

Karst, Water Quality and Livestock Conference. Luther College, May 30, 2017
Summary Text of Presentation by Ric Zarwell, Allamakee County Protectors - Education Campaign

Thank you for asking me to speak at this important Karst, Water Quality & Livestock Conference. Today I am speaking as a concerned citizen. I currently live in Lansing, in Allamakee County, and to be exact, approximately three city blocks west of the Wisconsin border, and 11 miles south of Minnesota. I was born into an outdoor-oriented family, and grew up within the natural world where Iowa, Wisconsin and Minnesota meet. And I was taught from a very early age to place high value on our famous and vulnerable Driftless Area. If you label me a conservation activist concerned with water quality, native habitats and wildlife - especially rapidly decline bird populations - I will gladly accept that label.

Today I want to talk as briefly and clearly as I can along two different, but parallel tracks: First, a Scientific or Technical track. And secondly an Ethical or Moral track. **Each track will have several themes** which I consider to be very important.

To begin, I'd like each of you to take a careful look at the two-sided handout you just received (copy of handout information included on pages 3-4 of this document).

1st THEME: Note the incredible concentration of our state's highest value streams in the Paleozoic Plateau, also known as the Driftless Area or Karst Landscape, of Northeast Iowa. Many of our abundant streams have been deemed **Outstanding Iowa Waters, or OIWs**.

2nd THEME: Soils mapped by NRCS within our Driftless Area are often steep, highly erosive and form only a thin covering over a very porous and very vulnerable Karst Landscape. Sinkholes are abundant near OIWs and across the entire karst area. These sinkholes were *naturally formed* by runoff from these landscapes, and many of them were likely formed prior to today's intensive farming practices which makes runoff even more certain. In other words, construction of large concentrated animal feeding operations (CAFOs) means that huge volumes of liquid hog waste is being or will be spread in these porous karst areas.

3rd THEME: Spreading hog manure over porous karst is not just a northeast Iowa issue. The Jordan Sandstone slopes rather steeply beneath a significant portion of our state. If large "factory farm" CAFOs like the one proposed to go between Waukon and Lansing (south of Hwy 9) are allowed to be built, an enormous public health problem is a near certainty. Is it possible to purify contaminated drinking water in an aquifer that dips several hundred feet below the land surface? Who will pay for purification at the spigot in an innocent citizen's home miles away?

4th THEME: Just within my home county of Allamakee there are 2,881 parcels of land, owned by 1,852 unique landowners. These parcels slope to the Jordan and St. Peter aquifers calculated to be at or near the land surface. That's a very high level of vulnerability.

5th THEME: *Many people living in karst areas obtain their drinking water from shallow wells drilled into the fractured limestone aquifers lying above the Jordan sandstone, as they are unable to afford to drill wells into the Jordan aquifer which is quite deep in many locations, especially south and west from our corner of the state.*

Shallow limestone aquifers are much more susceptible to nitrate and bacterial contamination from the application of liquid waste from CAFOs to the land surfaces than is the Jordan because limestone aquifers are not separated from the surface by the shale which overlays the St. Peter sandstone formation, and because limestone provides little or no filtration to water which enters it from the surface through sinkholes, infiltration through thin surface soils, and through disappearing streams. These shallow limestone aquifers are also the source of the spring-water which feeds Iowa's highly valuable trout streams.

6th THEME: *And this is very important. Local Control is a preferred and superior way of managing the siting of CAFOs, especially within highly vulnerable karst topography. I now want to publicly recognize and praise our Allamakee County Supervisors and the Allamakee Planning & Zoning Commission for their highly professional handling of frac sand mining issues several years ago and over a 2.5 year period of time. During this process public participation was not only allowed, it was encouraged. And a variety of outside experts were also called in to provide good scientific and technical advice to members of the Planning & Zoning Commission before a protective ordinance was developed and approved.*

This is the way democracy was meant to work! The wisdom of the people who live closest to the vulnerable natural resources, and who will be most seriously and negatively impacted by a CAFO, should help manage how these situations are handled. Local and historical knowledge from those living nearest to a situation is indispensable.

7th THEME: *According to an op-ed article in Sunday's Des Moines Register, now is the time for regional water quality solutions. That article was referring to the Des Moines Water Works issues. A new partnership across our karst area is a perfect way to achieve regional solutions to our special water quality issues. Such an effort is even more important right here where so much of what we hold dear is seriously threatened.*

For the second, Ethical or Moral Track, I will now shift gears.

8th THEME: *My ethics tells me that I cannot be anti-agriculture, and WE ARE NOT ANTI-AGRICULTURE. And the conservation activists I associate with, are not anti-agriculture either. *What is needed are ethical agricultural practices that do not degrade the natural resources, which will be badly needed by future generations. An agriculture system that manages soil, water, livestock and also cares for neighbors in humane and sustainable ways.**

9th THEME: *We live in a time of smart phones - - - and people who too often take ignorant actions. Greed and a rush to grab the very last dollar at any cost now rule far too many enterprises. President Teddy Roosevelt famously said in 1912 "there can be no greater issue in this nation than the conservation of our natural resources." I believe those ethical and morally astute words are more true today than they have ever been.*

*We in northeast Iowa live in a precious and unique environment. In many ways, our geography is our destiny. A person's sense of place goes far beyond the walls of a home or an office. *A sense of place in this world goes a long way toward providing a moral compass for an entire life. Healthy land, healthy water and nature's abundant plants and animal life, define who we are more than most of us realize. Now is the precise time for our citizens to develop and live by a deep and tightly-held Conservation Ethic.**

10th THEME: *Many of us who have met and discussed the urgent, ongoing CAFO threat located between Waukon and Lansing, just south of Highway 9, realize that under current legislation, Iowa DNR officials are nearly powerless to take the correct action on siting CAFOs to protect water in aquifers that should remain a source of sustenance, health and betterment for the public wherever it is found. They are also nearly powerless to protect our numerous Outstanding Iowa Waters (OIWs) from inappropriately sited CAFOs; and powerless to protect so many of our sacred values and our high quality of life from grossly inappropriately located CAFOs.*

11th THEME: *We humans live by stories, some that are ethical in nature, and many that are unethical. Unfortunately, the stories that now govern our society set us on a path to certain self-destruction. *We must each find and live by our own new story that reflects the fullness of human knowledge, and the "common sense" understandings that will guide us toward the actions required for the kinds of scientific, technical, ethical and moral themes that I have addressed here.**

MY 12th THEME: *Is a plea. . . . I ask each of you to consider the previous 11 THEMES; and, **become a person of Action. . . and Act like a person of deep ethical and moral values.***

Back of OIW Map Handout: Summary of Text

1. Outstanding Iowa Waterways, or OIWs

Iowa has given its highest classification for bodies of water the term “Outstanding Iowa Waterways” or OIWs to just 35 streams and lakes. Allamakee County has 13, or an amazing 37% of all Outstanding Iowa Waterways. And each of these OIWs deserves to have the strongest possible protection!

Winneshiek Co. has 6 OIWs (17% of state’s total), and Clayton Co. has 5 OIWs (14% of the total). These three counties in the Driftless Area of northeast Iowa have 69% of all OIWs in Iowa. Allamakee County alone, has more OIWs (13) than the other 96 counties in the state combined. Special protection is REQUIRED for these streams.

Runoff from a proposed CAFO (located approx. 5 miles west of Lansing and 12 miles east of Waukon, on the south side of Hwy 9) would pose a serious threat of contamination to 2 OIWs, Jones Creek and Village Creek, which are trout streams. Village Creek has flooded 7 times in one recent 12-year period! And it is extremely likely to flood again, the next time with hog manure if this CAFO is constructed.

2. Iowa’s Precious Groundwater

Iowa’s two most important water-holding aquifers are the Jordan and St. Peter Sandstone Formations. These dip downward from this Driftless Area toward the southwest and west.

According to the Iowa State Geologist, approximately 15% of all municipalities within Iowa, plus a very large but unknown total number of farmsteads and private homes outside of municipalities, obtain their drinking water directly from these formations. Some of the municipalities which obtain drinking water from this aquifer are located far from the Driftless Area - south and west of Des Moines, and as west as Mason City.

These drinking water aquifers are at or very near the land surface in Allamakee County (and neighboring counties) where they are naturally replenished by absorbing surface water through the porous karst topography, as well as receiving water through the abundant sinkholes which are common throughout the Driftless Area. In fact, several sinkholes have been identified on the Allamakee County farm where large CAFOs are proposed.

A recent analysis indicated that just within Allamakee County, the Jordan and St. Peter aquifers are at the land surface on 2,881 parcels of land, which are owned by 1,852 unique landowners. This represents an incredible, and for Iowa, a unique vulnerability for contamination of drinking water for a huge portion of the state. And both Winneshiek and Clayton counties likely have similar vulnerability to groundwater contamination.

Aquifers that may reach hundreds of feet below the land surface, and are used by so many thousands of people have NEVER been de-contaminated!

Documents prepared for the proposed factory farm in Allamakee County state that annually, millions of gallons of hog manure will be created and spread over the steeply sloping landscape, with erosive soils shallow to porous bedrock, and near sinkholes and disappearing streams that are commonplace across the Driftless Area. Can any sane person say that enormous problems are not nearly certain to follow?

[Text edited for the web by Iowa Environmental Council staff]

Relevant Quotes

Related to KARST/WATER QUALITY/CAFO Circumstances in Allamakee County:

“A clever person solves a problem. A wise person avoids the problem.” “Albert Einstein

“A complex system that does not work is invariably found to have evolved from a simpler system that worked just fine.” Murphy’s Law

“Don’t be trapped by dogma - which is living with the results of other people’s thinking.” From a highly successful, Steve Jobs

Dr. Hugh Hammond Bennett created the Soil Erosion Service in 1933 in direct response to the soil wasting Dust Bowl days. One of his famous quotes is appropriate for a conference on Karst, Water Quality and Livestock: “From every conceivable angle - economic, social, cultural, public health, national defense - Conservation of Natural Resources is an objective on which all should agree.”

“The most common way people give up their power - - - is by thinking they do not have any.” Alice Walker