Minnesota Agricultural Water Quality Certification Program

Certifying that Minnesota’s farms and waters can prosper together.

Brad Redlin
MAWQCP Program Manager
Memorandum of Understanding

Signed by Governor Dayton, Secretary Vilsack and Administrator Lisa Jackson on January 17, 2012.
What does the MOU say?

- Support for a **voluntary** program
- Coordinate and prioritize funding
- Provide **recognition and certainty** to producers and the public
- Establish a MAWQCP **Advisory Committee**
MAWQCP Advisory Committee

* Recommendations developed over a series of committee meetings, provided to MDA Commissioner Frederickson November 14, 2012
The committee submitted a series of recommendations presented in seven position papers:

- Pilot projects
- Program operations
- Program measurement tool
- Program data management
- Program certainty
- Program incentives
- Program promotion

**Assessment**
- A question and answer tool is used to measure the operation. Assessment may be self-administered or with assistance from accredited MAWQCP reps.

**Technical Assistance**
- If the tool shows certification criterion not met, producers may access technical and financial assistance for meeting all certification criteria.

**Certification**
- Certification is determined by an MDA accredited certifier. Certifier can not have a conflict of interest with the producer.

**Verification**
- Audits periodically conducted by MDA to verify certified farms. Regular audits by the MDA of accredited certifiers to verify performance.

**Recertification**
- Upon conclusion of the term for which certification has been awarded, the operator may re-certify (but will need to meet any new assessment elements that may have been added since the prior certification).
Legislative Actions

* Passed legislation placing the MAWQCP in statute
* Provided $3 million in Clean Water funding (biennium)
* Statute adopts Advisory Committee’s recommendations
  * Pilot up to 3 years
  * Review progress with advisory committee; inter-agency team
  * Provides “certainty” via certification agreement contracts between state and producers
What is “Certainty?”

* Offered by executive and legislative branches of Minnesota state government, via certification agreement contracts
* Not an exemption from existing rules and regulations
* Relevant to the land within an agricultural operation
* Applies only to ag land management and practices that could affect water quality

* Conditional upon:
  * Implementation of recommended practices
  * Maintenance of practices during certification
In practice, “Certainty” means...

- Certified farms considered to be meeting their contributions to any targeted reductions of pollutants during the period of their certification
- Certified farmers recognized as responsible protective stewards of their land and water quality
- Assurance that certified farmers are doing their part to avoid water quality impacts from their farming operations
Pilot Projects

- Representative of the local diversity of agriculture
- Provide sample conditions of production systems, practice implementation, and other factors
- Emphasis on replicating local MAWQCP implementation & operation success
- Produce measurement metrics to establish the qualities needed for a successful program
- Dedicated resources in the form of cost-share (EQIP) contracts for individual producers
- NRCS-MDA contribution agreement for staffing 1-FTE in each pilot via BWSR grant.
More information, questions, suggestions...

http://www.mda.state.mn.us awqcp
https://www.facebook.com/mawqcp

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Unitless Index with 6 Components:
1) Field characteristics and soil physical/erosion factors,
2) Nutrient management factors,
3) Tillage management factors,
4) Pest management factors,
5) Irrigation and tile drainage management,
6) Additional conservation practices
Assessment

- MN bmp’s incorporated (N, P, IPM, etc.)
- By parcel, crop
- Site visit required
- Compliance w/existing regs
- Certainty provided
<table>
<thead>
<tr>
<th>Application Rate</th>
<th>MAWQCP Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legume / No Nitrogen Applied</td>
<td>10</td>
</tr>
<tr>
<td>UMN BMP Recommendation</td>
<td>10</td>
</tr>
<tr>
<td>10% over the BMP ranges</td>
<td>7</td>
</tr>
<tr>
<td>20% over the BMP ranges</td>
<td>5</td>
</tr>
<tr>
<td>30% over the BMP ranges</td>
<td>2</td>
</tr>
<tr>
<td>50% over the BMP ranges</td>
<td>1</td>
</tr>
</tbody>
</table>
## Tile Drainage

<table>
<thead>
<tr>
<th>Tile Drain System</th>
<th>MAWQCP Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tile Drain</td>
<td>0.0%</td>
</tr>
<tr>
<td>Tile Drain, open surface inlets</td>
<td>-20.0%</td>
</tr>
<tr>
<td>Tile Drain, no open surface inlets</td>
<td>-15.0%</td>
</tr>
<tr>
<td>Tile Drain with Drainage Water Management</td>
<td>10.0%</td>
</tr>
<tr>
<td>Tile Drain, no open surface inlets and average of NM and TM ≥ 9</td>
<td>0.0%</td>
</tr>
<tr>
<td>Conservation Practice</td>
<td>Sediment Effectiveness Range (mean) %</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td><strong>Name</strong></td>
<td><strong>Type</strong></td>
</tr>
<tr>
<td><strong>Contour Buffer Strip</strong></td>
<td><strong>Field</strong></td>
</tr>
<tr>
<td><strong>Sediment Basins</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td><strong>Field Borders</strong></td>
<td><strong>Field</strong></td>
</tr>
<tr>
<td><strong>Riparian Forest Buffer</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td><strong>Filter Strip</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td><strong>Grass Waterway</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td><strong>Conservation Cover</strong></td>
<td><strong>Field</strong></td>
</tr>
<tr>
<td><strong>Water &amp; Sediment Control Basin</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td><strong>Grade Stabilization Structure</strong></td>
<td><strong>Field</strong></td>
</tr>
</tbody>
</table>
Sample Farm

Olmsted County, MN
- Crop: Corn
- Slope is 5%-10%
- Synthetic nitrogen and phosphorous fertilizer within state BMP ranges for rate, timing, and placement
- Mulch tillage
- Advanced Integrated Pest Management:
  - Scout for pest thresholds
  - Corn-bean rotation
- Grass waterway previously implemented to prevent gully erosion
Sample Farm
Assessment Tool Calculation

1) Field Physical Sensitivity: 5.8
2) Nutrient Management: 10
3) Tillage Management: 8
4) Pest Management: 10
   Preliminary score: 8.4

5) No Irrigation or Tile Drainage
6) Conservation Practices: Grass Waterway adjustment

9.1 Certified
**Certification Record #: 5**

### Producer & Field/Site Information
- **Producer:** Example Farms
- **Field Name:** S-40
- **Description / Rotation Information:**
  - **Pilot WS:** Whitewater River
  - **County:** Olmsted
- **Township:** Forty
- **Range:** Acres: 40

### Field/Site Summary

<table>
<thead>
<tr>
<th>Field Sensitivity</th>
<th>Nutrient Management</th>
<th>Tillage Management</th>
<th>Pest Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>WQI Ranking: 5.81</td>
<td>MN BMP recommendation</td>
<td>No Tile Drain (0%)</td>
<td>Advanced IPM: Low risk IPM plus cultural practices that minimize pests</td>
</tr>
<tr>
<td>Weighting Factor: 0.25</td>
<td>UMN recommendation</td>
<td>No Manure Applied</td>
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<tr>
<td>Weighted Value: 1.45</td>
<td>Recommended</td>
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<td>Recommended</td>
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#### Certified Mean Value of Core Components: 8.18
- **Adjusted Mean Value with Irrigation & Tile Drainage:** 8.18
- **Adjusted Mean Value with Conservation Practices:** 8.97
- **Final Score:** 8.97

**Status (> 8.5 for Certification): Certified Achieved**

### Field Physical Sensitivity
- **Slope (%):** 5-10%
- **HSG:** C - moderately high runoff potential
- **K-factor:** 0.33 - 0.43 high erodibility
- **Organic Matter:** 4.6%
- **Precipitation Station:** Elgin 2 SSW

### Nutrient Management
- **Nitrogen Application Rate:**
- **Phosphorus Application Rate:**
- **Synthetic Fertilizer Timing:**
- **Synthetic Fertilizer Source:**
- **Synthetic Fertilizer Placement:**
- **Manure Application Timing & Placement:**

### Tillage Management
- **Mulch Till with a STIR value of 31 to 60**

### Pest Management
- **Advanced IPM:** Low risk IPM plus cultural practices that minimize pests

### Tile Drain System & Irrigation Management
- **Tile Drain System:** No Tile Drain (0%)
- **Irrigation Method:** No Irrigation (0%) and Adjustment:

### Conservation Practices
- **Conservation Practice 1:** Grass Waterway
- **Conservation Practice 2:**
- **Conservation Practice 3:**

### Certification Acknowledgement
- This site has been reviewed for the Minnesota Agricultural Water Quality Program and meets certification requirements.