Presentation – Water Quality Trading
Dustin Miller, Legal Counsel, Iowa League of Cities

It is estimated in the IA Nutrient Reduction Strategy (INRS) that the cost of adding nutrient removal technology for point sources; municipal wastewater facilities, business and industry at $1.5 billion. The role of cities is especially unique in that they are regulated through permitting for waste water and storm water, but they are also users of drinking water.

An intern with the Iowa League of Cities surveyed nutrient trading options used in other states. What he found was that no two programs were alike. Some of the hurdles/questions yet to be accomplished or answered include:

- Discussion as to what is a baseline without a numeric criteria
- Who manages, verifies, and enforces compliance requirements
- Who trades
- What is traded – some states are trading heat reduction goals not nutrients
- Can credits be banked for future costs
- Trading has to be more than one to one
- How do you place a value on a practice without reducing income or income value to the producer
- Should implementation of practices be cost shared or reimbursed at 100%
- How do you monetize the reduction
- Can this be a sponsored project
- Should we use a “One Water” approach

In some cases WQ trading has been managed through Soil and Water Conservation Districts. Others have used private group, whereby the city buys the easement and then NGOs or other non-profit groups enhance the land within the easement area.

Quick finding of the study:

- 10 programs actively trading - 3 are point source to non-point source
- 2 programs are multi-state, 6 statewide, and encompass 18 watersheds
- The cost of credits range from $1.48 to $10 for active trading per pound – per year reduction
- 11 had baselines and 2 had minimum baselines

What next: The Iowa Flood Center, funded for one year through the Iowa Nutrient Research Center (INRC), is evaluating nutrient trading options in Iowa. The cities of Dubuque, Charles City, and Storm Lake are interested in pursuing some type of nutrient trading.
With a full agenda written updates were provided and distributed to WPAC members:

**Iowa Department of Agriculture and Land Stewardship (IDALS) staff**

- Activities of the Field Services Bureau, Mines and Minerals, Coal Regulatory Program, and Minerals Program.
- An extensive list of Watershed Projects (320) from 2007 to the present. The list includes:
  - Program source of project funding
  - Project title
  - District where the project is located
  - Project start and end dates

**Iowa Department of Natural Resources (IDNR) staff**

- Non-point source Management Plan
- Section 319 Projects
- Total Maximum Daily Load (TMDL) Projects
- Unsewered Communities
- Urban Storm Water
- Watershed Management Authorities (WMA)
- Map – Compilation of Watershed Initiatives in Iowa – Appendix A

**John Lawrence, Iowa Nutrient Research Center and the IA Nutrient Reduction Strategy, Measures Subcommittee:**

- Quarterly reports on research and research projects can be found at any time on the INRC website: [http://www.nutrientstrategy.iastate.edu/](http://www.nutrientstrategy.iastate.edu/)
- Measures Committee Update
  - Analysis of available information
    - Farm Service Agency – crops and acres by county
    - Watershed Improvement Review Board – funded practices
    - Natural Resources Conservation Service (NRCS) – conservation practice enrollment by HUC 8 and HUC 12.
  - Conduct a survey to measure farmer:
    - Knowledge,
    - Attitude, and
    - Behavior in regard to the INRS
  - Then over time:
    - Identify barriers to and facilitators of behavior change that reduces nutrient loss
    - Measure change over time

Discussion on the updates primarily revolved around the Watershed Initiatives in Iowa map. It was recommended that point sources should be included. The group encouraged the departments to work together and develop a single centralized site with an interactive map where a person could rollover a watershed project site and access project detail. Information in the project detail may include such things as lead organization name and contact information, sources of funding, and baseline data, recommended conservation practice(s) with anticipated and actual benefits.
**Presentation – Field to Market**  
**Rod Snyder, President, Field to Market**

**Field to Market: The Alliance for Sustainable Agriculture** focuses on defining, measuring and advancing the sustainability of food, fiber and fuel production and responding to the challenge to corporate sustainability by consumers. Some of the large corporations actively engaged include Coca Cola, General Mills, Unilever, and Walmart. Field to Market defines sustainable agriculture as, “meeting the needs of the present while improving the ability of future generations to meet their own needs.”

Deliverables include a national indicators report which documents overall trends, grower Fieldprints using a Fieldprint calculator, that identifies individual opportunities for continuous improvement (in-field and edge of field types of data and analysis shared with individual growers), direct engagement in continuous improvement of supply chains. All data will be public data and models, collaboratively developed, and outcomes based. Environmental indicators will compare resource use/impact per unit of production to determine efficiency (Appendix B – sample results of resources per bushel of soybeans).

The program is expanding in 2014-2015 with a new headquarters and staff in Washington, DC that will oversee licensing of FTM assets and interface the Fieldprint calculator with existing farm management and recordkeeping programs to reduce duplicate data entry. FTM has identified three basic functions for the future:

- Benchmarking and data collection
- Identify opportunities for continuous improvement by leveraging existing tools, programs, and initiatives.
- Aggregating information and enabling supply chain sustainability claims.

FTM sees multiple benefits of the program to farmers, food and retail companies, agri-business, and conservation organizations. For more information on Farm to Market go to: [www.fieldtomarket.org](http://www.fieldtomarket.org)

**WPAC Annual Report**  
The third draft of the 2014 WPAC Annual Report was approved by consensus of WPAC members as presented. The report will be finalized and distributed as required by Iowa Code. It was suggested that WPAC host a meeting at the Capital to present the WPAC annual report to legislators instead of presenting to committees as they have in the past. (Note: A summary of WPAC recommendations will be in the front of the report.)

Copies of the Nutrient Trading and Farm to Market presentation slides have been sent to all parties on the WPAC distribution list.

Next Meeting: January 2015 – Time and Place to be determined
APPENDIX A

State-Funded Watershed Initiatives

APPENDIX B

Index of Per Bushel Resource Impacts to Produce Soybeans
(United States, Year 2000 = 1)

<table>
<thead>
<tr>
<th>Year</th>
<th>2000 *</th>
<th>Unit - per Bushel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>0.027</td>
<td>Planted Acres</td>
</tr>
<tr>
<td>Soil Erosion</td>
<td>0.134</td>
<td>Tons</td>
</tr>
<tr>
<td>Irrigation Water Applied</td>
<td>0.786</td>
<td>Acre Inches</td>
</tr>
<tr>
<td>Energy</td>
<td>44,840</td>
<td>Btu</td>
</tr>
<tr>
<td>Greenhouse Gases</td>
<td>8.2</td>
<td>Pounds CO₂e</td>
</tr>
</tbody>
</table>

* Five-year average 1996 - 2000

Note: Data are presented in Index form, where the year 2000 = 1 and a 0.1 point change is equal to a 10% difference. Index values allow for comparison of change across multiple dimensions with differing units of measure.