

# Jefferson County Land & Water Conservation Department 2015 - 2016 Annual Report

Since 1946, Jefferson County has been providing assistance to landowners to protect our soil and water quality. In 1982, the County officially established the Jefferson County Land & Water Conservation Department (LWCD). The department has been charged with administering State Statutes and County ordinances all leading to the conservation and protection of our natural resources. Anyone wishing further information on any of our programs is welcome to stop in or call the Land & Water Conservation Department for more details.

**Best Management Practices** (BMP's) installed on local Jefferson County farms. Funding for these and other projects is provided by Department of Agriculture grants. BMP grants are available to County land owners and operators each year based on need.



*Animal Waste Facility Before Closure*



*Gully Erosion Before Practice Installation*



*During*



*During*



*Final Result*



*Final Result*

## Land & Water Conservation Committee & Farmland Commission Merge

Due to like duties and an effort to streamline activities, the Land & Water Conservation Committee & the Farmland Conservation Easement Commission were merged under the auspices of the LWCD. The new group oversees all the conservation activity and easement business for Jefferson County. Slated as a pilot project the new larger committee will be reevaluated in the future. The committee meets the 3rd Wednesday of each month.

### **New Jefferson County Land & Water Conservation Committee**

*Matt Foelker (Chairman), Ed Morse (Vice Chair), Pete Hartz (Secretary), Gregg Patrick (Member), Laura Payne (Member), Frank Anfang (FSA Rep), Margaret Burlingham (Public Member)*

## Agricultural Conservation Easements (PACE)

- Completed full transition of the Land & Water Conservation Department's administration of all Conservation Easement activities.
- Finalized baseline property reports for 2 easements with deed closings over the past year. Revised and updated baseline property report for an easement working toward purchase of development rights.
- Prepared, revised and provided all documentation in accordance with NRCS cooperative agreement specifications necessary to accept and close on an easement in the Town of Waterloo.
- Closed on a purchased easement in the Town of Waterloo (162 acres) and a donated easement in the Town of Palmyra (39 acres).
- Compliance Monitoring: 4 donated easement properties, 1 easement for a cooperating agency/land trust, and 1 easement held by the County, totaling 632 acres on 21 tax parcels.
- Successfully resolved easement violations with two property owners.
- Reviewed public records relevant to agriculture, natural resources and easement compliance for the protected properties.



*Margaret Burlingham and Greg Wilke, Waterloo*

## 2015 Livestock Survey

- Historically: The survey is taken on a 5 year interval or as staffing allows. Sites of noted livestock activity are recorded by visual observation from any public road access throughout the County.
- Intent & method: The survey is intended to provide an inventory and overview of livestock operations on a County wide basis. Originally, only animal types and locations were recorded. In 2009, a quantity component was added using a ranking system to mimic the National Ag-Statistics (NASS) and to allow for increased analysis.
- Current approach: In an effort to minimize staff time, while maintaining data integrity, an aerial photo interpretation approach was adopted. With advance in aerial photo resolution and newly acquired 2015 flight information it was found that actual individual animals could be discerned and definite structures housing animals noted.
- Locations from the 2009 survey were reviewed and overlaid with the 2015 aerials and noted for changes. In addition, locations of NR 151 Ag Standards Compliance reviewed, locations were cross referenced with DATCP Dairy
- Producers dataset and finally numerous locations were compared and located with *Google Streetview* ©.
- Usage of Data: Direct comparisons, such as number beef operations in 2009 vs 2015; watershed inventories for adaptive management plans, land & water resource management planning (LWRM); best management practice location placement; WLI compliance; mapping and general statistical analysis. *Note: the 2009 data proved highly valuable during the "bird flu" outbreak in 2015.*
- Some general numbers and trends:
  - DAIRY at 10 head or more: *2015 - 145 locations, 2009 - 165 locations*
  - BEEF at 10 head or more: *2015 - 136 locations, 2009 - 178 locations*
  - POULTRY at 10 birds or more: *2015 - 21 locations, 2009 - 16 locations*
  - HORSES at 25 animals or more: *2015 - 10 locations, 2009 - 16 locations*

*Sources: Wisconsin Department of Agriculture & Consumer Protection (DATCP), Google Earth ©, Jefferson County 2015 Aerial Photography*

## ***Farmland Preservation in Jefferson County***

Wisconsin Farmland Preservation Program offers farm owners property tax relief for protecting our State's soil and water resources. Landowners receive a tax credit on their Wisconsin Income Taxes for being in compliance with State Conservation Standards.

The tax credit is calculated at a flat per acre rate. In Jefferson County, most landowners receive \$7.50 per acre. Those landowners who are located in an Ag Enterprise Area (AEA) can sign a 15 year agreement with the State and receive \$10.00 per acre. Jefferson County has one AEA which is located in parts of Palmyra and Sullivan Townships.

Farm owners must comply with Wisconsin Statue NR 151 Non-point Runoff rules to qualify for the tax credit. There are essentially three requirements to the rules:

- All farms must have and follow an approved conservation plan.
- All farms must have and follow an approved nutrient management plan.
- All livestock farms must meet manure management prohibitions and performance standards.

In Jefferson County, the Department has evaluated all participating landowners for compliance. The Wisconsin Department of Ag, Trade and Consumer Protection (DATCP) had mandated the Department to issue a Certificate of Compliance to all landowners who fully meet the conservation standards. The deadline for issuing these certificates has been extended to December 31, 2016. Additionally, DATCP is requiring the Department to issue the certificates with a unique identification number for each landowner. The Department will be re-issuing close to 700 Certificates of Compliance in December, 2016.

To date, three manure management projects are waiting completion. It is anticipated that all landowners in the program will be in full compliance by the end of 2016.

## ***Farmland Preservation Program (FPP)***

In June of 2016, DATCP reviewed the Department's Farmland Preservation management. The Department was found to be on-track with meeting the compliance standards and ahead of most other counties in compliance with the standards, especially in implementing nutrient management planning.

Below is a summary of Farmland Preservation in Jefferson County:



*Lake Mills Township*

- Current Participants: 681
- Number of Acres Enrolled: 108,684
- Number of Farms Monitored for Conservation Compliance in 2016: 185
- Number of Notices of Noncompliance Issued from September 2015 to Present: 13
- Number of Cancellations of Non-Compliance Issued from September 2015 to Present: 3
- Tax Credits Returned to Jefferson County Landowners Based on \$7.50 / Acre: \$815,130
- Additional Tax Credit of \$2.50/Acre for Land Under AEA Agreement: \$1,146
- New Enrollments: 21

## ***Nutrient Management and Farmer Training***

Wisconsin Statue NR 151.07 as well as the Farmland Preservation Program required that all cropland where nutrients are applied be covered by a nutrient management plan. Plans are typically written by private Crop Consultants. State Statutes allow landowners to write their own plan if they attend a Wisconsin Department of Ag approved training course.

Since December of 2010, Land & Water Conservation Staff have conducted 9 full nutrient management classes, training 74 landowners/farmers. 1 full class was offered this past winter. Additionally staff holds Update classes to assist students in maintaining their plans and updating to the latest software. To date, 16 update classes have been held. 4 of those have been held in the 2015/2016 winter months. Full classes consist of four half-day sessions. Update classes are one three-hour session.

## Nutrient Management and Livestock

Under State Statute NR 151, agricultural producers are required to follow conservation performance standards. These rules regulate manure management and require the use of soil conservation and nutrient management plans by all producers. Additionally under State Statute and County Ordinance, livestock producers wishing to start or expand a herd of over 150 animal units (one animal unit equals 1,000 pounds of animal weight) must apply for a Livestock Siting Conditional Use Permit. The Department works cooperatively with the Zoning Department on these permits.

If livestock producers are not expanding their animal numbers but are building, modifying or abandoning manure storage facilities, the Department requires a permit under the County Manure Storage Ordinance.

For the 2015 - 2016 report year, the Department:

- Issued 2 permits for closure of manure storage facilities.
- Reviewed 3 new Livestock Siting Permit applications, as well as 2 amended applications and provided a completeness determination to the Zoning Department and Land & Water Conservation Committee.
- Investigated 8 manure management related complaints with corrective action taken as needed.
- Cost shared with landowners for 1 manure storage facility, 2 roof runoff systems for animal lots, 1 vegetated treatment area, and 2 well closures.
- Cost shared with 3 landowners for nutrient management planning on approximately 435 acres.
- Received checklists covering 1,204 farms with a nutrient management plan (NMP) for compliance with State Statute and County Ordinance.

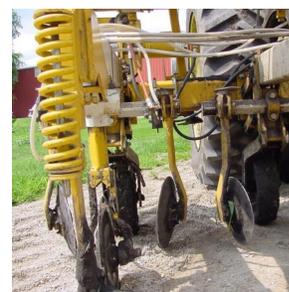


*Koshkonong Manure Storage Closure*

## Crop & Tillage Systems Survey

Part of the mission of the Jefferson County Land & Water Conservation Department (LWCD) is to insure that farmland remains productive for generations to come. Through cooperative partnering with the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA), the LWCD works with Jefferson County producers to recommend and install Best Management Practices that will control soil loss and improve water quality. The Land and Water Conservation Department:

- Data acquired at nearly 500 locations with 780 active farming locations.
- 86.6% of the cropped acreage at or below tolerable soil loss (T), and has remained steady over the past three years.
- Average countywide soil loss is 2.5 tons/acre/year up slightly from last year. The Oconomowoc and Ashippun River Watersheds continue to show the highest amount of soil loss at nearly two times the County wide average, but these watersheds only account for 3.3% of the survey area.
- 36% of cropland was planted to corn, down from 39% in 2015.
- 29% of cropland was planted to soybeans up from 27% in the year prior.
- 6% of cropland was in small grains (wheat, oats, etc.), and remained steady.
- 15% of cropland was in hay, which is similar to 2015.
- 5% of cropland was found fallow, compared to 6% in 2015 with some perennially wet areas being cropped.
- 45% of cropland was showing some form of minimum tillage systems.
- 35% of cropland showed less than 30% crop residue, while nearly 55% having 30% residue or over.
- 15% of cropland was no-tilled, down a couple of points from the previous year average.
- Less than < 0.5% conventional tillage (moldboard plow) system used, mostly seen on vegetable crops.



*Planter*

*Data sources: WinTransect software application ver. 1.18.1.0 UW Soils Department and data input by LWCD staff*

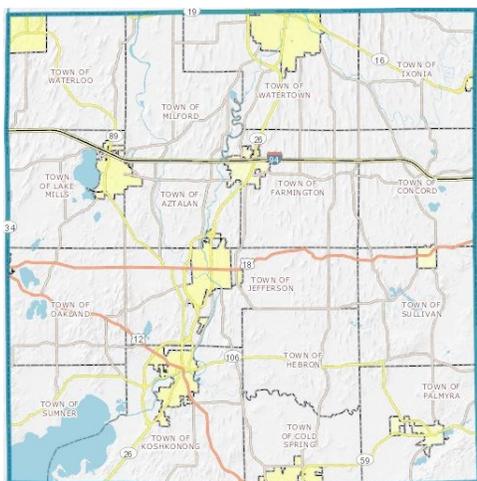
## Non-Metallic Mining Reclamation Permitting

- Fees collected: \$12,140 - of which \$2,310 was reimbursed to the DNR and remainder - \$9,830 earmarked for LWCD administrative expenses.
- Thirty three (33) sites inspected, to include active, inactive, recently reclaimed and exempt extraction sites.
- Inspected site characterizations: **Active**; 1-5 acres 5 permits; 6-10 acres 5 permits, 11-15 acres 6 permits, 16-25 acres 2 permits; 26-50 acres 2 permits; >50 acres 3 permits; 23 total. **Inactive**; 1 site. **Exemption**; 5 sites.
- Permit Modification & Certified Reclamation: 1 permit modification review and Financial Assurance updated; 1 operator request for FA release and Certification, currently under review.
- Permit Revocations: 1 operator permit revoked, 1 Zoning permit also being revoked under the direction and guidance of Corporate Counsel. Stark Pit - former BR Amon site - undergoing mitigation of permit violation by landowner utilizing bonding money.
- A modest permit fee increase of 3% adopted by LCC and imposed for the 2017 permit year and budget. This is the first County mandated fee adjustment since 2002 program inception.
- Department hosted annual RA Roundtable with over 30 participants to include County & State representatives and several members of the business community.
- DNR program performance review and 10 year audit, yielded favorable results with minor suggestions for program enhancement. Next anticipated review in 2026.
- Maintained all changes in GIS database and associated tabular data, along with account functions.
- Prepared Annual Newsletter to provide information and updates to operators and landowners.
- Attended three DNR organized training events and meetings.

Sources: WDNR NR135, Jefferson County Nonmetallic Mining Ordinance & onsite inspections.

## GIS & Mapping

- Maintained approximately 3,600 parcels in the database management system for State Ag Run-off Rule (NR 151) compliance. This provides a cohesive data repository for the Working Lands Initiative (WLI) compliance and reporting to the State.
- Utilized a FPP landowner database to assist in quality control of the countywide parcel dataset of participants and combined information from related tabular datasets (spreadsheets).
- Maintained and enhanced report generation tools for continued automation of the DATCP approved parcel compliance sheet. The reporting tools will assist in building additional reports and documents per end user requirements.
- Published and maintained internet map services consumed by web map viewers to provide end users with location and attribute information. Converted a test web application using an updated interface with department generated data, with the intent of providing specific information for department usage.
- Maintained and updated all Non-metallic Mining related data - *see NR 135 Non-metallic Mining Reclamation Permitting*.



- Developed maps, combined data and provided information for the Oconomowoc River Watershed Improvement Program. Specifically utilized DNR mapping/analysis tools, while incorporating County data.
- Compiled and updated the Livestock Survey data utilizing County acquired 2015 aerial photos - *see Livestock Survey - 2015, for details*.
- Continued to work in partnership with the Land Information office with modernizing land records and associated datasets. Maintained and updated Frozen Parcel data for County Zoning purposes. Created and maintained all Conservation Easement Parcels. Created several trail & recreational datasets for County Park's planning, analysis and display.
- Provided mapping and data compilation for PACE applications - *see Agricultural Conservation Easements*.
- Supported updates of GIS data for the Lake Ripley Management District.
- Continued to implement database improvements and consolidation.
- Attended and participation in over 40 hours of training/seminars directly related to GIS, land records, and database administration.

## **Water Resources**

### **Water Resources**

Maintaining and enhancing ground water and surface water quality is critical to the health, safety and recreational fulfillment of residents and visitors of Jefferson County. The Department has implemented the following water resources activities:

#### ***Aquatic Invasive Species***

Trained citizen volunteers and paid staff for Lake Ripley and Rock Lake to educate lake users on the aquatic invasive species laws associated. Assisted the Town of Lake Mills and the City of Lake Mills in applying for a DNR grant to hire 2 inspectors.

#### ***Lake Ripley***

Provided feedback on projects, reports and grant applications to the Lake Ripley Management District. Assisted the DNR with a critical habitat survey.

#### ***Lower Spring Lake***

Continued to work on a DNR grant for the Lower Spring Lake Management District to implement their aquatic plant management plan. The grant covers expenses incurred by the LWCD. Educated citizens about aquatic plants and water quality. Conducted a whole lake plant survey in July and August 2015 and also in May 2016.

#### ***Native Plants***

Participated in planning and gave a presentation at native plant gardening workshop. Assisted with a UW-EX workshop on aquatic plant identification held on Rock Lake.

#### ***Oconomowoc Phosphorus Reduction***

Provided information and feedback to the City of Oconomowoc for their program to reduce phosphorus delivery to the Oconomowoc River.

#### ***Rock Lake Management Plan***

Wrote a DNR grant that was approved for the Rock Lake Improvement Association to update their lake management plan. Serving as project facilitator for the update of the plan.

#### ***Rock Lake Shoreland Survey***

Conducted a portion of a DNR grant project to assess the conditions of the shoreland and nearshore areas of Rock Lake. The survey is scheduled to be completed in 2016. Provided input to the DNR on the protocols of the survey.

#### ***Rock Lake Water Quality Monitoring***

In the summer, perform monthly water quality sampling with a citizen to monitor temperature, dissolved oxygen, clarity, chlorophyll and phosphorus on Rock Lake.

#### ***Rock River***

Assisted in planning and implementation of a water quality sampling, education, and public involvement paddle on the Rock River. Participated in basin-wide meeting regarding the reduction of sediment and phosphorus to the waters of the basin.

#### ***Stream Monitoring***

Worked with citizen volunteers to monitor streams in Jefferson County. In 2015, there were 18 citizens who volunteered at 13 sites on 9 streams in the County. In 2016, there are 22 people stationed at 15 sites on 10 streams in the County. There is 1 more citizen that still needs to be placed after an adequate site is found. Parameters monitored include temperature, dissolved oxygen, clarity, flow, and biotic index (based on the type of insects in the water). The work performed by citizens gives us information on the resources that we don't have time/money to obtain ourselves.

#### ***Jefferson County Zoning Department***

Assisted with communications to citizens regarding shoreland-related issues. Provided information to the Zoning Department regarding shoreland zoning violations. Assisted the Zoning Department with updating its shoreland zoning ordinance.

#### ***Assistance to various landowners, organizations, and local governments***

Work included communications regarding manure spreading concerns, drainage districts, lake and stream quality, surface water-related public health, water levels, water recreation and pier rules, aquatic invasive species, shoreline erosion control, wetland rules, and ground water quality.



*Blooming Water Lotus on  
Lower Spring Lake*

## ***Grants & Budget***

Much of the funding for the Jefferson County LWCD comes from the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). The Department actively looks for outside sources of revenue to reduce the amount of County Levy dollars requested.

- Applied for and received operational grants from the DATCP totaling more than \$170,000.
- The FPP certification and permit fees generate approximately \$20,000 in revenue to the LWCD.
- Received \$35,000 in Land and Water Resource Management cost sharing dollars from DATCP.
- Received \$14,000 in State Grant funding from DATCP for nutrient management cost sharing.
- County Farm Lease currently generates \$105,668 annually. A new lease cycle will be let fall of 2016.

## ***Wildlife & Habitat***



*Oakland Township  
Conservation Reserve Program*

The Land & Water Conservation Department engages in the following activities to enhance wildlife habitat:

- Assists the DNR with the Wildlife Damage and Abatement Program (APHIS).
- For the 2015/2016 program year, 8,500 trees/shrubs were sold through the Annual Sale. Nine species were offered through the sale which starts in the fall of each year.
- Habitat planning and development.

## ***LEAN Projects & Continuous Quality Improvement***

- Identify and implement digital based equipment scheduling program for rental equipment:
  - Will create efficiency and reduce scheduling problems and overlaps.
- Identify opportunities to have some permitting activity take place on-line.

## ***Looking Ahead to 2016 - 2017***

The Land & Water Department will strive to meet the concerns of the citizens of Jefferson County and protect our soil and water resources.

### ***Future Goals and Activities:***

- Continue to offer training and update sessions to farmers to write their own nutrient management plans.
- Apply for a DNR grant to install conservation practices on shore lands.
- Department Director to continue participation in County Advisory Committee with NRCS and FSA.
- Participate in Adaptive Management & Pollutant Trading Programs with local waste water treatment facilities.
- Implement provisions of the Land & Water Resource Management Plan.
- Implement full Unique Identification Numbering System for Farmland Preservation Program.
- Promoting and implementing the PACE Program.
- Potential assistance for Farm Technology Days 2019

### ***Process for compliance with the new NR 151 rules that include:***

- Implementing full tillage setback: No tillage operations may be conducted within 5 feet of the top of the channel of surface waters.
- Identifying and Processing phosphorus index: Croplands, pastures, and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any individual year within the accounting period.
- Inventory sites for process wastewater handling: There may be no significant discharge of process wastewater to waters of the state.
- Identify pastures needing nutrient management plans.

## ***LWCD Staffing & Agency Contact Information***



### ***JEFFERSON COUNTY LWCD***

Pictured left to right:  
Kim Liakopoulos, Administrative Clerk  
Mark Watkins, Director  
Nancy Lannert, Resource Conservationist  
Gerry Kokkonen, GIS/Land Use Specialist  
Patricia Cicero, Water Resources Mgmt. Specialist  
Joe Strupp, Resource Conservationist

***Partnering Agencies & Contacts:*** The Jefferson County Land & Water Conservation Department works cooperatively with a number of State and Federal Agencies. The following is a list of those agencies.

Contact Information :

***Farm Service Agency (FSA):*** Deb Schutt (920) 674-2020

***Natural Resource Conservation Service (NRCS):*** Kathy Turner (920) 674-2020

***US Department of Ag (APHIS):*** (800) 433-0663

***DATCP:*** Bureau of Land & Water Resources (608) 224-4621

***DNR Conservation Wardens:*** Ryan Ellifson (920) 728-0367 ~ Pearl Wallace (920) 728-6605

***DNR Forester:*** Randy Stampfl (920) 387-7884

***DNR Lakes Monitoring Coordinator:*** Susan Graham (608) 275-3329

### ***Working Lands Initiative/Farmland Preservation Contacts***

State Website: <http://workinglands.wi.gov>  
State Email: [DATCPWorkingLands@Wisconsin.gov](mailto:DATCPWorkingLands@Wisconsin.gov)

*“Conservation is the preservation of human life on earth, and that, above all else, is worth fighting for.” Rob Stewart, Sharkwater: The Photographs*