Aggregators: Examples and Opportunities

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Presentation Objectives

- What is an Aggregator
- Aggregator Example
- Aspects of Trading Policy
  Important to Aggregators
- Aggregator Opportunities
What is an Aggregator?

Definition: An individual or entity that can collect and compile credits from individual agricultural non-point sources.
Aggregators and Eco-Service Markets

Aggregators play a vital role in multiple ecosystem service markets:

- Carbon Markets
  - AgraGate, Climate Credit Corporation
  - National Farmers Union
- Water Quality Trading
  - Red Barn Trading
- Wetland Mitigation Banking
  - EBX
A variety of entities fill the aggregator role in Water Quality Trading programs around the U.S. and Canada

- Watershed/Flood Districts
- Soil and Water Conservation Districts
- Private-for-profit companies
- Community based watershed organizations
Pennsylvania WQT Program Overview

- Pennsylvania DEP must certify all credits
- Aggregator such as a CCA/crop consultant contracts with farmers to implement BMPs
- Aggregator submits credits to DEP for certification
- Once certified, credits can be sold to credit buyers
- Aggregator must follow-up with verification of BMPs
- Examples: County Conservation Districts, Private Aggregators, Non-Profit/NGOs, WWTPs
Credit Proposal Process

**Implementation**
- Producer and crop consultant complete PNR application (includes crop-specific data)
  - Sign PNR contract with producer and crop consultant
  - Crop consultant verifies check strip is to required specs and “over sees” fertilization practice

**Proposal/Certification**
- Calculate reductions & nutrient credits
  - Complete credit proposal for PNR BMP
  - Farmer signs off on credits
  - Submit credit proposal to DEP for review
  - Credit proposal to DEP for review by Review Team
  - If approved: Bulletin Notice is completed/public noticed
  - Approval letter sent to credit generator

**Verification**
- Verification Plan:
  - Program Oversight
  - Consultant Site Visit
  - Farmer Affidavit
  - Check Strip Info
- Verification documents sent to DEP; credits registered (and given registry number)
- Registry number entered in Bulletin and sent to buyer (when credits are sold) for DMR
Pennsylvania WQT Program Tools

### 4. Nitrogen Application

**Application #1 (Use if Needed)**
- a. Nitrogen applied from commercial fertilizer:
  - b. Total Available Nitrogen - Application #1:
    - Current: 100 lbs/ac
    - Planned: 73 lbs/ac

**Application #2 (Use if Needed)**
- a. Time of Year
- b. Manure type:
  - c. Do you have a recent manure analysis test?
    - If so, nitrogen concentration in manure:
  - d. Manure application rate:
  - e. Days until incorporation:
  - f. Total Applied Nitrogen - Application #2:
  - g. Total Available Nitrogen - Application #2:
    - Current: 125.50 lbs/ac
    - Planned: 50.20 lbs/ac

### 8. Credit Calculation

Nitrogen Reductions to Edge of Watershed Segment:
- Delivery Ratio:
  - Current: 0.89
- Nitrogen Reductions to Chesapeake Bay:
  - Credits Retired to Meet the Threshold:
    - Total Credits Generated:
      - Credits sent to DEP Reserve:
        - Total Credits Available to Trade:
          - Current: 169.88 lbs/yr
          - Planned: 151 lbs/yr
          - Total Credits Available to Trade: 136 Credits/Year

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1. The Delivery Ratio compensates for the natural attenuation, or loss, of nutrients and sediments as they travel in water. The Delivery Ratio is also known as the Delivery Factor.
2. According to the PA DEP Final Trading Policy, 10% of all credits generated will be placed in the DEP Credit Reserve. The DEP Credit Reserve contains credits set aside by the Department to address nutrient and sediment reduction failures, uncertainty, and to provide liquidity in the market.
Aggregators and General Trading Policy

- Trading may take place between any combination of eligible parties -- point sources, farmers, landowners, NGO’s or third parties (e.g. aggregators).
- Aggregators must be aware of three important principles in many WQT programs:
  - Trading Mechanisms
  - Liability
  - Accountability
Role of Aggregator

- Understand policies relating to aggregators
- Understand basic market factors
- Undertake baseline analysis on market and technical viability (including baseline calculations)
- Complete the sales transaction
- Enter into trading contracts
- Fund and manage the Project (including landowner payments)
- Assume and manage risk
- Manage diverse portfolio of credits (annual, structural, multiple farms)
- Insure the projects (self or otherwise)
- Integrate with other environmental markets and programs
Basic Market Factors

- Regulatory Drivers
- Eligibility of Buyers and Sellers
- Baseline requirements before trade
- Sale period requirements
- Banking Allowed
- Currency
- Service Area
- Certification process of NPS credits
- Liability for success
- Trading Ratios (Uncertainty, Delivery and/or Retirement)
- Options other than trade
- Credit release schedule
- Verification process
- Credit generation
- Pricing
- Registry?
Baseline Analysis of Markets & Technical Feasibility

- Demand market analysis

- Preliminary analysis of technical suitability, including baseline and BMP analysis

- Comparative analysis of credits with other BMP credits in the marketplace
Trading Contracts

• Approval by resource agencies?
• Payment schedule
• Duration of trade?
• Price?
• Insurance for credit deficits?
• Financial assurances for work performance?
• Liability transfer
• Monitoring and maintenance
• Adaptive management?
• Deed restrictions on land?
• Enforcement provisions?
Assume & Manage Risk

Assume risk obligations of projects:

- Construction risk
- Performance risk
- Financial risk
- Market risk
- Regulatory risk
- Portfolio risk
Manage Overall Portfolio

- Contract duration with PS

- This requires a blend of credits, both annual and long-term structural credits

- Diversification of multiple practices and farms helps with delivery risk
Aggregator Opportunities

Does an interested entity alone or in partnership have the ability to do the following:

- Provide technical expertise to help farmers implement BMPs
- Have the trust/respect of farmers
- Aggregate enough credits to meet buyer needs and self-insurance needs
- Verify credits on an annual basis
- Negotiate sales agreements with credit generators and credit buyers
Aggregator Opportunities

What entities may fit the bill?

• Crop consultants/CCAs
• SWCDs
• Co-ops/Ag-chem retailers
• Lenders/Farm Credit Services
• Watershed organizations
• NGOs/ private, non-profit organizations
• You tell me! You will have your chance!!