
 - Dubin: The wording has gone back and forth, and I believe the language and recommendations are still draft. When it's finalized, I will make sure it's put in front of the AgWG.

10:15 **Turkey Characterization Pilot Project Draft Report**

J. Ogejo, T. Sexton

Dr. Jactone Ogejo, VT, and Tim Sexton, VADCR provided a presentation on the VT Turkey Characterization Pilot Project's draft report which has been released for Partnership review and comment. All comments were due to Mark Dubin and Lindsey Gordon by December 5th.

- Whitcomb: How is this being inputted into the model, and how does it affect the overall model calibration?
 - Dubin: This is in line with the poultry litter subcommittee work, so this information would replace national average values that are used in the Phase 6 Scenario Builder model. Moving forward, we would want to move into other states to expand this database and better represent the watershed as a whole.
- Kelly Shenk: For litter generation rates, there was variation that sounded like it was related to the way operations are managed – can you go into more detail on that?
 - Sexton: I think in-house management is a big player – there aren't total cleanouts every 18 months, and as a result some concentrations were higher but the volume was less. Talking to the two integrators, they pay for a total cleanout every 18 months but it's not mandated that it happens. So it's left up to the operator.
- Paul Bredwell: Thanks to Tim and the team for this work. The ASAB numbers are higher than what we've seen through this study; do we know if those numbers looked at different models?
 - Sexton: ASAB numbers come out of Arkansas.
 - Ken Staver: I think it may be more of an incorrect interpretation.
 - Ogejo: As excreted values, the ASAB values are based on feeding and amount that's being excreted. The numbers here are presented as-removed.

- Bredwell: As I recall the modelers are looking for an excreted number, but it doesn't seem like you have those here.
- Sexton: We specifically wanted to look at what was going on the ground, not necessarily what was excreted.
- Bredwell: Intuitively, I think if we looked at each model, we could have a better correlation. Are the modelers going to be okay with one number for the sake of the model?
 - Sexton: you see that lbs of litter generated and lbs of bird are separated, so they will be entered as a weighted average into the model based on production of hens versus toms. If we find more data and the trend changes, we can change that input to the model on a two-year rotation.
- Paul Bredwell and Frank Coale motioned to approve the report.

DECISION: The AgWG approved the Turkey Characterization Pilot Project report.

11:05 **Manure Incorporation/Injection Panel Draft Report** C. Dell

Curt Dell, USDA panel chair, presented the Phase 6 Manure Incorporation/Injection Panel's draft report and recommendations, which was released for Partnership review and comment on November 4th. All comments were due to Mark Dubin and Lindsey Gordon by December 5th.

- Frank Coale: Is your panel report being submitted to this workgroup with the P reduction efficiency number for high disturbance at 0%?
 - Dell: It's being put forward at 0%, but I thought the workgroup may want propose an amendment. I personally might put up some objection if someone suggested bigger than the 12% from NY.
- Matt Johnston: Did I understand NY correctly that the amendment would be to keep high disturbance incorporation at 0% for that HGMR but create a new BMP that states like NY could submit that is high disturbance with some other caveat?
 - Albrecht: Maybe a little simpler than that. In table 2, we have different reductions for N, but we could have two for P in the high disturbance incorporation piece where it's 0% if it's incorporated within 72 hours with a normal regiment of tillage in a given year.
 - Dell: We could also just change the definition.
- Kelly Shenk: Ideally, since the panel is entrenched in this I would prefer to have this last minute proposal be considered by the panel first to get their recommendations before us.
 - Albrecht: I'd only add that we saw this in October for the first time, made a case during the last AgWG meeting, and put it in writing during the comment period. My sense is that this is a subtle piece but has a significant enough acreage in NY that it's worthwhile to have a conversation here and probably wasn't picked up by anyone south of NY.
- Chris Brosch: I agree with Greg's suggestion, and I serve on the panel. It's worthwhile, and I know that the comments that came back to the panel came back on the order of 10 days ago. So we haven't had much time to look at this, and I'd just like to support it.
- Jill Whitcomb: I'm in favor of adding the 12%. As a dairy farmer we have to be concerned about when we apply and inject. Was odor considered in the panel's work?
 - Dell: There's definite odor reductions with injection, and if you incorporate quickly.
- Jeremy Hanson: The reports end as a partnership document. Given the timeline, I'd suggest that this group can add the 12% if they want, but make sure it's distinguished as a Partnership addition. If the panel comes back and says they're okay with it, then you can remove that distinction.

- Bill Angstadt: Once we approve this report, I want to remind everyone that there's some real questions about how this ammonia emission reduction fits into the overall model. The modeling team met this week, and I'm concerned that they're projecting to 2025 substantial increases of ammonia emissions.
- Lindsay Thompson: Could we propose an amendment that would be an addendum to the panel report?
- Frank Coale and Tim Sexton motioned to accept the report as-written and consider any modifications to the language after this approval.
 - Ken Staver voiced dissent for this motion.
 - Staver: My main concern is this interaction between the tillage and manure panels. You can't dissociate tillage benefits from manure/incorporation benefits, so I would need to see the interrelationship between those two panels before I move forward.
- Chris Brosch: Ken's point is well-made. I tend to agree; I had similar concerns on implementation of the NMP in the model. The motions that captured the acceptance of that report – there was a failsafe that the results of the model that incorporate that reports decisions need to be evaluated to make sure they match. I think we could build a failsafe into this motion – if the chance exists that Ken's concerns to manifest in the model, that the opportunity exists to make changes at that point.
- Wade Thomason: I agree that we need to spend some time looking at this, but I want to make sure that we ultimately follow where the data lead us, and not where our logical thought progressions lead us.
- Tim Sexton: The two reports should be considered independently and then we can let the AMS figure out how they interact and deal with that issue when/if it arises.
 - Matt Johnston: I have a technical appendix for this report, but one question deals with this – what do we do with tillage and manure incorporation? In Phase 5, we applied tillage and it created a new land use, but we can't do that in phase 6. So we have no mechanism in the model to be sure these don't overlap – it has to be faith in state reporting. I just want to understand from both chairs if there is a potential that these can be double counted.
- Coale: Each panel reports needs to independently and be evaluated separately. When they are all combined, there has to be a failsafe check beyond the scope of this group or the panels to make sure that nothing fatal happens with the data. So I think it should be addressed later on, and I don't think we should force the panel reports to agree at this stage of the process.
- Chris Brosch: I want to reiterate my motion, and to consider that in addition to if that motion were to succeed that we evaluate the 12% proposal and interjecting the AgWG's interest in understanding the interaction of this BMP with other BMPs in the model to make sure that they align with logic, reality, and science.
 - Jill Whitcomb seconded.
 - Motion on the table: to approve the panel report as-presented, with the understanding that the AgWG requests to re-evaluate the interaction of this BMP with other BMPs after Phase 6 model runs, and that the AgWG is still open to considering additional addendum proposals after the approval as-written.
 - Ken Staver abstained from voting.
- Jason Keppler motioned to charge the expert panel to re-evaluate the proposal put forward from NY, and use best professional judgement to determine a resolution.
 - Tim Sexton seconded.
 - Greg Albrecht proposed a bifurcated approach.

- James Davis-Martin: Regarding timing of this, I think the deadline of the 19th and the WQGIT consideration of this panel report could move forward with the understanding that this additional work is still pending and may be used to amend the panel report. So we wouldn't need to the panel to resolve this issue right away.
- Dubin: The Modeling Team expects numbers by the end of the month, and the 19th is the last scheduled AgWG meeting, and it would behoove us for the panel to complete these recommendations by that time.
- Lindsay Thompson noted that this motion was the best course of action, and that it would be a dangerous precedent for a workgroup to express their own BPJ in a subject area.
- If the panel does not reach consensus to amend the value in the report, the value would remain as-written and approved by the AgWG.
- Motion approved. Paul Breadwell abstained.

DECISION: The AgWG and WTWG approved the Manure Incorporation/Injection panel report as-presented, with the understanding that the AgWG requests to re-evaluate the interaction of this BMP with other BMPs after Phase 6 model runs, and that the AgWG is still open to considering additional addendum proposals after the approval as-written.

DECISION: The AgWG approved a motion to charge the Manure Incorporation/Injection expert panel to re-evaluate the proposal put forward by NY relating to immediate high disturbance incorporation for P, and to use best available science and professional judgement to determine a resolution.

- Matt Johnston presented Appendix A called to question whether the WTWG could approve this report.
 - Bill Angstadt: How do you tell what's stackable or not stackable when you're just looking at the county-wide acres versus just a specific field?
 - Johnston: In the end, it's a big BMP factor and so it's a lot of mathematical proportioning that takes place in the model.
 - Chris Brosch recommended additional explanation of how BMPs interact and stack on each other in Appendix A documentation.
- Motion on the table: for WTWG to approve report with changes to land use eligibility and explanations of how BMPs are stacked on acres.

DECISION: The WTWG approved the Manure Incorporation/Injection Panel's report and Appendix A pending revisions to land use eligibility for the practices and an explanation of how the BMPs are combined.

11:35 **Conservation Tillage Panel Draft Report**

W. Thomason

Wade Thomason, VT panel chair, presented the Phase 6 Conservation Tillage Panel's draft report and recommendations, which was released for Partnership review and comment on November 3rd. All comments were due to Mark Dubin and Lindsey Gordon by December 2nd.

- Jason Keppler: The category of low residue – strip and no till are included. Can you explain the difference between high residue management and a true no-till system?
 - Thomason: We're targeting a cropping system that would have 15-29% of the surface cover (crop rotation with corn silage, for example). It's a requirement for no more than 40% disturbance if you fall into that low residue cover.
- Johnston: I think I've heard both panel chairs suggest that low disturbance incorporation and conservation tillage low residue should not overlap. Is that correct?
 - Thomason and Dell replied that this was correct.
- Tim Sexton and Jason Keppler motioned to approve the report as-written.

- Matt Johnston presented Appendix A of the report.
 - Robin Pellicano suggested that the appendix for both reports be revised to reflect that the manure incorporation and tillage BMPs cannot be combined.

DECISION: The AgWG approved the Conservation Tillage Panel report as-written.

DECISION: The WTWG approved the Conservation Tillage Panel report Appendix A, as-written, with edits to be made on which BMPs can and cannot be combined.

12:40 **Animal Waste Management Systems Panel Update**

J. Hanson

Jeremy Hanson, VT Panel Coordinator, and Shawn Hawkins, UT, presented the Phase 6 Animal Waste Management Systems Panel's draft report and recommendations, which was released for abbreviated Partnership review and comment on December 5. All comments were due to Jeremy Hanson by December 12 COB.

- Whitcomb: Ch. 83 Act 38 has oversight of the State Conservation Commission – if you could clarify that in the report it would be appreciated.
- AgWG recommended to delete the section of the report relating to stormwater practices.
- AgWG agreed the panel should enhance text to better describe relative scale of production, and to generate tables.
- AgWG recommended that pictures that are not pertinent to the report should be deleted.
- Tim Sexton and Jill Whitcomb motioned to approve the report.

DECISION: The AgWG approved the Animal Waste Management Systems report.

- Matt Johnston presented Appendix A of the report.
 - Alana Hartman: Is there still a default if we don't specify an animal type?
 - Johnston: Yes – there are defaults in the NEIEN appendix. And if you just have animal units, I can develop a weighted average by watershed that will serve as the default.

DECISION: The WTWG approved the Animal Waste Management Systems report Appendix A.

01:40 **Pennsylvania Farm Conservation Practice Inventory Project**

M. Royer, S.

Dressing

Matt Royer, PSU, provided a presentation on the BMP verification methodology and findings of the completed Pennsylvania Farm Conservation Practice Inventory Project conducted across the Bay watershed in the Commonwealth. Steve Dressing with Tetra Tech presented a report on their independent evaluation of the project's statistical analysis and BMP verification methodology.

- Dana York: Will you go back and change the RI verification protocols to allow farmer-reported on those protocols?
 - Dubin: We'll see what the AgWG decisions are, and then we'll go back and look at potentially revising the BMP verification guidance that the AgWG approved several years ago.
- York: Did you look at the agents that did a statistical check to make sure they are checking against CBP definitions of different practices?
 - Royer: They were trained in existing protocols and definitions, so they were looking at practices not necessarily to NRCS practice code, but to RI standards. Our agents were also trained on visual assessments for dry storage.
- Mulkey: They produced an as-built design to get credit for wet-waste storage?

- Keppler: Aside from the wet-waste, the practices would be RI practices then?
- Lindsay Thompson: On cost-shared practices, I understand how you back those out for actual responses that you verified, but how do you extrapolate that out to the total population of survey responses?
 - Royer: We are only reporting acres that are non-cost shared, so in the survey we asked whether there were government cost-shared practices.
- Keppler: It remains unclear to me how PA intends to report this information and how EPA intends to verify the accuracy of the information.
 - Kee: We are here to determine whether their methodology was satisfactory, so your question may be reaching outside of our scope.
 - Johnston asked who's charge would it fall under, then?
- Whitcomb: The numbers are deemed to be accurate and reliable, so we intend to report whatever we can out of this survey into NEIEN.
- Tim Sexton noted that the AgWG had approved to do an evaluation of the report, but didn't approve the data itself.
- Beth McGee: It sounds like the survey asked if practices were cost-shared. When verifiers went to the farm, did they somehow confirm that?
 - Royer: Verifying on the farm level we thought would be too burdensome.
- Mulkey: In the survey and field visit, I read that a producer had to show a written plan for NMP, but there was no review of records to check if they were abiding by application rates, etc. So was that done by the verification member on-site?
 - Royer: No – the methodology was to produce the plan, ensure that it had all the requisite elements of the plan, and then it was counted as having that plan.
 - Mulkey: Then I would challenge if that meets the definition of getting credit for nutrient management.
 - Tim Sexton: I would say no – just because there's a plan doesn't mean it's been implemented.
 - Mulkey: I would challenge the methodology there, then.
 - Whitcomb: Act 38 nutrient management plans do actually get verified by other members of staff. What the farm visits did, was to go out and see if they had any of the requisite plans required (manure or nutrient management, or 590 plan). We are backing out the non-verified acres in our final reporting to NEIEN.
 - Royer: Backing out those acres would leave around 300,000, but that's a ballpark number.
- Tim Sexton asked if the crediting was capturing both NRCS-standard and RI-standard practices, and that the default reporting should be RI-standard.
- Jeff Hill: That survey encompassed a lot of stuff, but they're not asking to report all of it.
 - Whitcomb: We also look at ag ENS plans, which would fall under soil and water quality conservation plan criteria.
- Motion on the table: Move that the AgWG approve this methodology for use in reporting and crediting verified practices in the model. Ag conservation practices that have been proven to be statistically defensible will be reported as RIs with their designated lifespans.
 - Chris Brosch: RI lifespans are included in terms of accepting the report.
 - Matt Monroe: We're talking about hard-structures here – what's the point of having to go back and check the hard-structure is still there?
 - Keppler: So if a practice is reported as an RI – there's a lifespan, correct?

- Tim Sexton noted that other states who wish to report data from a similar methodology should also need a separate evaluation report like the Tetra Tech report.
- Alisha Mulkey: Would this motion capture future RI practices?
- Keppler: I think a jurisdiction can present a RI practice to the AgWG at any time for inclusion in the manual, so I think that process could just continue.
- Angstadt: If we come back and ask for RIs for 590 NRCS nutrient management plans and reopen that whole issue.
- York: You're approving a verification methodology to be included in a state verification plan. EPA would then accept that, and require a statistical analysis. Other states could do the same thing.

DECISION: The AgWG approved the Pennsylvania Conservation Survey methodology for use in reporting and crediting verified practices in the model. Ag conservation practices that have been proven to be statistically defensible will be reported as RIs with the RI designated lifespans.

02:20 **PA Agricultural Remote Sensing Pilot Project for the Potomac River Basin** Ted Tesler, S. Dressing

Ted Tesler, PA DEP, and Tetra Tech representatives, presented on the recently completed remote sensing pilot project conducted in selected counties in the Potomac River Basin of Pennsylvania. The project employed a team of NRCS staff and contractors to identify and verify agricultural conservation practices that have been implemented on agricultural operations over a period of time using a series of remote sensing imagery. Practices identified by the project were cross-referenced with documented USDA practices implemented under federal financial incentive programs to avoid double counting. The NRCS project was partially financed through Chesapeake Bay Program Grant funds from the PA Department of Environmental Protection. Steve Dressing with Tetra Tech presented a report on their independent evaluation of the project's statistical analysis and BMP verification methodology.

- Tim Sexton: Why was the success rate for contour farming so low?
 - Denise Coleman, NRCS: When our field checkers went out, our analysts said that the contours weren't aligned perfectly. We found that our field collectors were very conservative in their reporting and judgements.
- Jason Keppler: You were not determining whether they actually met the standards for the practice?
 - Denise Coleman, NRCS: Correct – that was never the intent.
- Matt Johnston: If this is intended for reporting, one of the problems we've had is that a lot of practices get listed on one farm. So will you be able to say that you'll only report the diversions or contour orchards? Because 4 of those 6 are all a conservation plan practice, so we just want one of them if that makes sense.
 - Tesler: There may be some overlapping, and I'd be agreeable to moving toward a more uniform version for conservation plan reporting, but we're working with what we have.
- Keppler: On riparian forest buffers, were you looking at established buffers, or natural and established buffers?
 - Marcy Dunn, NRCS: The remote collectors had historical imagery, so they could estimate the year that it was implemented if that was the case.
- Matt Johnston: Is the plan to report all of the practices, or just what Tetra Tech have determined are better than others, statistically?
 - Tesler: The information presented here is better than the baseline data we have now, and we would report as much as possible.

- Mark Dubin: My suggestion would be for the group to look at methodology and the Tetra Tech evaluation to consider passing a motion that would address the methodology and what the group would feel comfortable with.
- Tim Sexton: How do we present double counting from the PSU survey and this project?
 - Tesler: If we use this, then we would only use this. It's an all or nothing situation, but it can even be split out by practice.
- Whitcomb: Would this approval allow us to use this methodology in the verification guidance document?
- McGee: The first slide said that it didn't satisfy all of the verification guidance document requirements, because there are some BMPs that you're not able to assess. So how can you move this forward as a verification approach when it doesn't meet all the criteria?
 - Dressing: We looked at specifically whether they compared them to NRCS-specs, and they said it wasn't their mission.
 - Coleman: We did reference the field office technical guide and the NCP handbook.
- Chris Brosch: Based on the CSI values, I don't think we have anything more than a proof of concept and would not recommend that we use this for reporting in Phase 6.
 - Denise Coleman strongly disagreed.
 - Kelly Shenk: Do you adjust the numbers in the NRI based on error rate?
- Frank Coale: I assume for NRI, then n number is much larger than 20. That's given me pause from the beginning. I would need a sample larger than 20 to feel more comfortable.
- Sexton: We agreed that the minimum number to be considered was 30 samples.
- Keppler: I think it's a great proof of concept, but unfortunately since I'm responsible for reporting a jurisdiction's data, we need a level of integrity with that data. How can a jurisdiction report this information if we don't know its level of verification?
- Frank Coale: Motion the AgWG approves of the PA NRCS remote sensing methodology as a proof of concept and recommends the AgWG define the minimum observation level and the acceptable levels of the metrics provided in the Tetra tech evaluation report (CSI, HR, FAR) for use in future reporting to the Bay Program. The AgWG also recommends this methodology align itself with a CBP verification protocol.
 - Chris Brosch seconded the motion.

DECISION: The AgWG approved of the PA NRCS remote sensing methodology as a proof of concept and tasks the AgWG with defining the minimum observation level and the acceptable levels of the metrics provided in the Tetra tech evaluation report (CSI, HR, FAR), as well as any other statistical metrics, for use in future reporting to the Bay Program. The AgWG also recommends this methodology align itself with a CBP verification protocol.

03:25 **Wrap-Up/Review of Action and Decision Items/Announcements** Workgroup Chairs, M. Dubin, L. Gordon
Lindsey will review the actions and decisions from the meeting.

03:30 **Adjourn**

Next meeting: Monday, December 19th 8:30 – 10:00 Conference Call

Participants

Ed Kee	DDA
Lindsay Thompson	DE-MD Agribusiness Assoc.

Mark Dubin	UMD
Lindsey Gordon	CRC
Chris Brosch	DDA
Clint Gill	DDA
Jason Keppler	MDA
Alisha Mulkey	MDA
Greg Sandi	MDE
Greg Albrecht	NYS
Jill Whitcomb	PA DEP
Kristen Wolf	PA DEP
Ted Tesler	PA DEP
Nicki Kasi	PA DEP
Matt Monroe	WV DEP
Alana Hartman	WV DEP
Tim Sexton	VA DCR
Bobby Long	VA DCR
Bill Keeling	VA DEQ
James Davis-Martin	VA DEQ
Marel King	CBC
Kelly Shenk	EPA
Jeff Sweeney	EPA
Ruth Izraeli	EPA
Bill Angstadt	Angstadt Consulting
Frank Coale	UMD
Ken Staver	UMD
Jeff Hill	Lancaster County Conservation District
Marilyn Hershey	Ar Joy Farms
Paul Bredwell	US Poultry and Egg Association
Tim Garcia	USDA
Dennis DeWeese	USDA
Curt Dell	USDA
Robin Pellicano	MDE
Elaine Hinrichs	CRC STAC
Jactone Ogejo	VT
Ron Ohrel	American Dairy Association Northeast
Jeremy Hanson	VT
Wade Thomason	VT
Emily Dekar	USC
Kelly O'Neill	CBF
Don Meals	Tetra Tech
Steve Dressing	Tetra Tech
Jon Harcum	Tetra Tech
Joe Montenegro	PA Farm Bureau