

Iowa Department of Natural Resources
Response to U.S. EPA Region 7
September 2012

Regarding EPA's July 2012 report:

Preliminary Results of an Informal Investigation of the National Pollutant Discharge Elimination System Program for Concentrated Animal Feeding Operations in the State of Iowa

While the Iowa Department of Natural Resources (DNR) has many strengths in its permitting and enforcement programs, we also recognize the importance of continually improving where there are inadequacies. This document addresses the findings and recommendations of the U.S. Environmental Protection Agency (EPA) Region 7's July 2012 report, "Preliminary Results of an Informal Investigation of the National Pollutant Discharge Elimination System Program for Concentrated Animal Feeding Operations in the State of Iowa."

EPA's review looked at the DNR's concentrated animal feeding operations (CAFO) program in response to 31 alleged deficiencies. During its review of CAFO site files and statewide DNR enforcement and compliance data, EPA found that the DNR had already resolved 26 of these allegations. The EPA also noted other things that the DNR is doing well:

- The DNR has obtained National Pollutant Discharge Elimination System (NPDES) permit pollution control for all large open feedlot CAFOs in Iowa (pages 18-19).
- The DNR is on track to inspect all of these permitted CAFOs every five years (page 32).
- The DNR properly investigates and responds to all citizen complaints regarding manure discharges (page 26).
- The DNR has required timely submittals and complete record keeping for all nutrient management plans to ensure proper land application of manure (pages 15, 24 and 26).

Most important is the DNR's focus on working with producers and other citizens to understand and comply with rules and regulations, reducing the need for enforcement. In the last 10 years, the DNR's focus on compliance has helped steadily reduce the rate of manure discharges from 5.2 percent to 2.5 percent in CAFOs larger than 1,000 animal units (e.g. 1,000 beef cattle, 2,500 swine weighing more than 55 pounds). This approach has led to a declining rate of impacts to water quality as a result of manure discharges, even as the number of regulated farms has increased in the last decade.

DNR staff frequently responds to calls for assistance and information from producers, logging 84,879 contacts for compliance assistance regarding animal feeding operations since 2000. Field staff also speaks at producer, agricultural association and community meetings. The DNR also provides funding to Iowa State University Extension to conduct training for manure applicators. Since 1999, the training and certification program has helped commercial manure applicators and confinement owners, as Iowa law requires both to be certified to handle and

land apply manure. Ongoing training and testing is required for certification. Iowa State University Extension and DNR train an average of 4,500 applicators and owners every year.

Still, in some cases, enforcement action is necessary. From 2006 to 2011, the DNR assessed a total of more than \$1.3 million in penalties in 267 cases. As of July 1, 2012, collected penalties no longer go to the DNR's animal feeding operations program, but to the state Watershed Improvement Fund. These enforcement efforts regarding confinement operations have been successful, as DNR records since 2006 show that no confinement feeding operation has violated manure discharge requirements more than once.

The DNR is always working to improve permitting and enforcement efforts and plans on making a number of changes based on the EPA report. However, the DNR does not believe that all of the claims made in EPA's report are accurate. The DNR's responses to these claims, as well as planned changes to DNR programs, are outlined below.

Inspections and Permitting

EPA claims: Iowa has failed to issue permits to all confinement CAFOs that have discharged; DNR has not conducted comprehensive inspections to determine whether unpermitted CAFOs need NPDES permits.

In 2010, the Iowa legislature revised Iowa Code 459.311 to require confinement CAFOs to comply with NPDES permitting requirements as provided in the federal Clean Water Act and federal NPDES regulations (40 CFR parts 122 and 412; Iowa Code 459.311(2)). The revision required the DNR to adopt rules to implement an NPDES permitting program for confinement operations. The legislature included a caveat that any rules adopted pursuant to Iowa Code 459.311 shall be no more stringent than federal requirements. The DNR waited on rulemaking because portions of EPA's NPDES permitting regulations were invalidated in the 2011 *National Pork Producers Council* court decision. As of July 30, 2012, EPA has corrected its regulations, allowing the DNR to proceed with its rulemaking, which will begin by gathering stakeholder input by November 1, 2012.

As the DNR addresses these permitting items, we will also look at issues with inspections. Most of the files EPA reviewed in its report involved inspections of earthen basins, manure management plans and complaints and spills, all inspections specific to a certain need. The DNR does conduct some inspections to specifically determine if a facility needs an NPDES permit, but has not in the past inspected large confinement CAFOs to determine if they needed an NPDES permit because they are, by Iowa law, "no discharge" facilities. At the same time Iowa law now also requires that confinement operations comply with federal Clean Water Act requirements which will necessitate future DNR inspections.

Since 2007, the DNR has had a significant reduction in its animal feeding operations staff. To better meet our responsibilities, the DNR needs both an increase in staffing and to reprioritize

workloads. The following is a phase-in plan that would accelerate the process of determining if the estimated 7,000 to 8,000 Iowa animal feeding operations need NPDES permits.

Staffing

The calculations for additional staff members are based on these assumptions:

- 1) 3,200 large confinement CAFOs (Based on EPA estimate of 2,900 plus a small net growth factor over five years)
- 2) 4,600 medium animal feeding operations (EPA estimate plus a small net growth factor over five years – includes medium open feedlots, confinements, and combined open feedlots and confinements)
- 3) Time for file review, actual inspection, travel time and write up of the report

The DNR has made a recommendation for an additional 13 full-time equivalent employees and associated funding for state fiscal year 2014. Assuming that DNR receives some or all of the increase, and those resources are still inadequate, the DNR will pursue additional funding, including any available EPA grants. Additional resources will not be available until state fiscal year 2014, so the DNR cannot hire new staff until after July 1, 2013.

As there will be additional confinement and open feedlot facilities that will need an NPDES permit, the DNR in the long term may need an additional engineer to process and issue construction permits for facility upgrades. There may also be a need for an additional NPDES permit writer to process applications and issue permits.

Workload prioritization

Until new employees can be hired, the DNR will begin revising work priorities and developing new confinement inspection checklists and guidelines for staff. This approach would phase in inspections for determining if a CAFO needs an NPDES permit. The DNR is already conducting some NPDES permit determinations at large and medium open feedlot animal feeding operations, as well as some combined animal feeding operations, which has already led to an increased number of NPDES permits issued to Iowa animal feeding operations. For example, DNR staff currently assesses a CAFO's need for an NPDES permit while on site investigating a complaint or reported spill. An inspection with a trained CAFO inspector may follow this initial investigation. In order to receive an NPDES permit, a facility must meet minimum requirements to protect the environment and be in compliance prior to receiving the permit. To achieve compliance, typically the producer must improve pollution control structures through facility construction.

To phase in additional types of animal feeding operations, the DNR will create a priority list in collaboration with EPA and other stakeholders. The first priority will continue to be inspecting confinement and open feedlot facilities during complaint and spill investigations. The next potential priority would be to review construction permit applications (usually for confinements) to determine if the facilities have the ability to discharge to a water of the United States. This would require changing the permit application to require additional information and the DNR would need to update our site survey checklist. A third priority may

include open feedlot operations with a previous discharge, identified by researching 10 years' worth of DNR files and database information, although this affects only a small percentage of animal feeding operations in Iowa. Another potential category of facilities would be animal feeding operations with earthen or anaerobic basins. As NPDES permits have a five-year life, the DNR will continue to inspect all NPDES permit holders at a minimum of once per five years, with a compliance check prior to renewal.

This approach still requires reprioritizing current and any additional resources. To accomplish this or to increase staffing, a phased-in approach will be needed to determine priorities, develop additional standard operation procedures and guidance for staff, including checklists and inspection forms and staff training to ensure consistency. For the past three years, DNR inspection staff has used a checklist and guidance to determine if open feedlot animal feeding operations are in compliance and if a facility needs an NPDES permit. The DNR will also revisit that checklist to ensure consistency.

The development of this plan, associated checklists and standard operating procedures, plus training of existing staff, will start immediately. The DNR will complete the updated priorities, new checklists and guidance by January 31, 2013 and train existing staff by April 30, 2013. Changing construction permit application forms and site survey checklists will be worked on in parallel with other changes. However, these changes may take longer, as it will involve working with stakeholders, producers and consultants in determining expectations. Changing priorities will also mean that some current DNR efforts will become lower priority or dropped. The DNR will involve stakeholders in determining some of the changes in priorities.

The overall economic impact of increasing inspections will be very high for Iowa. Depending on the need for additional pollution control facilities, there will be many consultants, engineers, surveyors and contractors that will be part of accomplishing this work. As an offset to the capital costs to the facility owners, typically, producers find that they are protecting the environment, but also benefitting from using manure as fertilizer for their row crops, and have better production growth due to improved environmental conditions for livestock.

Compliance and Enforcement

EPA claim: *The DNR is not assessing adequate penalties against CAFOs.*

EPA states in its report that it selected 152 facility files to review for enforcement actions and inspection reports. From this group, EPA reviewed approximately 70 DNR enforcement actions that included Clean Water Act/NPDES violations at CAFOs between October 1, 2006 and September 30, 2011. Of the approximate 70 cases reviewed, EPA stated in 33 of the cases that the DNR's administrative penalties did not adequately recover the economic benefit of noncompliance and were insufficient, in general, to serve as a deterrent in cases involving discharges or fish kills.

The DNR reviewed the 33 cases in which EPA stated that no economic benefit was assessed. As a starting point, the DNR believes that six of these cases should not have been included on the list, as they involved open feedlots using alternative technology for manure control. These orders did not include administrative penalties, but outlined stipulated penalties that the DNR would assess if the feedlot failed to meet future NPDES permit monitoring and reporting requirements. The DNR determined that these feedlots needed additional time to develop the vegetative parts of the alternative technology system and for the system to prove its effectiveness. Using stipulated penalties would ensure feedlots would complete all monitoring and reporting requirements, allowing the DNR to fully evaluate the alternative systems in the next NPDES permit renewal cycle.

In addition to the six alternative technology cases, another feedlot case noted by EPA should not have been on the list. In this case, the DNR negotiated a stipulated penalty with that feedlot that required payment of a penalty if the feedlot exceeded its 1,000 cattle threshold without an NPDES permit. The operation had decided to not renew its permit because it did not plan to exceed the 1,000 cattle threshold. The feedlot also agreed to stipulated penalties if it failed to maintain and submit inventory records of its animals. The DNR has no records indicating that this facility has violated those conditions.

In all enforcement cases, including the remaining cases reviewed by EPA, the DNR recognizes the requirement in 567 Iowa Administrative Code Chapter 10.2(1) to seek penalties which at least offset economic benefit. However, in many of the cases reviewed by EPA, the DNR determined that the economic benefit was minimal or nonexistent. In some cases, the costs of cleanup were more significant than any economic benefit received by the facility in violating the law. However, the DNR admits that the enforcement files in these cases may not have provided sufficient documentation or justification for the penalty. In addition, the DNR understands that EPA has a different position on economic benefit regarding cleanup costs.

To address EPA's concern, the DNR will revise its EMS manual and associated enforcement documents to properly account for the penalty. The DNR will incorporate an economic benefit plan into the enforcement process as it revises its EMS manual and referral document to better detail penalty calculations. The DNR will provide more documentation regarding economic benefit and will provide for mitigating factors in other areas of the penalty calculations. The DNR will also fully document any cases that require a deviation from the manual. If necessary, the DNR will train field staff on calculating the overall penalty. The DNR plans to submit this documentation to EPA by January 31, 2013 and if training is required, it shall be completed by April 30, 2013.

EPA claim: EPA finds that in a number of cases reviewed (49 percent), DNR failed to act, or did not follow its enforcement response policy when addressing Clean Water Act/NPDES permit violations.

The EPA chose to review 152 facility files for its report, in which it identifies 43 facilities with documented Clean Water Act/NPDES violations. From those 43 cases, the EPA claims that in 23

situations the DNR failed to act or did not follow its EMS manual (EPA's initial report indicated 21 situations, but EPA included 23 cases in a later submittal to the DNR).

The DNR reviewed these 23 situations. EPA's review of the facilities was broken down into three categories: documented discharges addressed through notice of violation (NOV) only, documented discharges with no enforcement actions, and NPDES permit violations with no enforcement action.

The first category of documented discharges addressed through notice of violation included 10 facilities. For two of the facilities, the DNR did take further enforcement beyond the notice of violation. The DNR issued the two facilities administrative consent orders, which included administrative penalties and restitution. The DNR had begun the referral process on these two facilities during EPA's review period, although the enforcement actions were not finalized during that time. Two of the 10 facilities did not have documented discharges according to field office inspections. For five other facilities in this category, the DNR noted violations and issued notice of violation letters. However, the violations did not rise to the level for further enforcement, following the animal feeding program's enforcement priorities as stated in the DNR's EMS.

The enforcement priorities listed in the DNR's EMS for the animal feeding program include:

1. Fish kill/acute water quality degradation
2. Serious water quality degradation
3. Construction of animal feeding operation structures without or contrary to a permit or manure management plan/construction design standards
4. Failure to submit manure management plan update or incomplete updates.

The priorities do not state that all discharges are to be referred, but rather discharges that cause a fish kill or serious water quality degradation shall receive top priority for further enforcement. None of the five remaining cases in this category involved a fish kill or serious water quality degradation. The inspection reports from each of the five facilities indicated little or no impact on water quality and indicated fish kills were not involved.

EPA included five facilities in the second category of documented discharges with no enforcement actions. For two of the five facilities, the DNR did not issue a notice of violation because staff did not discover violations during inspections. The field office did not document discharges at these facilities.

The final category of NPDES permit violations with no enforcement action included eight cases noted by EPA. In four of these cases, DNR did issue notices of violation for violations discovered during the inspections. The facilities addressed the violations and no further enforcement was warranted.

DNR's response to each specific case that EPA reviewed can be found in Attachment I.

The DNR believes that it has followed the guidance of the EMS and conducted adequate enforcement for the facilities that EPA noted. However, to address EPA's concerns that facility files are not adequate in documenting compliance and enforcement decisions, the DNR will include better documentation in its files on what is witnessed during inspections. Further documentation may include photographs, laboratory samples or narrative descriptions of the findings. The DNR intends to develop a checklist to ensure consistent documentation of inspection findings and proper enforcement responses by enforcement staff. The DNR will submit this documentation to EPA by January 31, 2013.

Land application setbacks

EPA claim: Iowa law is less stringent than federal law because it allows the application of manure without a separation distance if it is incorporated into the soil within 24 hours rather than establishing separation distances.

The EPA informed the DNR of this deficiency in a June 25, 2008 letter, and the DNR responded in a November 24, 2008 letter, stating:

Department rules at 567 IAC 65.3(3) "g" provide an exemption to the 200-foot manure application setback from "designated areas," which by definition includes sinkholes, agricultural drainage wells, water sources, et al. This exemption parrots language in Iowa Code §459.314(2). The Department intends to amend 567 IAC 65.3(3) "g" as follows:

g. Designated areas. A person shall not apply manure on land within 200 feet from a designated area, or in the case of a high quality water resource, within 800 feet, unless one of the following applies:

- (1) The manure is land-applied by injection or incorporation on the same date as the manure was land-applied. *For purposes of the NPDES permit program, if applicable, the person must also demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 200- or 800-foot setbacks.*
- (2) An area of permanent vegetation cover, including filter strips and riparian forest buffers, exists for 50 feet surrounding the designated area other than an unplugged agricultural drainage well or surface intake to an unplugged agricultural drainage well, and the area of permanent vegetation cover is not subject to manure application.

The DNR pursued rulemaking and, effective October 14, 2009, the provision (567 IAC 65.3(3)"g"(1) and 65.101(6)"b"(1)) in question was amended as follows:

(1) The manure is land-applied by injection or incorporation on the same date as the manure was land-applied. *For purposes of the NPDES permit program if applicable, the person must also demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 100-foot setback required by 40 CFR 412.4(c)(5).*

A letter from William Spratlin, EPA, delivered on April 1, 2010 recognized these changes:

“Region 7 commends IDNR’s efforts to revise portions of Iowa’s CAFO regulations and seek legislative changes to Iowa’s CAFO statutes. It appears that IDNR’s modifications of the Iowa Administrative Code in 2009 and the statutory revisions enacted by the Iowa legislature in 2008 and 2010 render Iowa’s authorities sufficiently stringent.”

While the claim in EPA’s current report is outdated and contrary to previous messages from EPA, the DNR plans to update nutrient management plan templates and to modify the Iowa Administrative Code as follows:

1. Delete the NPDES language in 567 IAC 65.3(3)“g”(1) and 65.101(6)“b”(1); Modify 567 IAC 65.3(3) and 65.101(6) by adding the following paragraph, the federal regulation language in *40 CFR 412.4(c)(5)*, to each subrule:

h or d. *CAFO Setback requirements.* Unless the CAFO exercises one of the compliance alternatives provided for in subparagraphs (1) or (2) of this paragraph, manure, litter, and process wastewater may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.

(1) Vegetated buffer compliance alternative. As a compliance alternative, the CAFO may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited.

(2) Alternative practices compliance alternative. As a compliance alternative, the CAFO may demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.

The DNR will pursue the planned rule modifications as part of the rulemaking regarding NPDES permitting for confinements described above. The DNR will also update nutrient management plan templates and application forms to ensure that the foregoing requirements are included.

EPA claim: *There is no comparable state requirement to the federal requirement at 40 CFR 412.31(a)(2), which requires specific supporting analyses and other data before a permit is issued with alternative effluent limits. Thus, there is no initial demonstration that an untested alternative technology system will retain pollutants.*

While the DNR's reviewing engineer makes this requirement known during the pre-application meeting or other communication with the applicant's engineer, the DNR will revise its construction permit application form to include the predictive modeling requirement.

Timeline of DNR response actions

November 1, 2012

- Begin to gather stakeholder input on rulemaking to revise Iowa Administrative Code regarding NPDES permitting requirements.

January 31, 2013

- Complete updated priorities, new checklists and guidance.
- Develop a referral checklist to ensure proper enforcement.
- Incorporate an economic benefit plan into DNR enforcement process to better detail penalty calculations as part of EMS manual and referral document revisions.

April 30, 2013

- Train existing staff on new priorities, checklists, guidance, EMS updates, etc.

July 1, 2013

- Begin hiring new staff, if adequate funding is received.

Moving forward

As the DNR takes steps outlined in this document to improve our CAFO permitting and inspection programs, we will build on our strengths. The DNR will continue to emphasize working with producers for compliance yet take enforcement actions when needed. We move forward, although with limited resources. Still, our commitment remains to helping producers protect Iowa's water quality.

Attachment I

Documented Discharges Addressed through Notice of Violation (NOV) Only

Facility ID	Facility Name	Inspection Date	Violation	DNR Response
58991	Alvine Farms (6)	5/20/09	Discharge	DNR was unable to verify if manure reached the creek, but a dike was constructed to prevent a discharge to the creek and the area was cleaned up.
67434	Bernard County Dairy (1)	11/29/10	Discharge	The DNR believes this case should be removed from the list because further enforcement action was taken. Administrative Consent Order #2012-AFO-14 was issued to Gansen Pumping and James Decker (dairy owner) in April 2012. Penalty \$6,400.00, Restitution \$2,566.49
64878	Boerderjij De Vedhoek (2)	4/9/10	Discharge	The DNR believes this case should be removed from the list because it did not document a discharge to a water of the United States.
61209	Cedar Valley Farms (1)	10/29/08	Discharge	The responsible party was the commercial manure applicator, Axmear Pumping. Axmear notified the field office and bermed the area. The field office witnessed no ammonia nitrogen and no stressed aquatic life in the creek. No further enforcement action was taken because the violations did not meet the enforcement priorities as stated in the DNR's EMS.
61209	Cedar Valley Farms (1)	7/21/11	Discharge	The DNR believes this case should be removed from the list because further enforcement action was taken. Administrative Consent Order #2012-AFO-01 was issued in January 2012. Penalty \$5,000.00 Restitution \$2,247.10

64237	Einck Dairy (1)	1/8/10	Discharge	Field office did document the discharge, but no fish kill. Spill report was submitted with a plan to avoid future discharges. No further enforcement action was taken because the violations did not meet the enforcement priorities as stated in the DNR's EMS.
64692	Harms South Site (2)	10/28/08	Discharge	Field office did not document fish kill and a plan to ensure no further discharges occurred was submitted. No further enforcement action was taken because the violations did not meet the enforcement priorities as stated in the DNR's EMS.
57409	Pedley Holsteins (3)	3/25/09	Discharge	Milk wash hose and house septic hooked in to tile. Permanent septic was constructed and milk hose was disconnected from tile. Tile outfall was not located. Violations were corrected. No further enforcement action was taken because the violations did not meet the enforcement priorities as stated in the DNR's EMS.
56251	Van Meter Feedyard (4)	3/16/10	Discharge	Permitted facility with a discharge due to snow melt and heavy rain. Field office conducted inspection and did not observe fish kill. No further enforcement action was taken because the violations did not meet the enforcement priorities as stated in the DNR's EMS.
60190	Wellman Feeder Pig (6)	11/23/09	Discharge	The DNR believes this case should be removed from the list because it did not document a discharge to a water of the United States.

Documented Discharges with No Enforcement Actions

Facility ID	Facility Name	Inspection Date	Violation	DNR Response
64878	Boerderrij De Vedhoek (2)	4/30/10	Discharge	The DNR believes this case should be removed from the list because it did not document a discharge to a water of the United States.
60715	Derner's of Milford (3)	8/24/10	Discharge	The DNR believes this case should be removed from the list because it did not document a discharge to a water of the United States.
57972	Handlos – Rudolph's Site (4)	4/2/09	Discharge	No fish kill was observed and facility responded quickly to the spill.
56520	Pike Farm/Don Jackson (3)	6/28/11	Discharge	The DNR believes this case should be removed from the list because it did not document a discharge to a water of the United States. The inspection found no discharge; facility constructed a waste storage facility. No NOV was issued because no violations were noted during inspection.
56382	Rock River (3)	9/23/10	Discharge	Permitted CAFO, facility received and reported greater than 25-year, 24-hour rainfall event and reported a discharge from the settling basin. No NOV was issued because this was a permitted discharge. Also on this date, the field office received a complaint regarding a discharge from recent land application. No NOV was issued as a result of the September complaint, but a NOV was issued on Dec. 14, 2010 for a similar November complaint and remedial actions were taken following the NOV.

NPDES Permit Violations with No Enforcement Action

Facility ID	Facility Name	Inspection Date	DNR Response
63481	Beswick Feedlot (1)	6/29/10	The DNR believes this case should be removed from the list because an NOV was issued for the monitoring violation and the facility was directed to analyze manure once annually for nitrogen and phosphorus.
63481	Beswick Feedlot (1)	5/19/11	The DNR believes this case should be removed from the list because an NOV was issued for a separation distance violation in manure application and owner's plan of action outlined how separation distances will be met in future.
56450	Couser Cattle (5)	12/2/10	No discharge was observed, therefore no NOV was issued.
60404	Farmers Coop (3)	9/22/09	During inspection some recordkeeping issues were noted, but no ongoing issues.
56443	Flying A Cattle Company (4)	1/28/09	The DNR believes this case should be removed from the list because an NOV was issued for failure to submit annual report. Annual report was submitted.
61296	Jirak Feedlot (1)	5/21/10	The DNR believes this case should be removed from the list because an NOV was issued for record keeping and reporting requirement violations.
59970	Ulrich Feedlot (3)	1/5/09	During inspection some deficiencies were noted including lack of staff gauge and no containment around storage pile. Field office is planning a follow-up inspection.
56251	Van Meter Feedyard (4)	6/30/11	Inspection occurred; onsite records deficiencies were noted for pen maintenance and manure removal/stockpiling.