MINUTES OF THE
ENVIRONMENTAL PROTECTION COMMISSION
MEETING

February 15, 2022

Video Teleconference
and
Wallace State Office Building

Approved by the Commission TBD

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Meeting Minutes

CALL TO ORDER

The meeting of the Environmental Protection Commission (Commission or EPC) was called to order by Chairperson Harold Hommes at 10:04am on February 15, 2022 via a combination of in-person and video/teleconference attendees. A verbal attendance list was conducted for Commissioners, Department of Natural Resources (DNR) staff, and members of the public. Alicia Plathe, Board Administrator, provided a tutorial of the Google Meet features.

COMMISSIONERS PRESENT

Brad Bleam
Rebecca Dostal
Stephanie Dykshorn
Amy Echard
Patricia Foley
Harold Hommes
Lisa Gochenour-video conference

COMMISSIONERS ABSENT

Mark Stutsman
Ralph Lents

APPROVAL OF AGENDA

Motion was made by Amy Echard to approve the agenda as presented. Seconded by Patricia Foley. The Chairperson asked for the Commissioners to approve the agenda by saying aye. There were no nay votes.
Motion passes.

AGENDA APPROVED AS PRESENTED

APPROVAL OF MINUTES

Motion was made by Rebecca Dostal to approve the January 19, 2022, EPC minutes as presented. Seconded by Brad Bleam.

Brad Bleam-aye, Patricia Foley-aye, Mark Stutsman-absent, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, Lisa Gochenour-aye, and Ralph Lents-absent.
Motion passes.

APPROVED AS PRESENTED

MONTHY REPORTS

- Ed Tormey, Division Administrator, referenced the spill reports provided to the Commissioners prior to the meeting. He also briefed the Commissioners on the 2022 Avian Influenza outbreak in the United States, stating that there have not been any reports in Iowa to date and that the DNR is monitoring the situation along with IDALS and other organizations.

INFORMATION

DIRECTOR'S REMARKS

- Director Kayla Lyon informed the Commissioners that it is funnel week for the 2022 Iowa Legislative Session.
- Director Lyon shared that she gave a budget presentation to the Agriculture and Natural Resources Appropriations Committee in both the House and Sentate. In the budget presentations, she highlighted some of the DNR's work with water quality, the Environmental Service Divison's dashboard, and the P2 Intern program.

Director Lyon also mentioned that she presented to the Infrastructure Committee, and that the Commissioners are welcome to a copy of any of her presentations.

INFORMATION

CONTRACT AMENDMENT #6 TO EXISTING CONTRACT WITH ENFOTECH & CONSULTING, INC

Wendy Walker presented a request to amend an existing contract with enfoTech & Consulting, Inc that includes upgrades to the Air Quality Easy Air online permit application. Wendy highlighted that funding for the proposed amendment would come from one-time federal grant dollars and clarified that the amendment was brought before the Commission because the amendment is adding more than $25,000 to the original contract.

Public Comments – None

Written Comments – None

Motion was made by Amy Echard to approve the Contract Amendment as presented. Seconded by Rebecca Dostal.

Brad Bleam-aye, Patricia Foley-aye, Mark Stutsman-absent, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, Lisa Gochenour-aye, and Ralph Lents-absent.
Motion passes.

APPROVED AS PRESENTED

RESPONSE TO THE IOWA ENVIRONMENTAL COUNCIL AND ENVIRONMENTAL LAW AND POLICY CENTER'S 567 IAC 65 PETITION FOR RULEMAKING

Michael Schmidt presented a Petition for Rulemaking that was received in August 2021 by the Iowa Department of Natural Resources. The petition, written and supported by the Environmental Law and Policy Center and Iowa Environmental Council, requested revision of rules relating to the siting of animal feeding operations. Kelli Book presented the Iowa Department of Natural Resource's proposal to deny the petition in full. Public comments were accepted after both presentations.

Commisioner Dostal asked if Iowa law included requirements for other structures that are built on/over karst and Kelli Book responded that there are for landfills. Kelli Book also notified the Commissioners that a draft of the broader AFO rule package that DNR is currently working on will be released to interested parties late Spring. Chairperson Hommes stated his support for DNR's 5-year comprehensive rule review. Commissioner Dykshorn remarked that she looks forward to seeing the upcoming rule package from DNR and urged all parties to work together to balance interests during that process.

Public Comments – See Attachment A

Written Comments – See Attachment B

Motion was made by Stephanie Dykshorn to approve the Iowa Department of Natural Resource's proposal to deny the petion for rulemaking in full. Seconded by Amy Echard.

Brad Bleam-aye, Patricia Foley-aye, Mark Stutsman-absent, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, Lisa Gochenour-aye, and Ralph Lents-absent.
Motion passes.

APPROVED AS PRESENTED

GENERAL DISCUSSION

- Ethan Vorhes gave a presentation to the Commission on his concerns regarding water drainage on neighboring private property.

- Commissioners discussed the EPC 2020-2022 biennial report that is due in July 2022. Commissioner Dykshorn volunteered to lead the project, along with assistance from Commissioner Echard and Commissioner Foley. Chairperson Hommes requested that the report include total dollars approved for State Revolving Fund projects as well as the EPC's approval to modify flood plain rules related to bridge construction.
- Alicia Plathe reminded Commissioners that the March meeting will be held offsite at the State Hygenic Lab in Ankeny and that it will include a tour.

ADJOURN

The Chairperson adjourned the Environmental Protection Commission meeting at 11:56 am on February 15, 2022.

ADJOURNED

Ben N- Iowa Pork Producers Association supports the denial of the petition for rulemaking. Current karst rules are solid and scientifically-based. IPPA supports the analysis of the Director's discretion rule and rejects strengthening of that rule.

Kevin S- Iowa Poultry Association supports the denial of the petition for rulemaking. Current extensive karst rules are in place and IPA will continue to provide input on any karst rule changes. IPA supports current groundwater rules as well as the ARRC and Attorney General's analysis of the Director's discretion rule and strongly opposes strengthening the Director's discretion rule.

Monte M-DNR does not ever use the Director's discretion rule. Land currently farmed is located on karst in NE Iowa. Nearby property has a confinement site that was built on a grass waterway. Concerned with the attitude that we don't need to make changes around karst rules to protect Iowa's Driftless area. Grateful for the discussion.

Matt D- Iowa Cattlemen's Association supports DNR's denial of the petition for rulemaking. Feels current karst rules balance karst protection with needs of cattle producers. Supports current groundwater monitoring rules and opposes the strengthening of the Director's discretion rule.

Chris G-Iowa Farm Bureau Federation supports the DNR's denial of the petition for rulemaking. Iowa has more karst rules than other states around both unformed and formed structures and looks forward to a more wholistic rule review approach by the department. Supports the improvement of older facilities and believes the petition would de-incentivize farmers to better their facilities. Does not support the strengthening of the Director's discretion rule.

Ingrid G-Iowa Environmental Council. Agrees that there is a difference between "may" versus "shall" but DNR still has discretion to adopt rules. She also remarked that DNR isn't using its discretion to require monitoring under the current language. Disagrees with the statement that DNR shouldn't have to review all of the AFO construction documents-isn't that DNR's role? DNR is not currently balancing environmental and agriculture interests. Changes requested in the petition are reasonable and would not negatively impact agriculture community.

Judy V-Bad water quality cause cancer, birth defects, etc.-all of these things matter.

Jane S-If current rules are sufficient, there shouldn't be a confinement constructed on a grass waterway.

Ethan V-Personal experience with a facility built near a sinkhole. Rules should be strengthened and not relaxed.

Hugh E.-ICCI. Supports IEC and Environmental Law & Policy Center's petition. Rules should be strengthened and not weakened. If things are working, why are we getting more impaired waterways and increased waste? EPC should live up to its name.

Monte M (2)-Rules aren't adequate. Supports protecting our resources. The provision of "may" in current rules is never used by DNR. Facility construction referenced in previous comment was approved by the DNR, and department discretion wasn't used.

Unnamed-As a mother of three, we need to be protecting our children's and grandchildren's futures. No one wants to drink water with feces.

Jane S (2)-Will rules in the petition be looked at in the DNR comprehensive rule review?

Kelli B-Yes-DNR will be considering karst rules, looking at more consistent and compact rules. DNR will work with interested parties to make improvements.

Attachment B

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Shawn Blaesing <sblaesing@gmail.com> Mon, Feb 14, 2022 at 2:13 PM
Reply-To: Shawn Blaesing <sblaesing@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you

Sincerely,
Shawn Blaesing
816 Kellogg Ave
Ames, IA 50010

TO: Iowa Department of Natural Resources – Environmental Protection Commission

FROM: William Simpkins, Professor Emeritus, Iowa State University (retired)

RE: Support for the IEC/ELPC Petition for Rules Revision for Animal Feeding Operations

I recently retired after 32 years at ISU, where I taught courses in all facets of hydrology. I have performed research in stream and groundwater quality – including studies in nitrate, pesticide, and virus transport and contamination – in a variety of glacial and bedrock environments in Iowa, including the aquifer in Ames. I am writing today because the current rules for siting animal feeding operations in Iowa appear to be inadequate to protect groundwater, streams, and drinking water in areas with shallow bedrock aquifers, particularly in karst.

In the late 1990s, I studied the impact of CAFOs on water resources in Iowa and co-authored a 2002 paper, entitled: *Potential Impact of Earthen Waste Storage Structures on Water Resources in Iowa.* My co-authors and I had hoped that our findings would find their way into the siting rules and specifically address the risk of siting future operations in sensitive geological environments. But, since that paper was published 20 years ago, high-risk areas with shallow bedrock – where aquifers supply drinking water and baseflow to streams – contain many more animal feeding operations. In these areas, thin soils provide little to no protection for surface contaminants to reach the bedrock aquifer. Sinkholes in karst provide a direct pathway for surface runoff to enter drinking water. Karst aquifers contain fractures and large conduits promoting fast groundwater flow and contain little to no capacity to retard contaminants before discharging into a stream or a public water supply. Recent research in Iowa, as well as in the neighboring states of Wisconsin and Minnesota, has shown that nutrients, viruses, and bacteria – traceable to local manure application areas – can be transported to these shallow aquifers and end up in private wells.

The recent controversy in the geologically sensitive karst of northeast Iowa has highlighted a need to revise and improve the rules that govern siting of animal feeding operations. Iowa is working with 20-year-old rules and it's time to up our game. Therefore, I ask that EPC and IDNR support the IEC/ELPC petition to revise rules related to the siting of animal feeding operations. It would be a positive move towards improving water quality and protecting drinking water in Iowa.

The comments above represent my views as a private citizen and not of Iowa State University.

TO: IDNR EPC - In support of DNR Reviewing CAFO Regulations

FROM: Bob Libra - Former State Geologist of Iowa

My comments come from 35 years of work on groundwater and water quality in the state, with a long focus on the areas where groundwater can be readily contaminated from what occurs on the land surface. Regulations to protect groundwater, streams, and drinking water supplies must consider the geologic settings of activities permitted by the DNR. One size doesn't fit all. Our current rules, from 20 years ago, are not adequately doing so. It's time they do.

The parts of the state with shallow bedrock aquifers, which supply drinking water and feed groundwater to high-quality streams, are particularly at risk. These areas have a minimal cover of glacial and other soils. Infiltrating water and the contaminants it carries, including nutrients, bacteria and viruses pass through the thin soil cover, and once into the bedrock spread rapidly in the groundwater. In addition, the common presence of sinkholes allows direct input of runoff and soil water. There is little or no filtration, adsorption, or diminishing of the contaminant load. Decades of research and monitoring have clearly shown this in Iowa, neighboring states, and across the country and the world.

Given the tremendous increase in confined livestock operations across the state our 20-year old rules would certainly benefit from a total review, beyond assessing improvements to protect our most vulnerable groundwater areas. Efforts to improve water quality in Iowa have achieved little to date. We have an opportunity to assess the role our livestock rules play in this.

For these and numerous related reasons, I urge the Commission and the Department to move forward with the rulemaking petition submitted by the Iowa Environmental Council.

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Brian Feuerhelm <lbfeuerhe@hotmail.com> Fri, Feb 11, 2022 at 1:13 PM
Reply-To: Brian Feuerhelm <lbfeuerhe@hotmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you

Sincerely,
Brian Feuerhelm
2150 Snowflake Rd
Lansing, IA 52151

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Christine Curry <christineanncurry@gmail.com> Sat, Feb 12, 2022 at 10:07 PM
Reply-To: Christine Curry <christineanncurry@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Christine Curry
2801 EP True Parkway #303
West Des Moines, IA 50265

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Colleen Armstrong <armstrong.m.colleen@gmail.com> Fri, Feb 11, 2022 at 2:02 PM
Reply-To: Colleen Armstrong <armstrong.m.colleen@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you

Sincerely,
Colleen Armstrong
595 88th Street #229
West Des Moines, IA 50266

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Diana Sickles <dsickles4@gmail.com> Sat, Feb 12, 2022 at 9:25 AM
Reply-To: Diana Sickles <dsickles4@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

I urge you to approve the petition of the Iowa Environmental Council requesting the Commission protect our waterways and drinking water, and especially the sensitive Karst terrain. I disagree with the request of the Iowa DNR that this approval wait for the IA DNR to look at this issue from a broader view. There is no need to do this. Immediate approval is in the best interest of the people of Iowa and it does not stop the DNR to continue their pursuit to look at this issue more broadly which I hope they will do sooner rather than later.

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Diana Sickles
1015 35TH ST
DES MOINES, IA 50311

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Antonino Erba <1poprocker@gmail.com> Fri, Feb 11, 2022 at 2:41 PM
Reply-To: Antonino Erba <1poprocker@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Antonino Erba
180 W 15th St
Dubuque, IA 52001

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Erik Sessions <eriksessions@gmail.com> Fri, Feb 11, 2022 at 1:20 PM
Reply-To: Erik Sessions <eriksessions@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

I have a small organic farm in NE Iowa - karst country. I rely on my clean ground water well to produce great food for my family and my customers. We see water flow through sink holes and 'invisible' fissures in the limestone bedrock and out in to streams all the time. It's very easy to imagine well contamination scenario's. In fact, it happens every day to hundreds of wells around here. There is no justification for CAFO's on karst. Why should one farmer with a CAFO be allowed to ruin the livelihood of many neighbors as well as the health of hundreds of people through groundwater and air pollution?

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa’s drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you,
Erik Sessions

Sincerely,
Erik Sessions
3031 Middle Hesper Rd
Decorah, IA 52101

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Erin Garity <egarity@gmail.com> Wed, Feb 9, 2022 at 9:26 AM
Reply-To: Erin Garity <egarity@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Erin Garity
3512 aspen Dr
West Des Moines, IA 50266

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Gail Turner <thepetpal@gmail.com> Sat, Feb 12, 2022 at 11:26 AM
Reply-To: Gail Turner <thepetpal@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

Please prioritize the protection of Iowa waterways and drinking water wells by adopting rules to monitor feedlot pollution in waterways.

We have too many CAFOs in our state already and you can play a vital role in protecting our water for all the people of Iowa instead of allowing ever more hog confinements to foul our state.

Thank you

Sincerely,
Gail Turner
1010 Cardinal Dr
Polk City, IA 50226

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Jacob Lish <jacob.lish@drake.edu> Fri, Feb 11, 2022 at 2:32 PM
Reply-To: Jacob Lish <jacob.lish@drake.edu>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you,
Jacob

Sincerely,
Jacob Lish
2803 University Ave
Des Moines, IA 50311

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Jeffrey Benz <solarbtu@gmail.com> Thu, Feb 10, 2022 at 5:07 PM
Reply-To: Jeffrey Benz <solarbtu@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Jeffrey Benz
3010 E Jefferson Ave
Des Moines, IA 50317

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Jeffrey Benz <solarbtu@gmail.com> Fri, Feb 11, 2022 at 4:07 PM
Reply-To: Jeffrey Benz <solarbtu@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

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Thank you

Sincerely,
Jeffrey Benz
3010 E Jefferson Ave
Des Moines, IA 50317

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Laura Krouse <laura@abbehills.com> Sun, Feb 13, 2022 at 1:21 PM
Reply-To: Laura Krouse <laura@abbehills.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Laura Krouse
825 Abbe Hills Road
Mt Vernon, IA 52314

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Marianne French <mfrench@central.k12.ia.us> Fri, Feb 11, 2022 at 1:04 PM
Reply-To: Marianne French <mfrench@central.k12.ia.us>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you

Sincerely,
Marianne French
659 1st St NW
Elkader, IA 52043

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Mary Allen <mallen@americangramaphone.com> Sat, Feb 12, 2022 at 1:35 PM
Reply-To: Mary Allen <mallen@americangramaphone.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Mary Allen
4317 N 14th St
Carter Lake, IA 51510

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Miriam Kashia <miriam.kashia@gmail.com> Fri, Feb 11, 2022 at 2:11 PM
Reply-To: Miriam Kashia <miriam.kashia@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Miriam Kashia
60 Cherry Ct Apt 5
North Liberty, IA 52317

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Phil Klein <phil-klein@uiowa.edu> Fri, Feb 11, 2022 at 1:55 PM
Reply-To: Phil Klein <phil-klein@uiowa.edu>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Phil Klein
454 Sierra Trl
Coralville, IA 52241

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Ryan Hupfeld <ryanhupfeld89@gmail.com> Fri, Feb 11, 2022 at 1:16 PM
Reply-To: Ryan Hupfeld <ryanhupfeld89@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Ryan Hupfeld
704 Broadway St.
Bellevue, IA 52031

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Sachiko Murphy <stmurphyia@earthlink.net> Fri, Feb 11, 2022 at 3:41 PM
Reply-To: Sachiko Murphy <stmurphyia@earthlink.net>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Sachiko Murphy
3800 Crestmoor Pl.
Des Moines, IA 50310

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Tad (Fritz) White <fwhite@spahnandrose.com> Mon, Feb 14, 2022 at 7:52 AM
Reply-To: "Tad (Fritz) White" <fwhite@spahnandrose.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Tad (Fritz) White
250 Harrison St
Dubuque, IA 52003

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Thomas Reardon <tom@reardonstudios.com> Wed, Feb 9, 2022 at 10:16 AM
Reply-To: Thomas Reardon <tom@reardonstudios.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Thomas Reardon
170 Bennett Ave
Council Bluffs, IA 51503

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Victorine Hocker <victorinehocker@gmail.com> Fri, Feb 11, 2022 at 4:03 PM
Reply-To: Victorine Hocker <victorinehocker@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Victorine Hocker
2059 L Avenue
Marengo, IA 52301

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

AJ McBride <ajmleo@gmail.com> Mon, Feb 14, 2022 at 4:26 PM
Reply-To: AJ McBride <ajmleo@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
AJ McBride
1650 Vandello Cir
North Liberty, IA 52317

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Carolyn Uhlenhake Walker <carolynruw@gmail.com> Tue, Feb 15, 2022 at 12:26 AM
Reply-To: Carolyn Uhlenhake Walker <carolynruw@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Carolyn Uhlenhake Walker
4111 Ingersoll Ave Apt 1110
Des Moines, IA 50312

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Hillary Schofield <hbschofield@gmail.com> Mon, Feb 14, 2022 at 4:22 PM
Reply-To: Hillary Schofield <hbschofield@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Hillary Schofield
720 S 7th Ave
Iowa City, IA 52240

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Lauren McCarthy <lfmccarthy@gmail.com> Mon, Feb 14, 2022 at 9:39 PM
Reply-To: Lauren McCarthy <lfmccarthy@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate. This is unacceptable. Iowans need you to step up and take action now.

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction. Iowa must not cede everything to agricultural demands. Our waters and health require greater action on the part of bodies like the EPC. Please support the petition for rule making to address this problem.

Thank you,
Lauren McCarthy

Sincerely,
Lauren McCarthy
7660 Harbach Blvd
Clive, IA 50325

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Linda Ponsetto <lindarpc@gmail.com> Mon, Feb 14, 2022 at 5:38 PM
Reply-To: Linda Ponsetto <lindarpc@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Linda Ponsetto
1427 Tanglefoot Ln
Bettendorf, IA 52722

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Monte Marti <msmarti@earthlink.net> Mon, Feb 14, 2022 at 10:19 PM
Reply-To: Monte Marti <msmarti@earthlink.net>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Our family's 5th generation farm in Allamakee County now borders two large CAFO's, one a large swine operation and the other a large dairy. The waterway between us flows into Village Creek which is an Outstanding Iowa Water. This is of great concern to me, for I now witness the millions of gallons of manure being applied each year to fields with an 8% slope which drains into the creek between our farms.
Why this is permitted is hard for me to understand. I've also read where The Driftless Area which includes Allamakee County has the largest concentration of freshwater streams of anywhere in the world, and as a result, it's waters provide some of the best flyfishing experiences in the U.S.

Wisconsin and Minnesota also have many counties in the Driftless Area, but apparently each puts a greater value on these resources than Iowa and takes a longer view of protecting since few CAFO's, relative to Iowa, are located on karst.

I am hopeful that the Commission will consider adopting rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction. Altogether, this will help Iowa's waters to remain outstanding.

Thank you,
Monte Marti

Sincerely,
Monte Marti
1117 Highway 30 W
Mt. Vernon, IA 52314

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

EPC Meeting Agenda Item 6

1 message

Steve Veysey <sveysey@gmail.com> Mon, Feb 14, 2022 at 9:49 PM
To: Alicia.Plathe@dnr.iowa.gov
Cc: "Book, Kelli" <Kelli.Book@dnr.iowa.gov>, Michael Schmidt <schmidt@iaenvironment.org>

Hello Ms. Plathe,

I understand that my comments are a bit late and may not be included in the commissioners packets, but please accept them for the public record. Thank you.

Regarding the DNR request that the IEC petition for rulemaking be denied and a study group formed, I would like to comment upon two parts of one concern that will be before such a group. That is the specific protection of Outstanding Iowa Waters in areas of karst / karst terrain, and the more general protection of all Class B (CW) and Class B (WW) waters in areas of karst / karst terrain. I'm speaking of rules contained in Chapter 64 pertaining to wastewater construction and Chapter 65 pertaining to animal feeding operations. There may be other rules in other chapters that also need to be made consistent.

Chapter 64 contains restrictions on unformed wastewater treatment structures in "areas of karst", but the entire chapter never uses the term "karst terrain". Conversely, Chapter 65 Division I and Division II present some restrictions regarding unformed manure storage (Div I) and unformed settled effluent storage (Div II) with respect to "karst terrain", but never use the term "areas of karst". Unnecessary confusion.

To further the confusion, what about earthen manure basins in karst terrain, defined and characterized in Div I, that are used by Div II open feedlot operations? It's not specified. However the Div II definition of an "open feedlot operation structure" does specifically state that manure storage structures defined in Div I (earthen manure basins) cannot be considered as "open feedlot operation structures". More confusion.

Let's be clear. An earthen pit in karst terrain is an environmental accident waiting to happen, regardless of whether it is permitted as a Chapter 64 "industrial wastewater treatment lagoon", a Chapter 65 Div I "earthen manure storage basin", or Div II "settled effluent storage basin". The risk is the same. The current maze of hair-splitting definitions creates legal confusion unnecessarily. This must be fixed. Regarding enforcement, where code requires a construction permit, that's the hook. Where code requires either an MMP or NMP approval, that's the hook. Simple.

I support the current restriction requiring a 25-foot separation from the bottom of the pit to the porous, often fractured, limestone or dolomite rock referred to as karst. This should apply to ALL earthen pits, regardless of purpose, and regardless of whether there is a poly-liner, or a couple of feet of what someone onsite calls "clay" placed at the bottom. *Note: People clearly understand that even though you religiously strap your infant into an approved car seat, that DOES NOT give you the right to speed! The risk is too great.* So forget about creating loopholes for "mitigation" like plastic liners or a couple of feet of pseudo-clay. The risk is too great.

In areas of karst and in karst terrain, unless there is 25-foot proven separation from the bottom of the pit, an unformed pit should not be allowed. Period. In addition, *no earthen pit should be allowed in the watershed of an Outstanding Iowa Water.* That is an official "Tier 2.5" designation under the federal Clean Water Act deserving of special protection. We only have 32 HUC 12 stream watersheds in the entire state that this special protection would apply to. If we cannot protect the very best streams we have, then we really cannot claim to protect any stream.

Regarding Chapter 64 "formed wastewater treatment lagoons" and Chapter 65 "formed manure storage structures", I support in part the IEC request that several feet of properly compacted clay below the structure be required, as well as 10-foot separation to karst. Let's not kid ourselves. There are two types of concrete structures: those that have cracks and those that will have cracks. There are two types of steel structures: those that have rust holes and those that will have rust holes. Require proper construction standards, and proper inspection. There should be no exceptions based upon whether a PE or NRCS official has designed the structure. Hire more qualified inspectors!

Thank you for considering these preliminary comments.

Steve Veysey
919 Murray Drive
Ames, IA 50010

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Taylor Morris <taymo37@gmail.com> Mon, Feb 14, 2022 at 4:29 PM
Reply-To: Taylor Morris <taymo37@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

Karst terrain is one of the most pollution-sensitive features in Iowa, because porous bedrock leads to many surface water and groundwater connections. Manure containing bacteria, nitrate, and phosphorus is more likely to pollute water in karst topography than in other places. As a result, there are serious risks to building CAFOs on karst terrain.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, I ask you to adopt rules requiring water pollution monitoring systems at feedlots, consideration of environmental factors before approving feedlots, and greater separation from karst terrain for new construction.

Thank you

Sincerely,
Taylor Morris
1714 Northwest Dr
Des Moines, IA 50310

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Tim Wagner <tdwagner9604@gmail.com> Mon, Feb 14, 2022 at 8:13 PM
Reply-To: Tim Wagner <tdwagner9604@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

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Thank you

Sincerely,
Tim Wagner
505 Franklin St
Decorah, IA 52101

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Virginia Meyer <meyervk@gmail.com> Tue, Feb 15, 2022 at 9:13 AM
Reply-To: Virginia Meyer <meyervk@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

Iowa must attract workers and young families. How will we ever do that without the #1 human need, clean water. Not all agricultural practices are the same, and not all land environments are the same. We need more local control to address clean water protections.

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Virginia Meyer
5281 Wapsi Ave SE
Lone Tree, IA 52755

iowa.gov

Plathe, Alicia <alicia.plathe@dnr.iowa.gov>

Comments on the IEC/ELPC CAFO Drinking Water Petition

1 message

Zach Votroubek <zvotroubek@gmail.com> Mon, Feb 14, 2022 at 7:05 PM
Reply-To: Zach Votroubek <zvotroubek@gmail.com>
To: Alicia Plathe <Alicia.Plathe@dnr.iowa.gov>

Administrator Plathe,

Dear EPC Commissioners,

The Environmental Protection Commission is supposed to develop programs to prevent and control water pollution by setting requirements for feedlots. Right now, Iowa rules do not protect groundwater and drinking water sources from feedlot pollution, especially in karst terrain. As a result, thousands of private wells are polluted with unsafe levels of bacteria and nitrate.

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Thank you

Sincerely,
Zach Votroubek
4802 McGowan Dr SE
Cedar Rapids, IA 52403

Iowa Environmental Council

ENVIRONMENTAL LAW & POLICY CENTER

PETITION FOR RULE MAKING

FEBRUARY 15, 2022

Road Map

- Personal Introduction
- Intro to IEC and ELPC
- Feedlots in Iowa
- Proposed rule changes

TODAY'S PRESENTER

Michael Schmidt
Staff Attorney
schmidt@iaenvironment.org
515-244-1194 x211

Iowa Environmental Council

ENVIRONMENTAL LAW & POLICY CENTER

IEC is a non-profit, nonpartisan non-governmental statewide policy and advocacy organization founded in 1995.

The Iowa Environmental Council educates, advocates and builds coalitions to raise awareness, generate action and impact policy to make Iowa a better place to live, work and explore.

The Environmental Law & Policy Center is the Midwest's leading environmental legal advocacy organization. We drive transformational policy changes with national impacts.

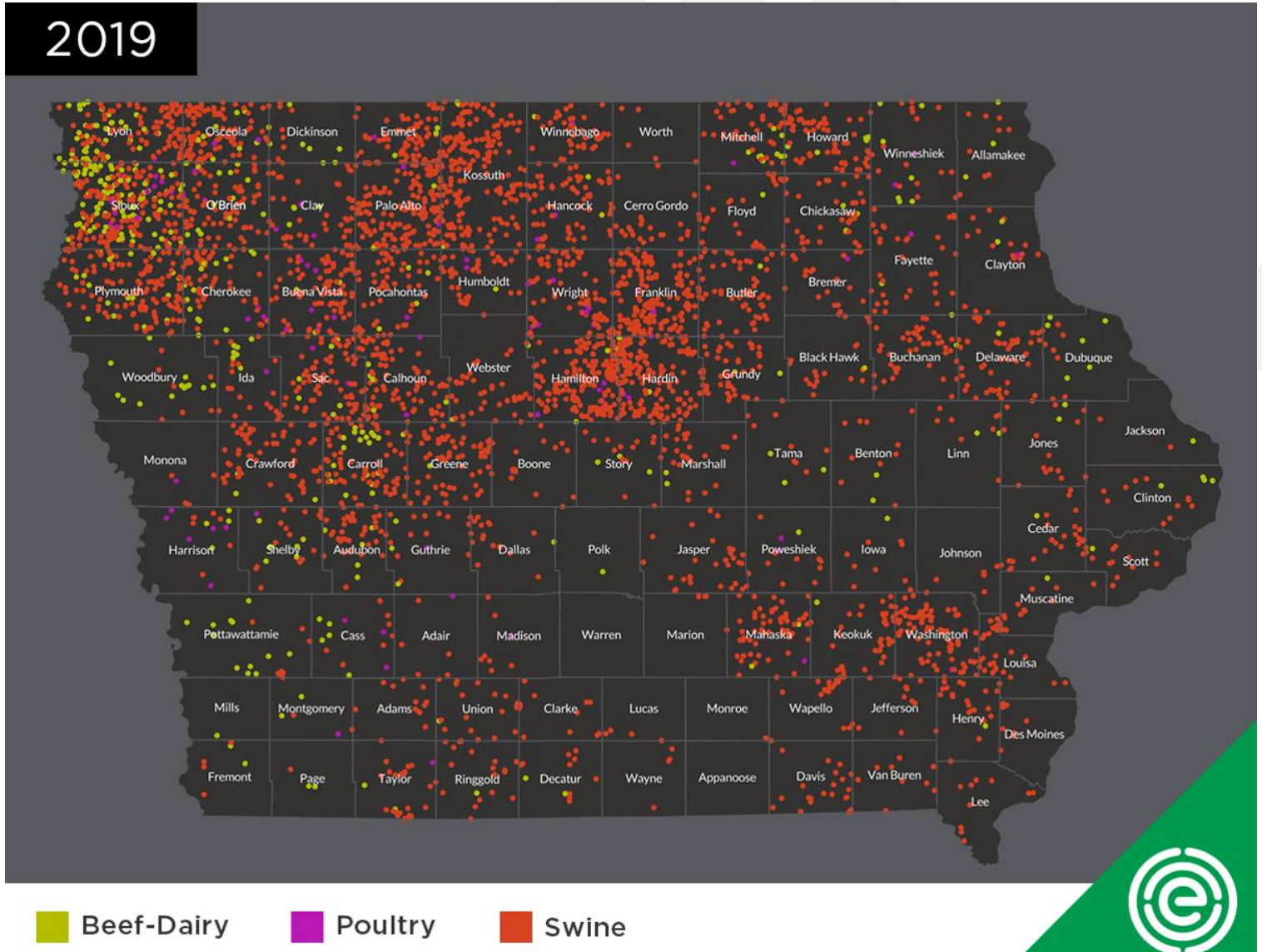
ELPC advocates, innovates, and litigates to protect the Midwest's environment from the Great Lakes to the Great Plains.

FEEDLOTS IN IOWA

Iowa Environmental Council

CAFO EXPANSION

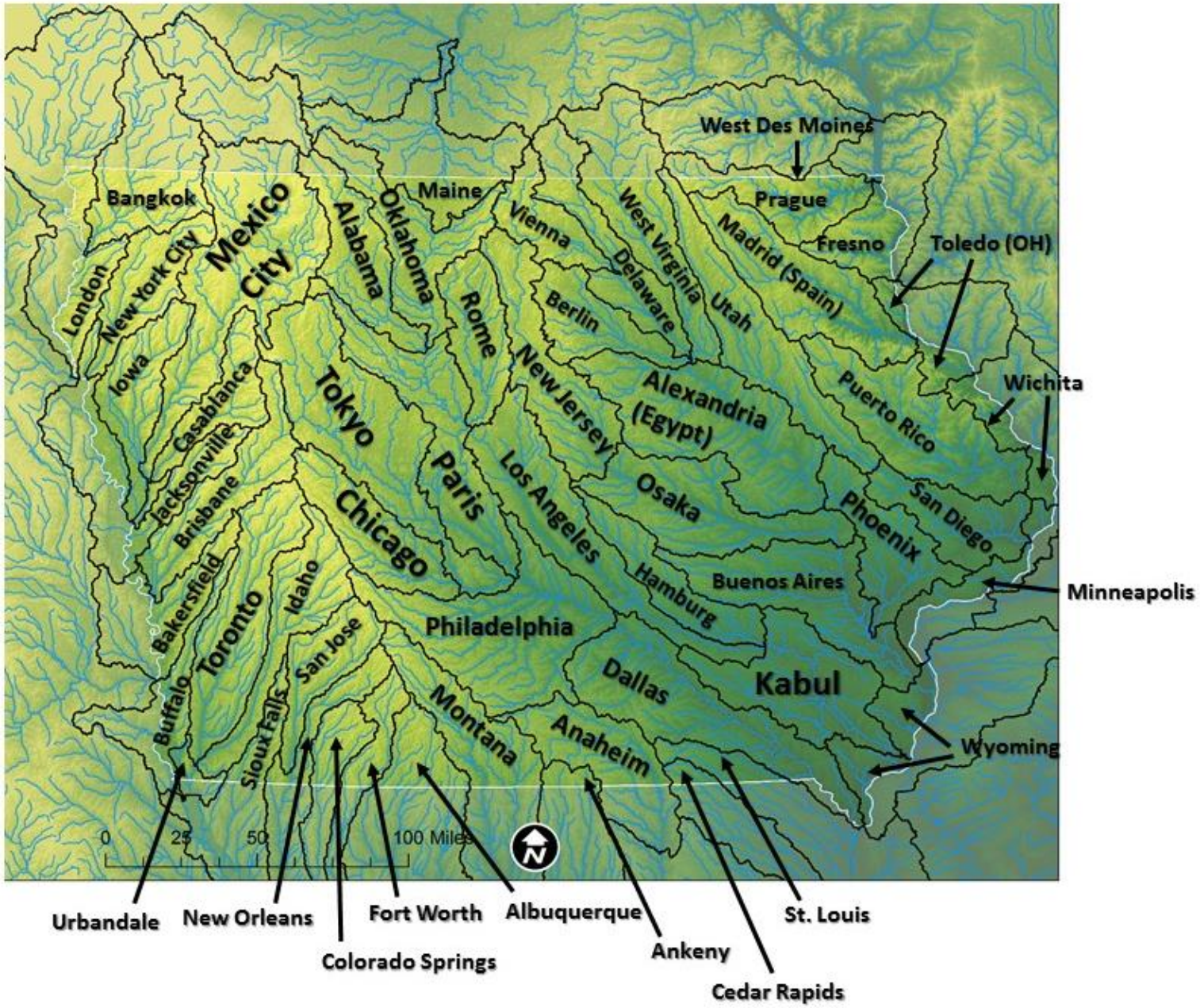
- How many large CAFOs do we have?
  - 1990: 789
  - 2001: 722
  - 2019: 3,963



CAFO EXPANSION

- Population equivalents of manure production

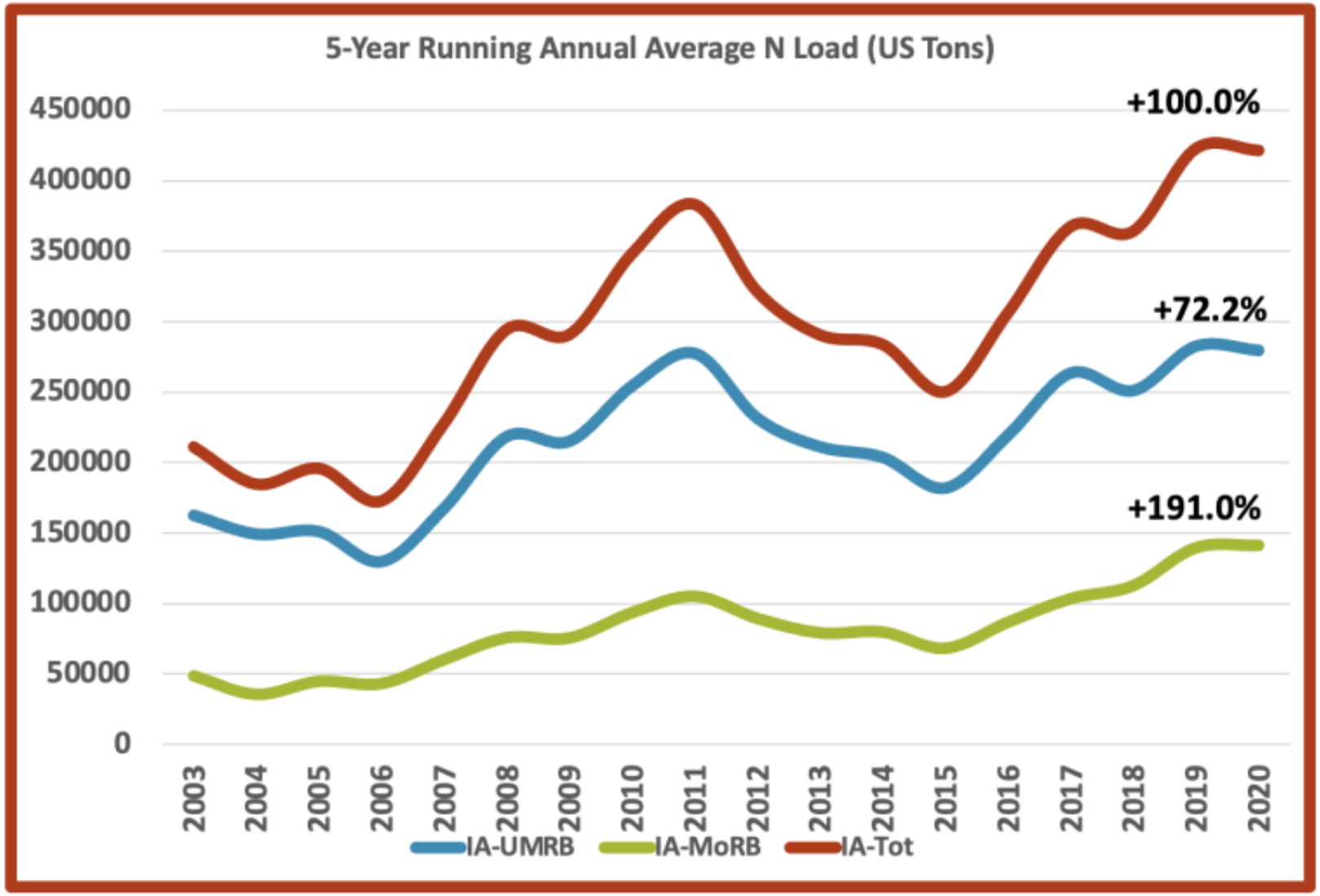
- Waste in Iowa equal to 168 million people



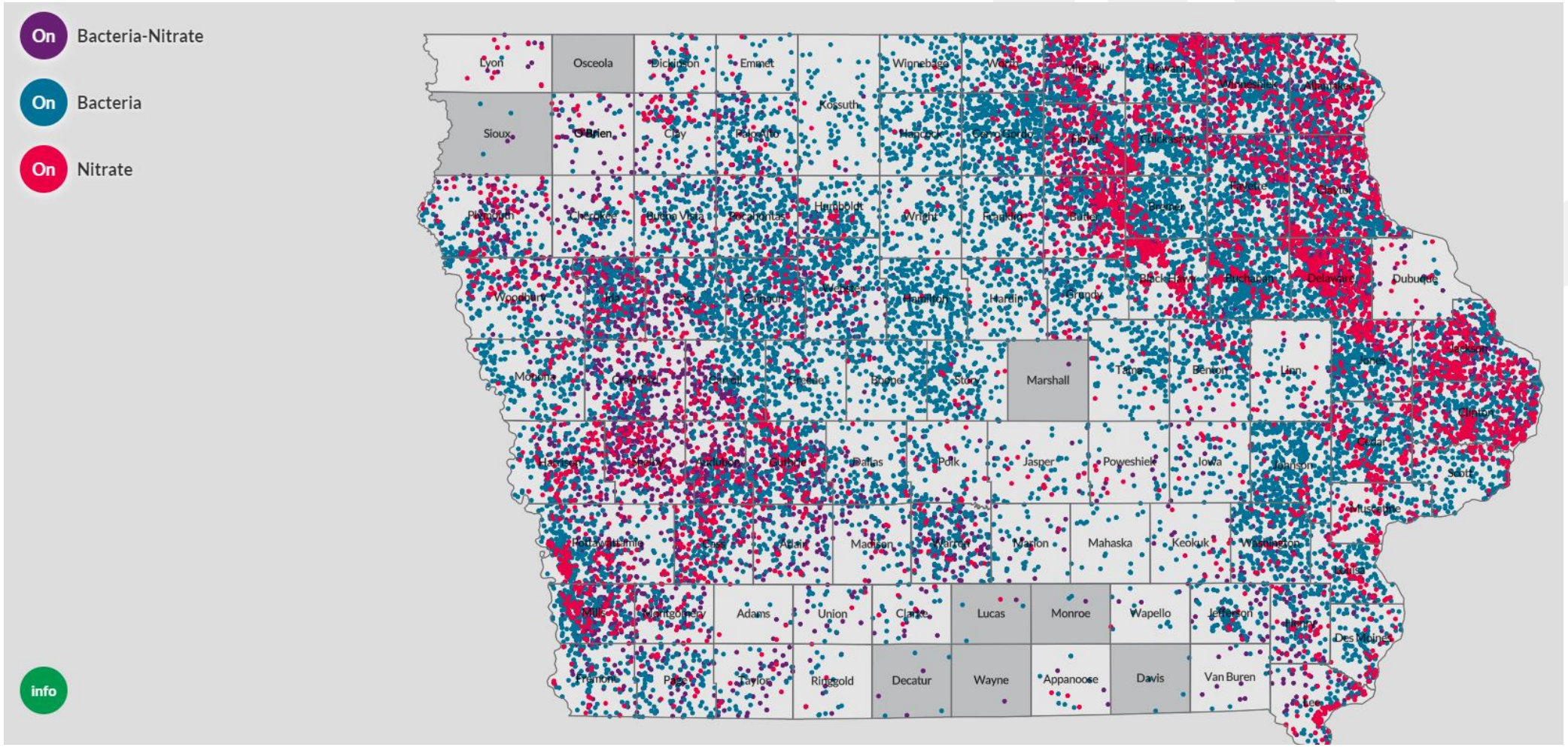
Chris Jones, IIHR

WATER QUALITY

- Where are we today?
- Hundreds of waters impaired for bacteria, biology, fish kills, and nutrients



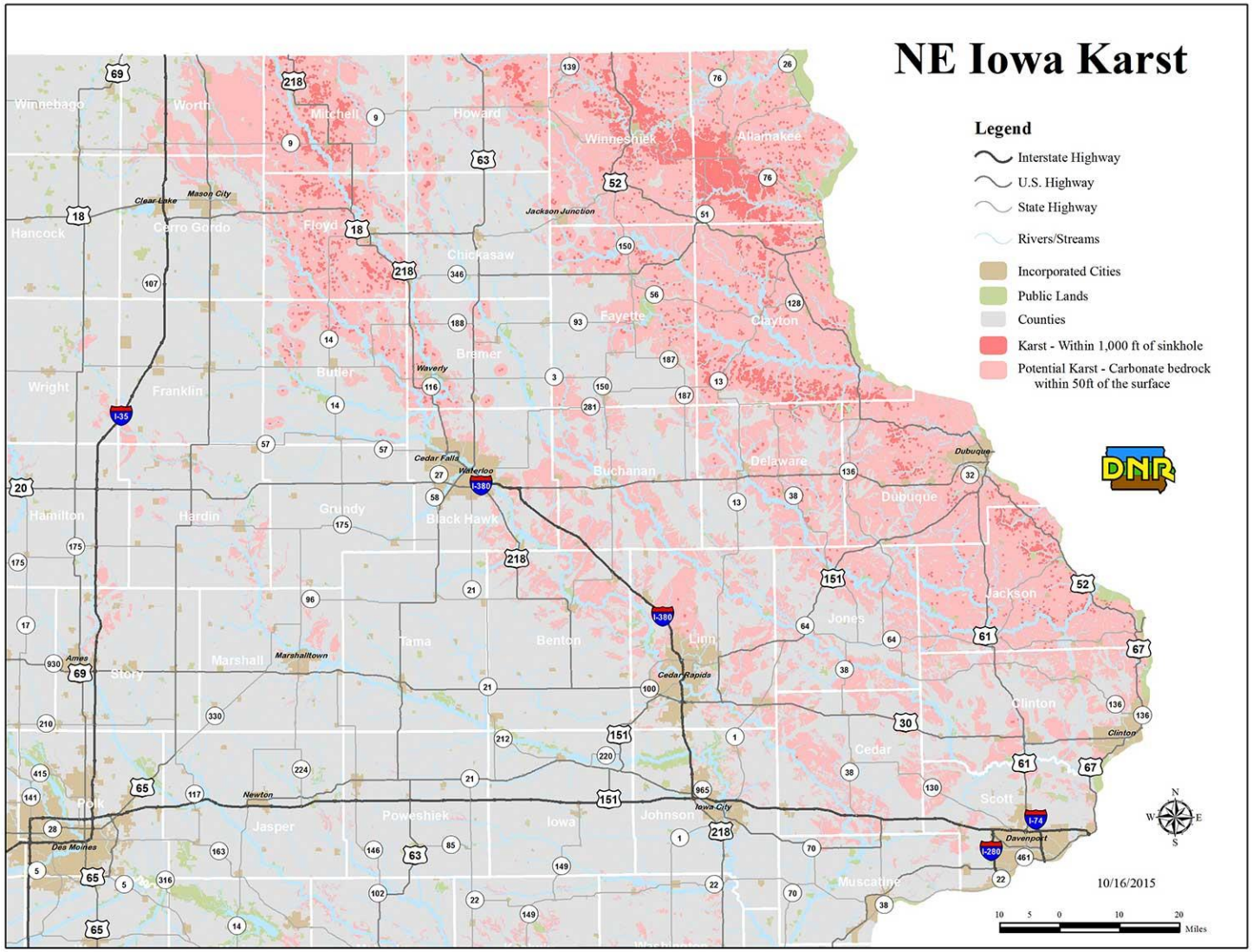
PRIVATE WELL CONTAMINATION



https://www.ewg.org/interactive-maps/2019_iowa_wells/

KARST TERRAIN

- Karst in Northeast Iowa aligns with private well contamination



CONSEQUENCES FOR IOWA

HEALTH PROBLEMS

- Nitrate
  - Blue Baby Syndrome (metheboglobinemia)
  - Cancer: bladder, thyroid
  - Limb deficiency
- Microcystin from Harmful Algae Blooms
  - Flu-like symptoms
  - Liver and kidney failure
  - Neurotoxicity
- Bacteria
  - Gastrointestinal illness

FINANCIAL COSTS

- $333 million over five years
  - Millions to install nitrate removal
  - DMWW - $1M/year nitrate removal
- 260 cities and towns at high risk
- 40% of private wells

FEEDLOT REGULATIONS: SITING

- Master Matrix (confinements)

- Open Feedlots

- **Nearly automatic approval**
  - Lack of protections for karst
  - Lack of protections for drinking water sources

FEEDLOT REGULATIONS: SITING

- Karst terrain
  - Defined as less than 25 ft separation

- Confinements: unformed manure storage prohibited over karst

- Open lots: settled open feedlot effluent basins prohibited

IEC AND ELPC'S RULE MAKING PETITION

Iowa Environmental Council

PROTECT KARST TERRAIN

- Formed manure storage structures: Increase the vertical separation from karst landforms
    - 65.15(14)(2) A minimum ~~5~~ 25-foot layer of low permeability soil (1 × 10–6 cm/sec) or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock is required…
    - (3) If the vertical separation distance … is less than ~~5~~ 25 feet, the structure shall be designed and sealed by a PE or NRCS qualified staff person…

PROTECT KARST TERRAIN

- Prohibit construction with less than 5 feet vertical separation from karst

  - 65.15(14)
    (6) Construction of underground formed and unformed manure storage structures less than 5 feet above karst terrain is prohibited.

PROTECT DRINKING WATER

- Require additional monitoring for earthen manure basins:
    - 65.15(21) *Groundwater monitoring.* The department shall require that the owner of a confinement feeding operation install and operate a water pollution monitoring system as part of an unformed manure storage structure.

- Statutory authority:
    - "The department may require that the owner of a confinement feeding operation install and operate a water pollution monitoring system as part of an unformed storage structure." (459.311)

PROTECT DRINKING WATER

- Consider environmental impact, including unique conditions

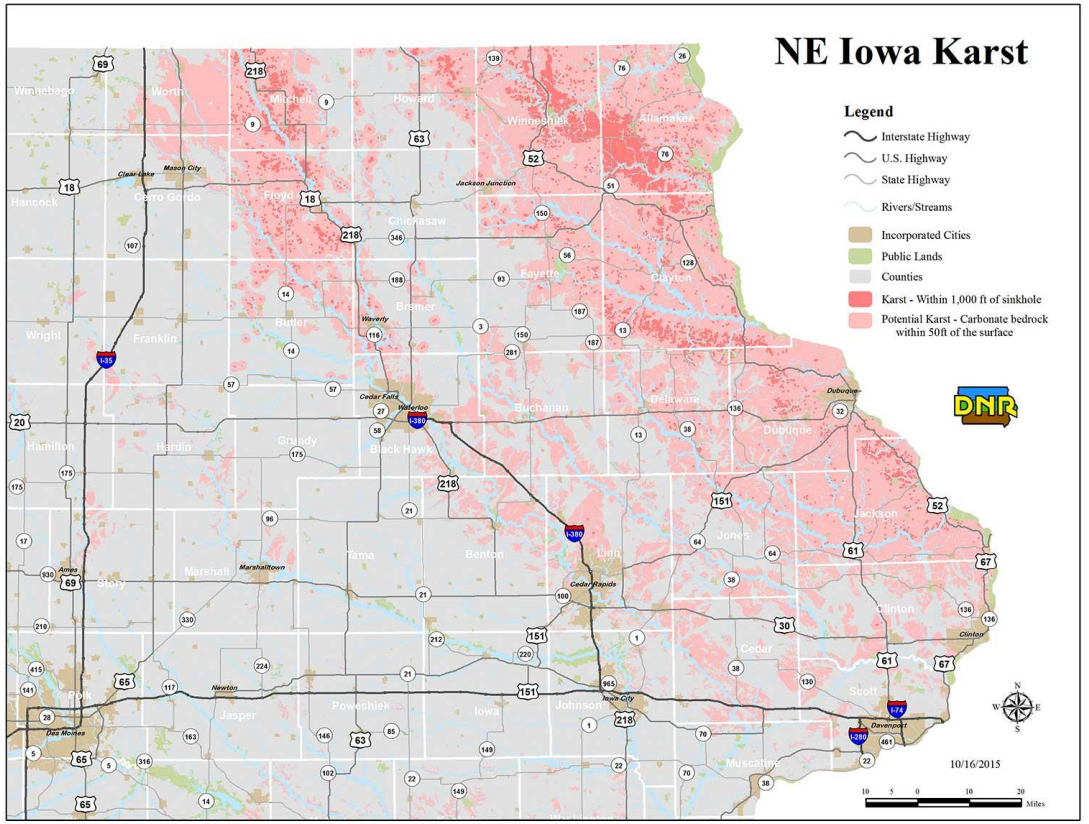
  - 65.5(3) The department ~~may~~ shall evaluate any proposed confinement feeding operation or proposed expansion of a confinement feeding operation that requires a construction permit or manure management plan with respect to its potential adverse impacts on natural resources or the environment.

PROTECT DRINKING WATER

- Consider cumulative local impacts, including drinking water sources:
    - Consider… (5) whether any water source in proximity to the proposed confinement feeding operation is impaired, whether there are any existing water quality improvement plans for proximate water sources, the proximity of the confinement feeding operation to drinking-water sources, and the number of existing animal feeding operations in proximity to the water sources for the location of the proposed construction or expansion of the confinement feeding operation.

SUMMARY

- Increase separation distance from karst
- Monitor groundwater around unformed manure structures
- Consider environmental impacts



Iowa Environmental Council

THANK YOU

IECMAIL@IAENVIRONMENT.ORG

WWW.IAENVIRONMENT.ORG

@IAENVIRONMENTALCOUNCIL

My ask to EPC

Ethan Vorhes

I would like for EPC to evaluate, evidence provided by the Iowa Department of Natural Resources and the Environmental Protection Agency as to the classification of Improved sinkholes in our State.

I believe the evidence clearly shows that Iowa DNR failed initially in 1999 and again in 2008 to obtain critical information needed for a proper review in this case.

Iowa DNR geologist Caire Hruby visited the site an determined it meets IDNR criteria for an agricultural drainage well and recommends closure

EPA at the same time concluded this meets Ag drainage well criteria and recommended closure

For this reason, I ask the commission to overturn the classification and order the closure.

Having reviewed the records thoroughly I would ask the commission to order a review board to do the same. Much of the evidence as to pass determination and internal justification of actions are verbal communications, so I feel that a review board is appropriate to determine if there was neglect or malicious intent involved.

I am asking the board to order the well testing recommendation put forth by the Private Well Group at the Iowa DNR. These tests will ensure that injectate is safe to recharge the local potable water supply. If the groundwater supply is being contaminated by the injectate then an automatic closure order be issued.

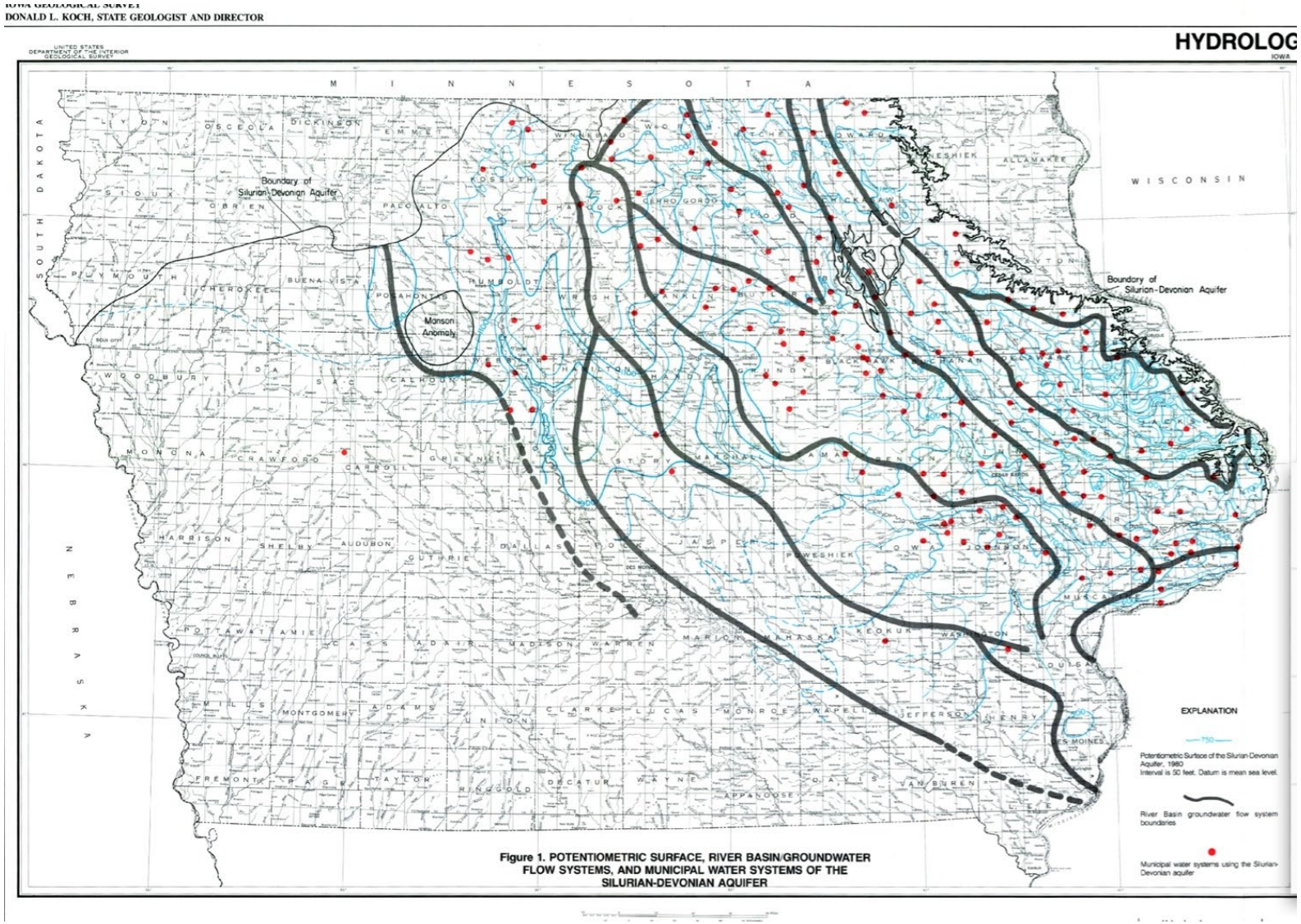
I am also asking the commission to order the IDNR to study the chemical contamination that occurred near my home. Wildlife is affected and our private investigation into the issue remains an unsolved mystery.

If the commission determines that closure is an unattainable consensus or falls outside of their jurisdiction realm then I would ask of the commission to modify ag drainage well rules to include improved sinkholes. Furthermore, I would ask the commission to compel Iowa DNR to adopt a definition of an Improved sinkhole. At a minimum I would ask for justification for allowing these improved sinkholes which act as “Agricultural injection wells” to remain open and unregulated

Improved Sinkhole Loophole

An Agricultural Drainage Well Story

Iowa groundwater flow of Devonian aquifer and municipalities



Iowa ADW definition and EPA Injection Well definition

Iowa Definition

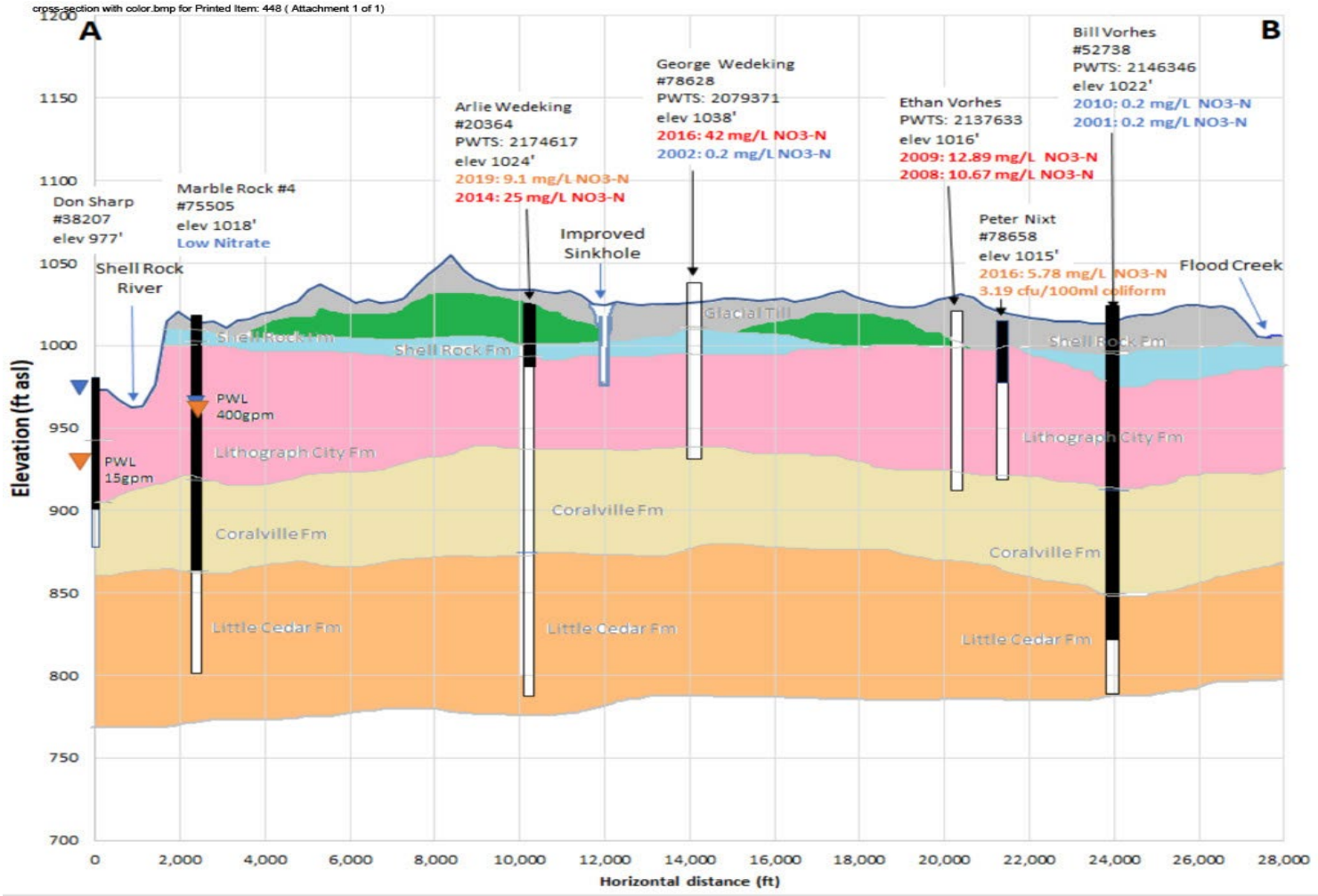
- *"Agricultural drainage well"* means a vertical opening to an aquifer or permeable substratum which is constructed by any means including but not limited to drilling, driving, digging, boring, augering, jetting, washing, or coring, and which is capable of intercepting or receiving surface or subsurface drainage water from land directly or by a drainage system.
- Iowa Admin. Code r. 27-30.20

EPA Definition

- *Injection Well* means: A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.

Deeper than Wide makes this a "Well"

Cross Section map of Improved Sinkhole



State and Federal Improved Sinkhole Definitions

State Definitions

- Iowa does not have a definition of an Improved sinkhole or Permeable Substratum

EPA Definitions

- ***Improved Sinkhole***: An improved sinkhole is defined in the Code of Federal Regulations Section 144.3 as a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings which have been modified by humans for the purpose of directing and emplacing fluids into the subsurface. In Region 5, sinkholes are commonly funnel-shaped depressions in the land surface generally in a limestone (karst) regions. They allow water to flow directly from the surface into the ground water through passages in the rock created by solution. Water entering the ground water in this fashion does not go through any of the natural purification processes that happen when it flows through soil.

EPA ADW Language

EPA. UIC Control Study Vol 1

- *Agricultural Drainage Wells* include all wells receiving agricultural runoff. This includes improved sinkholes, abandoned drinking water wells, and underground drain tiles and cisterns receiving agricultural runoff, excess irrigation water, and flood water. Those drain tiles that discharge to a ditch are exempted from UIC regulation.
- 22 classes of injection wells.

EPA. UIC Control Study Vol 2

- In order to qualify as an ADW, a system must have a "well." As currently defined in the UIC regulations (40 CFR 144.3), a "well means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension." Therefore, any hole that is deeper than it is wide qualifies as a well. This includes relatively sophisticated designs in which holes are drilled and cased with metal or plastic pipe. However, it also includes simple systems designed to drain fluids to the subsurface. For example, an improved sinkhole, defined as a surface depression altered to direct fluids into the opening (USEPA, 1987), qualifies as an injection well, as does an abandoned drinking water well that has been adapted to convey fluids to the subsurface. If improved sinkholes or abandoned drinking water wells accept surface and/or subsurface drainage from agricultural activities, they qualify as ADWs

State Code for Diversion for Drainage District Joint Applicants and Required Info

567-50.4(1) IAC

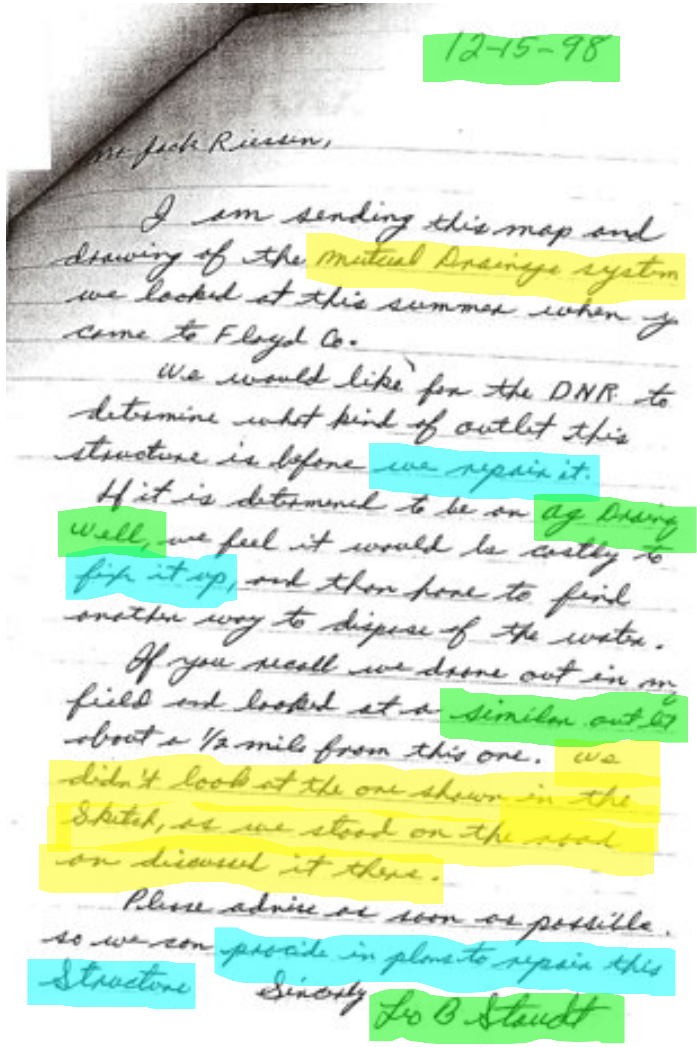
- . b. Application for diversion of water related to the use of an agricultural drainage well. An application for the diversion of water and any other materials to an aquifer related to the use of an agricultural drainage well shall be made on a form obtained from the department and be submitted by or on behalf of such owners, lessees, easement holders, or option holders of all lands within the agricultural drainage well area. If the agricultural drainage well is part of a legally organized drainage district, the drainage district shall be a joint applicant. Applications for permits for diversions related to the use of an agricultural drainage well that existed prior to February 18, 1998, shall be made by July 1, 1999, with the exception of agricultural drainage wells that must be closed to comply with the provisions of 1997 Iowa Acts, Senate File 473. An application will not have to be filed for wells in a designated agricultural drainage well area which must be closed by December 31, 1999. In addition, the department may grant up to a six-month delay in the application date for owners of agricultural drainage wells where it can be shown there is a reasonable expectation that the agricultural drainage well will be voluntarily closed by December 31, 1999.

567-50.6(7)IAC

- *Application for permit to divert water into an aquifer related to an drainage well.* An applicant for a permit to divert water or any other material into an aquifer by means of an agricultural drainage well shall submit the following information. The locations of the features as listed below shall be shown on a map drawn to scale submitted with the application.
- a. Location of the agricultural drainage well to at least the nearest quarter-quarter section, township and range
- . b. Diameter and depth of the agricultural drainage well, if known
- . c. Description and ownership of the lands which are drained by the agricultural drainage well and the associated drainage system.
- d. Location of tiles which drain to the agricultural drainage well, if known, and the location of any existing surface water intakes.
- e. The location and description of any earthen storage structures, confinement feeding operations, or open feedlots within the agricultural drainage well area
- . f. Information regarding any known connections between the agricultural drainage well or its drainage system and wastewater disposal or storage systems such as septic tanks and the location of such connections
- . g. The nature and extent of any agreements between the well owner and adjacent landowners who have lands which are drained by the agricultural drainage well and associated tile drainage system
- . h. Any available information regarding the economic and physical feasibility of closing the agricultural drainage well.

Request to Reclassify and Diversion into a sinkhole Ch 51 IAC

Request to Reclassify



12-15-98

Mr. Jack Rierson,

I am sending this map and drawing of the mutual Drainage system we looked at this summer when I came to Floyd Co.

We would like for the DNR to determine what kind of outlet this structure is before we repair it. If it is determined to be an ag Drainage Well, we feel it would be costly to fix it up, and therefore to find another way to dispose of the water.

If you recall we drove out in a field and looked at a similar outlet about a ½ mile from this one. We didn't look at the one shown in the sketch, as we stood on the road and discussed it there.

Please advise as soon as possible, so we can provide in plans to repair this structure.

Sincerely,

Leo B Staudt

567—51.3(455B) IAC

- Diversion from surface into aquifer. A permit is required for diversion of water or any other material from the surface directly into any aquifer, including diversion by means of an agricultural drainage well. Diversion by tile or ditch into a sinkhole or quarry excavated in carbonate rock is presumed to be a diversion from the surface directly into an aquifer in the absence of convincing evidence to the contrary

Water Use Qualification and Expert Determination

Iowa DNR Water Use

- Any person who proposes to pump or divert by gravity more than 25,000 gallons of water during a period of 24 hours or less from any source of groundwater or surface water, including streams bordering the state, impound surface water, divert surface runoff into a well, sinkhole or excavation or inject water or any material into a well has a duty to review the thresholds in Chapter 51 and contact the department to resolve any doubt concerning whether a permit is required

Vorhes Vs Floyd County 2011

- Floyd County Engineer Dusten Rolando page 559 and 560 and Expert Witness Lyle TeKippe page 757 both Testified for Floyd County that the main carries 2.4 Cu Ft per Second which represents 1,500,000 gallons per day.

Always had Jurisdiction

IDNR 4/15/2021
Clair Hruby, Mike Anderson

- Mike, I am clear why the ag drainage rules didn't apply, but it seems like we still have some jurisdiction under Ch 51. Am I missing something?
- While I wasn't the one making these rules or interpreting them back in the late 1980s, I think thinking was along the lines that "drainage not specifically considered an ADW" would not be required to get a permit since it was "non-point" and likely below the program's regulatory threshold of 25,000 gallons of water per day.

IDNR 4/15/2021
Claire Hruby, Jeremy Klatt

- By my calculations there could be quite a bit more than 25,000 gallons per day through the tile.
- That's interesting - I honestly didn't know that rule existed. Are the Vorhes' in their recent contact with the Director's office stating that there are surface intakes in the drainage area?

DNR knew
We all knew it was an ADW

IDNR
Jeff Van Steenburg 7/8/2008

- I think once you have "improved" a sinkhole it is no longer a sinkhole but an ADW. Bringing tile into the improved sinkhole 9 feet below the surface in a concrete cistern to me constitutes underground injection. What would EPA UIC program people call and improved sinkhole underground injection?

IDNR
Jeremy Klatt 7/7/2008

- Attached is a few pictures of the cistern that I took when I was out there on Thursday. The inside of the well was covered with dirt so I couldn't see if there was a casing or anything like that. I think they may have just dug up the soil until they hit bedrock to create the ADW as these are some shallow soils. It appeared like pressure from water flow blew out the side of the cistern and also created the gully in the picture. The complainant thought that the ADW applicant may have indicated that this was a sinkhole and not an ADW in order to get released from the permit conditions. I guess the County Supervisor who indicated that the well was closed also owns farm ground up-gradient of the well and therefore benefitted from the "closure" of the well.

Claire Hruby Ph. D IDNR Geologist Post Site Visit Report

- **Post Site-Visit Geologic Report – May 27, 2021 – Claire Hruby, Ph.D**. On May 18, Jeremy Klatt, Theresa Brink, and myself visited the location of the alleged "improved sinkhole" in Section 10, Union Township, Floyd County. Seeing this site with my own eyes changed my understanding of the nature of sinkholes in this area. Sinkholes in this area are very wide (>100 ft) and shallow, typically 3 feet deep (see series of elevation profiles in Google Drive Vorhes Folder). The sinkholes themselves are depressions with dead grass. From the circles of dead grass, I have concluded that these depressions were taken out of production because they hold water, not because they are being set aside to protect groundwater. The concrete box sits inside one of these wide flat sinkholes. After the visit I spent more time looking at the geologic reports on the Cedar Valley Group and specifically the Lithograph City carbonates that underly this part of Floyd County. These are carbonates deposited in alternating transgressive and regressive cycles. Specifically, the rocks just below the surface (the Idlewild Member) are from a regressive period, when the sea level was dropping. This is the perfect environment for evaporite (mostly gypsum) deposits to form. In fact, the stratigraphic sections show thin layers of evaporites. My geological interpretation is that the sinkholes/depressions in this area are formed from dissolution of these thin salt layers, rather than karst formation by dissolution of limestone. Below the Idlewild Member in some areas is a shale layer called the Thunder Woman Shale and below that is the Osage Springs Member, which has thicker limestone formed when the sea levels were higher. My guess is that most of the ag drainage wells in this area were drilled into this Osage Springs Member (or deeper Corallville Fm) rather than the upper Idlewild member. My point is that although the concrete structure is located within a sinkhole, the sinkhole, itself, is not representative of the strata into which ag drainage wells in this area are drilled, and the shallow bedrock (upper 50 ft) is not characterized by a network of void and fractures typical of karst in far NE Iowa. These depressions do infiltrate water, but they are not naturally able to drain large quantities of water into the subsurface. The logical conclusion is that there is a well underneath the concrete structure that is drilled to a more conductive layer >60 feet below the surface. Although none of the ag drainage wells in the immediate vicinity of this site have depths associated with the records available to me, there are 3 ag drainage wells 3 miles to the north, which are recorded as being 115-136 feet deep. The well for Marble Rock shows a 5 ft shale (Thunder Woman shale?) layer at 53-58 feet followed by broken limestone and 30+ feet where no sample was obtained (probably due to highly weathered rock and/or the presence of voids). It is likely that these voids occur in the Osage Springs member. The impacts of ag drainage wells on private wells drawing water from the Osage Springs member in this area has been extensively studied and the conclusion that closure of these wells will greatly benefit water quality has been documented. I don't know which way the burden of proof works in these cases, but based on my geologic expertise, it is logical to conclude that this site meets the definition of an ag drainage well and should not be treated as drainage that enters a sinkhole. In my professional opinion, a serious attempt to excavate and close the well below this concrete structure should be made

EPA knew

EPA to IDNR
Kurt Hildebrandt 12/9/2008

- I was out yesterday and have been going over the e-mail chain on this issue and wanted to remind you of one point which wasn't mentioned in your summary of our conversation back in July, while Iowa may not have any rules about sinkholes the EPA run UIC program does. Under the current list of Class 5 injection wells we included "improved sinkholes" as a type of injection practice regulated by EPA. The definition of an improved sinkhole is a sinkhole which has been modified to enhance the drainage of storm water or other fluids into it. The "modifications" can range from running tile lines up to it to altering the ground surface to enhance the flow of fluids entering the sink hole. I'm not sure if any of that has been done at this site based on our earlier conversations or the pictures that have been provided. The bottom line is that EPA may be compelled by our rules to do something about the sinkhole. I'll be talking with Mary about this later today but will probably dispatch one of the field office staff out to look over the site and get some better pictures of the sinkhole and surrounding area so we can make a call about any "improvements" that may have been done. We should also talk about this a little more via phone.

EPA to IDNR
Kurt Hildebrandt 5/2/2016

- When we visited the site, we noted the sink hole but not any improvements to it. Has there been a change to the configuration? If there have been modifications to enhance the drainage entering the sink hole, then it is possible that EPA via the UIC program may have to address the situation. Give the a call and we can talk further.

EPA Kurt Hildebrandt 6/19/2009: EPA persuaded not to act.

- As we had discussed during our last phone conversation, the sink hole located on Mr. Gerhard's farm would be regulated by the Underground Injection Control (UIC) program as an injection well due to the modifications which had been done in order to enhance its capability to drain water (naturally occurring sink holes are not covered by the program). Based on our initial review of the inspection report and the geologic conditions in the area around the well and throughout Floyd County, it is likely that runoff entering this well has partially contributed to the contamination of the upper Mississippian aquifer that you are currently using as your water supply. However, the larger contribution to the contamination of the aquifer is from runoff entering the various other sink holes which occur in the area and agricultural
drainage wells which were installed throughout Floyd County at around the same time (1915) as the sink hole on your neighbor's farm was modified. EPA's authority in this matter is fairly limited and may only deal with the sink hole and not the other drainage issues that you have raised. Some options that are available to you but are outside of EPA's authority to require would include: construction of alternate drainage on the neighbor's farm; drilling a new drinking water well into the lower portion of the Mississippian aquifer (which is separated from the upper portion of that aquifer and is more protected from contamination) and constructing it to better standards, or connecting your farm to rural water (if available).

- Since we last talked I have done some follow up with both the Iowa Department of Natural Resources and the Iowa Department of Agriculture and Land Stewardship about your situation and both have stated that the modified sink hole on Mr. Gerhard's farm does not qualify as an Agricultural Drainage Well under the current Iowa definitions and therefore would not be required to close under the Iowa rules. It also appears unlikely that the modified sink hole would qualify for the cost share program for the closure of the tile lines which drain into the sink hole and the installation of alternative drainage on Mr. Gerhard's farm. We are exploring other options but they are rather limited. I would suggest that your best approach at this time would be to work with the drainage district and the NRCS field office to see if they could work with Mr. Gerhard to change the drainage situation at his farm and to also work with the county sanitarian to see if there might be some funding available for installing a new water well on your farm at an alternate location to where the current well is and which goes into the lower portion of the Mississippian Aquifer. You will also want to make sure that if you do install a new well, that you properly plug the old well so it doesn't serve as a pathway for runoff to enter the upper portion of the aquifer.

Ag Drainage with CAFO, Septic and Surface Inlets with No Separation Limits

EPA Inspection of DD#2

DD#2 Inspection
Septic Known-Cistern Very Poor with 4 know intakes.

ADW No. IA5067500043

AGRICULTURAL DRAINAGE WELL DATA

ADW OWNER: Name: Floyd County Drainage District #2
Street, Box or RR: c/o County Engineer, Courthouse
City, State & Zip: Charles City, IA 50616
Phone Number: (515) ~~392-4111~~ 257-6151

AGENT: Name:
Street, Box or RR:
City, State & Zip:
Phone Number:

Click to add text

ADW LOCATION: SW 1/4, of the NW 1/4, Section 10, T 94 N, R 17 W

Well Head
Location: in a cropped area
Coordinates: 650' east of Jersey Ave, 1625' South of 260th St.
General Condition: Extremely Poor.
Cistern Dimensions: 15' x 42" Cistern Depth: 9'
Well Diameter: unknown Well Depth: unknown
Cistern cover (padlock ____) Yes ____ or No X
Side walls above high pond Yes ____ or No X
Side walls sealed Yes ____ or No X
Mounded/graded to drain away Yes ____ or No X

Surface Intakes Yes X or No ____ Number of Intakes 4

Drains Land of Others Yes X or No ____

Other Contaminant Sources Septic Discharge: yes Manure Runoff: no Other: ____

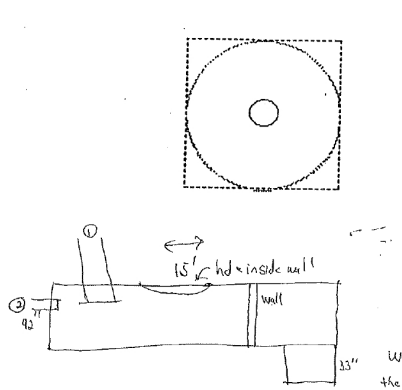
Comments The well is the outlet for Drainage District #2. The cistern is in very poor condition.

B:\ADW\IA\A04.DOC 2/18/94

24" Tile + 4" equals Undisputed Ag Drainage

ADW No. IA5067500043

WELL HEAD SKETCH



Wood Slats cover the top.

Cistern is very poor. The side walls are broken with a large hole on the north side. No well casing is visible.

TILE DATA

Line #	Diameter	Entry Depth
1.	24"	9'
2.	4"	8'
3.		
4.		

CISTERN
Shape Rectangle
Dimensions 15' x 42"
Depth 9'

WELL BORE
Diameter unknown
Depth ____

B:\ADW\IA\A04.DOC 2/4/94

Old ADW Outlet

Running ADW

Broken Drainage System

Modified Cistern to Increased Flow

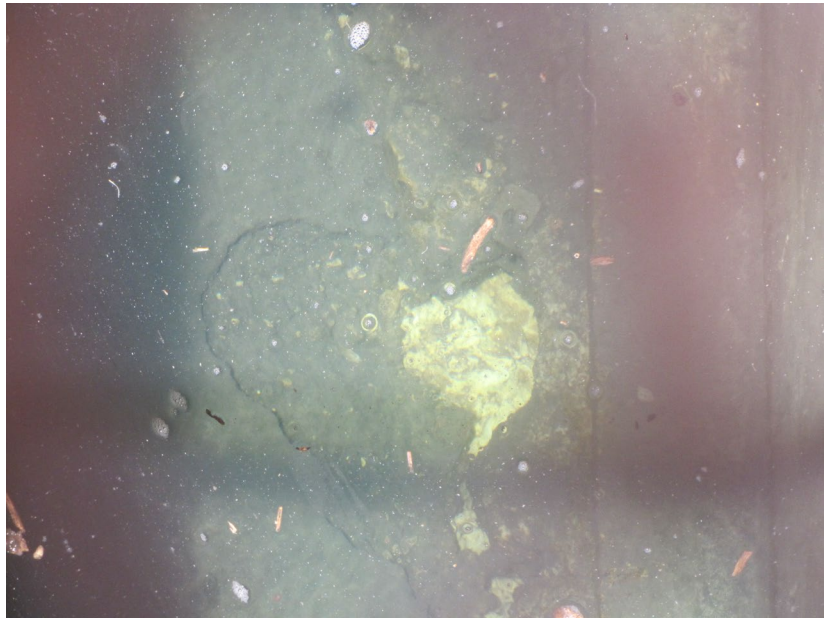
Digging New Well

Completed Cistern

Bedrock does not lie

No Sinkhole

ADW Blowout



Toilet Paper and Condoms

Fair Warning: County or DNR at fault of ongoing Contamination of an ADW?

- IDNR
- Clair Hruby 8/1/2011

- I spoke to Mr. Vorhes an hour ago.
- He knows that Jeff Sherman, the county sanitarian, is the appropriate person to contact about the potentially failing septic that is causing toilet paper and condoms to be discharged into the ditch which drains to the "improved sinkhole." He also knows that DNR does not have a lot of resources to visit or investigate this issue. However, Ethan is doubtful that Mr. Sherman will find time to make a site visit because he works for the same people that he just sued. Honestly, until I spoke to him today, my impression was that Mr. Vorhes wanted the DNR to fix an unfixable problem. After speaking with him, I think he really just would like information and direction in his efforts to stop this particular pollution problem and slow down future problems by addressing the drainage well/sinkhole issue by having the thing properly closed. There are other sinkholes in the area including some in the ditch that could pose a threat to the roads themselves. He is genuinely concerned about water quality, and is willing to take samples, but he is aware that his word, alone, will not fix the problem. If I understood him correctly, he suspects his sister's septic system may be the cause of the toilet-paper discharge. Beyond this particular issue, he is worried about various other practices in the watershed (including some of his own) which could be impacting water in private wells. He mentioned another relative who leaves dead hogs in a drainage way, aerial spraying of fungicides, antiobiotic use, etc. I told Ethan that if he was serious about reducing non-point source pollution that starting or getting involved in a volunteer watershed improvement effort might be more rewarding. Sounds like he is still considering pushing for new legislation or bringing his concerns to the media as well.

Septic Discharge to Aquifer Closed 2021

5/23/2012 Septic Notice

FLOYD COUNTY BOARD OF HEALTH

JEFF SHERMAN
ENVIRONMENTAL SPECIALIST / COUNTY SANITARIAN

FLOYD COUNTY COURT HOUSE
101 SOUTH MAIN
CHARLES CITY, IA 50616-2756
(641) 257-6145

May 23, 2012

Mr. & Mrs. Michael Staudt
1629 Lancer Ave.
Floyd, IA 50435-8140

RE: Septic System for 2571 Jersey Ave, Marble Rock

Dear Mr. & Mrs. Staudt:

We received a complaint of sewage discharging from the end of a drainage tile at the intersection of Jersey Avenue and 260th Street. Upon contacting the DNR field office, Environmental Specialist Jeremy Klatt and I visited the site and determined that there was in fact sewage discharging from this tile outlet. Since it is hard to determine exactly whose system(s) is discharging through this tile system, Mr. Klatt has asked me to contact every property owner in this drainage district or general area that I did not have septic information for.

You are one of the property owners within this area that I have no septic information for. This usually indicates that the septic system illegally discharges to the ditch or to a farm tile. If you have a system that illegally discharges, please be advised that you are in violation of Iowa Administrative Code Chapter 567-69.1(3)(4)(b), a copy of which is attached. You will have thirty (30) days from the date you receive this letter to install a new septic system that meets code requirements.

If you feel that you already have a legal septic system with secondary treatment such as a leach field, please contact me as I will need to come out and verify that your system is not illegally discharging. Thank you for your prompt attention to this matter.

Sincerely,
Jeff D. Sherman, Floyd County
Environmental Specialist

JDS/mdd

7/3/2017 Septic Notice

FLOYD COUNTY BOARD OF HEALTH

JEFF SHERMAN
ENVIRONMENTAL SPECIALIST / COUNTY SANITARIAN

FLOYD COUNTY COURT HOUSE
101 SOUTH MAIN
CHARLES CITY, IA 50616-2756
(641) 257-6145

July 3, 2017

Mr. & Mrs. Michael Staudt
1629 Lancer Ave.
Floyd, IA 50435-8140

RE: Septic System for 2571 Jersey Ave, Marble Rock

Dear Mr. & Mrs. Staudt:

I am resending you this letter that was sent out in 2012 because your septic system had fallen through the cracks and I have not determined that you have a legal septic system on your property located at 2571 Jersey Ave. below is the letter I sent in 2012. Can you call me as soon as you receive this? Thank you

We received a complaint of sewage discharging from the end of a drainage tile at the intersection of Jersey Avenue and 260th Street. Upon contacting the DNR field office, Environmental Specialist Jeremy Klatt and I visited the site and determined that there was in fact sewage discharging from this tile outlet. Since it is hard to determine exactly whose system(s) is discharging through this tile system, Mr. Klatt has asked me to contact every property owner in this drainage district or general area that I did not have septic information for.

You are one of the property owners within this area that I have no septic information for. This usually indicates that the septic system illegally discharges to the ditch or to a farm tile. If you have a system that illegally discharges, please be advised that you are in violation of Iowa Administrative Code Chapter 567-69.1(3)(4)(b), a copy of which is attached. You will have thirty (30) days from the date you receive this letter to install a new septic system that meets code requirements.

If you feel that you already have a legal septic system with secondary treatment such as a leach field, please contact me as I will need to come out and verify that your system is not illegally discharging. Thank you for your prompt attention to this matter.

Sincerely,
Jeff D. Sherman, Floyd County
Environmental Specialist

DNR never listened or twisted statements

IDNR
Tim Hall 3/17/2014

- Ethan:
- Over the past few weeks I have been able to review our file information on your site, including information from previous DNR site visits. After reading through our records, there has been considerable ongoing work related to your property, including:
- 1. A 1999 determination regarding a concrete cistern that was built (classified as an improvement to a sinkhole but not classified as an agricultural drainage well).
- 2. A 2008 investigation of the sinkhole with most of the issue pertaining to drainage. There was that included sampling of your Vorhes well that determined it was bacterially safe but had high nitrates.
- 3. A site visit in the spring of 2009 by Jack Kelly and Lynn Luepke from EPA's UIC program looking at the sinkhole. It was determined not to be a Class V injection well.
- 4. Jeremy Klatt indicated in a May 25, 2009 document that "Mr. Vorhes … contends that this sinkhole is actually an agricultural drainage well and a complaint to that effect was filed (with FO 2) in June, 2008. The Department concluded that this structure was an improved sinkhole in 1999 and therefore was not subject to the Department's agricultural drainage well rules. That position was restated to Mr. Vorhes in 2008." Chuck Corell reiterated this finding May 2009.
- 5. In April 2011 Jeremy Klatt accompanied Jeff Sherman on a complaint of toilet paper in the ditch, and during a site visit they did not observe evidence of domestic wastewater discharge.
- I have also contacted DNR staff to see if there is any change in how we would categorize your site, or if there are changes in programs or rules that might impact your site or your situation. After looking through all of the information, it does not appear that the site or our programs have changed significantly since the last time the DNR provide a comprehensive review.
- If you believe that we are not understanding your situation, or if you believe there are other factors that exist now that were not considered in the past, then we could certainly schedule a time for you to meet with technical or policy staff here in Des Moines. If, however, there are no new factors involved in the situation, there probably remains little that the DNR can do for you. There may be other programs outside of the DNR (such as the Watershed Improvement Review Board though the Iowa Department of Agriculture) that could provide assistance, and we can help get you connected with staff from those programs

1999 Manure Spill

DATE: July 21, 1999

TO: The Record

FROM: Eric Wiklund EW

SUBJECT: Dan and Mike Staudt

On July 21, 1999 I received a call from Mike Staudt of Marble Rock stating that a concrete manure storage tank, owned by himself and his brother Dan Staudt, had been flooded from the previous nights heavy rains. The tank filled to capacity and overflowed an unknown amount of material.

I arrived at the facility at approximately 10:00 am. I observed the tank with Mike and Dan Staudt, owners. The water had receded and left the tank full at zero freeboard. The tank is 8 feet deep. The Staudt's reported that the tank was approximately 4 feet deep before the rain.

After overflowing from the tank, the discharge entered a flooded waterway, which entered a culvert under the road and continued downstream to a suspected sinkhole or ag drainage well (ADW). The total distance from the concrete tank to the suspected sinkhole/ADW is approximately ½ mile.

The owners were instructed to find honey wagons or something similar to pump liquid from the tank and restore as much freeboard as possible. They reported that the pits were a pull/plug system and they had about 2 – 3 weeks storage in the pits, before they would have to dump to the concrete tank.

They have oat ground and pasture available for manure application. They will land apply manure in accordance with their manure management plan as soon as field conditions permit.

There are two wells in the immediate vicinity of the sinkhole. One is the well for the confinement facility, the other is a neighbor to the south, Gary Gerhard. These wells were tested on July 22, 1999 for bacteria and nitrates. Mike Milligan, Floyd County Sanitarian, conducted the testing. Results will be forwarded to this office and then forwarded to the well owners.

The Staudt's have been informed that they will be required to take action to protect the concrete tank from further flood breeches. They are considering constructing a berm around the tank to protect it. This activity will occur some time during the Fall of 1999.

I will conduct follow up investigations to assure that the work to protect the tank is completed.

EW

Cc: Mike Staudt, 2571 Jersey Ave, Marble Rock, IA 50653
Dan Staudt, 2565 Jersey Ave, Marble Rock, IA 50653
Gary Gerhard, 2644 Jersey Ave, Marble Rock, IA 50653
Mike Milligan, Floyd Co. Sanitarian, Court House, Charles City, IA, 50616

Compost pile within 100 ft of mainline

Same old lines, but actually never reviewed anything.

IDNR

Robert Libra 4/29/2016

- This is in response to your questions regarding the drainage that affects your property. DNR staff have visited the site and the drainage structure in question several times, and EPA and NRCS staff have been there as well. The conclusion that all have reached is that the structure involved is an improved sinkhole, and not an agricultural drainage well (Class V Injection well in EPA terminology). The department has no reason to change that regulatory determination, and has no authority over this type of drainage system.
- Note that if the structure in question was an ag-drainage well, the owner would be required to obtain a permit, but would not be required to close it or provide an alternate outlet. The drainage situation questions appear to be between you and the owner of the property the sinkhole and structure are on. Hopefully you can find resolution to the problems.

Drainage District with no records NO LEGAL Governance

M. D. ALLISON
Attorney at Law

114 West Main
P.O. Box 596
Rockford, Iowa 50468
(641) 756-3761
FAX (641) 756-3761

November 26, 2001

Mr. Gary Gerhard
2644 Jersey Avenue
Marble Rock, Iowa 50653

Dear Mr. Gerhard:

I have checked with the Auditor's office concerning Drainage District No. 2 and find that the supervisors are not in any way involved with this District. I also checked to see who the trustees of the District were, and after a few days, was informed that there are no trustees; that this is a mutual drain tile.

Would you like me to have Iowa Title & Realty Co. make a search of the county record to determine whether or not there is any sort of a recorded easement concerning this outlet on your land. If so, kindly advise and I will have them make a search; because if there is a recorded instrument, I think we need to be aware of whatever its terms are before proceeding any further. If there is not a recorded instrument, then I will need to discuss with you further what your options might be and how you wish to proceed.

I will await proceeding further until I hear from you.

Yours very truly,

M. D. Allison

MDA:jm

468 of Iowa Code govern Drainage Districts

Leo Staudt Transcripts Vorhes vs Floyd Co 2011

I inherited the job

Page 585 line 7

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A. Uh, Gary Gerhard called me down there one day and he showed me the blowout, disconnect from the structure.
Q. Was that before the structure was fixed?
A. Oh, yes, quite awhile ago.
Q. Okay. Does — are you aware of any blowouts in that line within the district itself occurring?
A. I had one once in 19 -- hmm, '93 or '4, I believe it was. I had it repaired by the county and I paid the county for repairing it.
Q. Okay. Is there -- if there was any kind of need for repairs along the line, did the drainage district have a plan on how to take care of those?
A. I think each individual landowner repaired it.
Q. Okay.
A. Just called somebody with a backhoe or whatever and then repaired it themselves.
Q. And is that how you did it in your situation?
A. Like I said, I hired the county to do it but I paid the county. I think it came to $485 at the time.
Q. Okay. Was -- now, is the drainage district, to your knowledge, is it a trustee district or not?
A. Uh, it is and it isn't. Ever since I can remember, someone was ahead of the drainage — mutual drainage district, but I guess the first one I can

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remember is my father probably was elected as more or less overseeing it is what it was.
Q. Okay.
A. And then from then on, I think Clarence -- Clarence or Arnold Staudt, I think, was after that. And then I believe Charles Naumann was appointed after that, and after Charles Naumann, I inherited the job.
Q. And is there -- is there a head of the — or head of the trustees now?
A. Yes, there is.
Q. And who is that?
A. Michael Staudt.
Q. And do you know, are there other trustees that you know of?
A. I believe it's Clarence Schmitt, and I'm not sure but I think it's Jeff Staudt.
Q. Okay. And were they elected by members of the drainage district?
A. Yes, they were.
Q. Okay. Now, over the years with regard to the improved sinkhole on Gary Gerhard's land, was there a practice of maintaining that as far as emptying out any dirt accumulations in there and whatnot?
A. Yes, when Clarence and Arnold -- or either one of them, I'm not sure. They were brothers, when they were

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head of it, why they would hire -- either clean it out themselves. This structure had a slat, wooden slat on top. They would remove that and then they would crawl in there with buckets and a rope and clean the debris and cornstalks out, and then after they got a little older and couldn't do it anymore, they hired a couple young men from Marble Rock to do that.
Q. And how long did they do that?
A. I really don't know how many times they did it. There was two young men. It was Dale Parcher was one of them and Tom Brunner, B-R-U-N-N-E-R.
Q. Okay. Do you know when the last time would have been before this structure was repaired in 2009 that the old structure would have been cleaned out?
A. No. It'd been quite awhile ago. I really don't — I don't know the date, no.
Q. Okay. Now, were you also on the board of supervisors at one point in time for Floyd County?
A. Yes, I was.
Q. From when to when?
A. 1991 to December 31st of 2010.
Q. So you just left office at the end of last year?
A. That's correct.
Q. Okay. At some point in time -- Well, let me ask

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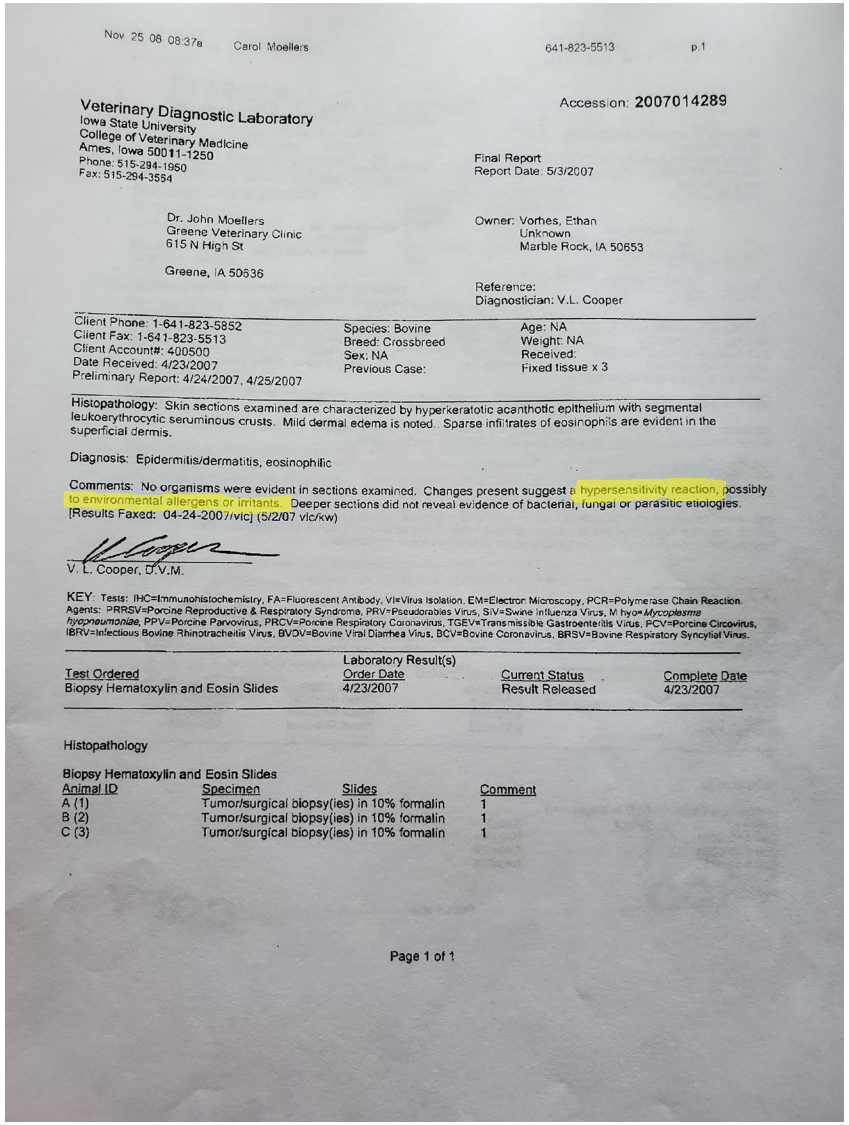
you this: Turn to Exhibit FF in your book.
A. FF? FF?
Q. FF.
A. Okay, I've got it.
Q. Do you recognize that document?
A. Yes, I do.
Q. Okay. And do you know what that — can you tell the Court what that document is?
A. That's a letter that -- in reply to my contacting Mr. Jack Riessen and that was his finding.
Q. And who is Jack Riessen with?
A. I think he's the head of the DNR down in Des Moines at the time.
Q. And he was replying to what?
A. To two sinkholes that I inquired about.
Q. Okay. And what was your inquiry?
A. I asked him to make a determination of whether they were ag drainage wells or whether they were improved sinkholes or sink wells.
Q. Okay. And which sinkholes were at issue in that letter?
A. The one that we were talking about where the structure is, and then there's another one up on my property about a half mile from there that's a — not in the drainage district but that's the other one he was

Contamination: Soil Based Bioaccumulation

Hooved Animals

Waterway specific

Possible Environmental Allergens or Irritants



Nov 25 06 08:37a Carol Moellers 641-823-5513 p.1

Veterinary Diagnostic Laboratory
Iowa State University
College of Veterinary Medicine
Ames, Iowa 50011-1250
Phone: 515-294-1950
Fax: 515-294-3564

Accession: **2007014289**

Final Report
Report Date: 5/3/2007

Dr. John Moellers
Greene Veterinary Clinic
615 N High St

Greene, IA 50636

Owner: Vorhes, Ethan
Unknown
Marble Rock, IA 50653

Reference:
Diagnostician: V.L. Cooper

Client Phone: 1-641-823-5852
Client Fax: 1-641-823-5513
Client Account#: 400500
Date Received: 4/23/2007
Preliminary Report: 4/24/2007, 4/25/2007

Species: Bovine
Breed: Crossbreed
Sex: NA
Previous Case:

Age: NA
Weight: NA
Received:
Fixed tissue x 3

Histopathology: Skin sections examined are characterized by hyperkeratotic acanthotic epithelium with segmental leukoerythrocytic seruminous crusts. Mild dermal edema is noted. Sparse infiltrates of eosinophils are evident in the superficial dermis.

Diagnosis: Epidermitis/dermatitis, eosinophilic

Comments: No organisms were evident in sections examined. Changes present suggest a hypersensitivity reaction, possibly to environmental allergens or irritants. Deeper sections did not reveal evidence of bacterial, fungal or parasitic etiologies.
[Results Faxed: 04-24-2007/vlc] (5/2/07 vlc/kw)

V. L. Cooper, D.V.M.

KEY: Tests: IHC=Immunohistochemistry, FA=Fluorescent Antibody, VI=Virus Isolation, EM=Electron Microscopy, PCR=Polymerase Chain Reaction. Agents: PRRSV=Porcine Reproductive & Respiratory Syndrome, PRV=Pseudorabies Virus, SIV=Swine Influenza Virus, M hyo=*Mycoplasma hyopneumoniae*, PPV=Porcine Parvovirus, PRCV=Porcine Respiratory Coronavirus, TGEV=Transmissible Gastroenteritis Virus, PCV=Porcine Circovirus, IBRV=Infectious Bovine Rhinotracheitis Virus, BVDV=Bovine Viral Diarrhea Virus, BCV=Bovine Coronavirus, BRSV=Bovine Respiratory Syncytial Virus.

Laboratory Result(s)

Test Ordered	Order Date	Current Status	Complete Date
Biopsy Hematoxylin and Eosin Slides	4/23/2007	Result Released	4/23/2007

Histopathology

Biopsy Hematoxylin and Eosin Slides

Animal ID	Specimen	Slides	Comment
A (1)	Tumor/surgical biopsy(ies) in 10% formalin	1	
B (2)	Tumor/surgical biopsy(ies) in 10% formalin	1	
C (3)	Tumor/surgical biopsy(ies) in 10% formalin	1	

Page 1 of 1

Clear Change from Normal

Wide Spread Damage

Persistent Water

Destroyed Crops Livestock and Lives

Iowa DNR Private Well Program Work Group Recommendation

- The 'IS' structure directly recharges the potable water source, the Cedar Valley aquifer, by direct injection of surface runoff and a drain tile outlet that is built into the 'IS', 70 feet below ground surface without added filtration. The following are recommendations of the Private Well Program's request for assistance in closure and remediation of the 'IS' and surrounding drainageway through Sections 10 and 11 of Tier 94 and Range 17.

- 1) Drainage Water Testing at the improved sinkhole 'IS' surface injection point. Seasonally. (Ambient groundwater)
- 2) Well Testing (Floyd County Public Health - FCPH) – noting Vorhes and other nearby wells are shallow and are drawing water from the upper Limestone formation that is receiving recharge from the "improved sinkhole".
- If water quality data determines contamination impact to aquifer:
- 1) Closure of the 'IS' - in accordance with USDW aquifer protection criteria, with full depth neat cement grout.
- 2) Full hydrogeological interpretation of impact of closed ag drainage wells and opening of new sinkholes within a 2-mile radius within the last 10 years.
- 3) Hydrologic review of upgradient contributors (drainage acres tiled) due to the fact that nearby ADW's have been closed. In order to properly size and divert flow to alternate existing waterway (south) of Vorhes.

We Deserve Justice

Agenda

Environmental Protection Commission

Tuesday, February 15, 2022

Teleconference: 631-618-4607 PIN: 484 733 354#

Video Conference: https://meet.google.com/rzo-uidn-tvg

502 East 9th Street, Des Moines, Iowa 50319

DNR 2 North Conf Room

Tuesday, February 15, 2022
10:00 AM – EPC Business Meeting

If you are unable to attend the business meeting, comments may be submitted to Alicia Plathe at Alicia.Plathe@dnr.iowa.gov or 502 East 9th St, Des Moines IA 50319 up to one day prior to the business meeting for the public record.

1	Approval of Agenda	
2	Approval of the Minutes (Packet Page 3)	
3	Monthly Reports (Packet Page 9)	Ed Tormey (Information)
4	Director's Remarks	Kayla Lyon (Information)
5	Contract Amendment #6 to existing contract with enfoTech & Consulting, Inc (Packet Page 14)	Wendy Walker (Decision)
6	Response to the Iowa Environmental Council and Environmental Law and Policy Center 567 IAC 65 Petition for Rulemaking (Packet Page 16)	Kelli Book (Decision)
7	General Discussion • EPC Biennial Report	
8	Items for Next Month's Meeting • Tuesday, March 15, 2022-EPC Business Meeting and State Hygienic Lab Tour • Tuesday, April 19, 2022-EPC Business Meeting	

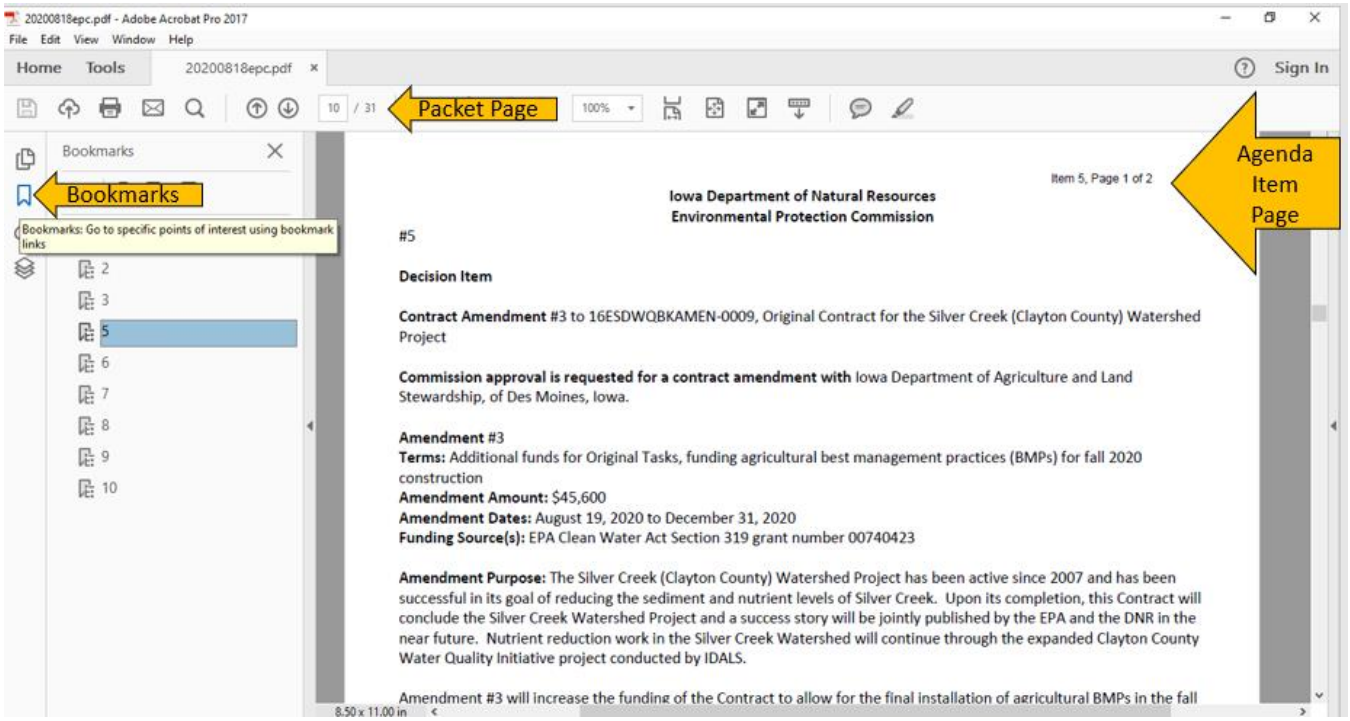
For details on the EPC meeting schedule, visit http://www.iowadnr.gov/About-DNR/Boards-Commissions

[1]Comments during the public participation period regarding proposed rules or notices of intended action are not included in the official comments for that rule package unless they are submitted as required in the Notice of Intended Action.

Any person with special requirements such as those related to mobility or hearing impairments who wishes to participate in the public meeting should promptly contact the DNR or ADA Coordinator at 515-725-8200, Relay Iowa TTY Service 800-735-7942, or Webmaster@dnr.iowa.gov to advise of specific needs.

Utilize bookmarks to transition between agenda items or progress forwards and backwards in the packet page by page with the Packet Page number on the agenda.

The upper right-hand corner will indicate the Agenda Item Number and the page of the agenda item.



MINUTES OF THE ENVIRONMENTAL PROTECTION COMMISSION MEETING

January 19, 2022

Video Teleconference
and
Wallace State Office Building

Approved by the Commission TBD

RECORD COPY
File Name Admin 01-05
Sender's Initials ap

Table of Contents

Meeting Minutes

CALL TO ORDER

The meeting of the Environmental Protection Commission (Commission or EPC) was called to order by Chairperson Ralph Lents at 10:00am on January 19, 2022 via a combination of in-person and video/teleconference attendees. A verbal attendance list was conducted for Commissioners, Department of Natural Resources (DNR) staff, and members of the public. Alicia Plathe, Board Administrator, provided a tutorial of the Google Meet features.

COMMISSIONERS PRESENT

Brad Bleam – video conference, joined virtually during the Deputy Director's remarks
Rebecca Dostal
Stephanie Dykshorn
Amy Echard
Patricia Foley
Harold Hommes
Ralph Lents
Mark Stutsman-video conference

COMMISSIONERS ABSENT

Lisa Gochenour

APPROVAL OF AGENDA

Motion was made by Rebecca Dostal to approve the agenda as presented. Seconded by Amy Echard. The Chairperson asked for the Commissioners to approve the agenda by saying aye. There were no nay votes.
Motion passes.

AGENDA APPROVED AS PRESENTED

APPROVAL OF MINUTES

Motion was made by Amy Echard to approve the December 21, 2021, EPC minutes as presented. Seconded by Harold Hommes.
Brad Bleam-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, Lisa Gochenour-absent, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

MONTHY REPORTS

- Ed Tormey, Division Administrator, shared the DNR PFAS sampling interactive map located on the DNR website. The map indicates where the DNR has sampled for PFAS in finished drinking water and displays the sampling results. The current health advisory is 70 parts per trillion and to date, no results have been close to exceeding this level. Ed summarized the approach used to prioritize which facilites are sampled first and what is expected of facilities if PFAS is detected during the sampling process.
- Ed Tormey also shared the Environmental Services Division (ESD) metrics dashboard located on the DNR website. The ESD dashboard displays various Air, Land, Water and Field Services program data in a visual, interactive format.

INFORMATION

DEPUTY DIRECTOR'S REMARKS

- Deputy Director Alex Moon summarized the differences between the FY23 DNR recommended budget that the Commission approved and the Governor's recommended FY23 budget. The Governor's budget did not include

the requested $500,000 for the Community Forestry Grant, but it did include $4 million for Parks Infrastructure, which exceeded the Department's $2,750,000 request.

- Deputy Director Alex Moon also presented on the three DNR sponsored legislative proposals for the 2022 Legislative Session. All three proposals are considered cleanup or efficiency bills. One proposal relates to the Conservation and Recreation Division and the other two proposals relate to the Environmental Services Division. Proposals focus on creating consistent code language, removing antiquated or irrelevant language and allowing for minor changes that would improve DNR processes for Iowans.
- Deputy Director Alex Moon announced that Charlotte Hamson has accepted the position to serve as DNR's Health and Safety Coordinator, focusing primarily on the Conservation and Recreation Division. Charlotte has a background in public health and safety and will be joined in the upcoming months by a part-time Health and Safety Coordinator for the Environmental Services Division.

INFORMATION

ENVIRONMENTAL MANAGEMENT SYSTEM GRANT PROPOSAL-MAHASKA COUNTY SOLID WASTE MANAGEMENT COMMISSION

Laurie Rasmus presented on the Environmental Management System Grant Proposal for the Mahaska County Solid Waste Management Commission. The proposal includes a 25% financial match and Michael Fairchild from the Solid Waste Management Commission was present and requested support from the Commissioners for the grant approval.

Public Comments – None

Written Comments – None

Motion was made by Amy Echard to approve the Environmental Management System grant proposal as presented. Seconded by Stephanie Dykshorn.
Brad Bleam-aye, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, Lisa Gochenour-absent, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

NOTICE OF INTENDED ACTION-CHAPTER 72-FLOODPLAIN RULES FOR REPLACEMENT BRIDGES

Jonathon Garton presented on the notice of intended action to update Floodplain Rules for Replacement Bridges that creates consistency between rules pertaining to both new and old bridge construction. Commissioner Dykshorn recommended a small change in wording to create consistency in language pertaining to backwater that is on page 2 and page 5 of the proposal. Jonathon reported that he has received informal feedback from County Engineers supporting the rule change.

Public Comments – None

Written Comments – None

Motion was made by Rebecca Dostal to approve the item as amended with the updated wording recommendation. Seconded by Harold Hommes.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS AMENDED

NOTICE OF INTENDED ACTION-CHAPTER 567 IAC122-CATHODE RAY TUBE RECYCLING

Theresa Stiner presented on the notice of intended action to update cathode ray tube recycling rules to create consistency with current federal regulations. She informed the Commmissioners that Iowa currently has 6 permitted cathode ray tube recyclers and 219 collection points.

Public Comments – None

Written Comments – None

Motion was made by Harold Hommes to approve the item as presented. Seconded by Stephanie Dykshorn.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

FINAL RULE-CHAPTERS 9, 40, 43, AND 49-WATER SUPPLY RULE CLEANUP AND MODIFICATION

Mark Moeller began his presentation by making a statement on a legislative proposal question asked earlier by Commissioner Harold Hommes pertaining to the terms "nonconforming" and "conforming" that are currently used in Chapter 49. Mark Moeller then proceeded to present the final rule package for chapters 9, 40, 43 and 49 pertaining to water supply rule cleanup and modification. There was no additional discussion on the topic presented.

Public Comments – None

Written Comments – None

Motion was made by Patricia Foley to approve the item as presented. Seconded by Rebecca Dostal.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

FINAL RULE-CHAPTERS 60, 61, 62, 63 AND 64-WASTEWATER RULE CLEANUP AND MODIFICATION

Courtney Cswercko presented on the final rule package for chapters 60, 61, 62, 63 and 64 pertaining to wastewater rule cleanup and modification. There was no additional discussion on the topic presented.

Public Comments – None

Written Comments – None

Motion was made by Rebecca Dostal to approve item as presented. Seconded by Amy Echard.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

FINAL RULE-CHAPTER 67-SEWAGE SLUDGE RULE CLEANUP

Emy Liu presented on the final rule package for chapter 67 pertianing to sewage sludge rule cleanup. There was no additional discussion on the topic presented.

Public Comments – None

Written Comments – None

Motion was made by Harold Hommes to approve the item as presented. Seconded by Stephanie Dykshorn.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

FINAL RULE-CHAPTER 81-PUBLIC WASTEWATER TREATMENT AND PUBLIC WATER SUPPLY OPERATORS

Courtney Cswercko presented on the final rule package for chapter 81 pertianing to public wastewater and public water supply operators. She mentioned that smaller community operators support the opportunity to have back up when needed. Commissioners noted that any changes that help small communities are appreciated.

Public Comments – None

Written Comments – None

Motion was made by Amy Echard to approve the item as presented. Seconded by Brad Bleam.
Brad Bleam-aye, Lisa Gochenour-absent, Patricia Foley-aye, Mark Stutsman-aye, Stephanie Dykshorn-aye, Amy Echard-aye, Harold Hommes-aye, Rebecca Dostal-aye, and Ralph Lents-aye.
Motion passes.

APPROVED AS PRESENTED

GENERAL DISCUSSION

- Alicia Plathe demonstrated where to find visuals for the PFAS interactive map and the ESD metrics storyboard that were shared by Division Administrator Tormey at the beginning of the meeting. She also provided logistics for the upcoming February EPC meeting.
- Chairperson Lents reported that he will be absent at the February 15th EPC meeting and that Vice Chair Hommes will be Chairperson in his absence. Chairperson Lents also reported that Vice Chair Hommes will be absent during the March meeting and Secretary Dykshorn will perform the Vice Chair duties in his absence.
- Chairperson Lents thanked all those who attended the Legislative meet and greet and shared a positive experience he had with one of the northwest Iowa legislators.

ADJOURN

The Chairperson adjourned the Environmental Protection Commission meeting at 11:15 am on January 19, 2022.

ADJOURNED

Monthly Waiver Report
January 2022

JAN	DNR Reviewer	Facility/City	Program	Subject	Decision	Date	Agency
1	Lucas Tenborg	Northern Natural Gas - Redfield	AQ	Northern Natural Gas Company (NNG) is requesting a variance. NNG will be bringing	Approved	12.30.21	22aqv001
2	Lucas Tenborg	Marshall Ridge Renewable Energy	AQ	Marshall Ridge Renewable Energy is requesting to extend the current variance and	Approved	12.30.21	22aqv002
3	John Curtin	HNI Corp. North Campus	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for a six powder coating cure ovens.	Approved	12.28.21	22aqv003
4	Seth Moore	Stefanie and Albert Belanger	Sovereign Lands Construction	The petitioner is requesting a variance to place a seawall along the Mississippi River	Approved	12.27.21	22fpv004
5	Ashley Dvorak	Iowa Medical Classification Center	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	1.3.22	22aqv005
6	John Curtin	Boyer Valley Company	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for an open anaerobic lagoon.	Approved	1.5.22	22aqv006
7	Michael Hermsen	Iowa Fertilizer Company	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	1.7.22	22aqv007
8	Chad Stubbe	Alliant Energy - Ottumwa Generating Station	SD	Alliant Energy is requesting a waiver to provide proof of financial assurance per a	Approved	1.6.22	22sdv008
9	Matt Phoenix	Des Moines Water Works	Water Supply Construction (WC)	A variance from requirements to construct conflicting storm or sanitary sewers of water	Approved	1.10.22	22wcv009
10	Michael Hermsen	Ag Partners, LLC	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	1.12.22	22aqv010
11	John Curtin	World Food Processing dba Puris	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for equipment used to handle and process	Approved	1.13.22	22aqv011
12	Julie Duke	John Deere Drive Train Operations	AQ	Request to operate boiler with lower than permitted stack height during extreme cold to	Approved	1.5.22	22aqv012
13	Julie Duke	John Deere Foundry Waterloo	AQ	Request to allow product testing of a mold coating prior to submitting permit applicaiton	Approved	12.30.21	22aqv013
14	Julie Duke	Calcuim Products Inc	AQ	Request to construct buildings and equipment related to construction permit project 21-	Approved	1.7.22	22aqv014
15	Matt Phoenix	West Des Moines Water Works	Water Supply Construction (WC)	A variance from requirements to construct conflicting sanitary sewers of water main	Approved	1.14.22	22wcv015
16	Lucas Tenborg	US Gypsum Company - Sperry Plant	AQ	USG is requesting to conduct a trial to test an alternative product to provide mold	Approved	1.20.22	22aqv016
17	Lucas Tenborg	Mount Pleasant Correctional Facility	AQ	DNR received a variance request from Mount Pleasant Correctional Facility to operate	Approved	1.20.22	22aqv017
18	Priyanka Painuly	Amazon.com Services, LLC – MLI1	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	1.20.22	22aqv018
19	A J Montefusco	Iowa Falls	CP (Wastewater)	Install lift station pump with a maximum capacity to pass a 2.56-inch spherical solid and	Approved	1.21.22	22cpv019
20	Lucas Tenborg	CNH Industrial	AQ	CNH is requesting a variance to allow usage of new spray coating guns (EU-23A)	Approved	1.25.22	22aqv020
21	Mark Fields	Enterprise Products Operating, LLC	AQ	Enterprise is requesting a variance to install and operate a gas turbine prior to permit	Approved	1.12.22	22aqv021
22	Rachel Quill	Pella Corporation - Carroll Division	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement.	Approved	1.28.22	22aqv022
23	John Curtin	Valley Plating, Inc.	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for equipment used in zinc electroplating of	Approved	1.28.22	22aqv023
24	Karen Kuhn	Ag Processing Inc	Air Quality Construction Permits	Waiver of Initial Stack Test Requirement for equipment used in zinc electroplating of	Approved	1.28.22	22aqv024

Iowa Department of Natural Resources
Environmental Services Division
Fourth Quarter 2021 Report of Wastewater By-passes

During the period October 1, 2021 through December 31, 2021, 25 reports of wastewater by-passes were received by the department. A general summary and count by field office is presented below. This does not include by-passes resulting from precipitation events (including flood water infiltration) or bypasses resulting in basement backups.

Quarter	Total	Avg. Length (days)	Avg. Volume (MGD)	Sampling Required	Fish Kill
1ST Quarter '21	36 (40)	0.836	0.056	1	0(0)
2ND Quarter '21	40 (38)	0.204	0.159	3	0(0)
3RD Quarter '21	32 (34)	0.672	0.022	1	0(0)
4TH Quarter '21	25 (28)	0.562	0.017	0	0(0)

(numbers in parentheses are for same period last year)

Total Number of Incidents per Field Office This Quarter:

Field Office	1	2	3	4	5	6
Reports	2	1	5	7	2	8

Iowa Department of Natural Resources
Environmental Services Division
Fourth Quarter 2021 Report of Manure Releases

During the period October 1, 2021, through December 31, 2021, 9 reports of manure releases were forwarded to the central office. A general summary and count by field office is presented below.

		Total Incidents		Surface Water Impacts		Feedlot		Confinement		Land Application		Transport		Hog		Cattle		Poultry		Other	
Month	Year	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago
Jan	2021	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	0
Feb	2021	1	1	0	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
Mar	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	2021	4	4	2	2	1	0	2	4	1	0	0	0	1	4	3	0	0	0	0	0
May	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	2021	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Jul	2021	1	1	0	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
Aug	2021	1	1	1	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0	0	0
Sep	2021	0	2	0	1	0	1	0	0	0	1	0	0	0	0	0	2	0	0	0	0
Oct	2021	2	3	1	1	0	0	0	2	1	1	1	0	2	3	0	0	0	0	0	0
Nov	2021	4	5	1	4	0	0	2	1	1	2	1	2	3	4	0	1	1	0	0	0
Dec	2021	3	1	0	1	0	0	1	0	0	0	2	1	3	1	0	0	0	0	0	0
	Total	**16**	**21**	**5**	**11**	**1**	**3**	**8**	**9**	**3**	**5**	**4**	**4**	**12**	**15**	**3**	**4**	**1**	**2**	**0**	**0**

Total Number of Incidents per Field Office for the Selected Period	Field Office 1		Field Office 2		Field Office 3		Field Office 4		Field Office 5		Field Office 6	
	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous	Current	Previous
Total	0	1	0	2	3	1	1	1	2	1	3	3

Iowa Department of Natural Resources
Environmental Services Division
Fourth Quarter 2021 Report of Hazardous Conditions

During the period October 1, 2021, through December 31, 2021, 118 reports of hazardous conditions were forwarded to the central office. A general summary and count by field office is presented below. This does not include releases from underground storage tanks, which are reported separately.

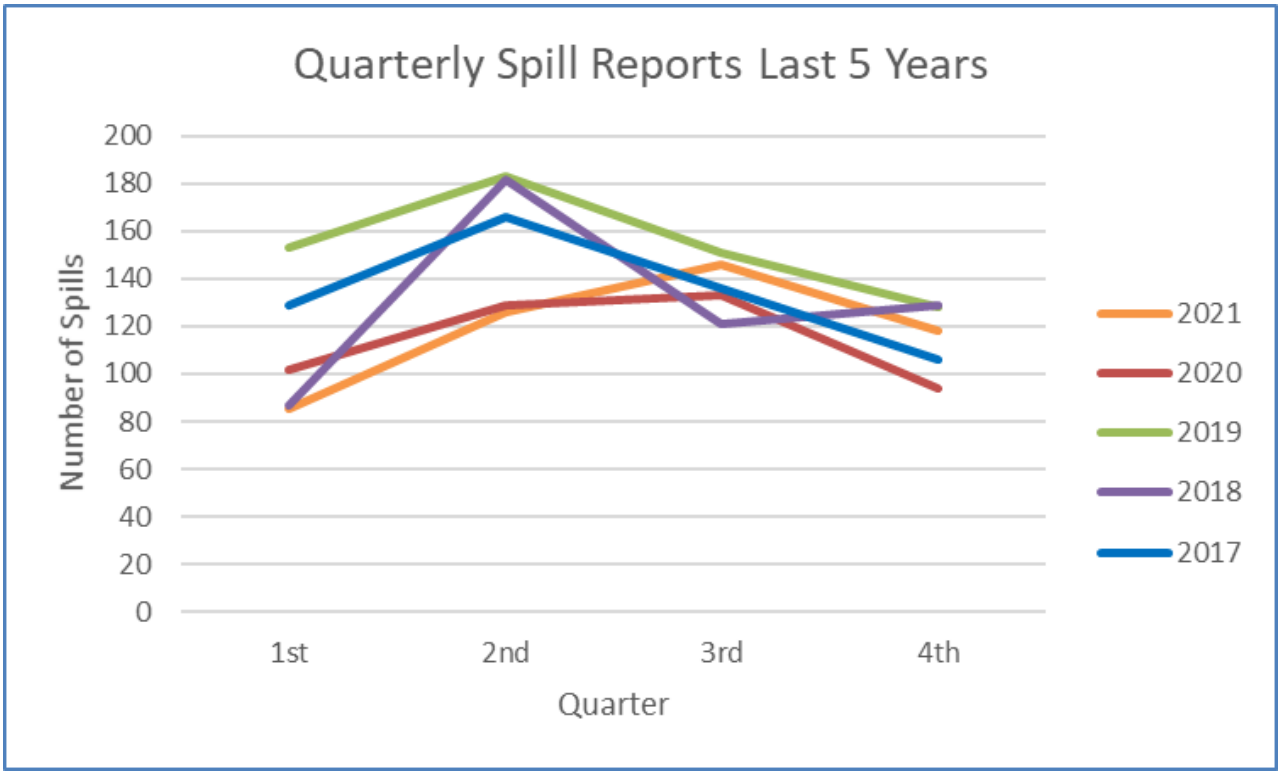
				Substance						Mode													
		Total Incidents		Agrichemical		Petroleum Products		Other Chemicals		Transport		Fixed Facility		Pipeline		Railroad		Fire		Other*		CR-ERNS**	
Month	Year	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago	Cur	Yr Ago
Jan	2021	32	42	1	3	19	26	14	14	11	13	12	22	0	0	0	2	0	0	2	0	7	5
Feb	2021	26	32	0	0	16	26	10	8	8	14	15	12	0	0	1	1	0	0	1	4	1	1
Mar	2021	28	28	1	2	22	20	7	8	11	12	13	13	1	1	0	1	0	0	1	0	2	1
Apr	2021	36	52	8	12	19	34	12	11	13	20	15	20	0	0	1	4	0	1	2	2	5	5
May	2021	50	28	4	7	31	14	16	7	22	13	17	11	0	0	4	0	0	0	2	4	5	0
Jun	2021	40	49	5	8	24	29	18	16	18	13	15	31	0	1	3	2	0	0	2	2	2	0
Jul	2021	65	39	17	6	30	24	23	10	17	12	25	17	1	0	0	0	2	1	5	4	15	5
Aug	2021	48	69	3	2	29	66	20	14	6	12	27	51	1	1	2	0	0	0	4	2	8	3
Sep	2021	33	25	0	1	23	11	13	13	11	4	10	13	0	0	2	1	1	0	4	3	5	4
Oct	2021	31	30	0	4	20	19	14	11	14	13	13	10	1	0	0	1	0	2	3	1	0	3
Nov	2021	37	26	4	14	21	8	14	8	15	11	15	9	1	1	0	0	0	0	3	0	3	5
Dec	2021	50	38	4	3	38	24	9	12	9	15	30	13	1	0	1	3	0	1	5	3	4	3
Total		**476**	**458**	**47**	**62**	**292**	**301**	**170**	**132**	**155**	**152**	**207**	**222**	**6**	**4**	**14**	**15**	**3**	**5**	**34**	**25**	**57**	**35**

* Other includes dumping, theft, vandalism and unknown
** CR-ERNS incidents are ongoing releases as defined by Federal regulations. These reports are included in "Total Incidents" and "Substance" counts but not in "Mode" counts.

Total Number of Incidents per Field Office This Selected Period	Field Office 1		Field Office 2		Field Office 3		Field Office 4		Field Office 5		Field Office 6	
	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago	Current	Year Ago
Total	13	12	19	6	10	9	27	29	25	17	24	21

Five Year Comparison of Quarterly Reports

Spill Reports



Iowa Department of Natural Resources
Environmental Protection Commission

#5

Decision Item

Contract Amendment with enfoTech & Consulting, Inc.

Commission approval is requested for a Contract amendment with enfoTech & Consulting, Inc. (enfoTech), of North Brunswick, New Jersey, to enhance the Construction Permit features in the Iowa Environmental Application System (Iowa EASY Air).

Contract Background:
The DNR contracted with enfoTech for $727,988 in 2018 to create Iowa EASY Air. The system allows businesses to receive permits through an electronic application process that is less expensive and time consuming, and more accurate and user friendly than submitting paper applications. Funding was provided through a legislative appropriation from the Technology Reinvestment Fund (SF 2414, 87th Iowa General Assembly).

Iowa EASY Air allows DNR to spend less time verifying data and more time focusing on the technical aspects of the application: evaluating whether the proposed production and pollution control equipment will meet specific emissions limits required by law.

The Contract has been amended previously to change deadlines in the Contract, enhance a submittal type, extend maintenance and support services, expand Title V application features, and add a new electronic payment system. Details are listed below in the Contract history.

Original Selection Process Summary:
The DNR met with stakeholders through focus groups to gather the users' needs, insight, and interest for a new electronic system. A Request for Proposals (RFP) process to solicit and receive bids from vendors was held in 2016. Five bids were received and evaluated during a competitive bidding and evaluation process. A Notice of Intent to Award was issued to enfoTech on February 6, 2017.

Contract Amendment #6 Terms:
Amount: Not to exceed $58,900
Dates: February 15, 2022 to June 30, 2022
Funding Source(s): Federal funds
Statutory Authority: 455A.4(6)

Amendment Purpose:
The purpose of the amendment is to provide critical enhancements to construction permitting features in Iowa EASY Air. The enhancements will add reminders and tool tips to prevent data loss and provide instructional information for applicants. Data on emissions and calculations will auto-populate in construction permit application forms and additional functionality will be added to the dashboard and some of the forms.

Contract History:
Original Contract Terms: Amount $727,988; Timeframe: November 1, 2018 to March 1, 2021.
Purpose: The purpose of the original Contract was to configure, install, license, test and provide support for a new electronic permit application submission and tracking software to replace the DNR's legacy system, SPARS. enfoTech modified and configured its commercial off-the-shelf (COTS) system, GovOnline, to meet the DNR's specific requirements. The DNR uses the resulting system, referred to as Iowa EASY Air, to accept and process applications for New Source Review air quality construction permits and Title V operating permits. Iowa EASY Air is currently used specifically for air quality permits, but may also be configured for reuse for other environmental permitting systems within the DNR.

Amendment #1
Terms: No change in funding
Timeframe: June 1, 2019 to March 1, 2021
Purpose: The purpose of amendment #1 was to extend the timelines within the Contract.

Amendment #2
Terms: Amount: $13,200
Timeframe: August 1, 2020 to October 30, 2020
Purpose: The purpose of amendment #2 was to expand a submittal type to the Iowa EASY Air system features. The expansion was entitled "Construction Rescission Application".

Amendment # 3
Terms: Amount: $117,150
Timeframe: November 20, 2020 to October 31, 2024
Purpose: The purpose of amendment #3 was to extend the System Maintenance and Support Services performed by the Contractor for four additional years.

Amendment #4
Terms: Amount: $12,355
Timeframe: May 1, 2021 – October 31, 2024
Purpose: The purpose of amendment #4 was to expand the Title V application features in the Iowa EASY Air system.

Amendment #5
Terms: Amount: $16,830
Timeframe: October 1, 2021 – February 28, 2022
Purpose: The purpose of amendment #5 was to replace the existing payment processing system with the new State of Iowa NIC payment processing system.

Wendy Walker
Environmental Specialist Senior
Air Quality Bureau - Environmental Services Division

February 15, 2022

Iowa Department of Natural Resources
Environmental Protection Commission

ITEM 6 **DECISION**

TOPIC **PETITION FOR RULEMAKING**

On August 11, 2021, the Iowa Environmental Council and Environmental Law and Policy Center jointly filed a Petition for Rulemaking with the Iowa Department of Natural Resources (DNR). The Petition requests amendment to 567 IAC chapter 65.

The Department recommends that the Petition for Rulemaking be denied. Supporting document attached are as follows:

Rulemaking Petition
DNR's Recommendation
Attachment I

Tamara McIntosh, Chief
Legal Services Bureau

February 10, 2022

IOWA DEPARTMENT OF NATURAL RESOURCES

Petition by the Iowa Environmental Council and Environmental Law and Policy Center for the adoption of rules relating to animal feeding operations	PETITION FOR RULE MAKING

The Iowa Environmental Council and Environmental Law & Policy Center present this petition for rule making pursuant to 567 IAC 5.1 and the Uniform Rules on Agency Procedure. The petition requests revision of rules relating to the siting of animal feeding operations. The revisions requested in this petition are based on the need to protect water quality, specifically as it relates to karst topography, groundwater and drinking water sources. The petition requests that the Iowa Department of Natural Resources ("DNR") promulgate revised rules governing animal feeding operations.

1. Relevant Law

The Iowa Legislature has charged the Environmental Protection Commission (EPC) with adopting requirements regarding the construction of animal feeding operations (AFOs). Iowa Code section 459.103(1) states:

> The commission shall establish by rule adopted pursuant to chapter 17A, requirements relating to the construction, including expansion, or operation of animal feeding operations, including related animal feeding operation structures. The requirements shall include but are not limited to minimum manure control, the issuance of permits, and departmental investigations, inspections, and testing.

This statute gives the EPC broad authority to regulate AFO siting and construction requirements.[1]

More generally, the EPC has broad statutory authority to "Develop comprehensive plans and programs for the prevention, control and abatement of water pollution."[2] No other department or commission has this duty – only the EPC has authority to adopt rules for water quality protection.

[1] *See also* IOWA CODE § 455B.173(12) (providing the EPC authority to "Adopt, modify, or repeal rules relating to the construction or operation of animal feeding operations, as provided in sections relating to animal feeding operations provided in chapter 459, subchapter III").

[2] IOWA CODE § 455B.173.

2. Summary of Argument in Support of the Proposed Rules

Iowa law restricts the siting of animal feeding operations to protect water quality from manure pollution. The law includes specific protections for karst terrain, groundwater, and drinking water sources. The rules implementing the statute have not been effective at protecting water quality and must be revised.

Iowa Code prohibits unformed concentrated animal feeding operation (CAFO) manure structures above karst terrain. Formed concrete structures are allowed with certain protections in place. But scholarship on karst shows that there is risk in building CAFOs on karst terrain even with those protections,[3] and the rules should address that risk. The rules should require greater vertical separation distance from karst terrain and recommendations in rule should be transformed into requirements.

To protect Iowa's drinking water, Outstanding Iowa Waters, and other waters of the state, the DNR must adopt rules requiring water pollution monitoring systems, consideration of environmental factors, and the adoption of additional minimum requirements for the approval of new construction. Doing so will protect Iowa's waters and provide clearer requirements for owners and operators attempting to construct or expand a CAFO or feedlot operation. Moreover, clear requirements will provide greater transparency for the public in understanding how CAFOs are sited.

A brief in support of the proposed rules is attached (see Attachment A).

3. Summary of Data in Support of the Proposed Rules

A. Concentrated Animal Feeding Operations Rapidly Expanded in Iowa.

The number of animal feeding operations in Iowa has grown significantly over the last 30 years. Most of the growth has been in the form of large concentrated animal feeding operations, primarily hog and hen confinements. In 1990, Iowa had 789 large CAFOs.[4] By 2019, the number of large CAFOs quintupled to 3,963, and has continued to grow since 2019.[5] The total number of animal feeding operations in the state is far larger, including 2,500 facilities that are slightly below the "large CAFO" threshold to avoid regulation, plus thousands of smaller operations.[6]

The growth in the number and size of CAFOs has increased the quantity of manure generated. The

[3] *See* Van Brahana et al., *CAFOs on Karst—Meaningful Data Collection to Adequately Define Environmental Risk, with a Specific Application from the Southern Ozarks of Northern Arkansas*, US GEOL. SURVEY SCI. INVEST. REP. 5035, 97.
[4] Jamie Konopacky and Soren Rundquist, "EWG Study and Mapping Show Large CAFOs in Iowa Up Fivefold Since 1990," Environmental Working Group, Jan. 21, 2020.
[5] *Id.*; IEC analysis of DNR AFO database, available at https://programs.iowadnr.gov/animalfeedingoperations/.
[6] IEC analysis of DNR AFO database, available at https://programs.iowadnr.gov/animalfeedingoperations/.

amount of manure Iowa now generates is equal to a population of 168 million people.[7] Most of this manure is not treated before being applied to cropland, where it can serve as fertilizer for crops. It can also run off the fields in stormwater, infiltrate soil and pollute groundwater, or reach surface waters via tile drainage. The high volume of manure produced in Iowa has led to areas of the state with manure application at rates that exceed crop needs.[8] This excess manure application leads to nitrate and phosphorus pollution.

B. Iowans Bear the Consequences and Costs of Excess Manure.

Excess nitrate in sensitive areas increases the risk that nitrate enters groundwater or drinking water sources. Nitrate contamination of drinking water can cause blue-baby syndrome, birth defects, bladder cancer, thyroid cancer, and other cancers.[9] Additionally, manure runoff from CAFOs into local water sources can promote the growth of harmful algal blooms causing illness in both animals and humans.[10] These adverse health effects to humans include liver damage, neurotoxicity, gastrointestinal problems, and various flu-like reactions. Manure can also contaminate surface water and groundwater with fecal bacteria that can cause gastrointestinal and respiratory illness.[11]

The cost to remove nitrate and other pollutants attributable to livestock operations from drinking water is astronomical. If the current amount of nitrogen run off from farms fields and CAFOs continues, Iowans will be responsible for up to $333 million over the next five years to remove nitrates from drinking water.[12] Removing these nitrates through water treatment, rather than preventing them from entering waters at the source of pollution, is costly and often unaffordable for public water systems and unaffordable for some private well owners.[13] Rural Iowans can pay as much as $1,200 per person per year for nitrate treatment of drinking water.[14] Cities struggle to cope with the cost of nitrate removal as well, facing high treatment costs for removal.

Harmful algal blooms produce toxins and have led Des Moines Water Works to consider spending $30 million to drill new wells in order to provide safe water to more than 500,000 people.[15] Bacteria contamination is widespread in surface waters around the state, leading to high rates of contamination of private wells. Iowans cannot afford the continued pollution of their groundwater

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[7] Chris Jones, "50 Shades of Brown," June 6, 2019, available at https://www2.iihr.uiowa.edu/cjones/50-shades-of-brown/.

[8] Chris Jones, "Make America MRTN Again," June 21, 2019, available at https://www2.iihr.uiowa.edu/cjones/make-america-mrtn-again (showing that manure produced in some Iowa counties meets or exceeds crop needs for phosphorus and nitrogen, despite continued sales of commercial fertilizer).

[9] "The Explosion of CAFOs in Iowa and Its Impact on Water Quality and Public Health." Iowa Policy Project

[10] *Id.*

[11] "Recreational Water Quality Criteria," U.S. EPA (2012), at 12, available at https://www.epa.gov/sites/default/files/2015-10/documents/rwqc2012.pdf.

[12] "Rural Iowans Bear Brunt of Water Treatment Costs for Nitrate Pollution from Farms and CAFOs." *Union of Concerned Scientists*, 14 Jan. 2021, www.ucsusa.org/about/news/rural-iowans-bear-brunt-water-treatment-costs-nitrate-pollution-farms-and-cafos.

[13] *Id.*

[14] *Id.*

[15] Merchant, James, and David Osterberg. "The Explosion of CAFOs in Iowa and Its Impact on Water Quality and Public Health." *Iowa Policy Project*, Iowa Policy Project, Jan. 2018, www.iowapolicyproject.org/2018docs/180125-CAFO.pdf.

and drinking water sources.

4. Text of the Proposed Rule

This petition proposes rule changes to Iowa Administrative Code, title 567, chapter 65.

A. Proposed karst rule changes

i. Allow for approval of structures less than 25 feet above karst only if designed by NRCS.

Amend section 65.15, paragraph (14) as follows:

(2) A minimum ~~5~~ 25-foot layer of low permeability soil (1×10^{-6} cm/sec) or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock is required if the formed manure storage structure is not designed by ~~a PE or~~ NRCS qualified staff.

(3) If the vertical separation distance between the bottom of the proposed formed manure storage structure and limestone, dolomite, or other soluble rock is less than ~~5~~ 25 feet, the structure shall be designed and sealed by a PE or NRCS qualified staff person who certifies the structural integrity of the structure. A 2-foot-thick layer of compacted clay liner material shall be constructed underneath the floor of the formed manure storage structure. However, it is recommended that any formed manure storage structure be constructed aboveground if the vertical separation distance between the bottom of the structure and the limestone, dolomite, or other soluble rock is less than ~~5~~ 25 feet.

ii. Prohibit CAFO structures less than 5 feet above karst.

Amend section 65.15, paragraph (14), by adding the following:

(6) Construction of underground formed and unformed manure storage structures less than 5 feet above karst terrain is prohibited.

B. Proposed drinking water rule changes

i. Require water pollution monitoring systems

Amend 65.15(21) by adding the following subsection:

Groundwater monitoring. The department shall require that the owner of a confinement feeding operation install and operate a water pollution monitoring system as part of an unformed manure storage structure.

Amend 65.109(10) by adding the following subsection:

Groundwater monitoring. The department shall require that the owner of an open feedlot install and operate a water pollution monitoring system as part of an unformed manure storage structure.

ii. Require the consideration of environmental factors in siting

Amend 65.5(3) as follows:

The department ~~may~~ shall evaluate any proposed confinement feeding operation or proposed expansion of a confinement feeding operation that requires a construction permit or manure management plan with respect to its potential adverse impacts on natural resources or the environment.

…

b. In addition to the requirements in rules 567-65.9(459,459B), 567-65.10(459,459B), 567-65.11(459,459B) and 567-65.17(459,459B), the department ~~may~~ shall deny a construction permit, disapprove a manure management plan or prohibit construction of the proposed operation at the proposed location if the director determines from the evaluation conducted pursuant to this subrule that the operation would reasonably be expected to result in any of the following impacts:

...

Amend 65.5(3)(c) by adding:

Criteria valuing environmental impacts shall account for animal agriculture's relationship to quality of the environment and the conservation of natural resources, and shall include factors that refer to all of the following:

a. Topography.

b. Surface water drainage characteristics.

c. The suitability of the soils and the hydrology and hydrogeology of the site.

d. The proximity to public use areas and critical public areas.

e. The proximity to water sources, including high-quality water resources and drinking water sources.

iii. Adopt additional minimum requirements for the approval of new construction permits

Amend section 65.5(3) as follows:

The department ~~may~~ shall evaluate any proposed confinement feeding operation or proposed expansion of a confinement feeding operation that requires a construction permit or manure management plan with respect to its potential adverse impacts on a natural resources or the environment.

a. In conducting the evaluation, the department shall consider the following factors:

…

(5) whether any water source in proximity to the proposed confinement feeding operation is impaired, whether there are any existing water quality improvement plans for proximate water sources, the proximity of the confinement feeding operation to drinking-water sources, and the number of existing animal feeding operations in proximity to the water sources for the location of the proposed construction or expansion of the confinement feeding operation.

b. In addition to the requirements in rules 567-65.9(459,459B), 567-65.10(459,459B), 567-65.11(459,459B) and 567-65.17(459,459B), the department ~~may~~ shall deny a construction permit, disapprove a manure management plan or prohibit construction of the proposed operation at the proposed location if the director determines from the evaluation conducted pursuant to this subrule that the operation would reasonably be expected to result in any of the following impacts: ...

Amend section 65.103(5) as follows:

The department ~~may~~ shall evaluate any proposed open feedlot operation or proposed expansion of an open feedlot operation that requires a construction permit with respect to its potential adverse impacts on natural resources or the environment. For the purpose of this subrule, open feedlot effluent includes manure, process wastewater, settled open feedlot effluent and settleable solids.

a. In conducting the evaluation, the department shall consider the following factors:

…

(5) whether any water source in proximity to the proposed open feedlot operation is impaired, whether there are any existing water quality improvement plans for proximate water sources, the proximity of the open feedlot operation to drinking water sources, and the number of existing animal feeding operations in proximity to the water sources for the location of the proposed construction or expansion of the open feedlot operation.

5. Description of Affected Class of Persons

All Iowans will be affected by the proposed rules because the rule change could improve water quality statewide. The ubiquity of CAFOs and threats associated with nitrogen and phosphorus pollution put all Iowans at risk. In addition, non-Iowans who are interested in or rely on Iowa's water resources will benefit from the cleaner water.

6. Request for a Meeting

Petitioners respectfully request a meeting with DNR regarding this petition as provided at 567 IAC 5.1 and the Uniform Rules on Agency Procedure.

7. Agency Consideration

The Uniform Rules on Agency Procedure provide that the agency must respond "within 60 days after the filing of the petition or within any longer period agreed to by the petitioner." Petitioners agree to a period of consideration for the petition of up to six months from the date of filing (with an additional extension of up to three months upon consent by petitioners). This extension will 1) ensure that DNR can adequately solicit public input and provide affected parties with a sufficient opportunity for input, 2) ensure that the state has enough time to conduct a fiscal/job impact

analysis, and 3) provide adequate time for permit derivation discussions.[16]

8. Inquiries

Communication regarding this petition should be directed to Michael R. Schmidt of the Iowa Environmental Council, Mailing Address: 505 5th Avenue, Suite 850, Des Moines, Iowa 50309. Email: schmidt@iaenvironment.org. Phone: 515-244-1194, extension 211.

9. Enclosures

Enclosure A: Brief in support of proposed rule making

Signed:

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[16] *See* Environmental Protection Commission, Denial of Petition for Rulemaking by Iowa Environmental Council and Environmental Law and Policy Center at 4-5 (October 14, 2013) (describing the need for public input before issuing notice of intent to adopt rules).

ATTACHMENT A

BRIEF IN SUPPORT OF PETITION FOR RULE MAKING TO REVISE RULES RELATING TO ANIMAL FEEDING OPERATIONS

I. BACKGROUND

Iowa is known for its agricultural production, including livestock and the crops they eat. Livestock in Iowa has become highly concentrated in animal feeding operations, with more than 12,000 active facilities identified by Iowa DNR. The manure produced by animals in animal feeding operations (AFOs) is far greater than the human waste in the state. It has contributed to the state's poor water quality and can only be remedied by amending the state's regulatory oversight.

A. CAFO Regulation in Iowa Is Lax.

The number of animal feeding operations in Iowa has grown significantly over the last 30 years. Most of the growth has been in the form of large concentrated animal feeding operations, primarily hog and hen confinements. Large AFOs with at least 1000 animal units and medium AFOs with at least 500 animal units (plus specifically designated AFOs) are known as *concentrated* animal feeding operations, or CAFOs.[17] In 1990, Iowa had 789 large CAFOs.[18] By 2019, the number of large CAFOs quintupled to 3,963,[19] and it has continued to grow since then. The total number of animal feeding operations in the state is far larger, including 2,500 facilities that are slightly below the "large CAFO" threshold to avoid regulation, plus thousands of smaller operations.[20]

The growth results from the lax oversight of CAFOs by the state. State law requires new large confinement operations to complete a "master matrix" scoring system, which overrides any local objection to the facility.[21] A passing score will allow the confinement CAFO to be built. Open feedlots often need no permit at all, except perhaps for a manure lagoon, and are subject to different requirements from confinements.[22] The legal distinction between confinements and open feedlots does not necessarily reflect the practices at the facilities, because "open feedlots" may be almost completely roofed and handle manure like a confinement operation.[23] Very few facilities – less than 2 percent – have obtained discharge permits under the Clean Water Act.[24] Manure

[17] Iowa Admin. Code r. 567-65.100 (defining "concentrated animal feeding operation").
[18] Jamie Konopacky and Soren Rundquist, "EWG Study and Mapping Show Large CAFOs in Iowa Up Fivefold Since 1990," Environmental Working Group, Jan. 21, 2020.
[19] *Id.*
[20] IEC analysis of DNR AFO database, available at https://programs.iowadnr.gov/animalfeedingoperations/.
[21] IOWA CODE § 459.305.
[22] IOWA CODE § 459A.205; *see* § 459A.202 (requiring operating permits but repealed by its own terms per 2006 Acts, ch 1088, §2).
[23] *Cf.* IOWA CODE §§ 459.102 (defining "confined feeding operation" as being totally roofed); 459A.102 (defining "open feedlot operation" as an "unroofed or partially roofed animal feeding operation").
[24] IOWA CODE § 459.311(2) (requiring compliance with the Clean Water Act requirements for permits); IEC analysis of DNR AFO database, available at https://programs.iowadnr.gov/animalfeedingoperations/.

management plans required for large facilities can be amended on-site without immediate submission to the DNR.[25] Documentation of compliance with manure management plans is not public.[26] The lack of regulatory oversight has encouraged the rapid growth described above.

New CAFOs can be built anywhere in the state, including in sensitive areas where the potential environmental consequences of a spill or failed manure containment system are greatest. The recent approval of a nutrient management plan for Supreme Beef LLC exemplifies this problem.[27]

B. Unfettered CAFO Expansion Has Harmed Iowa's Water Quality.

Water quality in Iowa is poor and getting worse. CAFOs and Iowa's existing regulations (and lack thereof) play a significant role in the state's water quality problems.

The growth in the number and size of CAFOs led to an increase in the quantity of manure generated. Iowa now generates the manure equal to a population of 168 million people.[28] Most of this manure is not treated before being applied to cropland, where it can serve as fertilizer for crops. However, it can also run off fields in stormwater, or infiltrate the soil and pollute groundwater. The high volume of manure excreted in Iowa has led to areas of the state with manure application at rates that exceed crop needs.[29] This excess manure contains nitrate, phosphorus, and bacteria that can pollute Iowa waters when it is over-applied or improperly applied.[30]

Nitrate concentrations in Iowa surface waters have been substantially increasing in recent years.[31] The total load of nitrate leaving the state, measured as a five-year running average, has doubled in the last 17 years.[32] Private wells across the state – located primarily in rural areas – have recorded high concentrations of nitrate and bacteria.[33]

The Iowa DNR has listed or proposed to list hundreds of stream segments for impairments that may be caused by animal feeding operations:[34]

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[25] IOWA CODE § 459.312(3) (allowing annual updates to be submitted to the DNR).
[26] IOWA CODE § 459.312(12).
[27] *See* Erin Jordan, "Iowa DNR approves 11,600-head cattle feedlot near Monona," The Gazette (April 5, 2021), available at https://www.thegazette.com/news/iowa-dnr-approves-11600-head-cattle-feedlot-near-monona/.
[28] Chris Jones, "50 Shades of Brown," June 6, 2019, available at https://www2.iihr.uiowa.edu/cjones/50-shades-of-brown/.
[29] Chris Jones, "Make America MRTN Again," June 21, 2019, available at https://www2.iihr.uiowa.edu/cjones/make-america-mrtn-again (showing that manure produced in some Iowa counties meets or exceeds crop needs for phosphorus and nitrogen, despite continued sales of commercial fertilizer).
[30] Iowa Department of Agriculture and Land Stewardship, Iowa Department of Natural Resources, Iowa State University College of Agriculture and Life Sciences, *Iowa Nutrient Reduction Strategy* (rev. 2017), §2.1 at 4, 7-8.
[31] Chris Jones, "Manure Matters: IA 2020 Nitrate Summary," Mar. 1, 2021, available at https://www2.iihr.uiowa.edu/cjones/manure-matters-ia-2020-nitrate-summary/.
[32] *Id.*
[33] Iowa Environmental Council and Environmental Working Group, "Iowa's Private Wells Contaminated by Nitrate and Bacteria," Apr. 2019, available at https://www.ewg.org/interactive-maps/2019_iowa_wells/.
[34] "2020 305(b) Assessment Summary," Iowa DNR, available at

- 429 stream segments for bacteria;
- 150 segments for biological uses;
- 96 for fish kills; and
- 22 for organic enrichment.

In addition, DNR has proposed to list numerous lakes for impairments that may be caused by animal feeding operations:[35]

- 94 for algal growth;
- 32 for indicator bacteria; and
- 11 for organic enrichment.

Although DNR has not investigated the cause of most of these impairments, water quality improvement plans published by the DNR that analyze impairments have attributed pollution to livestock and called for changed practices.[36] DNR has also found that about 40 percent of fish kills are caused by animal waste.[37]

C. Water Pollution Has Public Health and Economic Consequences.

Iowans face a barrage of pollutants in their drinking water, including nitrate, microcystins, and bacteria. These threats affect both public water supplies and private wells.

Nitrate in drinking water poses such serious human health threats that the Safe Drinking Water Act requires nitrate concentrations in public water supplies to stay below 10 mg/L.[38] Nitrate in drinking water can cause blue-baby syndrome, birth defects, bladder cancer, thyroid cancer, and other cancers.[39] But even concentrations below the Safe Drinking Water Act standard of 10 mg/L may cause a range of health problems, including cancer.[40]

Nitrate has become a major concern for Iowa's drinking water utilities. The DNR has stated that the water supplies of 260 cities and towns are at risk from nitrate contamination.[41] Community drinking water managers have publicly stated that installing nitrate treatment would be prohibitively expensive.[42] Rural water utilities identified nitrate as a top concern for contamination

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https://programs.iowadnr.gov/adbnet/Assessments/Summary/2020.

[35] *Id.*

[36] *See, e.g.*, "Water Quality Improvement Plan for Raccoon River, Iowa," Iowa DNR Watershed Improvement Section (2008), available at https://www.iowadnr.gov/portals/idnr/uploads/water/watershed/tmdl/files/final/raccoon08tmdl.pdf.

[37] *Id.*

[38] 40 C.F.R. § 141.62.

[39] "Nitrate in Drinking Water: A Public Health Concern For All Iowans," Iowa Environmental Council (Sept. 2016), available at https://www.iaenvironment.org/webres/File/Nitrate_in_Drinking_Water_Report_ES_Web.pdf (citing Brender, Jean D; Weyer, Peter J; Romitti, Paul A; et al. 2013. Prenatal Nitrate Intake from Drinking Water and Selected Birth Defects in Offspring of Participants in the National Birth Defects Prevention Study. *Environmental Health Perspectives*, Vol. 121(9):1083-1089. http://ehp.niehs.nih.gov/1206249/).

[40] *Id.*

[41] Donnelle Eller, "High nitrate levels plague 60 Iowa cities, data show," Des Moines Register (Jul. 4, 2015), available at https://www.desmoinesregister.com/story/money/agriculture/2015/07/04/high-nitrates-iowa-cities/29720695/.

[42] Kate Payne, "Study: Nitrate Contamination in Water More Likely to Affect Lower Income Communities in

in a recent survey,[43] and the impacts of increased nitrate concentrations disproportionately affect lower-income communities.[44]

Private wells in Iowa have widespread contamination above the standard for nitrate in public water supplies under the Safe Drinking Water Act. Based on thousands of tests, 12 percent of private wells exceeded 10 mg/L and more than 20 percent averaged at least 5 mg/L.[45] The average nitrate concentration in private wells in Iowa is 4.4 mg/L and has increased over time.[46] An analysis of Iowa wells found the distances to the nearest sinkhole and the nearest animal feeding operation were important variables for predicting well contamination.[47]

The cost to remove nitrate and other pollutants from contaminated drinking water is enormous. Iowans may be responsible for up to hundreds of millions of dollars to remove nitrates from drinking water in the coming years.[48] The Des Moines Water Works spent millions of dollars to expand its nitrate removal facility and can have annual operating costs that exceed $1 million.[49] Removing these nitrates through water treatment, rather than at the source of pollution, is costly for state and local agencies and unaffordable for some private well owners.[50]

Additionally, manure runoff from CAFOs into local water sources can contain phosphorus pollution that promotes the growth of harmful algal blooms (HABs), which can cause illness in both animals and humans while limiting uses of surface water for drinking and recreation.[51] HABs are comprised of cyanobacteria that can produce toxic microcystins. Exposure to microcystins in HABs has led to deaths of dogs and, in rare cases, humans.[52] Microcystins can also cause serious

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Iowa," Iowa Public Radio (June 28, 2021), available at https://www.iowapublicradio.org/ipr-news/2021-06-28/study-nitrate-contamination-in-water-more-likely-to-affect-lower-income-communities-in-iowa (quoting a rural water system manager).

[43] Alicia Vasto and Silvia Secchi, "Rural Water Systems in Iowa: Analysis of Opportunities and Challenges," Iowa Environmental Council (Feb. 2021), at 8, available at https://www.iaenvironment.org/webres/File/Rural%20Water%20Systems%20in%20Iowa.pdf.

[44] Anne Schechinger, "In Midwest farm states, nitrate pollution of tap water is more likely in lower-income communities," EWG (June 23, 2021), available at https://www.ewg.org/news-insights/news/midwest-farm-states-nitrate-pollution-tap-water-more-likely-lower-income.

[45] Iowa Environmental Council and Environmental Working Group, "Iowa's Private Wells Contaminated by Nitrate and Bacteria," Apr. 2019, available at https://www.ewg.org/interactive-maps/2019_iowa_wells/.

[46] *Id.*

[47] Wheeler, D.C.; Nolan, B.T.; Flory, A.R.; et al. 2015. Modeling Groundwater Nitrate Concentrations in Private Wells in Iowa. In Science of the Total Environment, Vol. 536:481-488. http://www.ncbi.nlm.nih.gov/pubmed/26232757.

[48] "Rural Iowans Bear Brunt of Water Treatment Costs for Nitrate Pollution from Farms and CAFOs." *Union of Concerned Scientists*, 14 Jan. 2021, www.ucsusa.org/about/news/rural-iowans-bear-brunt-water-treatment-costs-nitrate-pollution-farms-and-cafos.

[49] MacKenzie Elmer, "Water Works plans $15 million for expanded nitrate facility," Des Moines Register (May 25, 2015), available at https://www.desmoinesregister.com/story/news/2017/05/25/water-works-plans-15-million-expanded-nitrate-facility/336648001/.

[50] *Id.*

[51] "Harmful Algal Blooms," U.S. EPA, last visited August 9, 2021, available at https://www.epa.gov/nutrientpollution/harmful-algal-blooms.

[52] *Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin*, U.S. EPA (May 2019) at 59-61, 64-68 (describing studies).

short-term and long-term illnesses including liver damage, neurotoxicity, gastrointestinal problems, and various flu-like reactions.[53] Beyond the human impacts, HABs can harm aquatic life.[54] Algae blooms can lower dissolved oxygen to a point that causes fish kills.[55] Cyanotoxins may accumulate in the muscles and internal organs of fish.[56]

Des Moines Water Works has had to deal with increasing concentrations of microcystins in its source water, the Des Moines and Raccoon Rivers.[57] The agency recently reported that, for the first time ever, both the Des Moines and Raccoon River sources have exceeded the drinking water standard for microcystins.[58] Des Moines Water Works previously characterized the Des Moines River as "essentially unusable" for one-third of 2020 due to persistently high levels of microcystin.[59]

Manure also contains fecal pathogens including E. coli, cryptosporidium, giardia, and viruses.[60] Even temporary exposure to these bacteria from recreation can cause gastrointestinal illnesses such as vomiting, nausea, and diarrhea.[61] Public water supplies must eliminate essentially all of these pathogens, but private wells may not provide the same level of treatment. In Iowa, 22,000 of 55,000 private wells (40%) that tested for bacteria contained coliform or fecal coliform bacteria.[62] A smaller number, approximately 4,300 wells, tested positive for bacteria every single time they were tested.[63] Thousands of Iowans are drinking water that can make them sick.

Pollution by nitrate, phosphorus, microcystins, and bacteria is especially harmful where the pollutants can most easily enter surface water or groundwater. These include areas of karst terrain, shallow groundwater, and surface drinking water sources. Iowa cannot afford to have these waters laden with nitrate, phosphorus, microcystins, and bacteria.

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[53] *Id*.
[54] *Id*. at 109.
[55] *See* Iowa Department of Natural Resources, Methodology for Iowa's 2018 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b) and 303(d) of the Federal Clean Water Act at 66 (Dec. 31, 2019), available at http://publications.iowa.gov/31281/1/2018%20IA%20Methodology-Final.pdf.
[56] *Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin*, U.S. EPA (May 2019) at 109.
[57] "Des Moines Water Works Detects Microcystin in Des Moines Water System," Des Moines Water Works (Aug. 3, 2016), last visited July 9, 2021, available at http://www.dmww.com/about-us/announcements/advisory.aspx.
[58] Ted Corrigan, Des Moines Water Works CEO, "The Increasing Challenge of Producing Safe Drinking Water," Iowa Learning Farms webinar (July 7, 2021), available at https://www.iowalearningfarms.org/page/webinars.
[59] Kate Payne, "Des Moines Water Works Advances Plans To Build New Wells In Light Of River Pollutants," Iowa Public Radio (Apr. 22, 2021), available at https://www.iowapublicradio.org/ipr-news/2021-04-22/des-moines-water-works-advances-plans-to-build-new-wells-in-light-of-river-pollutants.
[60] "National Primary Drinking Water Regulations," U.S. EPA (last updated Jan. 5, 2021), available at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations.
[61] "Recreational Water Quality Criteria," U.S. EPA (2012), at 12, available at https://www.epa.gov/sites/default/files/2015-10/documents/rwqc2012.pdf.
[62] Iowa Environmental Council and Environmental Working Group, "Iowa's Private Wells Contaminated by Nitrate and Bacteria," Apr. 2019, available at https://www.ewg.org/interactive-maps/2019_iowa_wells/.
[63] *Id*.

II. THE ENVIRONMENTAL PROTECTION COMMISSION HAS A DUTY TO ADOPT RULES THAT PROTECT AGAINST WATER POLLUTION FROM ANIMAL FEEDING OPERATIONS

The Environmental Protection Commission (EPC) is charged with adopting requirements regarding the construction of AFOs. Iowa Code section 459.103(1) states:

> The commission shall establish by rule adopted pursuant to chapter 17A, requirements relating to the construction, including expansion, or operation of animal feeding operations, including related animal feeding operation structures. The requirements shall include but are not limited to minimum manure control, the issuance of permits, and departmental investigations, inspections, and testing.

This statute gives the EPC broad authority to regulate AFO siting and construction requirements.[64]

The EPC is the only commission or department charged with adopting regulations to protect ambient water quality. It has broad statutory authority to "Develop comprehensive plans and programs for the prevention, control and abatement of water pollution."[65] The EPC has adopted a range of rules addressing water quality, including regulations for AFOs. In adopting rules regulating AFOs, the EPC must ensure that "Manure from an animal feeding operation shall be disposed of in a manner which will not cause surface water or groundwater pollution."[66]

However, as described in the previous section, the existing regulations are failing to prevent, control, and abate water pollution. Manure is polluting Iowa's waters. Water quality in Iowa is poor and is getting worse. Particularly for vulnerable locations, the EPC must take action to ensure that Iowans have access to safe, clean water.

III. EPC MUST REVISE RULES TO PROTECT KARST TOPOGRAPHY

One of the most pollution-sensitive features in Iowa is karst terrain, where surface water and groundwater interact. Additional nitrate and phosphorus in karst topography have a higher likelihood of degrading clean waters and harming their designated uses.

[64] *See also* IOWA CODE § 455B.173(12) (providing the EPC authority to "Adopt, modify, or repeal rules relating to the construction or operation of animal feeding operations, as provided in sections relating to animal feeding operations provided in chapter 459, subchapter III").
[65] IOWA CODE § 455B.173.
[66] IOWA CODE § 459.311(3).

A. Karst Terrain

Karst is a landscape formation created by dissolving bedrock that may be comprised of sinkholes, sinking streams, caves, springs, and other features.[67] Karst is associated with soluble rock types such as limestone, marble, dolomite, and gypsum.[68] A typical karst landscape forms when much of the water falling on the surface interacts with and enters the subsurface through cracks, fractures, and holes that have been dissolved into the bedrock.[69]

Karst is an ideal aquifer, but because it is porous, water travels quickly through it while receiving little filtration.[70] Therefore, contaminants that enter a karst aquifer are rapidly transported and create water quality problems.[71] About 20% of the United States is underlain by karst landscapes and 40% of groundwater used for drinking comes from karst aquifers.[72]

Most of the karst terrain in Iowa is in the northeast portion of the state, known as the Driftless area that was not subject to glaciation.[73] The porous rock is sometimes very close to the soil surface, reducing the potential for the soil to filter pollutants from water before it reaches an aquifer. Manure spills or other releases of pollutants on karst topography can quickly enter groundwater and pollute surface water. In July 2021, a leak from an underground storage system managed to cause a fish kill in surface water before the stream "disappeared underground just upstream of the Turkey River."[74] A study of drinking water wells in fractured bedrock in Wisconsin found that livestock manure was the most likely source for contaminated drinking water that would result in gastrointestinal illness.[75]

The majority of the waters that the Department of Natural Resources has designated as Outstanding Iowa Waters are in the area of karst terrain in Northeast Iowa.[76] The fact that these high-quality waters are located in karst terrain and are more vulnerable to pollution further necessitates preventing CAFO siting in these areas. The DNR's recent approval of a large CAFO in the area led to widespread public outcry and poses a threat to multiple Outstanding Iowa Waters.[77]

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[67] NATIONAL PARK SERVICE, *Karst Landscapes*, https://www.nps.gov/subjects/caves/karst-landscapes.htm (last visited July 9, 2021).
[68] *Id.*
[69] *Id.*
[70] *Id.*
[71] *Id.*
[72] *Id.*
[73] *See* "NE Iowa Watershed and Karst Map," Iowa DNR (Nov. 2010), available at https://www.iowadnr.gov/Portals/idnr/uploads/water/wells/IGWS%20Karst%20Map.pdf.
[74] "DNR investigated fish kill in Winneshiek County over weekend," Iowa DNR News Release, July 12, 2021.
[75] Coburn Dukehart, "Cow Manure Predicted To Cause Most Sickness From Contaminated Wells In Kewaunee County," Wisconsin Public Radio (June 24, 2021) available at https://www.wpr.org/cow-manure-predicted-cause-most-sickness-contaminated-wells-kewaunee-county.
[76] *See* "Iowa's Outstanding Iowa Waters Map," Iowa DNR, available at https://www.iowadnr.gov/Portals/idnr/uploads/water/standards/outstanding_iowa_waters.pdf.
[77] *See* "Summary of Comments Received by the Iowa Department of Natural Resources," Iowa DNR, April 2, 2021; Clay Masters, "The Battle Over Bloody Run Creek," Iowa Public Radio (July 1, 2021), available at https://www.iowapublicradio.org/environment/2021-07-01/the-battle-over-bloody-run-creek.

B. Protections Necessary to Preserve Karst Terrain

Iowa Code prohibits unformed (i.e., earthen) CAFO manure structures above karst terrain.[78] Formed concrete structures are allowed with certain protections in place.[79] However, scholarship on karst shows that there is risk in building CAFOs on karst terrain even with those protections, and the rules must address that risk.[80] The rules should require greater vertical separation distance from karst terrain and existing recommendations in the rule should become requirements.[81]

All construction above karst is dangerous for water quality due to the potential for sinkholes and groundwater contamination.[82] Because of this risk, experts have concluded it is safest to assess CAFO construction above karst on a site-by-site basis.[83] These experts also propose a more holistic process of handling construction above karst where scientists and farmers are more involved in the regulatory process.[84]

Current rules require a five-foot separation from karst geology.[85] This is not adequate to ensure water will not be contaminated when manure structures are built in karst terrain, as required by statute.[86] This should be modified to require a 25-foot vertical separation, which is already in effect for unformed CAFO structures above karst.[87] Iowa rules contain an exception in chapter 567, section 65.15 for situations where the Natural Resources Conservation Service designs a structure that can be used for terrain less than 25 feet above karst based on the site-by-site data and external professional input.[88] That exception could remain in place to allow site-specific alternatives.

The proposed rule change would not prevent all CAFOs in karst terrain. Most karst terrain in Iowa is more than 25 feet below the surface, so this extension would not act as a blanket prohibition.[89] It would also allow more room for site-by-site approval of construction less than 25 feet above karst where conditions show risks are lower.

In addition, the rules should require that construction above less than five feet of karst, whether formed or unformed, is uniformly banned without exception. The EPC could accomplish this by

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[78] IOWA CODE § 459.311.
[79] *Id.*; Iowa Admin. Code r. 567-65.15.
[80] *See* Van Brahana et al., *CAFOs on Karst—Meaningful Data Collection to Adequately Define Environmental Risk, with a Specific Application from the Southern Ozarks of Northern Arkansas*, US GEOL. SURVEY SCI. INVEST. REP. 5035, 97.
[81] *See id.*
[82] *See* Katarina Kosic et al., *Proposals for integrating karst aquifer evaluation methodologies into national environmental legislations*, 1 SUSTAIN. WATER RESOUR. MANAG. 373 (2015).
[83] *Id.*
[84] Katarina Kosic & Ira D. Sasowsky, *An interdisciplinary framework for the protection of karst aquifers*, 89 ENV. SCI. & POL'Y 41 (2018).
[85] Iowa Admin. Code r. 567-65.2(10)(b).
[86] Iowa Code § 459.311(3).
[87] Iowa Admin. Code r. 567-65.15.
[88] *Id.*
[89] David J. Weary & Daniel H. Doctor, *Karst in the United States: A digital map compilation and database*, USGS (2014), https://pubs.usgs.gov/of/2014/1156/.

turning the language of a recommendation in section 65.15 into a requirement.[90] This change would avoid the worst potential impacts in karst topography.

IV. EPC MUST REVISE RULES TO PROTECT DRINKING WATER SOURCES AND GROUNDWATER

A. General Protections

Iowa law currently imposes few protections to limit the siting of animal feeding operations in areas that pose a great risk to polluting Iowa's drinking water sources.[91] Allowing CAFOs to be placed in these high-risk areas results in pollution from nutrients such as nitrogen and phosphorus, pathogens such as *E. coli*, growth hormones, antibiotics, chemicals, and other pollutants connected to CAFOs.[92]

To protect Iowa's drinking water, the EPC must adopt rules requiring water pollution monitoring systems, the consideration of environmental factors in the DNR's review process, and the adoption of additional minimum requirements for the approval of new construction. Doing so will protect Iowa's waters and provide clearer requirements for owners and operators attempting to construct or expand a CAFO. This is consistent with the EPC's legal obligation to "Develop comprehensive plans and programs for the prevention, control and abatement of water pollution."[93] Moreover, clear requirements will provide greater transparency for the public in understanding how CAFOs are sited.

The construction, expansion, and location of CAFOs is at the discretion of the DNR and its director. As a result, 97 percent of requested CAFO permits are approved.[94] Providing clear guidelines and standard criteria in place of the Department's near-total discretion will ensure that each proposed CAFO is carefully considered in a fair and equal manner in compliance with established requirements.

Additional direction in rule is necessary because Iowa's lax CAFO laws and rules have created a serious public health problem by contaminating groundwater and surface water, including communities' drinking water. The ongoing contamination of drinking water sources by nitrate, microcystins, and bacteria result in a wide range of health problems. Providing clean drinking water to Iowans must be a public health priority. The EPC must fulfill its duty to prevent these harms to Iowans.

[90] Iowa Admin. Code r. 567-65.15.
[91] *See generally* Iowa Code 2021, Chapter 459 and Iowa Administrative Code 65.
[92] Merchant, James, and David Osterberg. "The Explosion of CAFOs in Iowa and Its Impact on Water Quality and Public Health." Iowa Policy Project, Jan. 2018, www.iowapolicyproject.org/2018docs/180125-CAFO.pdf.
[93] IOWA CODE § 455B.173.
[94] Merchant, James, and David Osterberg. "The Explosion of CAFOs in Iowa and Its Impact on Water Quality and Public Health." Iowa Policy Project, Jan. 2018, www.iowapolicyproject.org/2018docs/180125-CAFO.pdf.

B. CAFO Rules Should Prevent and Abate Pollution.

To mitigate the public health risks and the immense costs of CAFO pollution to Iowa's drinking water sources, the proposed rules in the petition to protect drinking water must be adopted. Each rule will help to minimize the potential for nitrate and other pollutants to enter water sources to begin with, which will save money and the health of Iowans.

The petition proposes to require water pollution monitoring for all confinements with unformed manure storage areas. Iowa Code expressly allows DNR to require water quality monitoring for unformed manure structures.[95] This monitoring is necessary to address the high frequency of nitrate contamination in private wells. As described above, the degree of contamination in private wells has increased over time, to the point that there are potential health risks for many Iowans. In addition, many Iowans who rely on private wells have not tested their wells for nitrate – they may not even know of the risk of contamination.[96] Because the Safe Drinking Water Act does not apply to private wells, it is especially important to prevent pollution of private wells at the source. Earthen manure containment systems have a potential to leach nitrate into groundwater[97] and should be responsible for ensuring that there is no downgradient contamination. This requirement is similar to requirements imposed in Wisconsin, which already requires monitoring around manure storage structures.[98]

The second proposed change requires the DNR to evaluate environmental impacts in siting new AFOs. These considerations are necessary to ensure the regulatory structure for CAFOs appropriately prevents and abates pollution, fulfilling the EPC's mandate in Iowa Code section 455B.173. Iowa Code expressly allows DNR to consider this in the master matrix.[99] Adopting the language as a requirement in rule is necessary to ensure AFOs do not cause undue environmental harm to drinking water sources or groundwater.

The third proposed change would require DNR to evaluate environmental factors in the permitting of new facilities. Like the other proposed revisions, this is necessary to fulfill the EPC's duty to prevent and abate water pollution and to prevent disposal manure from causing water pollution.[100]

Clear guidelines in the proposed rules will give feedlot operators notice of what is expected for construction and pollution mitigation. Setting standard criteria, such as those addressed in part *iii*. for the evaluation of the siting of CAFOs and feedlots, will not only make the process more transparent to the operators and public, but will immensely diminish the amount of polluted runoff entering water sources.

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[95] IOWA CODE § 459.303(6).

[96] Iowa Environmental Council and Environmental Working Group, "Iowa's Private Wells Contaminated by Nitrate and Bacteria," Apr. 2019, available at https://www.ewg.org/interactive-maps/2019_iowa_wells/.

[97] Iowa Admin. Code r. 567-65.3(5)(a) (referencing actions to minimize leaching); *see, e.g.*, "Effects of Liquid Manure Storage Systems on Ground Water Quality," Minnesota Pollution Control Agency (Apr. 2001), available at https://www.pca.state.mn.us/sites/default/files/rpt-liquidmanurestorage.pdf (finding increased nitrate and phosphorus downgradient of unlined and earthen basins).

[98] *Clean Wisconsin, Inc., v. Wisconsin Department of Natural Resources*, 2021 WI 71 (Case No.: 2016AP1688, decided July 8, 2021).

[99] IOWA CODE § 459.305(2).

[100] IOWA CODE §§ 455.173, 459.311(3).

All of the proposed rule changes to protect groundwater and drinking water sources are necessary to protect Iowa's water sources from contamination that will harm human health and impose severe economic costs.

V. CONCLUSION

The combination of lax regulations and rapid expansion of CAFOs in Iowa have led to significant water quality problems. The EPC must act to protect Iowa's sensitive landscapes, including areas of karst and drinking water sources. Failure to protect these resources will increase costs for Iowans and degrades the state's public resources. Adopting rules to increase separation distance from karst and protecting groundwater and drinking water sources will protect Iowans from CAFOs that pose the highest risk. Doing so will comply with the statute while reducing environmental harm and economic losses.

The Iowa Environmental Council and Environmental Law & Policy Center request EPC adopt the rules proposed in the petition to protect water quality across the state of Iowa.

THE ENVIRONMENTAL PROTECTION COMMISSION
IOWA DEPARTMENT OF NATURAL RESOURCES

Petitioned by: The Iowa Environmental Council and Environmental Law and Policy Center For the amendment of: 567 Iowa Administrative Code Chapter 65	DENIAL OF PETITION FOR RULEMAKING February 15, 2022

I. OVERVIEW

The Environmental Protection Commission's (Commission) review of the record in this matter reflects the following:

On August 11, 2021, Petitioners, the Iowa Environmental Council and Environmental Law and Policy Center, submitted a Petition to amend portions of 567 Iowa Administrative Code (IAC) Chapter 65. 567 IAC Chapter 65 establishes regulations for the construction and operation of animal feeding operations, as well as for the handling and application of manure from animal feeding operations.

Petitioners argue the proposed amendments to the siting requirements of animal feeding operations in karst terrain are necessary to protect water quality, specifically groundwater and drinking water sources.

Upon receipt of a petition, the Commission has 60 days to act on the petition unless the petitioner agrees to a time extension. In the Petition, the Petitioners preemptively agreed to six months from the date of filing, with an additional extension of up to three months upon consent of the Petitioners. Pursuant to Iowa Code section 17A.7 and 561 IAC chapter 5 (adopted by reference at 567 IAC 5.1), the Commission must either deny the petition in writing on the merits, stating its reasons for the denial, or initiate rulemaking proceedings in accordance with Iowa Code section 17A.4.

The Commission must make a review of the petition "on the merits." IOWA CODE §17A.7(1). A review "on the merits" requires the Commission to "give fair consideration to the propriety of issuing the proposed rule but does not require the agency to take a stand on the substantive issues that might prompt the proposal of a rule." *Bernau v. Iowa Dept. of Transp.*, 580 N.W.2d 757, 766 (Iowa 1998) (internal quotation omitted). The Commission may rely on whatever reasons it finds to be relevant to the rulemaking proposed by a petition, including reasons other than the merits of the request. See, e.g. *Litterer v. Judge*, 644 N.W.2d 357, 361 (Iowa 2002) *and* Arthur Earl Bonfield, *The Iowa Administrative Procedure Act: Background, Construction, Applicability, Public Access to Agency Law, The Rulemaking Process*, 60 IOWA L.REV. 731, 895 (1975). The intent of a review on the merits is to provide assurance to a petitioner that their petition

was fairly considered. *Litterer,* 644 N.W.2d at 361 (citing *Cmty. Action Research Group v. Iowa State Commerce Comm'n*, 275 N.W.2d 217, 219 (Iowa 1978) (further citation omitted)).

The Department of Natural Resources (Department) has reviewed the Petition on the merits; the Department's findings are detailed in Section II. The Commission has reviewed the Petition on the merits; its ruling is found in Section III.

II. DEPARTMENT'S FINDINGS

I. Karst Construction Standards – Low Permeability Layer and Vertical Separation Distance

A. Existing Law

567 IAC 65.15(14)"c" currently provides upgraded construction standards for formed concrete manure storage structures located in karst terrain.

567 IAC 65.15(14)"c"(2) and (3) states:

> (2) A minimum 5-foot layer of low permeability soil (1 × 10–6 cm/sec) or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock is required if the formed manure storage structure is not designed by a PE [professional engineer] or NRCS qualified staff.
>
> (3) If the vertical separation distance between the bottom of the proposed formed manure storage structure and limestone, dolomite, or other soluble rock is less than 5 feet, the structure shall be designed and sealed by a PE or NRCS qualified staff person who certifies the structural integrity of the structure. A 2-foot-thick layer of compacted clay liner material shall be constructed underneath the floor of the formed manure storage structure. However, it is recommended that any formed manure storage structure be constructed aboveground if the vertical separation distance between the bottom of the structure and the limestone, dolomite, or other soluble rock is less than 5 feet.

The upgraded construction standards apply to all formed concrete manure storage structures located in karst terrain for the following types of animal feeding operations: confinement facilities with more than 500 animal units; settled open feedlot effluent basins at facilities that require a construction permit; and animal truck wash effluent structures. *567 IAC 65.15(14)"c", 567 IAC 65.109(4)"b"(1), and 567 IAC 65.206(4)"b"(1).*

B. Proposed Amendments

The Petitioners propose to amend the rules by replacing 5 feet with 25 feet as a layer of low permeability soil or rock and vertical separation distance. This proposed rule amendment would require all formed concrete manure storage structures to have a minimum 25-foot layer of low permeability soil (1 × 10–6 cm/sec) or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock. Those structures that do not meet the

separation distance would be required to be designed by a NRCS professional. The proposed rule amendment would also require all structures with less than 25 feet between the bottom of the formed manure storage structure and limestone, dolomite, or other soluble to be designed and sealed by a professional engineer or NRCS qualified staff person and be constructed with an additional 2-foot-thick clay liner.

C. Findings

The Department has evaluated the proposed amendments and recommends this Portion of the Petition be denied for the reasons enumerated below.

1. There is not scientific consensus on a 25-foot low permeability soil or rock layer or separation distance. The Petitioners cited to numerous studies and reports focusing on potential issues with constructing facilities in karst terrain. But none of them revealed that changing the low permeability soil or rock layer and separation distance from the current 5 feet to 25 feet is grounded in peer-reviewed research. To assist the Department with a technical scientific literature review, a workgroup was convened comprised of representatives from the Iowa Geological Survey and the Department's Water Allocation section, the Field Services Bureau, and the GIS section. The workgroup met several times and reviewed the studies and reports provided by the Petitioner as well as other documents pertaining to the topic.

2. Currently, the Iowa Code and administrative rules provide substantial protections for karst areas by regulating the construction of manure storage structures and dry manure stockpiles located in karst terrain. The Iowa Code and administrative rules not only provide protections and safeguards with vertical restrictions for construction in karst terrain, but also horizontal restrictions on construction from land formations such as sinkholes, indicators of karst terrain. A summary of the applicable code and rule provisions are provided in Attachment I. In a recent article regarding karst requirements for animal feeding operations West Virginia College of Law professor Jesse Richardson noted that his research found "that regulations focused on karst terrain vary greatly, ranging from no special rules for karst in a number of states, to very detailed and complex regulations in Iowa."[1] Although karst requirements are numerous in Iowa, the Department has noted some inconsistencies in its regulations, as noted below in Paragraph 3.

3. Prior to receipt of the Petition, the Department was already considering amendments to Chapter 65. After reviewing the Petition and the technical workgroup's findings, the Department intends to proceed with initiating rulemaking on karst construction standards, along with changes to other portions of Chapter 65. Among the proposals will be amendments to better address the topography of the state and provide more regulatory consistency for manure storage structures in karst terrain. On this point, the proposed amendments in the Petition would not have applied to several types of animal feeding operations than can, and do, exist in karst terrain, including non-

[1] Richardson, Jr., J.J. (2020). Regulation of Large Dairy Farms in Karst Regions of the United States, *Proceedings of the 16th International Sinkhole Conference.* Carlsbad, New Mexico: National Cave and Karst Research Institute.

concrete formed structures, dry manure stockpiles, and dry-bedded confinement facilities. These latter facilities have their own karst requirements[2] which are different from those set out in both rule 567 IAC 65.15(14) and the Petition. The Department's efforts towards karst requirements will be to assess these in a more holistic manner than existing law and the Petition. The Department will begin the rulemaking process by submitting an extensive draft rulemaking package to all interested parties for comment later in 2022.

II. Karst Construction Standards – Prohibition

A. Existing Law

Current rules do not prohibit construction of formed manure storage structures within 5 feet of karst. However, the construction of unformed manure storage structures is prohibited in karst terrain. *See* e.g., IOWA CODE § 459.308(3) (for confinement facilities) *and* IOWA CODE § 459A.404(5) (for animal truck wash structures).

B. Proposed Amendment

Petitioners propose to amend 567 IAC 65.15(14) to add a new prohibition of construction of underground formed or unformed manure storage structures less than 5 foot above karst terrain.

C. Findings

The Department has evaluated this proposed rule and recommends this portion of the Petition be denied for the reasons enumerated below.

1. Any requirements for unformed manure structures in 567 IAC 65.15(14) would be misplaced. This subrule applies to formed concrete manure storage structures.

2. The proposed amendment would apply only to certain types of manure storage structures, but others exist in karst terrain. 567 IAC 65.15(14) provides upgraded construction standards that apply to all formed concrete manure storage structures located in karst terrain for the following types of animal feeding operations: confinement facilities with more than 500 animal units; settled open feedlot effluent basins at facilities that require a construction permit; and animal truck wash effluent structures. Operations with non-concrete formed structures, dry manure stockpiles, and dry-bedded confinement facilities would not be covered by the proposed rule amendment.

3. The Department believes this proposed rule amendment should be considered during the rulemaking project noted above.

III. Mandatory Groundwater Monitoring

[2] *567 IAC 65.9(5)"b", 65.109(4)"b"(2), 65.206(4)"b"(2), 65.2(10)"b", 65.15(8)"b", and 65.2(11)"b".*

A. Existing Law

Iowa Code provisions allow that the Department may require the installation of water pollution monitoring systems on a case-by-case basis.

B. Proposed Amendments

Petitioners propose to add 567 IAC 65.15(21) and 567 IAC 65.109(10) to require groundwater monitoring for all unformed manure storage structures at confinement feeding operations and open feedlots.

C. Findings

The Department has evaluated these proposed rule amendments and recommends this portion of the Petition be denied for the reasons enumerated below.

1. The Department currently has the authority to require groundwater monitoring for unformed manure storage structures on a case-by-case basis only. Iowa Code section 459.303(6) states "[a]s a condition to approving an application for a construction permit, the department may require any of the following: (a) [t]he installation of a related pollution control device or practice, including but not limited to the installation and operation of a water pollution monitoring system for an unformed manure storage structure." (emphasis added). Additionally, Iowa Code section 459.311 states "[t]he department may require that the owner of a confinement feeding operation install and operate a water pollution monitoring system as part of an unformed storage structure." (emphasis added).[3]

2. The proposed amendments contravene this conditional and discretionary structure by creating a mandatory requirement for groundwater monitoring. The mandatory "shall" in the Petition goes beyond the scope of the authority granted to the Department by the Legislature. Courts have been clear on statutory construction and interpretation in that courts will give deference to an agency's interpretation of a statute when the authority is expressly granted and will consider the plain meaning of the language when provided. *Brakke v Iowa Dept. of Natural Resources,* 897 N.W.2d 522, 533 (Iowa 2017) (quoting "In interpreting the grant of statutory authority to the agency, we 'will not look beyond the express terms of the statute if the text of the statute is plain and its meaning clear.' *Neal v. Annett Holdings, Inc.*, 814 N.W.2d 512, 519 (Iowa 2012). A statute is not plain or clear 'if reasonable minds could differ or be uncertain as to the meaning of the statute.' *Carolan v. Hill*, 553 N.W.2d 882, 887 (Iowa 1996). 'The plain provisions of a statute cannot be altered by administrative rule.' *Schmitt v. Iowa Dept. of Social Services*, 263 N.W.2d 739, 745 (Iowa 1978)."

[3] Iowa Code Chapter 459 uses the word "shall" over 300 times, yet on the subject of water pollution monitoring, the Legislature in two separate provisions created a permissive use of monitoring with the use of the word "may".

3. In addition, the Petition proposes a uniform water pollution monitoring system that contains no specific requirements. Such a proposal, without more, is incomplete at best.

IV. Department Evaluation Rule

A. Existing Law

567 IAC 65.5 and 567 IAC 65.103 currently allow for the Department to evaluate proposed feeding operations.

567 IAC 65.5(3) states:

The department may evaluate any proposed confinement feeding operation or proposed expansion of a confinement feeding operation that requires a construction permit or manure management plan with respect to its potential adverse impacts on natural resources or the environment.

a. In conducting the evaluation, the department shall consider the following factors:

(1) The likelihood manure will be applied to frozen or snow-covered cropland.

(2) The proximity of the structures or manure application areas to sensitive areas, including but not limited to publicly owned land, designated areas, trout streams and karst terrain.

(3) Topography, slope, vegetation, potential means or routes of conveyance of manure spilled or land-applied. This factor includes but is not limited to whether the manure application areas involve cropland with predominant slopes greater than 9 percent without a conservation plan approved by the local soil and water conservation district or its equivalent and whether manure for land application is hauled or otherwise transported more than five miles.

(4) Whether the operation or manure application area is or will be located in a two-year capture zone for a public water supply.

b. In addition to the requirements in rules 567—65.9(459,459B), 567—65.10(459,459B), 567—65.11(459,459B), 567—65.15(459,459B) and 567—65.17(459,459B), the department may deny a construction permit, disapprove a manure management plan or prohibit construction of the proposed operation at the proposed location if the director determines from the evaluation conducted pursuant to this subrule that the operation would reasonably be expected to result in any of the following impacts:

(1) Manure from the operation will cause pollution of a water of the state.

(2) Manure from the operation will cause a violation of state water quality standards.

(3) An adverse effect on natural resources or the environment will occur in a specific area due to the current concentration of animal feeding operations or the associated manure application areas.

c. The department also may establish permit conditions or require amendments to the manure management plan in addition to the minimum requirements established for such operations, on the location of structures or manure application, or other operational conditions necessary to avoid or minimize the adverse impacts.

d. A construction permit denial or condition, a manure management plan disapproval or required amendment, or a prohibition of construction pursuant to this subrule may be appealed according to the contested case procedures set forth in 561—Chapter 7.

567 IAC 65.103(5) states:

The department may evaluate any proposed open feedlot operation or proposed expansion of an open feedlot operation that requires a construction permit with respect to its potential adverse impacts on natural resources or the environment. For the purpose of this subrule, open feedlot effluent includes manure, process wastewater, settled open feedlot effluent and settleable solids.

a. In conducting the evaluation, the department shall consider the following factors:

(1) The likelihood open feedlot effluent will be applied to frozen or snow-covered cropland.

(2) The proximity of the open feedlot operation structures or open feedlot effluent application areas to sensitive areas, including but not limited to publicly owned land, designated areas, trout streams and karst terrain.

(3) Topography, slope, vegetation, potential means or routes of conveyance of open feedlot effluent spilled or land-applied. This factor includes but is not limited to whether the open feedlot effluent application areas involve cropland with predominant slopes greater than 9 percent without a conservation plan approved by the local soil and water conservation district or its equivalent and whether open feedlot effluent for land application is hauled or otherwise transported more than five miles.

(4) Whether the operation or open feedlot effluent application area is or will be located in a two-year capture zone for a public water supply.

b. In addition to the requirements in rules 567—65.105(459A), 567—65.109(459A) and 567—65.112(459A), the department may deny a construction permit, disapprove a nutrient management plan or prohibit construction of the proposed operation at the proposed location if the director determines from the evaluation conducted pursuant to this subrule that the operation would reasonably be expected to result in any of the following impacts:

(1) Open feedlot effluent from the operation will cause pollution of a water of the state.

(2) Open feedlot effluent from the operation will cause a violation of state water quality standards.

(3) An adverse effect on natural resources or the environment will occur in a specific area due to the current concentration of animal feeding operations or the associated open feedlot effluent application areas.

c. The department also may establish permit conditions or require amendments to the nutrient management plan in addition to the minimum requirements established for such operations, on the location of structures or open feedlot effluent application, or other operational conditions necessary to avoid or minimize the adverse impacts.

d. A construction permit denial or condition, a nutrient management plan disapproval or required amendment, or a prohibition of construction pursuant to this subrule may be appealed according to the contested case procedures set forth in 561—Chapter 7.

B. Proposed Amendments

567 IAC 65.5(3) and 567 IAC 65.103(5) would be amended to state that the Department shall evaluate any proposed confinement feeding operation or open feedlot with respect to potential adverse impacts on the environment. An additional list of criteria for evaluating environmental impacts were included in the amendment. The rules would also be amended to state the Department shall deny construction permit applications, manure management plans, or nutrient management plans if the proposed facility would be reasonably expected to result in an adverse environmental impact.

C. Findings

The Department has evaluated these proposed rule amendments and recommends these portions of the Petition be denied for the reasons enumerated below.

1. The proposed rule amendments turn the Department's current discretionary review authority into a mandatory duty to review every construction permit, manure management plan, and nutrient management plan and to deny them based on broad, open-ended criteria.

2. In 2006, the Administrative Rules Review Committee (ARRC) objected to 567 IAC 65.5(3) and 567 IAC 65.103(5) on the grounds that the rules were beyond the authority delegated to the Department. *IAB Vol. XXIX, No. 9 (10/25/06), p.585.* The Committee stated:

> It is the opinion of the Committee that Code chapters 459 and 459A establish the procedures and standards relating to the issuance of construction permits and the approval of manure management plans, and that the Department does not have the authority to create additional procedures and standards by rule.

3. The Iowa Attorney General's Office similarly advised the Department that the current rule exceeds the Department's statutory authority.

4. The proposed amendments mandate the denial of construction permits, manure management plans, and nutrient management plans if the proposed criteria are met. The Petitioners claim the additional criteria provide "clear guidelines" and "standard criteria" *(Petition,* pg. 10*)* but the Department disagrees. The additional criteria are very general, i.e., "topography," without any specificity on the kind of topography or the areas of Iowa of specific concern. Ultimately, these amendments further the concerns expressed both by the ARRC and the Attorney General's Office.

5. Given the standing objection by the ARRC and on the advice of the Attorney General's Office, the Department has serious concerns with the legality of 567 IAC 65.5(3) and 567 IAC 65.103(5). The existing versions of these subrules will be under consideration in the upcoming rulemaking noted above.

V. Department's Conclusions

For the above reasons, the Department recommends that the Petition be denied. The Department intends to initiate general rulemaking later this year, working with all stakeholders, including the Petitioners.

III. RULING OF THE COMMISSION

1. The Commission has reviewed the Petition on its merits and agrees with the conclusions of the Department. The Commission hereby adopts the findings, arguments, and conclusions of the Department in their entirety.

2. The Commission hereby DENIES the Petition for Rulemaking submitted by Petitioners, the Iowa Environmental Council and Environmental Law and Policy Center.

IV. JUDICIAL REVIEW

Pursuant to Iowa Code section 17A.19, Petitioner(s) may seek judicial review of the ruling of the Commission.

_____ _____

For RALPH LENTS, CHAIR DATE
ENVIRONMENTAL PROTECTION COMMISSION

ATTACHMENT I

CONSTRUCTION

CONFINEMENT FEEDING OPERATIONS

Iowa Code 459

567 Iowa Administrative Code 65 for confinement feeding operations

459.308(3) Construction of an unformed manure storage structure on karst terrain

3. A person shall not construct an unformed manure storage structure on karst terrain or on an area that drains into a known sinkhole. However, a person may construct an unformed manure storage structure, if there is a twenty-five-foot vertical separation distance between the bottom of the unformed manure storage structure and underlying limestone, dolomite, or other soluble rock.

567 IAC 65.9(5)"b" Construction of manure storage structures in karst terrain

65.9(5) *Karst terrain submittal requirements.* Prior to beginning construction of a confinement feeding operation, the person planning the construction shall determine whether the proposed confinement feeding operation structure will be located in karst terrain, as defined in 567—65.1(459,459B). The karst terrain determination shall be obtained by consulting a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or NRCS qualified staff. The AFO Siting Atlas may be a tool used to assist in the karst terrain determination. The results of the karst terrain determination shall be submitted to the department according to the following:

a. If the proposed location is not in karst terrain, the person planning the construction, other than a small animal feeding operation, shall submit a printed map from the AFO Siting Atlas clearly showing the location of each proposed confinement feeding operation structure or a written statement by a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or NRCS qualified staff with the construction permit application documents pursuant to subrule 65.9(1) or with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required.

b. If the proposed location is in karst terrain, the person planning the construction shall submit a printed map from the AFO Siting Atlas clearly showing the location of each proposed confinement feeding operation structure and a copy of the soils exploration study required in paragraph 65.15(14)*"c"* with the construction permit application pursuant to subrule 65.9(1) or with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required. In lieu of a printed map, a statement from a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or NRCS qualified staff explaining the karst terrain determination may be submitted. It is recommended that the person planning the construction consult with a qualified staff person of the department

before obtaining the soil borings. A formed manure storage structure, other than a small animal feeding operation, shall be constructed according to the upgraded concrete standards set forth in paragraph 65.15(14)*"c"* or Iowa Code section 459.307 if the structure is not constructed of concrete. Nonetheless, construction of an unformed manure storage structure in karst terrain is prohibited.

65.15(8)"a" Construction of unformed manure storage structures in karst terrain

65.15(8) Karst terrain and alluvial aquifer areas.

a. An unformed manure storage structure or unformed egg washwater storage structure shall not be located on karst terrain.

459.307(4) Construction design standard for formed manure storage structures on karst terrain

4. A person shall only construct a formed manure storage structure on karst terrain or an area which drains into a known sinkhole pursuant to upgraded construction design standards necessary to ensure that the structure does not pollute groundwater sources.

65.15(14)"c" upgraded construction standards

c. Karst terrain—upgraded standards. If the site of the proposed formed manure storage structure is located in karst terrain or an area that drains into a known sinkhole, the minimum concrete standards set forth in paragraph 65.15(14)*"a"* or *"b"* shall apply. In addition, the following requirements apply to all formed manure storage structures that store nondry or dry manure:

(1) In an area that exhibits karst terrain or an area that drains into a known sinkhole, a PE, NRCS qualified staff or a qualified organization shall submit a soil exploration study based on the results from soil borings or test pits to determine the vertical separation between the bottom of the formed structure and limestone, dolomite, or other soluble rock. A minimum of two soil borings equally spaced within each formed structure or two test pits located within 5 feet of the outside of the formed structure are required. After soil exploration is completed, each soil boring and test pit shall be properly plugged with concrete grout, bentonite, or similar materials.

(2) A minimum 5-foot layer of low permeability soil (1 × 10–6 cm/sec) or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock is required if the formed manure storage structure is not designed by a PE or NRCS qualified staff.

(3) If the vertical separation distance between the bottom of the proposed formed manure storage structure and limestone, dolomite, or other soluble rock is less than 5 feet, the structure shall be designed and sealed by a PE or NRCS qualified staff person who certifies the structural integrity of the structure. A 2-foot-thick layer of compacted clay liner material shall be constructed underneath the floor of the formed manure storage structure. However, it is recommended that any formed manure storage structure be constructed aboveground if the

vertical separation distance between the bottom of the structure and the limestone, dolomite, or other soluble rock is less than 5 feet.

(4) Groundwater monitoring shall be performed as specified by the department.

(5) Backfilling shall not start until the floor slats have been placed or permanent bracing has been installed and grouted, and shall be performed with material free of vegetation, large rocks, or debris.

459.311D Stockpiling of dry manure from a confinement on karst terrain

A person stockpiling dry manure on karst terrain shall comply with all of the following:

1. The person shall stockpile the dry manure at a location where there is a vertical separation distance of at least five feet between the bottom of the stockpile and the underlying limestone, dolomite, or other soluble rock.

2. A person who stockpiles dry manure for more than fifteen consecutive days shall use any of the following:

a. A qualified stockpile structure.
b. A qualified stockpile cover. However, the person shall not stockpile dry manure using a qualified stockpile cover at a long-term stockpile location unless the stockpile is located on reinforced concrete at least five inches thick.

567 IAC 65.2(10)"b" Stockpiling of dry manure from a confinement on karst terrain

b. *Requirements for karst terrain.* Dry manure stockpiled on karst terrain or an area that drains into a known sinkhole shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the stockpile and underlying limestone, dolomite or other soluble rock is required. A professional engineer licensed in Iowa, NRCS qualified staff or a qualified organization shall submit a soil report, based on the results from soil borings or test pits or representative well data, describing the subsurface materials and vertical separation distance from the proposed bottom of the stockpile and the underlying limestone, dolomite or soluble rock. A minimum of two soil borings or test pits at each end of the proposed stockpile site are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and that action shall be documented in the soil report.

(2) Dry manure stockpiled for more than 15 consecutive days shall use any of the following:

1. A qualified stockpile structure; or

2. A qualified stockpile cover. Long-term stockpiles utilizing a qualified stockpile cover shall be placed on a reinforced concrete slab at least 5 inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

OPEN FEEDLOT OPERATIONS

Iowa Code 459A

567 Iowa Administrative Code 65.100s for open feedlot operations

567 IAC 65.109(4) Karst terrain

65.109(4) *Karst terrain.*

a. Construction prohibited. Settled open feedlot effluent basins shall not be constructed in areas which drain to known sinkholes or in karst terrain. Structure sites located within one mile of karst terrain shall be considered to be located in karst terrain, unless site-specific geologic information is submitted documenting that 25 feet of suitable materials exist between the structure bottom and carbonated bedrock or limestone or dolomite.

b. The use of formed structures is required to store liquid or dry manure in karst terrain.

(1) Formed structures constructed of concrete in karst terrain shall comply with the provisions of 65.15(14).

(2) The use of formed structures constructed of materials other than concrete and located in areas which drain to known sinkholes or located in karst terrain may be approved by the department if the proposed structures are designed by a professional engineer, a minimum of five feet vertical separation is maintained between the structure bottom and carbonated bedrock, and the engineer certifies and provides data showing the permeability of the geologic material below the structure's base is sufficiently low to provide an adequate barrier to prevent percolation into carbonated bedrock or groundwater.

c. Construction of an unformed settled open feedlot effluent basin is allowed in areas identified as karst terrain if site-specific geologic information is submitted documenting that 25 feet of suitable materials exist between the structure bottom and carbonated bedrock or limestone or dolomite.

ANIMAL TRUCK WASHES

Iowa Code 459A

567 Iowa Administrative Code 65.200s for animal truck washes

459A.404(5) Construction of an unformed animal truck wash effluent structure on karst

5. A person shall not construct an unformed animal truck wash effluent structure on karst terrain or on an area that drains into a known sinkhole. However, a person may construct an animal truck wash effluent structure if there is a twenty-five foot vertical separation distance between the bottom of the structure and underlying limestone, dolomite, or other soluble rock as documented in the engineering report submitted to the department pursuant to section 459A.205.

567 IAC 65.206(4) Karst terrain

65.206(4) *Karst terrain.*

a. Construction prohibited. Unformed animal truck wash effluent structures shall not be constructed in areas which drain to known sinkholes or in karst terrain. Structure sites located within one mile of karst terrain shall be considered to be located in karst terrain, unless site-specific geologic information is submitted documenting that 25 feet of suitable materials exist between the bottom of an unformed animal truck wash effluent storage structure and carbonated bedrock or limestone or dolomite.

b. The use of formed structures is required to store animal truck wash effluent in karst terrain.

(1) Formed structures constructed of concrete in karst terrain shall comply with the provisions of 65.15(14).

(2) The use of formed structures constructed of materials other than concrete and located in areas which drain to known sinkholes or located in karst terrain may be approved by the department if the proposed structures are designed by a professional engineer, a minimum of five feet vertical separation is maintained between the structure bottom and carbonated bedrock, and the engineer certifies and provides data showing that the permeability of the geologic material below the structure's base is sufficiently low to provide an adequate barrier to prevent percolation into carbonated bedrock or groundwater.

c. Construction of an unformed animal truck wash effluent structure is allowed in areas identified as karst terrain if site-specific geologic information is submitted documenting that 25 feet of suitable materials exist between the bottom of an unformed animal truck wash effluent storage structure and carbonated bedrock or limestone or dolomite.

<u>DRY BEDDED CONFINEMENT FEEDING OPERATIONS</u>

Iowa Code 459B

567 Iowa Administrative Code 65 for dry bedded confinement operations

459B.201 Construction of a Dry Bedded Confinement Feeding Operation Structure on karst terrain

A person constructing a dry bedded confinement feeding operation structure on karst terrain or in an alluvial aquifer area shall comply with all of the following:

1. The person must construct the dry bedded confinement feeding operation structure at a location where there is a vertical separation distance of at least five feet between the bottom of the floor of the dry bedded confinement feeding operation structure and the underlying limestone, dolomite, or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area.

2. The person must construct the dry bedded confinement feeding operation structure with a floor consisting of reinforced concrete at least five inches thick

567 IAC 65.15(8) Construction of a Dry Bedded Confinement Feeding Structure on karst terrain

b. Dry bedded confinement feeding operation structures constructed on karst terrain or in an alluvial aquifer area shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the floor of the dry bedded confinement feeding operation structure and the underlying limestone, dolomite or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area is required. A professional engineer licensed in Iowa, NRCS qualified staff or a qualified organization shall submit a soil report, based on the results from soil borings or test pits, describing the subsurface materials and vertical separation distance from the proposed bottom of the dry bedded confinement feeding operation structure and the underlying limestone, dolomite or soluble rock. A minimum of two soil borings or test pits, at each end of the proposed structure, are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and documented in the soil report.

(2) The dry bedded confinement feeding operation structure shall be constructed with a floor consisting of reinforced concrete at least five inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

459B.307 Stockpiling of Dry Bedded Manure on karst terrain

e. The person shall not stockpile dry bedded manure on karst terrain or in an alluvial aquifer area unless the person complies with all of the following:

(1) The person must stockpile the dry bedded manure at a location where there is a vertical separation distance of at least five feet between the bottom of the stockpiled dry manure and the underlying limestone, dolomite, or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area.

(2) The dry bedded manure must be stockpiled on reinforced concrete at least five inches thick.

567 IAC 65.2(11)"b" Stockpiling of Dry Bedded Manure on karst terrain

b. Requirements for karst terrain or alluvial aquifer areas. Dry bedded manure stockpiled on karst terrain or an alluvial aquifer area shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the stockpile and underlying limestone, dolomite or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area is required. A professional engineer licensed in Iowa, NRCS qualified staff or a qualified organization shall submit a soil report, based on the results from soil borings or test pits, determining the vertical separation distance from the proposed bottom of the stockpile and the underlying limestone, dolomite or soluble rock. A minimum of two soil borings or test pits at each end of the proposed site are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and that action shall be documented in the soil report.

(2) Stockpiles shall be placed on a reinforced concrete slab that is a minimum of 5 inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

SEPARATION DISTANCES

65.11(3) *Separation distance from water sources, major water sources, known sinkholes and agricultural drainage wells.* Separation distances specified in this subrule shall apply to any confinement feeding operation structure, including a small animal feeding operation. Separation distances from any confinement feeding operation structure to surface intakes, wellheads or cisterns of agricultural drainage wells, known sinkholes, water sources and major water sources shall be as specified in Iowa Code section 459.310 and summarized in Tables 6 to 6d at the end of this chapter. For the required separation distance to a major water source to apply, the major water source must be included in Table 1 at the end of this chapter at the time an applicant submits an application for a construction permit to the department, at the time a manure management plan or construction design statement is filed with the department if a construction permit is not required, or at the time construction of the animal feeding operation structure begins (as defined in 65.8(1)) if a construction permit, manure management plan or construction design statement is not required.

65.11(8) *Stockpile and qualified stockpile structures—separation distance from tile inlets, designated areas, high-quality water resources, agricultural drainage wells and known sinkholes.* A stockpile or qualified stockpile structure shall not be placed within the following distances from any of the following:

a. A terrace tile inlet or surface tile inlet, 200 feet, unless the dry manure is stockpiled in a manner that does not allow precipitation-induced runoff to drain from the stockpile to the terrace tile inlet or surface tile inlet. A terrace tile inlet or surface tile inlet does not include a tile inlet that is not directly connected to a tile line that discharges directly into a water of the state.

b. Designated area, 400 feet. However, an increased separation distance of 800 feet shall apply to all of the following:

(1) A high-quality water resource.

(2) An agricultural drainage well (400 feet for dry bedded manure).

(3) A known sinkhole (400 feet for dry bedded manure).

65.101(5) No direct discharge of open feedlot effluent shall be allowed from an open feedlot operation into a publicly owned lake, a known sinkhole, or an agricultural drainage well.

65.101(8)"d" Stockpiles shall not be located within 200 feet of a terrace tile inlet or surface tile inlet or known sinkhole unless the stockpile is located so that any runoff from the stockpile will not reach the inlet or sinkhole.