

Meeting Notes
Annual Meeting for the
Conservation Drainage Network
and

NCERA-217: Drainage Design and Management Practices to Improve Water Quality
Tidewater Inn, Easton MD, April 4 – 6, 2023

The [Conservation Drainage Network](#) held its 4th annual meeting in Easton MD on April 4-6. The meeting brought together drainage and conservation experts and practitioners in industry, state and federal agencies, universities, and private organizations. More than 80 people gathered in person and another 40 joined online, with participation from 14 states, three Canadian provinces and two European countries. The theme was “Advancing Implementation”, and the meeting focused on topics related to raising awareness, policy opportunities, and social science research that could address motivation barriers to adoption, while also including the latest research on all aspects of conservation drainage.



The 2023 Conservation Drainage Network Meeting at the Tidewater Inn in Easton MD. Photo: Matt Helmers

Tuesday April 4

Alex Echols kicked off the meeting challenging the audience on substantially advancing implementation of conservation drainage. Not just how to better do conservation drainage, but how to get more of it done.

Opening speakers were Laura Christianson, who discussed opportunities for conservation in the Mississippi Basin nutrient reduction strategies and similarities to the Chesapeake Bay process, and Mike Castellano who presented research on greenhouse gas and other impacts. Tim Rosen of ShoreRivers provided an overview of drainage history and conservation in the Delmarva Peninsula, and a panel of farmers (Kyle Hutchison, Trey Hill, Chad Klotzbach and Jason Keppler) discussed challenges they face and opportunities they see.

USDA Under Secretary Robert Bonnie shared thoughts on how USDA is addressing implementation opportunities. The lead Congressional staff working on the Farm Bill in the U.S. House of Representatives and the U.S. Senate joined the meeting by video. Callie Eideberg, Senior Staff Lead of the US Senate Agriculture, Nutrition and Forestry Committee, and Josh Maxwell, Policy Director, US House Agriculture Committee, discussed the Farm Bill process and opportunities related to conservation. AgriPulse's summary of the presentations is in Appendix 1.

The afternoon field trip featured two stops. Enroute to the first stop Alex Echols from the Campbell Foundation and Kathy Boomer from FFAR provided an overview of the geologic history of the Delmarva peninsula and past and current agricultural practices. At the first stop the group looked at a recent subsurface drain installation with controlled outlets, including an automated control structure. Ann Baldwin, Delaware NRCS State Engineer and Alan Gillespie, NRCS National Water Management Engineer discussed NRCS funding opportunities; Tim Rosen, ShoreRivers discussed drainage system consideration at the site, Andy Craig and Ben Reinhart from Ecosystem Services Exchange discussed design and control structures, and Chris Breeding who farms the land discussed reasons, benefits and impacts of the installation. The second stop featured a discussion of dense vs. surface intake designs and a treatment wetland. Kyle Hutchinson who owns and farms the land discussed the practices including the in-field irrigation system, John Shepard, Manager at Caroline Soil Conservation District discussed local partnerships to get conservation on the ground and funding opportunities, and Dr. Gurpal Toor from University of Maryland discussed the water quality research taking place at the site.

Upon return to the Tidewater Inn, the Campbell Foundation hosted an evening reception.



Ben Reinhart and Andy Craig of Ecosystem Services Exchange explain drainage water management using an automated drainage water control structure



The group visits a research site with treatment wetland, grassed waterway, and riser vs. dense pattern

(Photos on this page by Jane Frankenberger)

Wednesday April 5

The morning started with the NCERA-217 Annual Business Meeting led by chair Jeppe Kjaersgaard. Abby Tomasek is moving into as chair after the meeting and Jane Frankenberger was elected new vice chair. A subcommittee was formed to led writing the NCERA-217 5-yr renewal proposal. See meeting minutes for further details.

A mini-symposium reviewing programs and science to advance conservation in agriculture started the morning, including excellent presentations on behavioral insights and innovative programs including stacking ecosystem service payments and rethinking extension programming. Robyn Wilson presented research on motivational barriers to conservation implementation. The session ended with a panel of all the speakers, in person and online, discussing barriers and opportunities to increase adoption. The follow-up panel discussion included, in addition the presenters, Rita Weaver from MN Board of Water and Soil Resources and Clare Lindahl from the Soil and Water Conservation Society.



Clare Lindahl, Executive Director of the Soil and Water Conservation Society speaks as part of the panel on barriers and opportunities to increase adoption of conservation drainage technologies.

(Photo: Chad Klotzbach)

Dennis Today, Director of the USDA Midwest Climate Hub spoke on climate change and water. Of note are changes in timing and intensity of rainfall, including a trend towards a bimodal annual precipitation in the US Midwest. Tom Wall of US EPA provided an update of numerous EPA programs related to conservation and climate issues and Ann Baldwin, Delaware NRCS State Engineer discussed approached for scaling up adoption of conservation practices.

USDA NRCS Deputy Chief for Programs Karen Woodrich spoke about the importance of partnerships and of conservation systems which may include conservation drainage. She told the group that explaining that although NRCS has not specifically identified drainage water management as a practice eligible for Inflation Reduction Act (IRA) funding, edge-of-field practices may be eligible if they are directly related to an eligible climate-related practice.



USDA NRCS Deputy Chief for Programs Karen Woodrich spoke at the outdoor luncheon about opportunities for partnerships and for conservation drainage.,

(Photo: Keegan Kult)

Afternoon presentations described the impressive research that is taking place around the Midwest, from Indiana (Jane Frankenberger and Eileen Kladviko), Ohio (Vinayak Shedakar), Michigan (Ehsan Ghane), Missouri (Kelly Nelson), Iowa (Matt Helmers), Minnesota (Lindsay Pease), North Dakota (Xinhua Jia and Emily Nelson), South Dakota (John McMaine), and USDA-ARS (Gary Feyereisen).

Eight poster presenters introduced their posters, which were presented at a reception and poster session at the Eastern Shore Conservation Center featuring fresh oysters. Kathy Boomer updated the group on progress towards the SWITCHES Drainage Consortium and brief presentations were provided by the Oyster Restoration Partnership and by the Eastern Shore Land Trust



Attendees discussed posters presented at the Eastern Shore Conservation Center.

(Photo: Keegan Kult)



Oysters were provided by the Oyster Restoration Partnership, which is restoring the Bay's native oyster population. Expert oyster shucking by Alex Echols of the Keith Campbell Foundation.

(Photo: Jane Frankenberger)

The meeting ended with a half day on **Thursday April 6**. The morning started with 5-minute “rapid session” presentations, followed by research presentations by Elizabeth Schwab and Nathan Stoltzfus of The Ohio State University, Zach Easton from Virginia Tech and Chris Hay of Iowa Soybean Association.

Jim Dobrowolski of USDA NIFA provided an updated of water-related programming at USDA NIFA.

The program ended with discussion by a closing panel reflecting on the meeting and the call to action., moderated by Alex Echols of the Keith Campbell Foundation.



Keegan Kult, Executive Director of the Agricultural Drainage Management Coalition and primary asks a question of the closing panel (Charlie Schafer, Tim Rosen, Chris Hay, Jane Frankenberger)

(Photo: Clare Lindahl)

Meeting Committee Chair Jeppe Kjaersgaard announced that the **2024 CDN meeting will be held in Ohio, tentatively scheduled for April 3-5, 2024**. Outgoing CDN Chair Lindsay Pease passed a special Chair’s award created by Kelly Nelson to Jeppe who took over as CDN Chair.

Several Committees of the Conservation Drainage Network met following the meeting. All attendees were invited to participate, and are invited to contact the Committee Chairs if interested (<https://conservationdrainage.net/committees/>)

Thanks to all the presenters, moderators, and participants who shared their expertise and ideas in lively discussions throughout the meeting.

Special thanks to the **Annual Meeting Planning Committee**, led by Chair Jeppe Kjaersgaard, Minnesota Department of Agriculture and Keegan Kult, Ag Drainage Management Coalition, who provided meeting coordination and logistics, and Committee members Lindsay Pease, University of Minnesota; Alex Echols, The Keith Campbell Foundation for the Environment; Tim Rosen, ShoreRivers; Kathy Boomer, Foundation for Food and Agricultural Research; and Ex officio members: Kelly Nelson, University of Missouri and Morgan Davis, University of Missouri.

Summary written by Jane Frankenberger, Purdue University with input from Jeppe Kjaersgaard, Minnesota Department of Agriculture

April 2023

Appendix 1. AgriPulse's summary of Callie Eideberg and Josh Maxwell's presentations

Congressional staff about to start writing farm bill

Senate Agriculture Committee staff are going through requests from 98 senators detailing what they want to see in the farm bill as the committee works to get a bill ready this year.

Callie Eideberg, senior professional staff on the committee, told the annual meeting of the Conservation Drainage Network being held in Easton, Md., that staff is "trying to figure out what we can do to tackle" the requests and issues identified by the senators, and "very quickly after that, we as staff will start writing the bill."

"We have a lot of internal deadlines that we need to meet this summer so that we are ready with a bill by September 30," she said.

"We've got a little bit of a short runway" with the current bill due to expire Sept. 30, said Josh Maxwell, policy director for House Ag Committee Chairman Glenn "GT" Thompson, R-Pa. "So you won't see as many hearings as we had leading up to the 2018 farm bill process."