

Agricultural Drainage Management Systems Task Force

September 7, 2010; Doubletree Hotel Chicago Magnificent Mile

1:30 p.m. Call to Order with self introductions: Attendees are listed at the end of these notes. We were pleased to welcome Dr. Harold Reetz, new Executive Director of the Agricultural Drainage Management Coalition, attending his first meeting of the ADMS Task Force.

1:40 p.m. Presentation on Ohio River Basin Water Quality Trading Program: Ann Sorensen of American Farmland Trust and Jim Klang of Kieser & Associates presented an overview of the Ohio River Basin Water Quality Trading project. The hypothesis underlying the project is that one of the barriers to trading is that there are not enough buyers and sellers, and a regional market will help to solve this. The project is managed by the Electric Power Research Institute, with a vision that water quality trading will become an economically, socially, and ecologically viable approach to manage nutrients. Many details still need to be defined, including trading ratios, trading districts, baseline farmers need to achieve before being paid. The goal is that the first trade will take place in 2011, and fully functioning market will exist by 2014. The tool links with NRCS's Nutrient Trading Tool (<http://ntt.tarleton.edu/nttwebars/>), which is based on APEX. Questions were raised by Task Force members about potential to model drainage and its impacts on nitrate loss, which were not resolved.

2:30 p.m. NRCS Mississippi River Basin Initiative: Troy Daniell, Acting MRBI Coordinator, made a presentation on the Mississippi River Basin Initiative. This year, 58 CCPI projects were approved from 111 projects proposed. They will promote ACT (avoiding, controlling, and trapping) nutrients. No contracts contain drainage water management. Next steps include addressing lessons learned in FY 2010, promoting adaptive management strategies, and promoting systems that include drainage water management. Task Force members raised a number of questions about monitoring planned by NRCS to assess impacts of the Initiative. 33 contracts contain the new monitoring and evaluation conservation practice for edge-of-field monitoring.

3:30 p.m. EPA programs and activities related to MRBI: Tom Davenport discussed several issues, including the potential to monitor impacts of the MRBI, followed by some discussion about whether impacts could be shown with even three years of local monitoring. He suggested that we need to think about managing agricultural drains at the watershed level, which includes not only cropland drainage but drainage ditches as well. He mentioned the concept of channel protective volume, in which we would look at the performance of the drainage system in terms of magnitude and duration of excess shear stress to ensure channel stability. He also expressed a concern about efforts that promote converting the traditional corn and bean rotation to alternative crops without any thoughts of the existing drainage system, and encouraged caveats in regards to ensuring the appropriate drainage is available for whatever alternative crop is being promoted.

4:00 p.m. ASABE Engineering Practice Standard EP479: Norm Fausey led a discussion on the need for updating this standard, “Design, Installation and Operation of Water Table Management Systems for Subirrigation/Controlled Drainage in Humid Regions”. A question was raised about how ASABE standards are used. They are mainly used by private engineers to show that they are using accepted engineering practice. It was noted that NRCS has its own standards, construction specifications, and the Engineering Field Handbook, which takes care of its needs. There are also relevant ASTM standards, such as ASTM 449 for Drainage pipes, which is highly scrutinized every 5 years. All manufacturers have installation guides. PPI has a standard. The role of the ADMS Task Force may be to encourage the ASABE committee to move the standard forward. We could send a letter encouraging this, and copy to ASABE national office.

4:30 p.m. Update from Agricultural Drainage Management Coalition: Charlie Shafer thanked the organizers, and introduced Dr. Harold Reetz, the new ADMC Executive Director. The ADMC is working on several initiatives, including talking with TFI about the 590, and encouraging FSA to allow CRP to be opened up the last year for drainage installation.

4:45 p.m. Discussion regarding Task Force and Coalition input for the ARS NP211 Workshop: Norm Fausey presented some input from members, and led a discussion of input to the ARS meeting the next day. The following suggestions were made:

- Integrated water management (across scales)
- More attention to surface component of the system. Surface water management in subsurface drained land. Include wetlands.
- Keep water close to where it fell
- Quantify and measure volume and velocity. Give management recommendations. (It was noted that NRCS often can’t give recommendations because of risk, but tries to give information, such as “if you do this, this is likely.”)
- Scientists should do a literature review and come up with state recommendations for drainage water management.

The meeting adjourned at 6 pm.

Attendance

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