

**CONSERVATION INNOVATION GRANTS  
Final Report**

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| <b>Grantee Name: The Minnesota Project 1885 University Ave. W Suite 315 St. Paul, Minnesota 55104 (651) 645-6159</b>                    |  |
| <b>Project Title: Integrating Market-based Conservation Planning within Agribusiness Service Centers to accelerate adoption of EQIP</b> |  |
| <b>Project Director: Tim Gieseke</b>  |  |
| <b>Contact Information:</b><br>Tim Gieseke<br>40322 541 <sup>st</sup> Avenue New Ulm, MN 56073  | <b>Phone Number: (507) 359-1889</b><br><b>E-Mail: tgieseke@mnproject.org</b> |
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Inform and Motivate Agronomic Staff to promote EQIP

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## **Final Report Summary**

Integrating a market-based conservation planning component within the agribusiness private sector is a key to our nation meeting its natural resource goals. For this to occur, that is for the private sector to adopt and incorporate these activities within their entities, sufficient value to their farmer clients and themselves must be tangible and realized. These values must also be promoted and supported by the myriad of public and private entities that stake a claim in valuing our production and natural resources.

To meet the end goal of defining the activities and products that would deliver value to the myriad of stakeholders was one of the core intentions of this project. In the end, we evaluated three processes that integrated production and natural resource management activities. The most promising processes were those that were developed from the industry perspectives that relied upon NRCS criteria. The evolution of this project began with the traditional Conservation Planning Training Course as described in the National Planning Procedures Handbook, Amendment 4 and ended up aligning with the more streamlined Rapid Watershed Assessment model. In this process, a Rapid Whole Farm Resource Assessment template was developed using USDA and university-developed management indices. Using an index-based method, resource assessments at the field level can be aggregated and scaled up to the farm, watershed, basin and even national level. This trait, amongst others, provides a method for the myriad of stakeholders to place value on their desired outcomes, therefore, providing the opportunity for a market-based system to begin.

## **Project Adjustments**

### Expanding the Course Offering

The intentions of this project were to work with the United Farmers Cooperative staff to provide Conservation Planning Training and develop the capacity for them to enroll as TSPs in the TechReg program and provide conservation planning services to their farmer clients.

While these intentions moved forward, it became quite apparent that other agronomic service center staff were interested in attending the conservation planning training course. When the training schedule was posted in January 2006, the interest in the course greatly exceeded all expectations as 35 agronomists and conservation professionals from local governments enrolled in the 9-day course. It was with this new basis that the project moved forward.

While this new basis provided for an additional agronomic workforce to be trained in the technical aspects of the project, the value that the agronomists could obtain from developing conservation plans for their farmer clients was not realized.

### No-cost Project Extension

Due to the expanded interest that generated much more interest beyond the expected partners of the United Farmers Cooperative staff the project took on a much larger scope.

The initial scope of the project was with the UFC staff that assisted farmers that own and manage approximately 200,000 acres. Adding the new participants have expanded that acreage base to nearly 2 million acres of cropland in southern Minnesota. In the context of accelerating the adoption of EQIP on this larger scale, it has become necessary to further research and define the needs of these agribusiness service centers.

#### Addition of Livestock Environmental Quality Assurance

In 2007 a partnership was developed with Livestock Environmental Assurance Consortium (LEAC) to utilize the NRCS-approved Livestock Environmental Quality Assessment (LEQA) program. The LEQA is an assessment, planning and assurance program initially designed by the Minnesota Milk Producers Association in cooperation of NRCS, state and local governmental agencies and conservation organizations. The LEQA is listed on the Minnesota NRCS EQIP docket. Using this program structure, a second training to develop conservation planning services within the private agronomic sector was held in March 2008. In this training, 23 agronomists and conservation professionals attended the training session to conduct on-farm assessments that would identify conservation needs and direct the farmers toward EQIP and other related cost-share programs. Under this program, farmers registered and paid to be involved in the effort and the LEAC provided incentive funds to assist in the assessment, planning or implementation efforts so that farmers could reach a Five-Star Rating – a rating consisting of management standards developed by the LEAC members. Twenty conservation plans were developed by LEQA-certified technicians that were also TSPs.

#### Pilot Conservation Plans

Due to the relative success of conducting LEQA assessments and conservation plans, twenty pilot conservation plans were conducted in the Zumbro Watershed area, rather than the Brown-Nicollet-Cottonwood Watershed. The basis for this decision was that the Zumbro River had Rapid Watershed Assessment completed in that watershed and much more awareness and support amongst the communities to participate in the LEQA existed.

#### Rapid Whole Farm Resource Assessment

In addition to these two resource management trainings, a pilot effort that used an index-based resource assessment process was also conducted. No conservation plans were developed using this process, but this so-called Rapid Whole Farm Resource Assessment process was evaluated as a potential means to be associated with the NRCS Rapid Watershed Assessment process and as a potential method to be used as a prototype market-valuing system for a so-called Conservation Commerce concept.

## **Project Contributors Overview**

An extensive network of individuals, organizations and governmental entities contributed their time, expertise and funds to make this project possible. Their contributions were also very important as the project evolved and additional strategies were employed.

### In-kind

Significant in-kind contributions were made by governmental, academic and private entities in the development and implementation of the Conservation Planning Training Course and the Livestock Environmental Quality Assurance Program.

|  |   |
|--|---|
| University of Wisconsin – Extension Service        | University of Minnesota Morris            |
| University of Minnesota Water Resources Center     | University of Minnesota Waseca            |
| Minnesota Department of Health                     | Minnesota Department of Natural Resources |
| Minnesota Department of Agriculture                | Minnesota Department of Transportation    |
| Minnesota Pollution Control Agency                 | University of Minnesota Extension         |
| Nicollet County Soil & Water Conservation District | Alliant Energy                            |
| University of Minnesota Lamberton                  | Minnesota Milk Producers Association      |
| Minnesota Board of Water & Soil Resources          |   |
| Livestock Environmental Assurance Consortium       |   |
| Brown-Nicollet-Cottonwood Water Quality Board      |   |

### Cash

Cash contributions for the completion of this project were sourced from all the participants in the Conservation Planning Training Course and the Livestock Environmental Quality Assurance Training Course. The McKnight Foundation contributed funds to provide personnel for this effort. The Wabasha County Board, on behalf the farmers that enrolled in the LEQA and those that cooperative with the 20 pilot conservation plan, contributed funds for the farmers to enroll. The Livestock Environmental Assurance Consortium, through funding from the Minnesota Department of Agriculture provided financial assistance toward the 20 pilot conservation plans.

### Other

Popple Consulting (TSP-03-2473) contributed on-site work to conduct the 20 pilot conservation plans and cooperated in developing the business model. Ag Resource Strategies, LLC provide much of the communication and organizational work to complete the project deliverables.

Many of the agronomic centers provided suggestion on the handbook concepts.

In addition to the in-kind and cash matches, the Minnesota NRCS provided significant guidance and oversight to ensure that the Conservation Planning Training materials were developed and implemented to their standards.

## TRAINING PROGRAMS

### **Conservation Planning Course and Training Development and Implementation**

The course framework and structure were developed using the work completed by the University of Wisconsin, Great Lake Regional Water Quality Team and the Minnesota NRCS. The majority of the effort resided with TSP-Conservation Planning Training Development. Partners in this effort included the University of Wisconsin Extension Service, University of Minnesota Extension Service and Water Resources Department, the Minnesota NRCS and several local government agencies and private and cooperative sector agronomy organizations.

#### Course Components

- Part 1 (Modules 1 -5) provides the background and framework for conservation planning. On-line course – <http://www.nedc.nrcs.usda.gov/catalog/index.html>
- Part 2 (Modules 6 - 8) is the hands-on field application of the planning process. It includes classroom and field exercises.
- Part 3 (Module 9) is the individual application of the conservation planning process utilizing the information learned in Parts 1 and 2. Part 3 is to be completed at the participant's work location with the assistance of a coach and the participant's supervisor.

#### Module Descriptions:

- Module 1 - How NRCS Will Do Business - Sets the stage for the course by providing a synopsis of the history of NRCS and the conservation partnership, and describes how we will do business in the conservation planning arena.
- Module 2 - Planning Policy and Guidance - Provides highlights of conservation planning and related policy, as well as information on programs and how they relate to the planning process.
- Module 3 - Key Elements of Conservation Planning - Covers the key elements of conservation planning and an introduction to the 3-phase, 9-step planning process.
- Module 4 - Conservation Planning Environment - Covers the conservation planning environment, including the components and relationships of the natural and cultural resources, economic and social considerations, and policy issues.
- Module 5 - Resource Management Systems - Covers resource management systems (RMS) and the tools used to develop RMSs.
- Module 6 - Phase I of the Planning Process - Provides classroom and field experience in carrying out conservation planning steps 1 - 4 - collection and analysis.
- Module 7 - Phase II of the Planning Process - Provides classroom and field experience in carrying out conservation planning steps 5 through 7 - decision support.
- Module 8 - Phase III of the Planning Process - Provides classroom and field experience in carrying out conservation planning steps 8 and 9 - application and evaluation.
- Module 9 - Conservation Planning - Allows the participants to put the information they learned to practical use by developing a plan, evaluating a plan, and revising a plan.

### Course Development

The course framework and structure were developed using the work completed by the University of Wisconsin, Great Lake Regional Water Quality Team and the Minnesota NRCS. The majority of the effort resided with TSP-Conservation Planning Training Development. Partners in this effort included the University of Wisconsin Extension Service, University of Minnesota Extension Service and Water Resources Department, the Minnesota NRCS and several local government agencies and private and cooperative sector agronomy organizations.

The course requirements are listed in Appendix A.

### Course Curriculum

The 9-day course classroom and field site curriculum was developed and scheduled to begin on February 27, 2006 and concluded September 13, 2006. The course listing of the KSA (knowledge, skills, and abilities) are listing in Appendix B. The course curriculum, schedule and presenters and listed in Appendix C.

### Course Marketing/Offering

This course was marketing through the Minnesota Association of Soil & Water Conservation District and the agronomic sector via the Minnesota Crop Production Retailers and the Certified Crop Advisor organization of Minnesota.

Participants completing the course requirements and three NRCS-approved conservation plans can be certified by NRCS as Technical Service Providers – Certified Conservation Planners.

During the marketing phase there was heightened interest in the upcoming discussion on developing the next farm bill. On the following page is one example of providing a big picture perspective on how to prepare for the potential legislation of the farm bill.

Marketing Plan Foundation Concept

***Farmer Preparedness for 2007 Farm Bill***

*While no one knows exactly what the next farm bill will contain, it is expected to have:*

*Reduced trade-distorting payments (LDP's, MLG's, CCP's) and payment limits*

*Disaster payments probably tied to using more crop and revenue insurance options*

*More dependence on market prices and supply/demand forces*

*Benefits for other crops/cropping systems and renewable energy support*

*Increased conservation incentives possibly tied to farmer support payments*

*A farm operation that is well-prepared for the changes in the 2007 Farm Bill will have a:*

***Marketing Plan***

***Risk Management Plan***

***Agronomic Plan***

***Conservation Plan***

*This course is designed so the CCA will have the skills to deliver a Conservation Plan along with their Agronomy Plan that meets your client's expected baseline conservation requirements as well as to provide the conservation opportunities for the farmers and producers to capitalize on such as EQIP and the Conservation Security Program.*

*In practical terms, the conservation planning process identifies the "conservation holes" within the farm operation. Organizing and listing these "conservation holes" become the basis for an EQIP application or other local and state cost-share programs. Filling these "conservation holes" prepares their farm operation for the Conservation Security Program, to meet TMDL requirements or, in its original intent, to maintain the production and natural resources of the farm operation for the next generation.*

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The Conservation Planning Course was offered in mid-January, 2006 and by the end of the month, a total of 50 serious inquiries were made about enrolling in the course and a total of 36 eventually enrolled. This exceeded the expectations of all private and public organizations, including the Minnesota Project.

### Conservation Planning Course Enrollees

These 36 represent 7 cooperatives, 13 agronomic firms and 7 local government staff. With this enrollment we focused on implementing the course for 2006, instead of waiting for 2007. Course participants are listed in Appendix D.

### Conservation Plan Course Delivery

The Minnesota Project partnered with numerous federal, state, and local agencies to provide quality presentations to meet the needs of Minnesota NRCS for certification process. We also have worked with the Minnesota Crop Production Retailers to ensure that course content meets the requirements of their continuing education unit requirements for certified crop advisors to maintain their status.

We completed the 9-day course on September 13, 2006. Of the 36 enrollees, 32 completed the course. The delivery of the course would not have been possible without the cooperation and support that was given by the public, private and cooperative sector. Organizations such as the Department of Transportation and an energy cooperative were amongst those that provided conservation planning and resource management training in addition to the traditional conservation organizations and agencies such as the Minnesota Department of Agriculture; Natural Resources; Health, the Board of Water & Soil Resources, the Minnesota Pollution Control Agency; various soil & water conservation districts; county governments and watershed organizations. The diverse participation demonstrates that resource management is a valued skill from several perspectives.

We also have worked with the Minnesota Crop Production Retailers and the Minnesota Certified Crop Advisor Board to ensure that course content meets the requirements of their continuing education unit (CEU) requirements for certified crop advisors to maintain their status. A total of 40 CEU credits have been issued for the course for the categories of Nutrient Management (NM), Soil & Water (SW), Pest Management (PM), Crop Management (CM) and Professional Development (PD) as described in the table below.

Continuing Education Units earned as a result of attending the Conservation Planning Training Sessions

| Tracking # | Meeting Title                               | Date      | Mn         |     |     |     |     |     |
|------------|---|-----------|------------|-----|-----|-----|-----|-----|
|            |   |           | Location   | NM  | SW  | PM  | CM  | PD  |
| MN 02413   | Conservation Planning - RULSE2 Training     | 2/27/2006 | Mankato    |     | 4.5 |     |     |     |
| MN 02462   | Orientation to Cons. Planning 1st Session   | 3/14/2006 | St. Peter  |     | 3.5 |     | 0.5 | 2.0 |
| MN 02463   | Orientation to Cons. Planning 2nd Session   | 3/15/2006 | N. Mankato |     |     | 0.5 | 5.5 |     |
| MN 02501   | Conservation Draining & Cropping Systems II | 6/29/2006 | Lamberton  |     | 1.5 |     | 3.0 |     |
| MN 02502   | Conservation Draining & Cropping Systems II | 6/28/2006 | St Peter   | 2.5 | 3.5 |     |     |     |
| MN 02508   | On-Farm Resources & Energy Assessments      | 7/27/2006 | Waseca     |     |     |     | 1.0 | 1.5 |
| MN 02520   | Planning and Resource Assessment            | 8/9/2006  | Lamberton  |     | 3.0 |     | 2.0 |     |
| MN 02527   | Cons. Planning Dev. & Cultural Resources    | 9/12/2006 | New Ulm    |     |     |     | 3.5 |     |
| MN 02528   | Cons. Planning Dev. & Cultural Resources    | 9/13/2006 | Fairfax    |     | 2.5 |     |     |     |



### Conservation Planning Training Course Follow-up

Two advisory workshops were held in February. One on February 6, 2007 in Waseca and one on the 16<sup>th</sup> in New Ulm to assist the 2006 course participants in the process of development of three conservation plans and to gather input on the course and certification process. The 2007 workshops were attended by 13 of the participants that completed the 2006 conservation planning course. The intent of the three conservation plans is to meet the conservation planning certification requirements and to identify their clients' conservation needs and to relate those needs to the Environmental Quality Incentive Program.

The advisory workshops consisted of identifying and demonstrating specific tools, databases, websites and spreadsheets that would provide guidance for resource assessments and conservation planning options. Participants also provided suggestions and opinions on how these tools met or did not meet their planning needs.

To develop the conservation plans, the certified crop advisors were to bring farm specific information the soil, water, air, plants, and animal resources of the farm operation. To begin the resource assessment process, the certified crop advisors were instructed to bring production records, field data required for operating the Revised Universal Soil Loss Equation, Water Quality Resource Concerns spreadsheet, and Habitat Suitability Index.

Through this workshop exercise, it was discovered that knowledge, skills and abilities that the certified crop advisors use to manage the production resources of the farm operation are very advantageous in developing the natural resource assessment of that farm. It was also realized that a significant portion of the resource assessment workload and costs are the labor and time associated with conducting field visits and scouting.

Through this exercise it became apparent that certified crop advisors that receive training in identifying natural resource concerns while they are conducting production resource management can become an efficient partner in the conservation delivery system. But while adding these knowledge bases, skills and abilities to the CCA's service portfolio for the completion resource assessments seemed practical and plausible, it was understood that acquiring the knowledge, skills and abilities to develop a complete conservation plan and resource management system was not as easily achieved.

We did not conclude that conservation planning was out of the reach of CCA's, but that resource assessments can be most efficiently and effectively completed and that conservation planning skills and abilities are a significant step beyond the assessment skill.

This conclusion leads us to begin discussion on the effectiveness and feasibility of developing a resource assessment training and certification process that would become an optional prerequisite of sorts for certified crop advisors to becoming more informed of the potential field conditions encountered during the conservation planning process. We also concluded that resource assessments are a valued component in itself, and that a

stand alone training and certification process for resource assessments should be considered.

With the new knowledge gained as reported in the May Biannual Report [ ..it was concluded that CCAs can conduct resource assessments efficiently and effectively..] we pursued discussions with various stakeholders in the conservation delivery system.

In discussion at meetings with the Minnesota Crop Production Retailers, the Minnesota Corn Growers Association, Minnesota Department of Agriculture, and other less formal meetings their has been an informal, initial sense that it is plausible that CCAs and other agriculture professionals can develop the capacity to conduct resource assessments and other components of a comprehensive conservation planning effort.

A presentation and discussion was also held in conjunction with the Minnesota Certified Crop Advisors biannual board meeting in late February to review the 2006 Conservation Planning Training course curriculum and to discuss the potential services that certified crop advisors can provide to farmers.

### **Livestock Environmental Quality Assurance Training Program**

#### LEQA Course Development

Partnering with the Livestock Environmental Assurance Consortium's (LEAC) to incorporate the Livestock Environmental Quality Assurance Program (LEQA) into this project provided a training course for a streamlined assessment, planning and assurance process. The LEQA is accepted by the Minnesota Natural Resources Conservation Service and is included on the MN NRCS EQIP Docket.

The LEQA training and implementation program addresses environmental quality assurance in five key areas:

1. Water Quality
2. Odor & Air Quality
3. Soil Quality & Nutrient Management
4. Habitat Quality & Diversity
5. Community Image

The LEQA Certification Standards and Assessment booklet contains questions and ratings. The complete document can be viewed in Appendix E.

The LEQA began as an effort by the Minnesota Milk Producers Association in 2002 and was adopted by the LEAC in 2007. In the process of developing and implementing the LEQA training, several Minnesota state agencies were involved to determine that this met their needs as well. This effort has accomplished a working partnership with the agencies as well as dialogue amongst the agricultural professionals on what their financial and technical needs are as it pertains to this process. The Minnesota Project is a member of the LEAC.

### Course Marketing/Offering

The LEQA was marketed using the electronic media of the Minnesota Milk Producers Association and the Minnesota State Cattleman Association. Personal communications were also made to individuals that had participated in the effort as well as certified crop advisors that participated in the Conservation Planning Training Course in 2006.

### Course Participants

Offering this abbreviated, yet NRCS-accepted assessment and planning tool resulted in 23 technically training personnel from the private and public sector to enroll. A complete listing of the participants is contained in Appendix F.

### LEQA Course Delivery

A two-day course was held March 23-24, 2008 in Hutchinson, Minnesota and the 40-page standard and assessment booklet was reviewed along with procedures to be used with farmers. The delivery was based upon the previous course offerings in recent years. A complete copy is contained in Appendix G.

### LEQA Course Follow-up

Of the 23 individuals that attended the training, ten participating in conducting LEQA assessments, providing LEQA certification assistance and reviewing sites to determine if the 5-Star standards were met.

It was under this training, assessment and planning forum that the 20 pilot conservation plans were developed

## **Rapid Whole Farm Resource Assessment Prototype**

### RWFRA Development

As a hybrid of sorts, the RWFRA was developed from the February 2007 Conservation Planning Training Course Follow-up sessions and from the need to establish some level of resource management for farmers to pursue. It was decided that using the Conservation Security Program Tier II level would provide for a resource management goal for farmers. In doing so, the Soil Conditioning Index, the Phosphorus Index, Water Quality Score, the Habitat Suitability Index and a Pasture Scoring (if applicable) was used as benchmark conditions.

It became apparent that certified crop advisors could be very efficient resource assessors and that using management indices are very efficient methods to identify and communicate.

### RWFRA Training Prototype, Delivery and Attendees

In February 2008, six certified crop advisors from the 2006 Conservation Planning Course attended a prototype training sessions to learn how to conduct on-farm resource assessments and to discuss the feasibility of agricultural professionals conducting the assessments. It was initially determined that agricultural professionals could effectively occupy this resource assessment role.

RWFRA Follow-Up

Of the six certified crop advisors that attended, three of them each conducted three RWFRA's for farms. For these demonstrations the RWFRA consisted of 5 indices on each of their client's farm and five fields. An example RWFRA contained:

|   |                       |             |                |                |                |                |                |                |                                |  |  |
|---|-----------------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------------|--|--|
| Farm Name   | SM3000                |             |                |                |                |                |                |                |                                |  |  |
| Address   | 377 Country Road      |             |                |                |                |                |                |                |                                |  |  |
| Address   | Butterfield, MN 53535 |             |                |                |                |                |                |                |                                |  |  |
| Farm Number   | 3001                  |             |                |                |                |                |                |                |                                |  |  |
| <i>Example</i>  |                       |             |                |                |                |                |                |                |                                |  |  |
| <b>Tract#/ Field #</b>                                    | <b>Field #</b>        | <b>Farm</b> | <b>3001-20</b> | <b>3001-21</b> | <b>3001-22</b> | <b>3001-23</b> | <b>3001-24</b> | <b>Average</b> |                                |  |  |
| Acres   | 150                   | 1           | 30             | 41             | 30             | 9.5            | 72             | 183.5          | <b>Total Acres</b>             |  |  |
| Cropping System*  | C mt/Sn               | CSCC        | Cmt/Smt        | Smt/Cmt        | Smt/Cmt        | Smt/Cmt        | Cmt/Smt        |                |                                |  |  |
| <b>Index or Score Method **</b>                           |                       |             |                |                |                |                |                |                |                                |  |  |
| Soil Conditioning Index                                   | 0.5                   | 0.55        | 0.33           | 0.52           | 0.52           | 0.54           | 0.33           | 0.465          |                                |  |  |
| Soil Tillage Intensity Rating                             | 35                    | 44          | 44             | 50             | 50             | 44             | 44             | 46             |                                |  |  |
| Water Quality Score                                       | 75                    | 75          | 75             | 75             | 75             | 75             | 75             | 75             |                                |  |  |
| Phosphorus Index  | 0.4                   | 1.1         | 1.1            | 1.1            | 1.1            | 1.1            | 1.1            | 1.1            |                                |  |  |
| Habitat Suitability Index                                 | 0.65                  | 0.6         | 0.6            | 0.6            | 0.6            | 0.6            | 0.6            | 0.6            |                                |  |  |
| Pasture Scoring   | 25                    | NA          | NA             | NA             | NA             | NA             | NA             | NA             |                                |  |  |
| <b>Time to Complete [minutes]</b>                         |                       | 45          | 15             | 15             | 15             | 15             | 15             | 120            | <b>Total Time [minutes]</b>    |  |  |
| <b>Minutes/acres</b>                                      |                       | 45          | 0.5            | 0.36585        | 0.5            | 1.57895        | 0.20833 #      | 0.65395        | <b>Minutes/Acres [average]</b> |  |  |
|   |                       |             |                |                |                |                |                |                | <b>2 Total Hours</b>           |  |  |
| * Explain abbreviation [ Corn-mulch till/Soybean no-till] |                       |             |                |                |                |                |                |                |                                |  |  |
| **Use N/A if not applicable                               |                       |             |                |                |                |                |                |                |                                |  |  |
| Date  | 3/31/2008             |             |                |                |                |                |                |                |                                |  |  |
| EZ Resource Assessment Preparer                           |                       |             |                |                |                |                |                |                |                                |  |  |
| EZ Resource Assessment Contact Info                       |                       |             |                |                |                |                |                |                |                                |  |  |

It was determined that certified crop advisors using USDA and University developed management indices were very capable of efficiently assessing the resources on a farm operation. Due to budget and time constraints this prototype assessment was not further investigated, but it has shown promise of being a good system to begin a conservation planning effort on fields and farms.

## **PROJECT DELIVERABLES**

### **1. Certify # of agronomic staff (UFC and others) as TSP for the delivery of EQIP practices.**

Partly due to the inability of agricultural professionals to directly be compensated for writing conservation plans, none of the 32 participants that enrolled in and completed the conservation planning course became NRCS-certified conservation planners. Also, the apparent diminishing opportunities in the then, upcoming 2007 Farm Bill weakened the interest on the part of farmers and their advisors to pursue a more comprehensive resource management strategy.

With that said, there was continued interest to develop skills and TSP-certification as it pertained to more defined tasks such as manure and nutrient management. This course did provide guidance to the participants on how they can enroll and achieve a TSP status.

In a survey taken for the registration of the course, the participants identified their CCA and TSP status. The table illustrates the TSP status of the participants prior to the course and then their TSP status after the course completion as recognized by the TechReg. Those listed a No-Gov indicates that they are not CCAs, but do work as conservation professionals in a governmental agency. Seven of the 35 participants listed themselves a TSPs prior to enrolling in the Conservation Planning Training Course and 16 were then listed after attending the Conservation Planning Training Course and cited on the TechReg website.

This course did provide the fundamental aspects of conservation planning and how the comprehensive nature of conservation planning is relative to the less comprehensive plans. The majority of the CCAs obtaining the TechReg TSP status after the course enrolled in the categories:

- A. Land Treatment – Tillage and Erosion
- B. Pest Management
- C. Nutrient Management – Inorganic and Organic
- D. CNMP Plan Development – Nutrient

| Name     | Last Name     | Organization                  | City          | CCA Status | TSP Status    |              |
|----------|---------------|-------------------------------|---------------|------------|---------------|--------------|
|          |               |                               |               |            | Before Course | After Course |
| Jared    | Anez          | Anez Consulting, Inc          | Willmar       | CCA        | Yes           | Yes          |
| Scott    | Thaden        | Anez Consulting, Inc          | Willmar       | pursuing   |               | Yes          |
| John     | Baumgartner   | Baumgartner Environics        | Olivia        | CCA        |               | Yes          |
| Todd     | Terhaar       | Baumgartner Environics        | Olivia        | No         |               |              |
| Kevin    | Kuehner       | BNC WB                        | St. Peter     | No-Gov     |               |              |
| Scott    | MacLean       | BNC WB                        | St. Peter     | No-Gov     |               |              |
| Tom      | Maher         | Brown SWCD                    | Sleepy Eye    | No-Gov     |               |              |
| Peter    | Kramer        | C.B. Agronomics               | Gibbon        | CCA        |               | Yes          |
| Jim      | Sallstrom     | Individual                    | Winthrop      | CCA        |               |              |
| Tony     | Jacobs        | Crystal Valley                | Lake Crystal  | CCA        | Yes           | Yes          |
| Trent    | Wadd          | Crystal Valley                | Waldorf       | pursuing   |               |              |
| Todd     | Matzke        | Dakota County SWCD            | Farmington    | No-Gov     |               |              |
| Dorian   | Gatchell      | Equity Elevator & Trading Co. | Wood Lake     | CCA        |               |              |
| DeLon    | Clarksean     | FCA Agronomy                  | Canby         | CCA        | Yes           | Yes          |
| Jon      | Bork          | Field Technologies Inc        | Beardsley     | CCA        |               | Yes          |
| Jim      | Christensen   | Hwy Ag                        | Le Sueur      | CCA        |               | Yes          |
| Martin   | Johnson       | LaSalle Farmers Grain         | Darfur        | CCA        | Yes           | Yes          |
| Randy    | Kraus         | Lincoln SWCD                  | Ivanhoe       | No-Gov     |               |              |
| Kevin    | Ostermann     | Nicollet SWCD                 | St. Peter     | No-Gov     |               |              |
| Ed       | Lenz          | Nobles SWCD                   | Worthington   | No-Gov     |               |              |
| Al       | VanGrouw      | Prairie Agronomics            | Springfield   | CCA        | Yes           | Yes          |
| Scott    | McKay         | Prairie Lakes Coop            | Hoffman       | CCA        |               |              |
| Scott    | Schoper       | Prairie Lakes Coop            | Long Prairie  | CCA        |               |              |
| Mary     | Stalberger    | Prairie Lakes Coop            | Elrosa        | CCA        | Yes           | Yes          |
| Paul     | Bruns         | Precision Consulting Services | Canby         | CCA        |               | Yes          |
| Michelle | Miller        | Precision Soil                | Hollandale    | CCA        |               | Yes          |
| John     | Volz          | Stateline Coop                | Elmore        | CCA        | Yes           | Yes          |
| Matt     | Solemsaas     | Stevens SWCD                  | Morris        | No-Gov     |               |              |
| Troy     | Danielson     | Taralan                       | Buffalo       | CCA        |               |              |
| Brian    | Garhofer      | Taralan                       | Buffalo       | No         |               |              |
| Zach     | Ross          | Taralan                       | Green Isle    | CCA        |               | Yes          |
| Suzanne  | Wold-Burkness | U of M Entomology             | Cottage Grove | no         |               |              |
| Jason    | Portner       | United Farmers Cooperative    | Lafayette     | CCA        |               | Yes          |
|          |               |                               |               |            | 7             | 16           |

## 2. Inform and Motivate Agronomic Staff to promote EQIP

The 25 CCAs that enrolled in the Conservation Planning course are of the most progressive of the nearly 800 CCAs that practice in Minnesota. These CCAs seek out information to better prepare their clients for the variety of resource management issues that exist and are emerging. It was indeed an impressive group to work with. With that said they also work in a very competitive and demanding field and value for their efforts must be monetarily or otherwise valued.

As shown in the above table, several CCAs were motivated to pursue and maintain their TSP status to deliver EQIP and other potential programs.

Due to the relatively lengthy process of developing a NRCS-approved Conservation Plan based upon the National Planning Procedures Handbook, Amendment 4, many agronomists are reluctant to address their farmer client resource needs from that avenue. This was one of the primary reasons that the Livestock Environmental Quality Assurance Program was adopted as means to inform and motivate agronomic staff to identify resource needs on the farm operations and promote EQIP to address those needs.

The LEQA provided a relatively succinct manner to locate these needs and as important the LEQA identified a level of management (5-Star Rating) that dairy and cattle producers could strive for. Understanding the status of their farming operation as well as understanding what they should attempt to achieve provide information and motivation at a much higher level than when no 'ending point' or 'finish line' is identified.

With the core of the LEQA program being a relatively practical assessment and a defined standard to achieve, the LEQA technicians, agronomists and conservation professionals develop a solid footing on what they can tell their clients they could do and what they do not have to do.

One of the major shifts in resource management that has occurred from the perspective in farming is that now farmers are asking what they need to do to meet societal and governmental goals, whereas a generation ago, farmers would have their own idea what they wanted to accomplish. Both perspectives are still in existence, but the former perspective appears to be the primary perspective in many of the traditional agricultural production systems.

Regardless of the type of conservation planning procedure used, it is very important that the producer has a significant sense of ownership of the plan. Due to the lengthy and in depth procedure of the NPPH Conservation Planning process, farmers and even their advisors are reluctant or unable to claim ownership of the process and product.

The LEQA, being much more succinct and straight-forward can capture the farmer's attention and keep it. Because the farmer pays to register for the LEQA program and the LEQA technician is paid to conduct the plan by the industry and governmental partners, there is some sense of ownership by both the farmer and technician. Ownership of the plan is more apt to be claimed by the farmer after the farm has reached the LEQA 5-Star rating. The long-term difficulty is for the farmer to continually identify with the goals and to completely integrate the LEQA plan into their operation. But what the LEQA has succeeded at is to identify immediate needs of the operation and guide the producers to pursue the EQIP and apply for the cost-shareable practices.

Since partnering with the LEQA program, several dozen LEQA Assessments have been completed and the 20 Pilot Conservation Plans were written using the LEQA program and procedure. The LEQA Scoresheet is included in Appendix H and the 20 pilot conservation plans are included in Appendix I. The agricultural producers that registered for the LEQA program and cooperated with the 20 pilot conservation plans are listed in Appendix J. None of the producers received funds from this grant either directly or indirectly.

Popple Consulting, 13812 12<sup>th</sup> Street, Osseo, WI 54758 conducted the 20 pilot conservation plans. Timothy Popple, owner and registered TSP (TSP-03-2473) provided oversight on the pilot conservation plans.

The 20 pilot conservation plans addressed the needs identified by using the LEQA Standards and Scoresheet and includes the sections of:

1. Water Quality
2. Odor & Air Quality
3. Soil Quality & Nutrient Management
4. Habitat Quality & Diversity
5. Community Image

The needs identified by section include:

1. Water Quality
  - Feedlot runoff – 5
  - Pest Management – 2
  - Milk House Waste Water - 1
2. Odor and Air Quality
  - Rendering - 2
3. Soil Quality and Nutrient Management
  - 590 Nutrient Plans – 6
  - Comprehensive Nutrient Management Plans - 15
4. Habitat Quality and Delivery
  - No needs identified
5. Community Image
  - No major needs identified, some farmstead cleanup issues



### 3. Train agronomic staff to become skilled users of the Revised Universal Soil Loss Equation, Version 2.

The RUSLE2 training was held on February 27, 2006 and was the first training course of the Conservation Planning Course. The following table lists those private sector agronomists and the public sector that received training in the RUSLE2. The use of RUSLE2 was utilized through the next 8 training sessions to assist in developing proficient skills.

| Name     | Last Name     | Organization                  | City          | RUSLE2 Training |
|----------|---------------|-------------------------------|---------------|-----------------|
| Jared    | Anez          | Anez Consulting, Inc          | Willmar       | Yes             |
| Scott    | Thaden        | Anez Consulting, Inc          | Willmar       | Yes             |
| John     | Baumgartner   | Baumgartner Environics        | Olivia        | Yes             |
| Todd     | Terhaar       | Baumgartner Environics        | Olivia        | Yes             |
| Kevin    | Kuehner       | BNC WB                        | St. Peter     |                 |
| Scott    | MacLean       | BNC WB                        | St. Peter     |                 |
| Tom      | Maher         | Brown SWCD                    |               | Yes             |
| Peter    | Kramer        | C.B. Agronomics               | Gibbon        | Yes             |
| Jim      | Sallstrom     | CCA                           | Winthrop      | Yes             |
| Tony     | Jacobs        | Crystal Valley                | Lake Crystal  | Yes             |
| Trent    | Wadd          | Crystal Valley                | Waldorf       | Yes             |
| Todd     | Matzke        | Dakota County SWCD            | Farmington    |                 |
| Dorian   | Gatchell      | Equity Elevator & Trading Co. | Wood Lake     | Yes             |
| DeLon    | Clarksean     | FCA Agronomy                  | Canby         |                 |
| Jon      | Bork          | Field Technologies Inc        | Beardsley     | Yes             |
| Jim      | Christensen   | Hwy Ag                        | Le Sueur      | Yes             |
| Martin   | Johnson       | LaSalle Farmers Grain         | Darfur        | Yes             |
| Randy    | Kraus         | Lincoln SWCD                  | Ivanhoe       |                 |
| Kevin    | Ostermann     | Nicollet SWCD                 | St. Peter     | Yes             |
| Ed       | Lenz          | Nobles SWCD                   | Worthington   | Yes             |
| Al       | VanGrouw      | Prairie Agronomics            | Springfield   | Yes             |
| Scott    | McKay         | Prairie Lakes Coop            | Hoffman       | Yes             |
| Scott    | Schoper       | Prairie Lakes Coop            | Long Prairie  | Yes             |
| Mary     | Stalberger    | Prairie Lakes Coop            | Elrosa        | Yes             |
| Jon      | Olson         | Prairie Land Management       | Hudson        | Yes             |
| Paul     | Bruns         | Precision Consulting Services | Canby         | Yes             |
| Michelle | Miller        | Precision Soil                | Hollandale    | Yes             |
| John     | Volz          | Stateline Coop                | Elmore        | Yes             |
| Matt     | Solemsaas     | Stevens SWCD                  | Morris        | Yes             |
| Troy     | Danielson     | Taralan                       |               | Yes             |
| Brian    | Garhofer      | Taralan                       |               | Yes             |
| Zach     | Ross          | Taralan                       | Green Isle    | Yes             |
| Suzanne  | Wold-Burkness | U of M Entomology             | Cottage Grove | Yes             |
| Mary     | Gilles        | UAP-Sargeant                  | Sargeant      | Yes             |
| Kevin    | Isaacson      | United Farmers Cooperative    | Lafayette     | Yes             |
| Jason    | Portner       | United Farmers Cooperative    | Lafayette     | Yes             |

#### **4. Business Plan to Incorporate market-based Conservation Planning Components**

A business plan was developed in conjunction with the LEQA program, the 20 pilot conservation plans and Popple Consulting. Popple Consulting had two staff attend the LEQA Training. Tim Popple, the owner, is registered on TechReg and the organization has experience in working with conservation practices.

It was anticipated that a business plan that included a process for the farmers to meet an industry-based standard would provide the farmers with a common goal to strive for.

The financial aspects of this business plan were not conducted, but the plan was designed to provide a position Popple Consulting to determine the EQIP needs of the farm operation and to develop a longer term working relationship with those farmers. The business plan is located in Appendix K.

#### **5. Handbook for Integrating Natural Resource Management into Agronomic Service Centers.**

The Handbook was developed from a broad based perspective on how agronomic service centers may prepare themselves for the present opportunities as well as future potentials. It intentions are to introduce those agricultural professionals that are interested in expanding their service portfolio and have some knowledge of the opportunities. The complete handbook is included in Appendix L. Copies of the handbook are being provided to the list of agronomic centers as listed in Appendix M. Additional copies will be made available to other interested agronomic centers.