# ACES 2014 Tuesday Lunch Town Hall December 9, 2014 | 12:15pm-1:20pm | Grand Ballroom Salons D-E

## Title: Managing Agricultural Hydrology to Deploy Ecosystem Service Markets

## **Description:**

Throughout the world, our waterways face the challenge of over enrichment of nutrients. Whether it is hypoxia in the Gulf of Mexico, Chesapeake Bay, North Sea, East China Sea or harmful algal blooms in the Great Lakes or elsewhere, humans are having a significant impact on aquatic ecosystems. Municipal, industrial and agricultural sources are contributing to the decline of fresh and marine ecosystems. Collaboration on strategies to improve environmental quality offer opportunities to improve environmental performance, reduce cost and strengthen farm economic viability.

Managing how water and nutrients flow from agricultural lands can make a major contribution to improving water quality and potentially to reducing compliance costs for municipalities and industry. Most specifically, managing drainage water to improve agricultural productivity and reduce nutrient loss to surface waters has proven to be a highly effective and cost efficient tool.

To deploy drainage water management (DWM) on a large scale the Natrual Resoruces Conservation Servie has implemented a systems approach to nutrient management that includes incentives to manage drainage waters. In addition, the Service is interested in and actively engaged in helping advance ecosystem service markets to increase the adoption of DWM and other conservation practices.

This session will provide a broad overview of the potential of DWM to cost effectively and significantly reduce nitrogen and phosphorous loss to surface waters and how ecosystems markets can provide incentives to producers for broad adoption of these practices. Items to be covered include:

- 1. Introduction what DWM does and does not do
- 2. What DWM is and is not (for example it is not expanion of drainage)
- 3. What is DWM and its associated practices
- 4. What is the potential for DWM to significantly reduce N and P loss to surface waters
- 5. What are the economics of these reductions
- 6. Where it is most readily adopted/appropriate
- 7. What do farmers need to broaden adoption
- 8. What NRCS is doing to advance broad adoption of DWM
- 9. The potential for advancing ecosystem markets
- 10. The unique advantages of DWM to adoption by ecoystem markets
- 11. What do ecosystem service buyers/sellers need to engage in commerce

### Audience and Leading Objectives:

This session will introduce and provide the audience to an understanding of the potential for DWM to significantly reduce nitrogen and phosphorous movement from agricultural lands, the parts of the country where these practices can be most broadly applied and the simplicity of validation of performance of DWM outcomes.

- Scientists interested in innovative strategies to reduce nutrient loading to aquatic systems
- Municipalities and industry interested in lower compliance costs
- Government officials responsible for environmental quality or habitat management
- NGO's interested in cost effective strategies to improve water quality on the watershed scale
- Entrepreneurs interested in advancing market solutions to key societal problems.

#### Speaker:

Jason Weller Chief, Natural Resources Conservation Service U.S. Department of Agriculture

## Organizer:

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