

## Chapter 7. Accountability and Verification Measures

### *Element 6. Accountability and Verification Measures*

#### 7.1 EPA and Gulf Hypoxia Task Force Expectations

Quoted from EPA's recommended elements:

- "A. Identify where and how each of the tools identified in sections [Elements] 3, 4, and 5 will be used within targeted/priority sub-watersheds to assure reductions will occur.
- "B. Verify that load reduction practices are in place.
- "C. Assess/Demonstrate progress in implementing and maintaining management activities and achieving load reduction goals:
  - 1) establish a baseline of existing N & P loads and current Best Management Practices (BMP) implementation in each targeted/priority sub-watershed,
  - 2) conduct ongoing sampling and analysis to provide regular seasonal measurements of N & P loads leaving the watershed, and
  - 3) provide a description and confirmation of the degree of additional BMP implementation and maintenance activities."

#### 7.2 Wisconsin's Approach

Wisconsin is developing an integrated point source and nonpoint source tracking and reporting system to be used at the 12-digit HUC level. Presently, the state relies on discharge monitoring reports and efforts by County Land and Water Conservation Departments, supported by state agencies, for tracking and reporting of BMPs. The current proposal is to build upon this framework to develop a comprehensive nutrient tracking system.

##### 7.2.1 Point Source Tracking

As summarized in Chapter 3 of this document, Wisconsin requires discharge monitoring reports from WPDES permit holders for phosphorus discharges. Data exist back to the mid-1990s. For tracking nitrogen point source discharges, DNR is phasing in enhanced discharge monitoring for nitrogen for wastewater treatment facilities in the Mississippi River basin (see Chapter 8).

##### 7.2.2 Watershed based nutrient tracking for practices to reduce Nonpoint Sources

As described in previous chapters (and also in Wisconsin's Nonpoint Source Program Management Plan, <http://dnr.wi.gov/topic/nonpoint/aboutnpsprogram.html>) many programs administered in Wisconsin rely on some level of BMP tracking. Wisconsin counties lead the state's efforts to track compliance issues and water quality management practices associated with the NR 151 performance standards and prohibitions. Capacity and type of tracking system varies by county and are

inconsistent across the state. DATCP and DNR compile summaries of BMP data and prepare annual reports. While developing this Nutrient Reduction Strategy, a Tracking and Reporting Work Group began outlining an integrated tracking system that could serve an expanded set of state and local needs. Current and future efforts will help build capacity for county-level tracking that addresses these multiple program needs. Federal agency partners will continue to conduct separate compliance assessments related to their programs.

DATCP and the Tracking and Reporting Work Group members have surveyed counties to learn the extent, variety, and capabilities of county BMP and compliance tracking systems. Current systems range from paper files to highly sophisticated GIS-based data management systems. DATCP and the Tracking and Reporting Work Group is compiling a comprehensive statewide summary of county systems, including the type of tracking system in place (if any), the practices and related information in the database, and how those data are collected and updated. Outcomes from this assessment and their implications for the creation of an integrated nutrient tracking system are addressed in the Future Directions portion of this chapter.

Table 7.1 Sample of current nutrient reduction tracking needs

Lead Organization	Program/Tracking Need	Information Collected	Reporting
DNR	Verification of funded BMPs through multiple grant and financial assistance programs	BMP implementation; compliance with NR151	Reports to state and EPA
DNR	Public wells meeting health standards	Nitrate levels	State, EPA, database
DATCP	Compliance with NR151 and Working Lands Initiative	Nutrient Management Plans (acres and farms)	Annual reports; WLI compliance checking
Count Land & Water Conservation Departments	NR151 compliance and county ordinance	BMPs	County, state

### 7.3 Future Directions

Building on innovative GIS-based tracking and inventory systems developed by multiple counties, DATCP, DNR, and the Wisconsin Land and Water Conservation Association (WLWCA) are exploring options to make efficient tracking systems available to all Wisconsin counties. The systems should be able to meet multiple data management and BMP tracking needs, and would be most efficient if they could be accessed from farm fields. While reviewing county tracking systems, WLWCA, DNR, and DATCP will examine inventory technologies, assess effectiveness with counties, and establish needed support mechanisms for counties to install and operate a tracking system. By coordinating trainings and work groups, project partners will establish an effective communication network for system users to share successes, failures, and new approaches to inventorying farms and conservation practices.

The Tracking and Reporting Work Group will systematically evaluate issues related to a potential integrated statewide tracking system throughout 2013. On initial review, systems in Outagamie County (east-central Wisconsin), Marathon County (central Wisconsin), and Eau Claire County (western Wisconsin) hold promise for an integrated statewide effort. Screen shots from the three systems are included in Figures 7.1, 7.2, and 7.3. Additional systems may be identified through the statewide assessment currently underway.

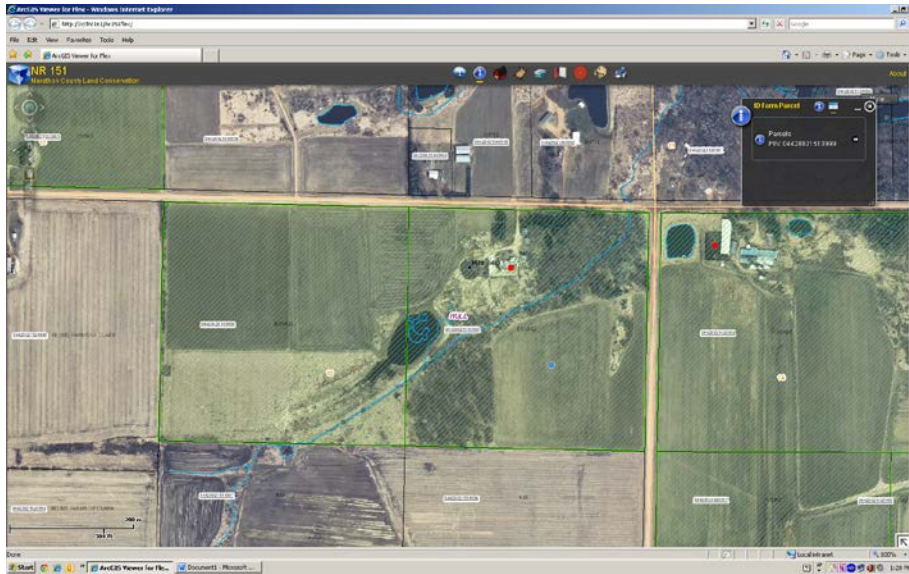


Figure 7.1 Marathon County Tracking System – ability for zoom-in view of individual parcels

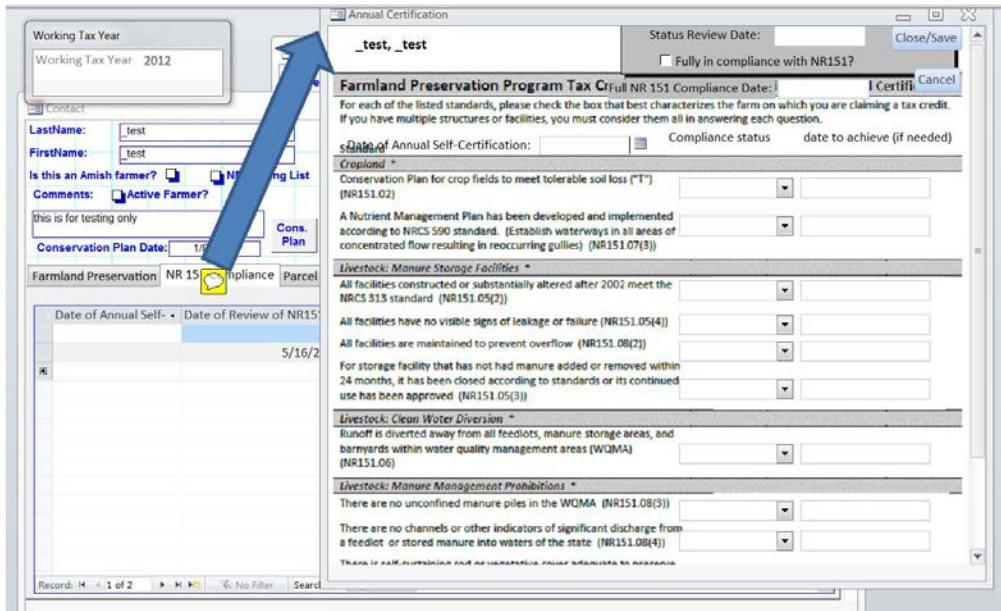


Figure 7.2 Eau Claire County Tracking System – links to multiple county data sets

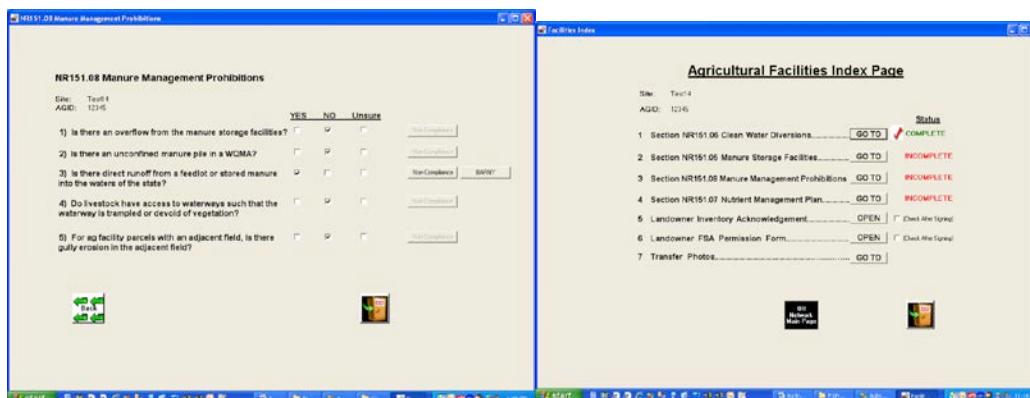


Figure 7.3 Sample screens from Outagamie County Tracking System

The Tracking and Reporting Work Group identified several issues to address in coming months. A selection of key issues is listed here.

### Tracking System Structures

- Explore and develop the ability to aggregate tracking information for a variety of programs and purposes.
- Pursue the aggregation of tracking information to the HUC 12 level. This aggregation should be kept simple for reporting purposes and would not target individual farm-level information.
- Evaluate the addition of a nutrient reduction component to existing county tracking systems.

### Baseline Issues

It is challenging to determine a “baseline” for tracking purposes, because the baseline differs according to its purpose. A baseline that enables determination of a base load is not the same as one that enables determination of a load reduction.

### Models

Future meetings will determine how to use aggregated tracking data for models. Models may be used to evaluate and quantify non-cropland sources of nutrients. Groundwater modeling may provide additional data to track nutrients, especially those from field-tile sources.

### Reporting

The Tracking and Reporting Work Group identified these topics concerning reporting on nutrients:

- Who is the intended audience for various reporting, especially for new reporting mechanisms?
- How will nutrient tracking reports best be generated and conveyed to these audiences?
- How could an annual Nutrient Summit play a role that combines summarizing tracking information, and relaying specific efforts to further reduce nutrient loads?