Trading and Offsets Workgroup

Call Summary
Wednesday, September 20, 2017
11:00 AM to 12 Noon
Calendar page -
https://www.chesapeakebay.net/what/event/trading_and_offsets_workgroup_conference_call_september_2017

Summary of Actions and Decisions:

ACTION: Joanne will keep the Trading and Offsets Workgroup up to date with progress on the Delmarva Energy Beet Phosphorus Project, and Joanne will work offline with interested parties to further characterize soil phosphorus removal by energy beets in order to investigate their potential as a possible offset practice.

Welcome, Introduction and Announcements -- *David Foster, Chair*

Verify participants – *Michelle Williams (CRC)*

Presentation: Energy Beet Phosphorous Project in Delmarva/Eastern Shore, MD

by Joanne M. Ivancic, Executive Director, Advanced Biofuels USA

Discussion:

- Pat Gleason: How does this table relate to the nutrients that beets can take out of production?
    - Joanne Ivancic: This table represents the cost of equivalent nutrient removal for energy beets and WWTPs.
    - Pat Gleason asked about the annual payment per acre calculation:
        - Ivancic: That number is the amount you save for a given amount of N removal for beet production vs an average WWTP. Does it make sense to do this kind of comparison? We could not find any other cost analyses of other crop based NM practices for nutrient reduction credits.
        - Gleason: WWTPs typically can't remove their whole required load, so they go on the market and buy credits to make up the difference. A possibility there might be that a WWTP might put some energy beets into production as a possible offset.
    - Mark Hoffman: I can send out to the group what numbers WWTPs are looking at. The VA program you mentioned is a little different, and different sources of loads have different standards and markets.
- Allan Brockenbrough: I don't think that new development would consider this as a permanent offset. I'd be interested to know what your P and N uptake is for 116 acres of the optimal ES beets. Our next question would be how the field uptake relates to pounds of nutrients entering the tributaries and rivers.
    - Ivancic: We will be meeting with the DE/MD/VA office on next steps, and your suggestion is one we will look at. We will also have to find funding to do that modeling analysis. That would include soil testing, etc.
    - Brockenbrough: That science is difficult to determine what a practice means in terms of

ultimate reductions in loadings to the Bay. That's something we are struggling with in the Bay Model and the USDA nutrient trading tools.
    - Ivancic: I'd like to follow up with interested participants from this call to work on this problem. We don't do these analyses in house, but we ID needs like this, work on possible solutions, and work to get funding for the projects.
    - Bob Rose: CBP has some free tools online to look at cover crops and the calculations for that in the Bay Model. MD also has some resources available to do the modeling analysis.
    - Gleason: Since USDA is involved with this, their office of environmental markets might be a suitable place to look for these resources.
- Bob Rose: CAST will give broad answers other than soil, and handles soil P with some uncertainty. It does describe efficiencies, and you might be able to use a cover crop BMP as a proxy to run a scenario.
- Brockenbrough: The benefits over corn ethanol seem well illustrated, and you may be able to get a USDA conservation operation program out of this in the short term to do some field quantification for legacy P removal on the field. In the long term, analysis to translate field removal to reduction in edge of stream loads.
- Joanne Ivancic asked who might be a good contact to follow up with from the call.
    - Bob Rose: I'd recommend Mindy Selman, who has worked with some of these models. I like Allan's recommendation about the USDA. I'd also recommend you look for someone who can look into using the CAST tools to do some preliminary analysis.
- Brockenbrough: Have you measured P levels in the soil at the field?
    - Ivancic: That's what's in the presentation. The researchers measured the P in the beet, but did not do soil tests to quantify the P removed from the soil.
    - Brockenbrough: There is a group on the Eastern Shore that has worked on cover crops and repeated use effects on nitrate in soils and nitrate uptake.
- Ivancic: That's a good suggestion, is to use cover crops as an existing model to build this off of. Beets aren't cover crops since they require a whole growing season, but that's how many people are conceptualizing this.
- Allan Brockenbrough asked what the nitrogen needs for the crops.
    - Ivancic: These strains were developed to use less N than regular beets, but I don't have exact N needs per acre.
- Ivancic: Energy Beets are also being adopted in FL and TX as succession crops for citrus groves that are affected by citrus greening disease.
- Pat Gleason offered to send Joanne the contact info of someone at the Dept. of Navy and
- Ivancic: Michelle, I will send you the link to our project page to distribute to the workgroup, with contact information for recommendations, suggestions, and questions.
- Pat Gleason asked for periodic updates and invited Joanne back in the future to give updates.

ACTION: Joanne will keep the Trading and Offsets Workgroup up to date with progress on the Delmarva Energy Beet Phosphorus Project, and Joanne will work offline with interested parties to further characterize soil phosphorus removal by energy beets in order to investigate their potential as a possible offset practice.

12:00 Noon **Adjourned**

Next Conference Call

October 18, 2017

Participants:

Pat Gleason (EPA R3), Coordinator
Michelle Williams (CRC), Staffer
Kelly Gable, EPA R3
Mark Hoffman, CBC
Virginia Kibler, EPA
Allan Brockenbrough, VADEQ
Olivia Devereux, Devereux Consulting
Mary Clemmenson, Chesapeake Legal Alliance
Joanne Ivancic, Advanced Biofuels USA
Chris Pupke, Biophilia Foundation