

Wastewater Permitting and Enforcement Program Report to the Joint Legislative Audit Committee

Expenditures and Staffing

As we stated back in June, we agreed with the number of hours associated with the Concentrated Animal Feeding Operations (CAFO) program, based on the Legislative Audit Bureau's (LAB) time code research. However, we pointed out that the number of hours attributed to program implementation in the audit exceeded the number of staff actually allocated to the program, mostly due to the fact that other programs' staff (e.g. law enforcement and program managers) also coded their time to CAFO activities. The expenditure increase associated with staffing investment is approximately 1.1 percent per year.

The Department of Natural Resources (DNR) currently has 10.5 regional positions that handle permitting and compliance activity; six central office positions that assist with review and approval of construction plans and nutrient management plans, and 0.5 positions that help with compliance and enforcement.

Four of the six recommendations included in the Legislative Audit Bureau (LAB) report for CAFOs involved the work conducted by the 10.5 regional staff (e.g. annual report review, inspections, hauling audits, etc.). Again, as we noted in our original June letter, DNR has calculated that, in order to accomplish all the required work, there would need to be a CAFO permit-to-staff ratio of 20:1. The DNR is reallocating four (4) full time employee (FTE) positions to the CAFO program in order to meet that ratio and increase compliance.

Permitting Process

Permit Application and Review

Recommendation

We recommend the Department of Natural Resources report to the Joint Legislative Audit Committee by November 1, 2016, on the status of its efforts to make CAFO application forms, design plans, and nutrient management plans easily accessible through its website.

Status

The current timeline is to have a web-based online CAFO Application Submittal System available by early 2017. All new CAFO application materials (forms, design plans and nutrient management plans), submitted after the online system is operational, will be accessible to the public through the DNR website.

The DNR agrees that easy access through the website is important. Even prior to the LAB report, the DNR began efforts to make materials related to CAFO Wisconsin Pollution Discharge Elimination System (WPDES) permits available online. The online availability of WPDES-related materials has evolved over time. For more than 10 years, the DNR has made public noticed WPDES permits and fact sheets available online. For more than seven years, the DNR has maintained a publicly available and searchable online CAFO WPDES permit database, which feeds directly from our permit issuance system and provides real-time information on the numbers, size and type of CAFO operations throughout the state. In addition, for the past five or more years the DNR has made application materials for high-profile CAFO permits available on our website.

Beginning in May of 2015, the DNR has public noticed and made materials related to substantial modifications (e.g., addition of new fields) to CAFO nutrient management plans (NMPs) available online. In March of 2016, CAFOs were required to submit design plans electronically that were then viewable online by members of the public.

The remaining step to make all CAFO permit application materials available online is to develop a website to receive the WPDES application forms and the five-year NMP (two critical pieces to having a complete application). The DNR's goal is to have all application process materials submitted electronically through the same online portal used for NMP modifications and submittal of design plans by early 2017, depending on available resources.

This will mean that all the documents submitted by the applicant (e.g. application forms, design plans and nutrient management plans) will be available to the public prior to public notice of the draft permit. Please note that this effort has been ongoing as part of a phased-in approach to online applications that began prior to the LAB audit process, moving from the less-complex to more-complex processes.

Timeliness of Permit Issuance

Recommendation

We recommend the Department of Natural Resources:

- *develop and implement a plan to further reduce the WPDES permit backlog; and*
- *report to the Joint Legislative Audit Committee by November 1, 2016, on its efforts, including the status of any permits backlogged for more than one year.*

Status

The DNR has developed and is implementing a plan to decrease the WPDES permit backlog. As explained further below, this plan includes: filling vacant positions; redistributing work among staff across the state; and continuing our implementation of process improvements. The plan focuses on re-issuing the oldest permits in the backlog first.

As stated in the LAB report, the permit backlog was on an increasing trend from 2005 through 2012. Since that time, we have made significant progress on decreasing the backlog. The backlog for municipal and industrial permits has decreased from a high of 35.4 percent in 2012 down to 21 percent as of November 1, 2016. The DNR anticipates a continued reduction in the backlog as this plan continues to be implemented in the next year.

By way of background, the DNR is committed to reducing the current permit backlog for municipal and industrial permits to below 10 percent, which is considered to be the national goal set by the U.S. Environmental Protection Agency (EPA). That being said, it is worth noting some of the historical reasons for the backlog. In 2010, administrative rule changes required the DNR to incorporate new regulations into all WPDES permits, which significantly slowed the permitting process due to increased complexity of the permits. Also, during 2010-2011, the Water Quality Program experienced the largest vacancy rate in the history of the program, due to 93 retirements.

The backlog is comprised mostly of permits that have been expired for more than one year (79 percent). By rule, these expired permits are administratively continued, meaning that the permittee is still required to comply with all terms, conditions and monitoring requirements of the expired permit until a new permit is issued.

There are several factors contributing to the backlog of these expired permits, including delays in issuing the permit while a Total Maximum Daily Load (TMDL) is developed for the watershed, or the facility lacking the treatment technology and infrastructure to meet new required effluent limits. In many of these situations, the permittee has also applied to the DNR for a variance, which requires EPA approval. The DNR has refocused its efforts to prioritize the issuance of oldest expired permits and is addressing these delays by working with permittees and EPA to address the complex issues that have prevented timely permit reissuance.

Below are some of the specific actions the DNR has taken as part of its plan to reduce the backlog.

1. Hiring Staff

The DNR has prioritized the filling of permit-related vacancies.

- Wastewater Program has hired nine new staff to fill vacant positions and is working on filling six more positions.
- The DNR continues to work to fill vacancies as quickly as possible to ensure we continue to make progress on the backlog.

2. Reassigning Staff and Workload

The DNR continues to review staffing and workload across the state and reallocate staffing resources to maximize output. Actions taken include the following:

- Hired and assigned a permit coordinator to track assignments and meet bi-weekly with permitting staff. This effort started in the northeastern area of the state and will be implemented throughout the state over the coming months.
- Re-aligned compliance staff priorities to focus on critical processes for permit re-issuance (e.g. substantial compliance determinations, Source Reduction Measures and pollutant minimization plans).
- Hired additional permit drafter to assist in re-issuing backlogged municipal and industrial permits.
- Created Variance Team to continue to improve and streamline variance process and approval timeline. The team meets monthly with EPA to discuss variance requests and develop strategies for reducing approval times. This will speed-up the permitting process because permits with variances cannot be issued until EPA approves the variance.

3. Permitting Process Improvements

A Lean Six Sigma Project on the WPDES permitting process to help address the backlog was completed in 2013. The project identified 84 recommendations to improve the permitting process. An additional Lean Six Sigma project was completed on effluent limit calculations program in 2016. Effluent limits calculations are ultimately included in WPDES permits, so this process has a significant impact on permit issuance times. The DNR is currently in the process of implementing the recommendations from these projects. The status of these efforts is as follows:

- Sixty recommendations from the permitting process project have been implemented. This will allow for more consistency in permitting statewide. Other recommendations require funding or have been captured in Effluent Limit Lean project.
- Continuing to implement Lean Six recommendations statewide for improved consistency throughout the program.
- Management re-evaluated remaining Lean Six items and assigned staff to complete remaining feasible items.

- Field supervisors are assessing implementation and suggesting opportunities for improvement.
- Implementing recommendations from effluent limit Lean project completed in 2016 (includes revision of standardized template).
- Working to complete guidance for effluent template. The guidance will be completed by March 01, 2017, and will streamline training of new staff.
- Continuing to utilize Trackmaster data system to verify process step timeliness and further define opportunities for improvement based on data.
- Ensuring consistency and efficiency within the permit program by implementing a line authority reporting structure.

Monitoring and Oversight of Permittees

Inspection of Permitted Facilities

Recommendation – Municipal and Industrial Inspections

We recommend the Department of Natural Resources:

- *regularly assess its performance in conducting inspections of municipal and industrial permittees based on its established goals;*
- *develop and implement a plan to improve its performance in meeting its inspection goals for municipal and industrial permittees; and*
- *report to the Joint Legislative Audit Committee by November 1, 2016, on its progress in developing and implementing the plan.*

Status

The DNR has developed and implemented a plan to regularly assess its performance in conducting inspections of both municipal and industrial permittees by providing additional training and establishing more specific individual performance goals for inspectors. The plan was first introduced in the Green Bay field office, as this is the area with the highest permit backlog. This plan is being implemented in other offices statewide. The plan includes a detailed tracking spreadsheet, projected dates for the inspections to occur and regular check-ins by the supervisor.

The Performance Objectives for compliance staff included in the employee annual goals is to inspect eight assigned individual permit holders consistent with the WPDES Inspection Strategy (i.e. use inspection checklist and update tracking databases), and respond to violations in accordance with enforcement strategy. All compliance staff are expected to conduct this many inspections annually to meet their performance goals.

These goals are further defined to require that all minor facilities are inspected once every five years and all major facilities are inspected once every two years.

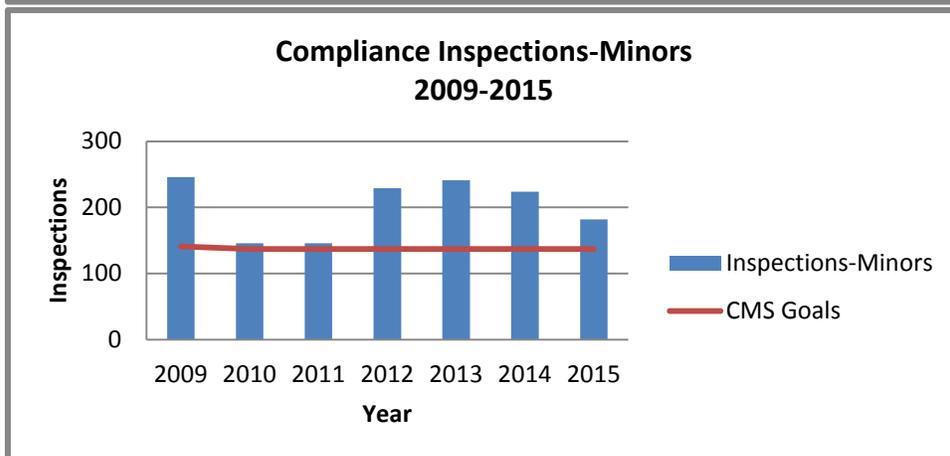
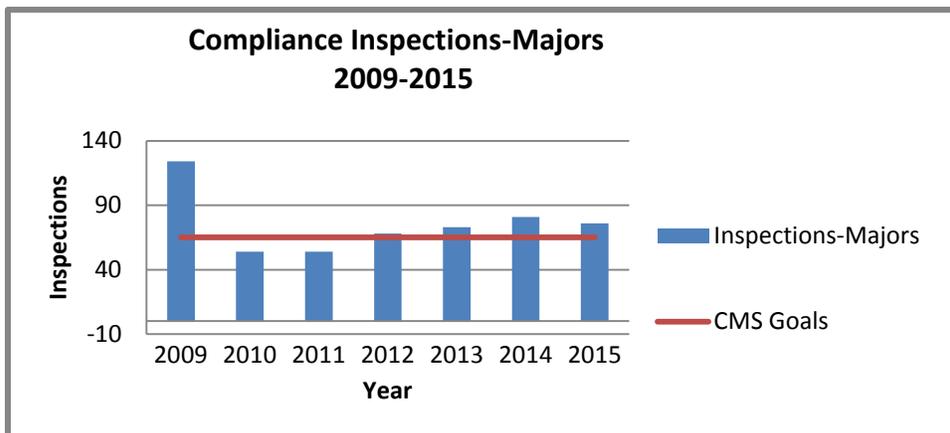
In addition to conducting inspections, compliance staff work on other important matters. These items include contributing to permit development, monitoring permit compliance, reviewing effluent discharge monitoring and annual compliance reports and responding to complaints. They are also involved in evaluating sanitary sewer overflows, reviewing land spreading compliance and land application site approvals, performing groundwater evaluations and conveying general permit coverage.

The wastewater program routinely assesses its performance of inspecting municipal and industrial facilities with respect to inspection goals set by EPA. The DNR recognized that the goals presented to the LAB during its audit were outdated and not representative of goals set by EPA that the DNR currently uses. The guidance document is currently being revised to reflect the actual practice of following EPA national goals as discussed below.

The DNR annually commits to inspection goals by submitting a Compliance Monitoring Strategy (CMS) report reflecting the national goals set by the EPA. The goals established in the CMS for municipal and industrial facility inspections are one inspection for all major facilities every two years and one inspection for minor facilities every five years. The DNR submits both mid-year CMS inspection numbers and end-of-year CMS inspections numbers annually to the EPA.

Additionally, the CMS describes national goals and requirements for pre-treatment program audits and inspections, biosolids inspections, Combined Sewer Overflow inspections, and industrial and MS4 storm water inspections. All of these metrics are evaluated and reported semi-annually to the EPA Region 5. The goals set forth for municipal and industrial inspection numbers in the CMS are consistently met.

The graphs below represent the numbers of inspections completed by the municipal and industrial wastewater program. As indicated, the DNR has met or exceeded the CMS inspection goals for major facilities since 2012 and has consistently met or exceeded the goals for minor facilities.



In addition to meeting these inspection goals, the DNR is taking the actions listed below to improve our documentation relating to inspections.

1. Training

- Training for staff on consistent compliance inspection documentation procedures was conducted at all-employee meeting in October, 2016. The training courses that were provided are listed in the attached Statewide Training Agenda document on page 18.

2. Guidance Update and Programming Changes

- The compliance team is updating program guidance to clarify inspection goals.
- We are enhancing our data system by creating a drop down menu for staff to populate each compliance inspection event to ensure statewide consistency in recording inspections. This will require staff to utilize the formal documentation feature in our data system to assure inspections are recognized towards meeting their performance goals.
- We are updating non-standard documentation in our data system to the standardized entry format, which will allow for a more accurate evaluation of inspection goals.

3. Performance Assessment

- The wastewater program is now assessing progress towards meeting CMS goals on a quarterly basis.
- A quarterly completed inspection report will track progress on the number of inspections performed by each staff and will be distributed to each staff person program-wide.

Recommendation – CAFO Inspections

We recommend the Department of Natural Resources:

- ***regularly assess its performance in conducting inspections of CAFO permittees based on its established goals;***
- ***develop and implement a plan to improve its performance in meeting its inspection goals for CAFO permittees; and***
- ***report to the Joint Legislative Audit Committee by November 1, 2016 on its progress in developing and implementing the plan.***

Status

The CAFO permitting program assesses its performance of inspecting CAFO facilities with respect to the inspection goals set by EPA and reports those inspection numbers to EPA every six months. The EPA goal for CAFO facility inspections are one inspection every five years. This goal is consistently met by the DNR. The DNR has reallocated four positions to the CAFO program to increase the number of inspections per facility.

As stated earlier with respect to the municipal and industrial facility inspections, the DNR annually commits to inspection goals by submitting a CMS report reflecting the national goals set by the EPA. The DNR submits both mid-year CMS inspection numbers and end-of-year CMS inspections numbers annually to the EPA. The LAB report noted that

the number of inspections for CAFOs has more than doubled over the audit period. Also noted in the report is that the program conducts more frequent inspections of CAFOs with previous violations – an example of how staff time is prioritized to focus inspection efforts.

However, the program continues to set a goal of increasing the number of inspections. Since the report came out, the DNR has reallocated four positions to reduce the number of permittees per regional staff to 20:1. This will allow staff more time to be in the field and to work on the goal of two inspections per permit term, exceeding the EPA goal. This goal has been added to staff expectations and supervisors have revisited program priorities to achieve these goals. The following is the performance objective set for the regional CAFO specialists:

Goal/Job Objective: Conduct a full compliance inspection for each assigned CAFO at least two times during the 5 year permit term; once prior to issuance/reissuance (to verify substantial compliance as required for reissuance) and once during the remainder of the permit term. Document all inspections.

With the hiring of the new staff and filling of vacancies, more than half of the CAFO program regional staff will be new in 2016, which requires additional training. The statewide CAFO Compliance and Enforcement Coordinator has developed standardized procedures and templates and conducted training with all new employees, enlisting the help of the experienced staff. We expect to see a marked improvement in the quality of inspection documentation in the next year. We anticipate being able to achieve the DNR goal of two inspections/permit term once staff are fully trained, exceeding the commitment to EPA.

Determining Substantial Compliance for CAFOs

Recommendation

We recommend the Department of Natural Resources develop a plan to:

- *ensure that records of all inspections and determinations of substantial compliance are entered into the WPDES database;*
- *ensure that all WPDES permittees are inspected within 12 months before expiration of their current permits,*
- *ensure that WPDES permittees are determined to be in substantial compliance with the terms of their permits before DNR reissues the permits, as required by statutes; and*
- *report to the Joint Legislative Audit Committee on the status of these efforts by November 1, 2016.*

Status

The DNR plans to improve the timeliness of substantial compliance determinations and documentation of such by pursuing the following three activities:

1. The DNR's reallocated 4 FTE positions to the CAFO program to reduce the number of permits per staff to 20:1.
2. The performance objectives for staff include conducting the proper inspections to determine substantial compliance consistent with state law and recording their determinations in the database. The substantial compliance inspection should occur within a year of the reissuance date (year four). The DNR will also evaluate potential benefits of conducting inspections within two years of permit reissuance to better allow permittees the time to address potential noncompliance issues during years three and four and avoid delays in permit reissuance at year five.
3. The DNR is reviewing the existing guidance on determination of substantial compliance that was developed for the wastewater WPDES program to be more specific to the inspection of a CAFO facility and easier for CAFO staff to use.

The DNR acknowledges that there have been historical issues with formally documenting inspections and making determinations of substantial compliance and that we need to improve. New staff have received specific training on both the determination procedure and the requirement for documentation. This concept was further reinforced for all staff at a statewide meeting held November 2016.

The CAFO program is already working on a set of training materials, standard operating procedures and template letters and checklists to improve consistency in the program. Training is underway with all new staff and, with the addition of four more positions and filling vacant positions, the majority of the regional staff will be new and they will receive consistent training in procedures and format.

One-on-one training with all new staff is being conducted by the CAFO program's Compliance and Enforcement Coordinator, a position created two years ago to specifically improve consistency. Training on standard operating procedures, documentation in the database and the format of the documentation is underway with all CAFO staff (new and existing).

Where warranted, permit reissuances will be held in abeyance pending permittee action to address noncompliance issues. This is reflected in the DNR's quarterly permit backlog tracking reports. Currently, permittees not in substantial compliance with their permit account for 1-2 percent of backlogged CAFO permits. Earlier inspections during years two or three and correction of any non-compliance issues before the 4th year substantial compliance inspection will result in faster reissuances, no backlog and better overall compliance.

In recognition of the need to have timely input of data into the database, an additional staff performance objective was set that establishes a regular expectation for timely entry of data. A significant part of the training stated above is to emphasize the importance of data entry.

Enforcement Efforts

Appropriateness, Consistency, and Timeliness of Enforcement Actions

Recommendation

We recommend the Department of Natural Resources:

- *regularly assess its performance in issuing notices of violation for municipal and industrial permittees based on its established policies;*
- *develop a strategy to increase the consistency between its enforcement policies and its actual practice of issuing notices of violation for municipal and industrial permittees; and*
- *report to the Joint Legislative Audit Committee by November 1, 2016, on its efforts.*

Status

The DNR has developed and is implementing a strategy to regularly assess its performance in regard to compliance at municipal and industrial facilities, and to increase the consistency between its enforcement policies and its actual practice of issuing notices of violations. The DNR's strategy includes updating the enforcement handbook, providing statewide training to staff to ensure consistency and scheduling specific training in each of the field offices with Environmental Enforcement staff.

The DNR's supervisors will ensure enforcement practices are implemented according to the handbook and will work directly with their staff to ensure statewide consistency. The DNR held a wastewater program meeting for all staff and supervisors in October 2016 that focused on the DNR's enforcement strategy.

The DNR agrees that consistency in the documentation processes for enforcement actions could be improved by utilizing a central database. The Water Quality Program is addressing these inconsistencies in documentation, and believes that the audit report would have more accurately reflected the enforcement activities if all Notices of Noncompliance (NONs) and less formal enforcement actions were recorded and stored in a single electronic database.

The audit report indicates that the number of Notices of Violation (NOV) issued by the DNR was significantly lower than what should have been issued pursuant to an outdated program guidance document. The Water Quality Program is in the process of revising this guidance document to assure consistency with respect to enforcement activities.

The revised document will continue to help inform staff about how to base their enforcement activities on specific circumstances when determining the appropriate level of response to noncompliance issues. In general, program staff are instructed to respond to noncompliance issues at the most appropriate level given the nature and circumstances of the violation.

The DNR's main goal is to get facilities in compliance with applicable requirements. This effort most often starts with the lowest possible enforcement approach – an informal discussion or NON – and only escalates to a more aggressive approach – such as a NOV, enforcement conference or referral – if a more collaborative approach does not result in compliance.

The DNR strongly believes that resolving noncompliance issues at the lowest appropriate level is the best approach because it results in the most expeditious compliance with environmental standards.

While the audit report acknowledged that there were at least 838 NONs issued during the audit period, the report did not provide a full description or assessment of the results of the program's enforcement actions because documentation of less formal resolutions to compliance matters was not captured in a centralized database. The lower than expected number of NOVs is indicative of the fact that our less formal approaches result in attaining compliance in most of the cases, and not that the issue went unaddressed.

Also, the DNR utilizes additional compliance monitoring tools such as the Compliance Maintenance Annual Reports (CMAR). Each year, every municipal permittee is required to complete a CMAR. This tool requires the facility staff and governing board to review all influent and effluent data for the past year; address plant loading, performance and any non-compliance. In addition, collection system maintenance, groundwater monitoring results (where applicable), and overall utility planning and management are also covered in the CMAR. The annual reports are reviewed by DNR staff and comments on the report and overall compliance record are sent back to the community.

On a related note, while it was not captured within the scope of the audit, the DNR has spent substantial time in the recent past addressing compliance issues in the septage industry. For example, in 2014, more aggressive enforcement activities such as NOVs, enforcement conferences and Wisconsin Department of Justice (DOJ) referrals were pursued against 25 separate septage companies. The focus on this enforcement activity was in response to citizen complaints and the increased potential negative health impacts of improperly disposing of untreated septic waste. Focusing on a specific sector in an effort to address public health issues or respond to public complaints requires the DNR to shift existing staff resources leaving fewer staff to pursue other enforcement activities.

The DNR has taken the following actions to address the identified enforcement documentation issues.

1. Guidance Revision and Training

- Completed revision of Enforcement Handbook with input from wastewater and environmental enforcement staff.
- Conducted training session for all staff on revised enforcement handbook at all-staff statewide wastewater program meeting held in October, 2016.
- Conducted training on consistent documentation of resolution of violations.

- Presented training on enforcement documentation expectations at statewide wastewater meeting held in October 2016.
- Scheduled enforcement training in each field office over the next six months. Completing revisions to enforcement handbook with input from wastewater and environmental enforcement staff.

2. Program Management

- Ensuring regional consistency in enforcement documentation.
- Developing standardized template within the data system for NONs to facilitate consistent use of this form of enforcement.
- Increasing monitoring of staff follow-up of late submittals or effluent limit violations by increasing distribution of exceedance reports to monthly from quarterly.

CAFO Enforcement Actions

Recommendation

We recommend the Department of Natural Resources:

- *determine the extent to which differences in the percentage of enforcement actions for CAFO permittees between the Northeast Region and its other regions can be explained by efforts to address the complaints that are received;*
- *review a sample of enforcement actions taken for CAFO permittees statewide and, where needed, provide training to its staff to increase the consistency of its enforcement actions throughout the state; and*
- *report to the Joint Legislative Audit Committee by November 1, 2016, on its efforts*

Status

A consistent approach to enforcement has been developed in a program handbook to establish one tool for determining compliance. Training is underway for both new and experienced staff and program managers are committed to a consistent approach statewide.

The DNR agrees with the audit findings regarding the need to increase consistency of enforcement in the CAFO program around the state. The DNR currently does not track complaints in a way that would indicate whether a complaint resulted in an enforcement action. Inspections can be triggered by more than a complaint and, as stated in the LAB report, DNR staff conduct more frequent inspections at facilities where a previous violation has occurred.

The DNR has taken several steps to address the inconsistency of enforcement around the state.

1. In July of 2015, DNR modified its reporting structure to a line organization in which all field staff and field supervisors within a program now report to the program director within central office rather than regional supervisors. One of the

- main reasons for implementing this change was to further increase consistency in permitting, inspections, and enforcement around the state. Program managers have affirmed the use of consistent approaches and compliance strategies.
2. With the high staff turnover rate, consistency has been difficult in areas of the state where multiple vacancies occurred. The DNR has reallocated four FTE positions to the CAFO program to reduce the CAFO permit to staff ratio from where it has been as high as 90:1 in one region down to 20:1 around the state. The DNR has been aggressive in filling vacancies as well. Once all vacancies and the four new positions are filled, the program will have nine new regional staff out of a complement of 14.5 regional staff statewide. This results in the need to conduct training, but it also provides an opportunity to start with an expectation that enforcement will be consistently applied and documentation procedures strictly followed.
 3. The DNR has put together a plan for how to move forward in a more consistent manner. Standard Operating Procedures, template letters and checklists will guide staff in the right direction for making compliance decisions. The program's Compliance and Enforcement Coordinator has developed a handbook for staff specific to enforcement procedures. The table of contents is provided below.
 4. Further developing the existing system of tracking complaints received through the DNR's hotline for spills and complaints so that resolution of complaints can be better tracked, as well as increase our ability to generate management reports to assess the needs for additional inspections and track enforcement trends.

Future Considerations

Changes to Phosphorus Limits

Recommendation

We recommend the Department of Natural Resources report to the Joint Legislative Audit Committee by November 1, 2016, on:

- ***the status of its request to EPA for the statewide multi-discharger variance for phosphorus limits***

Status

The DNR submitted the final, extensive, multi-discharger variance (MDV) package to EPA on March 30, 2016. The EPA has surpassed its 60-90 day review window, and has yet to make a final determination on the MDV. The DNR's staff continue to work with the regulated community to consider their phosphorus compliance options, and are prepared to implement the MDV upon EPA approval.

EPA Review of Wisconsin Laws

Recommendation

We recommend the Department of Natural Resources report to the Joint Legislative Audit Committee by November 1, 2016, on:

- **its progress in addressing the 38 issues identified in EPA's July 2011 letter that were not addressed as of April 2016; and**
- **any actions EPA has taken as a result of the citizen petition.**

Status

The DNR has made substantial progress to resolve the issues identified in the 2011 letter to Secretary Stepp that identified 75 potential issues with Wisconsin's authority to implement the WPDES permit program. This letter was based on a 2009 review by EPA.

As of November 1, 2016, Wisconsin has initiated actions to address 73 of the 75 issues. Of the two remaining issues, one issue needs to be addressed through legislation (the number of petitioners needed to challenge a permit), and resolution to the other issue (relating to waiving environmental requirements in an emergency) is being discussed with EPA.

The DNR has attached updates to Appendix 4 of the LAB report November 1, 2016, that reflect the steps DNR has taken to address each issue.

The EPA continues to review the actions DNR has taken to address the issues and DNR is continuing to work with EPA to resolve any outstanding issues.

The EPA is conducting an informal investigation of the citizen petition. The EPA has issued a protocol for its investigation, and EPA staff conducted a site visit on October 11-14, 2016, to review selected permit files. The DNR is cooperating with EPA and will provide any additional information EPA requests. The link below will access the EPA website with additional information on the petition: <https://www.epa.gov/wi/npdes-petition-program-withdrawal-wisconsin>

Addressing Groundwater Contamination in Kewaunee County

Recommendation

We recommend the Department of Natural Resources report to the Joint Legislative Audit Committee by November 1, 2016, on:

- ***the status of its efforts to address groundwater contamination in Kewaunee County and on any additional information that has become available concerning the likely source or sources of the contamination; and***
- ***the extent to which it plans to implement the recommendations made by each of the five workgroups.***

Status

The DNR has implemented a number of the work group recommendations including:

- implementing field audits of manure spreading practices;
- reallocating four staff to the CAFO permitting program (further resource enhancements may be considered for the FY2017-19 state budget);
- revising emergency manure spreading guidance;
- holding an informational meeting with Kewaunee County citizens regarding the recommendations; and
- providing area farmers with recommended revised manure spreading practices.

In addition, the DNR is in the process of implementing many more of the recommendations through revising the administrative rule that establishes nonpoint source pollution performance standards, NR 151, Wis. Adm. Code. These revisions are intended to provide targeted pollution reducing performance standards for sensitive karst areas, wherever they occur in the state.

The rules scoping statement was approved by the governor and Natural Resources Board over the summer of 2016 and the first meeting of the Technical Advisory Committee (TAC) was held on October 28, 2016. Five more meetings of the TAC are planned, followed by public hearings on proposed administrative rule revisions to be held in the summer of 2017. A final package is anticipated to be submitted to the state legislature for approval in early 2018.

Other recommendations in the process of implementation include reviewing and revising well contamination investigations, clarifying eligibility and process for supplying emergency drinking water, improving response coordination to contamination events

between local governments and the state, and providing increased consistency in compliance activities.

In order to continue the discussion of how to address groundwater issues in karst and other sensitive areas in the state, the DNR has formed an Alternative Practices Group. This group formed in June, 2016 and has met five times through November 2016. Its purpose is to explore alternative manure management methods as well as to keep citizens informed of implementation progress on recommendations already made. The group has addressed soil health, the science surrounding karst geology, composting, and treatment of manure to water quality standards.

Informing all of these policy and implementation decisions is a research study of the types and causes of groundwater contamination in karst areas. This study is funded by the DNR and conducted by U.S. Department of Agriculture's Agricultural Research Division, Kewaunee County, University of Wisconsin-Oshkosh and UW-Stevens Point.

More than 700 wells have been sampled for more than 30 bacteria, viruses and other contaminants in a statistically stratified study design. This study began in November 2015, and includes sampling conducted from wells installed in varying soil depths and during both recharge and non-recharge events.

Preliminary results have been communicated by the researchers to the DNR with final results anticipated in time to be considered for the NR151 administrative rule revisions. Initial indicators show that while many of the contaminants do, in fact, originate from agricultural practices, many also originate from human sources, indicating possible implications for standards involving septic systems.

Attachments



Statewide Training
Agenda.docx



LAB Report Appendix
4