

# Water Quality Credit Trading: Educational Opportunities and Roles for Extension

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# Outline

- The Opportunity
- Challenges
  - Practical Suggestions for Extension Educators
- Roles for Extension
  - Strive for balance, not bias
  - Possible specific roles

# The Opportunity

- Audiences are interested
  - “teachable moment”
- Open up thinking about policy and technical options
  - Market-based approaches raise questions about alternative ways (means) to get to an outcome (end or performance), such as water quality improvement at lower cost
- Specific educational needs

# Examples of Educational Needs

- What trading is and how it could work
- Key variables affecting market outcomes
  - Availability of buyers & sellers
  - Transaction costs
- Recognizing similarities and differences across environmental media
- Complexity of environmental credit trading

## Examples of Educational Needs (continued)

- Helping sort out the most important issues and questions
  - Existence of a effective loading cap
  - Property rights issues - Trading does not eliminate hard choices about:
    - Who has the right to use the environment?
    - Who pays for clean-up?
- What is Success?
- What's working and what's not?

# Challenges for Extension Educators

- Decision-makers looking for a “silver bullet” answer to a long-standing problem
- Over-promotion before the application is known to deliver in the water quality, especially the non-point source, context
- Cultural and ideological issues → controversy
  - Generally market solutions are liked in the US
  - But some are reluctant to apply market ideas to environmental issues

# Challenges for Extension Educators (continued)

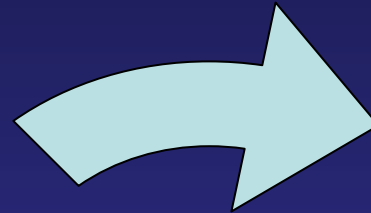
- General under-appreciation of what it takes for markets to work
  - In particular the challenges in applications to non-marketed goods like water quality
- Extensive confusion & miscommunication
  - Selective perception of trading and its benefits and/or costs
  - Historical context of environmental trading
  - Inconsistent and confusing terminology

# Challenges for Extension Educators (continued)

- Providing education and assistance when the “train has already left the station”
  - The issue is already at the choice or implementation stage in the public discussion and decision process
  - Inertia and political factors

# Public Issues Cycle

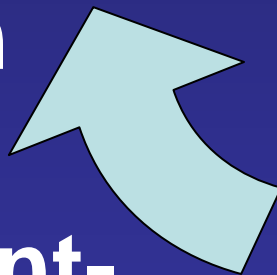
**Awareness**



Evaluation

Commitment

**Action  
and  
Implement-  
ation**



Choice



**Discovery  
and  
Analysis**

# Practical Suggestions for Extension

- **Timing. Opportunities are affected by where the debate about trading is at in your state or area.**
- Improving communication and reducing confusion
- Extension's Role

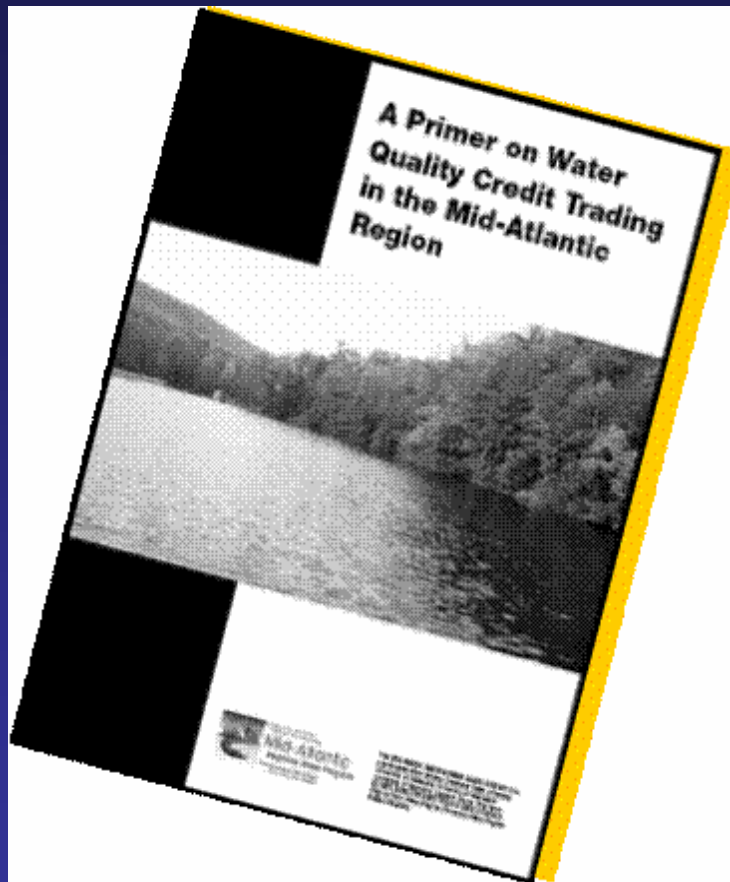
# Practical Suggestions for Extension

- Timing. Opportunities are affected by where the debate about trading is at in your state or area.
  - Diverse educational needs. Recognize the great differences in audiences' perspectives, knowledge and views about the topic and proposed or existing trading programs
- Improving communication and reducing confusion
- Extension's Role

# Practical Suggestions for Extension

- Timing. Opportunities are affected by where the debate about trading is at in your state or area.
  - Diverse educational needs.
- **Improving communication and reducing confusion**
  - **Define terminology**
  - **Identifying key elements**
  - **Identifying common barriers**
- Extension's Role

# Ways to Improve Communication & Reduce Confusion About WQ Trading



## Topics:

- Why the interest now?
- How does trading work?
- Components of a trading program
- Challenges
- Emerging programs
- Resources



<http://agenvpolicy.aers.psu.edu>



# Practical Suggestions for Extension

- Timing. Opportunities are affected by where the debate about trading is at in your state or area.
  - Diverse educational needs.
- Improving communication and reducing confusion
  - Define terminology
  - Identifying key elements
  - Identifying common barriers
- **Extension's Role**

# Role for Extension:

- Public Issues Education Methods Emphasize Non-Advocacy
  - “Alternatives → Consequences” approach (Richard Barrows – University of Wisconsin)
  - Objectivity: “Strive for balance, reduce bias.” (Alan Hahn – Cornell University)

Resources in the *Journal of Extension*: <http://www.joe.org>

- Barrows, R. “Taking a Stand: Extension and Public Policy Issues,” 1984.
- Hahn, A. “An Issues-Oriented Approach to Public Policy Education,” 1994.

# Extension Roles: Some Specifics

- Putting trading in context
- Explaining what is known and not known
  - Sharing lessons learned
- Identifying impacts and their distribution
  - Who wins/loses from proposals to encourage trading?
  - Comparing a program's total costs to benefits
- Help the affected parties and others participate in public decisions
- Help decision-makers define success
- Brokering role among agencies, NGOs and researchers

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