

Minutes - Woodbury County Zoning Commission – April 22, 2024

The Zoning Commission (ZC) meeting convened on the 22nd of April, at 5:00 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. The meeting was also made available via teleconference.

Meeting Audio:

For specific content of this meeting, refer to the recorded video on the Woodbury County Zoning Commission "Committee Page" on the Woodbury County website:

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/zoning_commission/
- YouTube Direct Link:
 - o <https://www.youtube.com/watch?v=d3dnklmVm0U>

ZC Members Present:	Barb Parker, Jeff Hanson, Tom Bride
County Staff Present:	Dan Priestley, Dawn Norton
Public Present:	Peggy Yockey, Glenna Tevin, Dennis Boulden, Galen Modlin, Cheryl Tevis, Lynne Boulden, Robin Beem, Merriel Miller, Jesse Beem, Abe Sandquist, Ann Johnston, Kim Sulsberger, Tyler Sulsberger, Deborah Sulsberger, Zachary Greder, Tim Ericksen

Call to Order

Vice-Chair Tom Bride called the meeting to order at 5:00 p.m. Chris Zellmer Zant, Corey Meister absent.

Public Comment on Matters Not on the Agenda

None

Approval Of Minutes: March 25, 2024 minutes – Motion by Parker. Second by Hanson. Approved 3-0.

Public Hearing (Action Item) For Proposed Minor Subdivision – Yockey Farm Addition. Summary:

Priestley read the report summary of the proposed Yockey Farm Addition subdivision into the record. Peggy Ann Yockey has filed for a two (2) lot minor subdivision on the properties identified as Parcel #874305300001 and Parcel #874306400002. The subdivision is being completed to reconfigure the property lines and to establish two (2) lots. This minor subdivision proposal has been properly noticed in the Sioux City Journal legals section on April 9, 2024. The neighbors within 1000 FT have been duly notified via a April 5, 2024 letter about the April 22, 2024 Zoning Commission public hearing. Appropriate stakeholders including government agencies, utilities, and organizations have been notified and have been requested to comment. The Woodbury County Engineer found the proposal in compliance with Iowa Code closure requirements and found that the lot(s) have adequate access. This property is located in the Agricultural Preservation (AP) Zoning District and is not located in the Special Flood Hazard Area (SFHA) – Zone X. The City of Anthon waived their extraterritorial review authority with the approval of Resolution No. 2024-5.564. Based on the information received and the requirements set forth in the Zoning and Subdivision Ordinance, the proposal meets appropriate criteria for approval. Parker motioned to close public hearing. Second by Hanson. Carried 3-0. Hanson motioned to approve and forward to Board of Supervisors. Second by Parker. Carried 3-0.

Review of Conditional Use Permit Application (Action Item): Proposed Waste Composting Site on Parcel #864505400001 and Parcel #864505400002. Disclaimer: Portions of the minutes contain direct conversational information extracted from the audio transcripts as available on YouTube. There may be instances of issues with grammar, punctuation, and sentence syntax issues. Summary:

Priestley read the report summary into record. Natural Fertilizer Products (Applicant – Abe Sanquist) and Timothy A. Ericksen (Property Owner) have filed a conditional use permit application to request to use Parcel #864505400001 and #864505400002 as a waste composting site. The proposed location is on the east side of Old Highway 141 about 0.25 miles north of the point where 290th Street intersects with Old Highway 141. This proposal has been noticed in the Sioux City Journals legal section on April 18, 2024. The neighbors within 500 feet were duly notified via an April 17, 2024 letter about the May 6, 2024 Board of Adjustment public hearing. Appropriate stakeholders including government agencies, utilities, and organizations have been requested to comment. This

property is located in the Agricultural Preservation (AP) Zoning District. Under Section 3.03.4: Land Use Summary Table of Allowed Uses in each Zoning District in the Zoning Ordinance, "Waste composting" is authorized for the consideration of a conditional use permit.

Priestley stated additional comments were received after the printing of the agenda and backup materials.

Priestley requested that the comments be received into record (Received Materials available in the Appendix):

- Comments from Glenna Tevis received April 18, 2024. Parker motioned to receive. Second by Hanson. Carried 3-0.
- Comments from Dianne Blankenship received April 18, 2024. Parker motioned to receive. Second by Hanson. Carried 3-0.
- Comments from Cheryl Tevis received April 18, 2024. Parker motion to receive. Second by Hanson. Carried 3-0.
- Comments received from Kim Sulsberger on April 22, 2024 at 6:00 PM. Parker motioned to receive. Second by Hanson. Carried 3-0.

Priestley indicated that the Zoning Commission's function is to review the application for a recommendation to the Board of Adjustment. The item will go before the Board of Adjustment for a public hearing on May 6, 2024 at 6:00 PM. The applicant, Abe Sandquist submitted additional material to the Commissioners. Motion to receive by Parker. Second by Hanson. Carried 3-0 (Received Materials available in the Appendix).

Mr. Sandquist, an agronomist, and manure broker explained the application. The project would be a grant funded renewable fertilizer composting site. The grant specifies that the end-product be available to farmers for use as a fertilizer, and is contingent on obtaining all federal, state, county, and local permits. Organic byproducts from manufacturing processing that would normally be taken to the landfill would be brought into the site by truck and repurposed as fertilizers, soil conditioners, and soil amendments. Waste composting would be controlled by biological decomposition of plant and animal material. Carbon and nitrogen sources, and waste would be mixed in with the waste byproducts to create an environment for microbes to decompose the material to be used as fertilizer. Sandquist mentioned Iowa State University's compost site that processes food waste, manure, and grass clippings.

Parker asked how many homes are located within 500 feet of proposed site. Sandquist responded that nothing is within 500 feet because he has to be that far away as DNR would not permit it. Parker asked about what type of food waste you get and how do you make sure it is pure-plant based? Sandquist stated food waste from schools, hospitals, may be processed later down the road. Right now it would be food processing. A commercial composting permit is required to process food waste. For now, material such as bone meal and animal byproducts from a food processing plant and those products are high in nitrogen and phosphorus. Bones are calcium, phosphorus, and sulfur. Protein is nitrogen. Sandquist said those byproducts are not harmful. They are a bone product that was harvested from livestock, and they took the products they need out of it. Parker questioned how he processes the recipe to make sure there are no odors, how long will it take to mitigate odors? Sandquist stated there would be software for communication and managers on site to monitor to respond. He will know what they have up front for byproducts. If there is a problem and there is a smell, there would need to be more carbon sources. Sandquist discussed managing the process and said he wishes he could take the Commission to a site to demonstrate the treatment/management. Parker asked if there are other facilities close in the area? Sandquist said not in this area and discussed how this is fairly new and stated he could take the Commission to one of the sites or actually demonstrate the process by mixing samples of the products. Parker asked about the end-product and if its trucked somewhere? Sandquist indicated that the main customers are farmers but there are some who are interested in using it on their yards. Sandquist indicated on the federal FPE grant he is required to sell to farmers for a certain number of years. The product will be transferred as truckloads. The product is marketed similarly to cattle manures. Parker asked about run-off concerns, Sandquist stated it would be similar or less than any feedlot. Manure will not be scattered like on a feedlot. This material will be in rows. Sandquist described the product conversion process of about 6 to 8 weeks as it starts out looking like a pile of wet corn stalks and when it your done it looks like a black fiber product like you buy at Earl May. Parker asked if you can go year-round. Sandquist stated that is why we are putting buildings up to be used for year-round. Sandquist discussed Iowa State University's wind chart in terms of odor. The closest homes would maybe have less than 10% of the wind blowing in that direction and it's going to have to go up a hill anyway so being down in that valley will mitigate smell as well.

Bride asked if neighboring landowners had been approached with plans? Sandquist said just a few as he doesn't know many of them. He said he would definitely have conversations with them. Bride indicated that a lot of times they have valid concerns and if they could be addressed or answered sometimes it helps. Bride asked if there are any other precautions that can be taken or any type of wind breaks to help minimize further? Sandquist said there

are trees already established at this time which made this site appealing. Bride said for ongoing operations I'm assuming you know the DNR is going to be available to address issues down the road? Bride asked if there has been anything in your last eight years of operation you've had issues with address? Sandquist stated no and said we've been called in twice and the DNR has recommended precautionary things like build this berm higher. He said we've had a few complaints but not really any violations. Bride referenced Loess Hills soil and erosion runoff control as was referenced in public comments. Sandquist responded saying they would have to have a storm water pollution permit from the DNR during construction and silt fences. Bride asked about increased truck traffic and what it would amount to? Sandquist said there would somewhere around ten loads a day at 250 days a year without Saturdays or Sundays. The site projected to bring in about 35,000 tons which is about six loads a day but would say probably around ten. Bride asked if that would be normal business hours Monday to Friday. Sandquist said correct and the fall of the year, like any farming operation your going to have more because your' going to be moving stuff out. So a seasonal increase with an average of probably around 10 loads a day.

Bride offered an opportunity for the public to present comments.

Glenna Tevis, an adjacent property owner, presented and described photos to be received into record. Motion by Hanson. Second Parker. Carried 3-0 (Received Materials available in the Appendix). Tevis offered concerns about safety on the scenic-by-way road. Tevis discussed the narrow shoulder and it being a heavily travelled road. An increase in traffic creates a likelihood of problems. Tevis offered concerns about waste and the mitigation of odor and pathogens in manure and food wastes as well as the attraction of coyotes and other wild animals to the area. Tevis stated the Loess Hills are fragile and made reference to the importance of being a good neighbor.

Kim Sulsberger, and adjacent property owner, offered concerns about the project including tearing down the soil and adding a lot of surface such as concrete and questioned the distance of her house and the project site being closer than 500 FT. Sulsberger expressed that this is not similar to a feedlot as other by-products are involved and offered concerns about the Loess Hills Soil.

Cheryl Tevis, from Boone County, Iowa, objects to the approval of the permit sitting that the location of this project is ill conceived. Made reference to the Loess Hills and the scenic by-way. It might be possible to hide the appearance if it is unsightly to passersby with natural barriers. Tevis has doubts about the possibility of completing the project without damaging the soils of the Loess Hills and exposing odors, and water quality issues, and traffic repercussions. Tevis stated that the highway is a narrow road without paved shoulders and is a dangerous stretch of road with the number of truckloads and would impact cyclists, motorcycles, and sightseers. Tevis questioned siting this on the Loess Hill and along the roadway.

Robin Beem, an adjacent property owner, stated her house is about 250 yards from project site property line. Beem offered concerns about odor, property value loss, and health. Beem read information into the record from the National Collaborating Center for Environmental Health regarding commercial composting facilities in terms of living in close proximity to waste composting sites. Beem stated from this source, people who live near these sites may experience systems thought to be caused by exposure to compost emissions. Residents may be at risk of respiratory health systems from exposure to emissions of bio aerosols when near these facilities. Chronic exposure to elevated levels of these bio aerosols is known to affect respiratory health. A study of airborne endotoxins around these composting sites found an association between endotoxin levels and cyto-induction into human cells, so there are health repercussions.

Jesse Beem, and adjacent property owner, asked the Commission how they would feel if this was being built about 1000 feet from their houses. Beem feels it would be better suited in industrial areas.

Parker stated issues like run-off, odor, Loess Hills soil protection, should be looked at closer. She would be in favor of the project. Hanson sees it as a good business approach but not in the correct location. He indicated that he would agree with some of the comments that it is more of a business activity which would be more suitable in an industrial area. Hanson also shared his concerns about missing two commission members and would think it would be fair for all sides to have a full commission present to make this vote but would understand it can be challenging for you to take time off work to travel to these meetings. He asked Priestley about a deferral option and mentioned that it would be up to the rest of the commission members in attendance to make this vote.

Bride agreed and would like to defer recommendation until the full Commission could give input. Priestley stated that any type of deferral is something you would have to work out with the applicant would be his understanding.

He said in the past the Commission and Board of Adjustment have asked applicant whether they wish to proceed or not based on the number of members present. Priestley went on to describe the Zoning Commission recommendation process and how a recommendation is sent to the Board of Adjustment who will ultimately conduct the public hearing and decide on the conditional use permit. He stated that it would be important to consult with the applicant on their timeline. Priestley described the notification time frame in preparation for the May 6 Board of Adjustment meeting. He reiterated that the Commission should ask Mr. Sandquist about his timeline. Bride clarified that if he wants to move forward that we are tasked with a motion yay or nay for a recommendation to approve or deny this to the Board of Adjustment. Priestley indicated that your recommendation can be laid out as you see fit for some of the needs that have been identified. He discussed contingencies or conditions that can be included with the recommendation including the items listed in the packet that can be brought to the Board of Adjustment's attention to set expectations for the applicant. Parker referenced going through the list of conditions as found on page 66 of the packet.

Parker inquired about the DNR's timeframe to meet their requirements. Priestley discussed using the conditions as a way to verify the application requirements of other agencies such as the DNR. He indicated that he would have to defer to the applicant as they are looking at the prospect of this location and seeing what the contingencies are because they have decisions to make as applicants do about the appropriateness of the site. So the applicants will learn through the application process through the DNR about what those expectations are with submitting the site plans and everything. So as a condition, as we have done in the past, is to be expected to have all the paperwork that is relevant to this project from the different government agencies across the board. Priestley stated that the Board of Adjustment typically puts a condition on most conditional use permits that it is expected to meet all federal, state, and local regulations. In this case, those conditions may need to be specifically defined. Priestley mentioned items such as Storm Water Pollution Prevention Plans (SWPPP), and NPDES permits from the DNR that could be set as conditions that are submitted to staff for verification. He said contingencies or conditions can be put together where the applicant can meet objectives before the conditional use permit could become valid. Priestley stated that the Commission needs to look at these areas that are pointed out where there could possibly be, you know situations, that require conditions whether you looking at operations, screening, etc. to mitigate anything that could possibly be an adverse issue. Thus, the conditional use is meant to identify potential deficiencies and find ways to mitigate. Priestley reiterated that the Board of Adjustment will ultimately make the decision as the Zoning Commission has an advisory role in the conditional use permit process. He noted facts are still coming in and the Board of Adjustment public hearing will be held on May 6.

Bride reiterated that this decision tonight isn't approving or denying the permit that does, like Dan said, fall on the Board of Adjustment. He indicated that the conditions listed here and came up tonight would have to be addressed adequately to approve this. Parker referenced the suggested motion as being general and presented the question of being more specific. Hanson had no comments but said he would have a tough time voting for a recommendation with any conditions because he feels that the site is not adequate to serve this use. Priestley said the public hearing is held at the Board of Adjustment level. The ordinance says within 35 days after the public hearing, the Board of Adjustment shall approve, approve with conditions or limitations, or deny the requested conditional use. The Board of Adjustment shall set forth findings of fact addressing the points enumerated in the application which are the criteria or the standards and considerations. Priestley reiterated that discussions regarding timeline be directed with the applicant. Bride discussed the three-member panel and the option to defer if the applicant so chooses until the full Commission is present. That's the option for a deferment for the full commission or proceed with the motion however it falls today or recommendation. Bride asked Sandquist to approach the mic to address the matter.

Sandquist stated so the question is whether I would like you guys to vote today or defer until we have a larger committee? Bride said correct. We could proceed, um its quorum so it's a two to one vote would move the motion and forward the recommendation but like I said that's your option to defer till the full body's here I don't know if you know two more Commissioners two more sets of ears. Sandquist asked how many days would it be then to the next meeting with the full commission? Priestley stated that it depends on scheduling. The Board of Adjustment meeting is already publicized, and it's been noticed and everything of that nature. It would have to be pretty quick if you're to still meet the May 6 meeting. He indicated that this is not a public hearing so it could be an agenda item but it just kind of tightens up the time frame as far as if we were to probably reset, we would probably likely have to run into redoing the Board of Adjustment public hearing possibly so that's kind of the challenge there. Sandquist said it probably would be nice to have a full commission here um so you have more people involved now I know just above everybody here including yourselves I mean I can read a little bit I feel everybody understands that there is this project is a good project and it is a worthy endeavor for the future. I think everybody's kind of at the right

spot or not. So, I mean we probably, so if we vote on this then we move forward to the next the next session if we don't then we have to. We probably would be better to have five commissions involved so you have a five people involved to make a motion.

Bride stated that I guess I'd just like to clarify that this is just a motion for a recommendation to either deny or approve it doesn't mean that the Board of Adjustment has to abide by what this body says if it's three or five so even what we say today doesn't prevent them from doing something differently. Sandquist responded so it just prevents the project from going to the commission two versus one. Bride indicated the deferment would meet the full board and would delay till that time frame if you choose to not elect to go that route then our motion today would be whatever it is and it's just a recommendation it's not for or against/it doesn't approve or deny the permit its just a motion to make a recommendation to the Board of Adjustment. The Board of Adjustment who's going to decide. Sandquist responded so it still goes forward. Bride responded that it would still move forward even if our motion to approve or is to deny it would still move forward to the Board of Adjustment. This is just a recommendation. Priestley said to be clear all conditional use permit applications will go to the Board of Adjustment regardless of the recommendation. A recommendation is a signal that they've looked at this and they have this position on it but the Board of Adjustment would receive that and go with that information and look at the application so depending on this whole thing if you um reschedule I would suggest that the Commission and the applicant be in some type of concurrence on if you want to do that or if you want to move depending on ultimately what you both come to an agreement on as far as if you want to have another one or have them vote and send a recommendation. Sandquist responded I guess then we probably just as well vote and have a recommendation move forward. Bride replied thank you.

Bride asked if there is a motion?

Parker stated that she would like to make a motion to move forward with the project and there are a number of issues that she would like to see addressed including the driveway, traffic and the driveway would need to be built to accommodate the traffic. She also offered concerns about the homes in the area and the odors. Parker inquired about any extra noise that she would like to see addressed. Also, she would like to know about the type of food waste and the amount of odor and waste runoff and how the berms are going to be built. Sandquist asked if you would like to see a site somewhere with some of the products that we're going to use then you guys can physically see them and smell them. Parker offered concerns about the Loess Hills and also referenced the list including the archaeological study, the owner get the appropriate permits from DNR, state, local, federal. Appropriate measures must be in place to mitigate any potential adverse impacts of the waste composition on the adjacent property including measures to address odors and any waste material runoff into adjacent properties. A copy of an access easement through the abutting parcel or clarification of the acquisition of that said parcel must be provided to the county. Activities shall not occur not be expanded onto that abutting parcel without authorization by the Board of Adjustment (a new conditional use permit application will be submitted to the Zoning Commission for the consideration and approval by the Board of Adjustment). The parcels we are talking about must be combined via the county assessor because the site is on two separate parcels. The conditional use permit shall not be authorized until the said conditions have been met by the property owner(s)/applicant(s) including providing Woodbury County with appropriate documentation for verification. That's my motion.

Bride asked if there is a second on that motion?

Parker asked if the public comments were closed. Priestley indicated that questions can be asked. Bride asked Ann Johnson about her question. Ann Johnston would like DNR reports and complaints be submitted to the Zoning Commission as far as the content and results. Johnston offered concerns about the smells that come from animal byproducts that have been used as fertilizer on nearby farm fields characterizing it as putrid.

Bride announced that the motion failed to receive second. Bride asked for another motion.

Hanson made a motion to recommend to the Board of Adjustment not to approve the conditional use permit for the waste composting site on the parcels identified on the application. Parker asked about the procedure with a second. Priestley indicated that it could keep going back and forth. Second by Parker. Discussion. Hanson stated that my only comments would be and I made those earlier but in addition to those anytime we talk about adding all the conditions when we talk about screening requirements to me that just means it's not the right site. If we're looking at screening or odor control then to me we're just trying to put additional conditions to try to get it to fit in the

area and in this case my personal opinion is it doesn't fit and I think any screening that you can require um still does not make it the correct site.

Bride stated I guess my feeling on the conditional use permit is that's what it is its conditions. This one seems like there's a long list that got longer tonight. Part of it's the unknown, I don't know enough about this project to know what conditions need to be in place. I guess um that's all I have to say. Motion carried 3-0.

CoZO Spring Conference 2024 (Information Item):

The yearly state-wide conference will be held in Woodbury County this year, May 22-24 at the Hilton Garden Inn. Commissioners are welcome to attend. Contact Planning and Zoning for details regarding registration.

Public Comment on Matters Not on the Agenda

Lynne Boulden mentioned recent destruction of natural treasures. Thanked the Commission for supporting preservation of Loess Hills.

Staff Update

Priestley stated that the Board of Supervisors will be holding public hearings on the floodplain management ordinance amendments, the proposed comprehensive plan, and utility-scale solar energy systems.

Due to the Memorial Day Holiday falling on the same date that the Zoning Commission would normally meet, it was discussed to potentially move the meeting to May 29 or 30. Priestley will check with the Commissioners.

Commissioner Comment of Inquiry

None

Adjournment

Motion to adjourn: Hanson. Second: Parker. Carried 3-0. Meeting ended 6:39 PM.

APPENDIX – RECEIVED ITEMS

Daniel Priestley

From: gtevis@aol.com
Sent: Thursday, April 18, 2024 6:01 PM
To: Daniel Priestley
Subject: Public Comments for Woodbury County Zoning Commission
Attachments: Comments regarding Organic Composting Facility.docx

CAUTION: This email originated from **OUTSIDE** of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. **If you are asked for your username and password, please call WCICC and DO NOT ENTER any data.**

Date: April 18, 2024
To: Daniel Priestley, Woodbury County Zoning Coordinator
From: Glenna Tevis
Re: Comments for the Woodbury County Zoning Commission

Attached please find comments regarding the Conditional Use Permit Application for Waste Composting on Parcels 864505400001 & 864505400002.

Please include these comments in the public record. If you need these comment in a different format, please let me know.

Thank you.

**Comments to the Woodbury County Zoning Commission and
the Woodbury County Board of Adjustment
regarding
Proposed Organic Composting Facility at 2553 Old Highway 141, Hornick, Iowa
April 18, 2024**

My name is Glenna Tevis. Thank you for the opportunity to provide comments related to the proposed organic composting facility to be built at 2553 Old Highway 141, Hornick, Iowa. I own and live on a small Century farm located at 2539 Old Highway 141, Hornick, Iowa. My property adjoins on the north the land on which the waste composting facility is proposed to be built. It is approximately 0.5 mile from my driveway to the driveway of the proposed project. Family members have lived on and farmed this property for nearly 150 years. My brother-in-law, Bruce Tevis, and his wife Carla live in a second house on the property.

The proposed project would be constructed in the Loess Hills of Iowa, the geologic region along the Missouri River in Western Iowa from Plymouth County in the north to Fremont County in the south. As you likely know, the Loess Hills are deep deposits of windblown soil rising several hundred feet above the Missouri River floodplain, cut by many drainage channels into narrow ridge tops, steep slopes, and deep valleys. They are highly permeable and highly erodible and have been referred to as Fragile Giants (Mutel, 1989; Mutel & Swander, 1994). The Loess Hills of Iowa are a unique landscape because of the depth of the loess. Only one other location in the world, near the Yellow River in China, has loess deposits greater than the 100-to-200-foot depths in the Loess Hills of Iowa. They contain one of the last true prairies in Iowa as well as several endangered species of plants and animals. These facts make the Loess Hills unique, globally significant, and important to preserve.

Because of the features of the Loess Hills, Old Highway 141 between the Bronson turnoff and Smithland has been designated as a section of the Loess Hills National Scenic Byway (220 miles of paved and gravel road that received its national recognition in 2000) that is traveled and explored by thousands of motorists, motorcyclists, bikers, and hikers each year. The proposed building site fronts this byway. Trucks getting to and from this site would be traveling at least for a time on the Loess Hills National Scenic Byway either from the north or from the south.

While science and technology can provide the means to address agricultural environmental issues such as enriching the soil "naturally," policy makers and governments must ultimately consider other social and environmental issues when considering land use requests.

Concerns related to this project can be divided into several categories, including Safety, Health, Transportation, and Ecology. Each will be addressed below, followed by a set of miscellaneous questions.

1. Safety

The response in the proposal regarding safety states that there will be “controlled access to the facility” and “general fence and gates will be installed” (p. 16). Safety is a much larger issue than that. The facility is proposed to front a stretch of the Loess Hills National Scenic Byway. Access to the facility will require some travel on an 11.1 mile stretch of that Byway (from the intersection of D38 and Old Highway 141 near Bronson to the intersection of Old Highway 141 and K46 north of Hornick). Because it follows shape of the Loess Hills, that stretch of road includes over 50 curves, dips, and hills that affect traffic speed and prevent a driver or cyclist from seeing traffic ahead. There are only 6 places where there is a passing zone in both directions. In addition, 73 driveways and other roads intersect that stretch of road (see the chart below for additional details). Drivers and cyclists must already be extremely vigilant when they are on this road. Additional heavy-load trucks (ones that might even be spilling small amounts of manure or other biowaste) will lead to more congestion and perhaps more risk-taking in speeding and/or passing. The road is a popular one for motorcyclists and bicyclists. There is greater potential for truck/cycle accidents, particularly with drivers who may not be familiar with the road. Additional truck traffic is a safety concern for those of us living along this stretch of Old Highway 141. Many of us have property on both sides of Old Highway 141 and walk across the road for chores. Speed of travel and the winding nature of the road pose greater risks for tragic accidents.

- How long would it take a heavy-load truck traveling 50 miles an hour (the current speed limit on that road with some restrictions on a few of the curves) to stop after rounding a curve or coming over a rise and seeing someone riding a bicycle or walking across the road?
- How long would it take a heavy-load truck traveling 50 miles an hour to slow down enough to make a 90-degree turn into the proposed driveway?
- How long would it take an empty truck to make a 90-degree turn back onto Old Highway 141 and then attain a safe driving speed?
- How much road construction and reworking will be required to make this stretch of road “safe” for residents, motorists, and cyclists when they share the road with trucks hauling potentially hazardous manure and biowaste?

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Analysis of road sections most likely to be used by trucks hauling manure and biowaste

Section of Loess Hills National Scenic Byway	# of miles	# of curves, hills, dips	# of intersecting driveways, roads	# of passing zones in both directions
Sgt Bluff Road-D48 to facility site	11.1	50	73	6
Luton Road-D51 to facility site	4.7	24	25	2
Hornick (141 at south end of town) to facility site	4.5	2	12 (from the north edge of town)	2

2. Health

Facilities of this nature always raise issues of air pollution and water contamination. There is some evidence that inhaling by-products of manure and composting, particularly high levels of bioaerosols, affects respiratory health, conditions such as asthma and COPD, and eye and skin irritation. It has been suggested that depending on the location of the facility (altitude and terrain) and wind and weather conditions, strong and lasting odors can travel as far as 5 miles. This would include 17 homes north of the facility (all the way to the Luton Road-D51) and all of the homes south of the site along the road to Hornick and the entire town of Hornick. In addition to the issue of odor, without careful planning and management, pathogens such as parasites (*Cryptosporidium parvum* and *Giardia lamblia*) and bacteria (*E coli*, *Salmonella*, *Listeria*, and *Clostridium*) often found in animal manure and disease-causing in humans can work their way into the water system.

- How does the applicant plan to control bioaerosols?
- What odor management plan does the applicant have in place?
- What water management plan is in place? Will run-off end up in the road ditch?
- Will there be any open-to-the-air building or pools or ponds or holding tanks?

3. Transportation

The applicant claims that trucks will have “a wide easy to access driveway with plenty of parking in the production area so no trucks will need to park on the right of way” (p. 8 and p. 16).

- What size of trucks will most likely be used? What capacity will they have? How much will they weigh when fully loaded?
- How will this kind of truck traffic affect roads? Most of Old Highway 141 does not have hard surface shoulders.

- What plans are in place to mitigate manure and other waste spills both at the production site and on the roads?
- Is the applicant planning to widen the existing driveway so trucks will not need to make a 90-degree turn into the driveway? The driveway is not shown on the drawing.
- Is the applicant planning to hard surface the driveway? It is currently mainly dirt and becomes a very messy mudhole where it meets the highway when it is wet.

4. Ecology and the Environment

The applicant says he will level land and construct concrete, gravel, and compacted soil surfaces in addition to build other buildings now and as needed (p. 6). Does this mean that the project may grow and include additional buildings, driveways, parking, and dumping? How will this initial project and any in the future affect the stability of the Loess Hills? Two items from the General Land Use Policies section of the document PLANNING FOR 2025: THE 2005 WOODBURY COUNTY GENERAL DEVELOPMENT PLAN ADOPTED NOVEMBER 22, 2005 are relevant to this issue:

1.4 Recognize the Loess Hills from the “front range” to the steeply rolling hills tapering off toward the east as a unique natural resource that should be conserved by good stewardship by the owners of the land involved.

1.6 Establish standards and practices for land development to minimize soil erosion and damaging water runoff, particularly in the fragile soils of the Loess Hills area of the county. (pp. 18-19)

- Have standards and practices to minimize soil erosion and damaging water runoff been addressed and met in this proposal?
- Will heavy-load trucks need to travel up and down the current hill to the unloading location? How much of the hills will be leveled and graded?
- What kind of large equipment will be used to level and compact the soil and construct the buildings?
- How long will the building process take?

5. Miscellaneous Questions

- Why does the applicant need to purchase parcel 864505300004 to connect the project to Old Highway 141? Doesn't he already have access on the east side of Old Highway 141? What will that parcel be used for? Will it be taken out of cropland?
- The proposal mentions The Western Iowa Nutrient Center (p. 2). I can find no record of this entity. What is it? Where is it? What kind of relationship does this project have with it?
- What type of composting will take place: Static pile with passive aeration? Static pile with active aeration? Windrow? In vessel? Worm composting?
- How many tons of waste stream would enter the facility per week?

- Will dead animals and animal carcasses be part of the waste stream?
- What plan is in place for removing contaminants such as plastic or metal in the waste stream?
- How long might the waste streams sit in the trucks before dumping?
- How long might it take for one “batch” of materials to be fully composted?
- How long would this composted material sit in storage?
- Will there be 24/7 supervision of the facility? Will it “run” 24/7? Can you do this with just 3 workers?
- How will rats, flies, and wild animals (coyotes, racoons, opossums, badgers, skunks, mountain lions) be kept a distance from the facility?
- Will local workers be employed?
- What local positive economic impacts (that is, positive for the town of Hornick and local residents) do you foresee? Do you plan to purchase manure from your neighbors?

Regardless of what the applicant says in the proposal, the general neighborhood would not support this project because people are “used to the sounds of equipment operating, livestock, and the smell of manure” (p. 10). In fact, most are not supportive because this project would diminish the quality of life in this community. People want to be able to sit on their front porches to read or to watch the sun set or see the stars come out without choking on noxious odors. They want to work in their gardens without inhaling road and truck dust. They want to be able to drive Old Highway 141 and enjoy the scenery without worrying about dangerous truck traffic. They want to walk in the Loess Hills behind or near their homes any day of the year to enjoy that magnificent creation without an industrial composting facility choking their senses.

The proposal to build this facility has come as a complete surprise to the community. If the applicant were a “good neighbor,” he would have informed the community in the early stages of the project to get community support. I first heard of the project on April 12, 2024, when someone sent me a copy of a document dated April 5, 2024, that had been sent to the Willow Township Trustees from the Woodbury County Planning & Zoning Office. I received “formal” notification as an adjoining property owner on April 17, 2024 (yesterday, just 2 days before comments were due to the Zoning Commission). In the past few days, I have talked to many of my neighbors along the road and people in Hornick; none of them had any idea that this project was looming. The “quietness” of the application seems somewhat intentional. Even though the applicant (Timothy Ericksen) is my “next door” neighbor, I have never met him. He does not live on the property, and I doubt he will, especially if the project is approved.

The Woodbury County Vision states that “the government exists to serve people and to protect the public health, safety, and welfare” (PLANNING FOR 2025: THE 2005 WOODBURY COUNTY GENERAL DEVELOPMENT PLAN ADOPTED NOVEMBER 22, 2005, p. 17). Further, point 3.6 of the Agriculture Goal in the development plan states: “To the extent that the State of Iowa grants authority to the counties, location of feedlots and livestock confinements in close proximity to existing residential development will be discouraged. Under this same policy avoid locating new livestock operations next to communities and/or residential developments when possible” (p. 20-21). The applicant wants you to consider this facility on par with the feedlot to the south of his property. He says, in effect, “We already have a feedlot in the neighborhood, so let’s have something similar” (p. 10). Therefore, consider treating this application as if it were for a feedlot; then consider the health, safety, and welfare of the neighbors and the larger community and not approve it.

Thank you.

Glenna J. Tevis

2539 County Road D25 (Old Highway 141)

Hornick, Iowa 51026

Please enter these comments into the public record.

Daniel Priestley

From: Dianne Blankenship <bennaid@hotmail.com>
Sent: Thursday, April 18, 2024 4:41 PM
To: Daniel Priestley
Subject: Regarding: Conditional Use Permit Proposal for Waste Composting

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To: Woodbury County Zoning Coordinator, Daniel Priestly

Regarding: Conditional Use Permit Proposal for Waste Composting

I am Dianne Blankenship, a resident of Woodbury County. I have served on many boards and been a long-time advocate for prairie, native plants, and our loess hills. I served as coordinator for the Loess Hills Prairie Seminar for over a decade and served on the Sioux City Planning and Zoning Commission and co-chaired the Conservation Committee for the City's Vision 2020 project. I love the loess hills.

I understand that the buildings at the site will mostly not be in the view of neighbors and the highway, but noise of such an industrial site, the number of trucks daily, and the significant concern about odors, can only impact the neighborhood in negative ways. Increased truck traffic on Old Highway 141 is a concern since the highway is narrow and curvy. This is also a Scenic Byway and tourists travel along it and enjoy looking at the hills and farms and may not anticipate the trucks coming out of the drive. An industrial site doesn't seem appropriate. Just because a feedlot is to the south of it and doesn't make it more acceptable in my opinion. Also, the projected lane into the site is going uphill and I fear what could be washed down it during storms. I know the engineer has indicated that the access and turning trucks are deemed safe, but I am still worried about that due to the landscape there – the hills. They might decide that they need to flatten and cut into the hills to increase safety and visibility. That impacts the Scenic Byway.

I admire that it is related to agriculture and is environmentally good. I just don't think this is the right place for it.

Respectfully submitted,

Dianne Blankenship
737 Buckwalter Dr.
Sioux City, IA 51108
bennaid@hotmail.com

Daniel Priestley

From: Cheryl Tevis <cltevis@wccta.net>
Sent: Thursday, April 18, 2024 1:29 PM
To: Daniel Priestley
Subject: Public comment re Proposed Organic Compost Facility at 2553 Old Highway 141
Attachments: Comment to Proposed Waste Composting.docx

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Hello Mr. Priestley:

Please find attached my comments submitted prior to the April 19 deadline. Please enter these comments into the written record.

Would you reply to let me know that my comments have been received, and the attachment can be opened? Thank you very much.

Please let me know if you have any questions. The hearing on Monday is listed as "tentative". When will the final date and time be available so that interested individuals can plan ahead for travel? Thank you!

—Cheryl Tevis
515-240-1785-cell
515-353-4433-home

To: Daniel J. Priestley, Zoning Coordinator
Woodbury County Planning and Zoning; Woodbury County Board of Adjustment
Re: Proposed Organic Compost Facility at 2553 Old Highway 141
April 18, 2024

My name is Cheryl Tevis. Thank you for the opportunity to comment on the conditional use permit for an organic waste composting facility submitted by Tim Ericksen and Abe Sanquist, Natural Fertilizer Products. I grew up on an adjacent farm, and have farmed with my husband in Iowa for 40 years. I also worked as an editor at a national farm magazine based in Des Moines for 36 years. I currently write a weekly Substack column, and my writing has been published by the Iowa Capital Dispatch.

I am writing to object to the approval of this permit. The project may be a worthy effort to produce natural fertilizer. However, the proposed siting of this project is ill-conceived and abusive to the environment. First, the location along Old Highway 141 near Holly Springs is on the Loess Hills Scenic Byway. It may be possible, as the application asserts, to hide the unsightly appearance of this composting facility from passersby, using natural visual barriers. But it's impossible to complete this project without irreparably damaging the fragile soils of the Loess Hills. It's also likely impossible to hide the odors, water quality and traffic repercussions that will exact a toll on the longtime neighbors and residents.

Formed over 125,000 years ago, the Loess Hills are a precious natural asset unique to Iowa. The only other place you'll find loess soils rivalling these hills is northern China. Growing up on a neighboring farm, the Loess Hills formed the backdrop of my childhood. Last year, I climbed the Hills with my family to scatter the ashes of my brother on that same farm. It is his final resting place.

It is up to us to care for and protect the Loess Hills for future generations. But the Loess Hills are endangered. According to the United States Geological Survey, the Iowa Loess Hills have one of the highest erosion rates in the U.S. They're endangered by intrusions into their ecosystem, including development, invasive red cedars, and row-crop agriculture.

Under Criteria 6 of the Zoning Ordinance for Board Approval: *The Proposed use or development will not result in unnecessary adverse effects upon any significant natural, scenic, or historic features of the subject property or adjacent properties* (Woodbury County Zoning Ordinance, Sec. 2.02-9).

Yet the applicants state: "We will level land and construct some concrete, gravel and compacted soil surface to receive organic waste year round to mix, manage, and create compost." If leveling the landscape of the Loess Hills, and in the process destroying its fragile soil structure isn't indicative of the applicants' failure to address the "adverse effects to the natural, scenic features," what else would be needed?

If protecting the integrity and beauty of the Loess Hills does not constitute a sufficient rationale for denial of this permit, there are many other reasons that the location of this project is ill-

conceived, and does not meet the zoning ordinance criteria for board approval. I would like to raise the following questions:

1. What experience does the applicant or the property owner have in operating an organic waste composting facility? As the application states, when Mr. Sandquist began looking into feed and food processing waste, he found: "These items are hard to handle, and if not managed correctly, can cause harmful environmental impacts of these organic nutrients being concentrated and deposited in one location." Does Mr. Sanquist offer any relevant experience to demonstrate his management skills in preventing "harmful environmental impacts"? What training and experience will the 2-3 hired site operators have, and what oversight will the applicant, Mr. Sanquist, provide to them from his distant home base?

2. Under Criteria 3 of the Zoning Ordinance for Board Approval: *The proposed use and development will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other factors affecting the public health, safety and general welfare* (Woodbury County Zoning Ordinance, Sec. 2.02-9).

Has adequate consideration been focused on public safety and hazard mitigation of this site? Old Highway 141 is a narrow, two-lane paved road without paved shoulders. This proposed site is sandwiched between a curve around a protruding bluff to the south and a hill immediately to the north. It is a dangerous .7 of a mile stretch of road, and this facility would create a potentially lethal mix with 10 to 20 truckloads per day, combined with bicycle and motorcycle traffic, and sightseers looking for a leisurely drive along the Loess Hills Scenic Byway. As a child, my parents did not allow my siblings and me to own bicycles because it was too risky to ride the mile between our farm and this proposed site on Old Highway 141.

3. What distance is the manure and other wastes being hauled from, and what are the sources? The applicants mention "Our business model is to retain agreements with organic waste streams like Gelita, Tyson, AGP, truck washes, municipalities and others to compost their processed organic solid wastes." Tyson, Cargill, the Andersons, Gelita, and AGP are huge corporations. Who will monitor the unsafe and possibly contaminated residues that will be solicited from them, or hauled in from truck washes? What wastes from "municipalities and others" are included? Will there be PFAS (forever chemicals), biohazards, or sludge in this alarming list of waste streams? Is the Iowa Dept. of Natural Resources up to task of closely monitoring this facility?

How would members of the Woodbury County Board of Planning and Zoning or the Board of Adjustment like to live next door to these wastes? What is the Western Iowa Nutrient Recycling Center mentioned in this application? I cannot find it listed as a current business. Does it have a track record or reputation? Is it the name of this newly created business entity?

4. Will any small economic value to the community be overshadowed by environmental, economic, and social costs? A couple of employees will be hired, and truck drivers and waste

haulers will be contracted. Will these people be hired from the local community? The application asserts there will be some taxable revenue. On the other hand, what damage will result from this volume of truck traffic on Old Highway 141? This repair will cost county taxpayers. What about the declining property values of neighboring properties? What is the length of the grant financing this project? Five years? What happens to the site after that? The modus operandi for many companies is to outsource their costs of doing business to local residents, local government, and the natural environment. Please take a hard look at these factors.

What about OTHER CONSIDERATION 1: *The proposed use or development, at the particular location is necessary or desirable to provide a service or facility that is in the public interest or will contribute to the general welfare of the neighborhood or community (Woodbury County Zoning Ordinance, Sec. 2.-02-9).*

I urge you as board members to avoid being taken in by the greenwashing effect posed by this project. **Greenwashing, i.e., the act or practice of making a product, policy, activity, etc. appear to be more environmentally friendly or less environmentally damaging than it really is.** Natural fertilizers may be a worthy effort, but siting this facility in the Loess Hills along an inadequate, dangerous roadway and with only a cursory nod to human health and safety, is not the approach that a company truly interested in improving the environment would pursue.

OTHER CONSIDERATION 2: *All possible efforts, including building and site design, landscaping and screening have been undertaken to minimize any adverse effects of the proposed use or development (Woodbury County Zoning Ordinance, Sec. 2.02-9).* I see no response to Consideration 2 by the applicants.

5. Finally, the applicants assert that the facility adheres to and will "fall right in play" with the Rural Woodbury County Vision, i.e., "*strong sense of community, good people live freely without fear or want. . . where stewardship of natural resources is a matter of individual and community pride and ownership. . .*" The applicants' assertion requires a huge leap of the imagination. I would point out that adjoining neighbors were **provided zero notice** of this waste composting facility proposal. How neighborly is this? How does the effort to sneak it under the radar into this rural neighborhood under the cover of darkness promote a sense of community? How many other comments may have been submitted if actual stakeholders would have received a timely notification?

Mr. Sanquist has no history or relationships or community pride in this community. He lives near Woodbine. A cursory inquiry would reveal that the property owner, Mr. Ericksen, has few close ties to the community, either, despite the property being held by his parents for years. Does he plan to move back and live there? "The good people" who live as neighbors to this facility appear to mean nothing to either one of them. The cattle feedlot to the south has operated for many decades, and I'm assured that it's not subjected its neighbors to odors and equipment noise, as the application implies.

I strongly urge the board to deny this permit. It would be difficult to find a less suitable site.
Please enter my comments into the public record.

Cheryl Tevis
187 H. Ave.
Pilot Mound, IA 50223

Daniel Priestley

From: Kim Sulsberger <ksulsberger@gmail.com>
Sent: Monday, April 22, 2024 12:25 PM
To: Daniel Priestley
Subject: Statement regarding Conditional Use Permit- Waste Composting Site
Attachments: Statement to Zoning Commission.docx

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Dan

Please see attached statement I would like submitted into the record of the Woodbury County Zoning Commission public meeting April 22, 2024.

Thank you,
Kim Sulsberger
2853 Grundy Ave
Hornick, IA 51026

My name is Kim Sulsberger, my family and I own and live directly east to the proposed facility, at 2853 Grundy Ave Hornick, IA. I am opposed to this project and ask the zoning commission to recommend denial of the conditional use permit because it does not satisfy the requirements of the Woodbury County zoning ordinance. If this commission does recommend approving the permit, I request more safeguards be put in place.

My biggest concern is that this project will have a substantial adverse effect on my adjacent property. My house and some of my farmland share a property line with the proposed site. The only thing between my land and the proposed composting site is a berm that has already failed in the past. The compost facility is also being built uphill of my property, meaning any water runoff will flow towards my property. Yet, the Applicant never addressed that in their application. This Commission/s staff analysis suggested that appropriate measures must be put in place to address waste material runoff and odors. I request that the Commission either recommend denial of the application or only recommend the conditional use permit with some additional conditions, such as requiring the applicant to line the berm next to my land with rock or concrete, implement appropriate setbacks from the boundary for both the facility itself and the runoff containment basin that is currently proposed, and build the berm higher. I also recommend the Board require a detailed engineering analysis that shows my downhill property will be safe from contamination.

Another major concern I have is that this facility is not compatible with the immediate neighborhood as described in the application under criteria 4. The Applicant suggests that the surrounding neighborhood will not be negatively affected because the facility could be hidden from the Loess Hills Scenic Byway. I would like to remind this commission and the Applicant that there is more than just one road in this area, I live there, as do my neighbors. I will see the facility, as will my neighbors. The proposal mentions changing the current landscape, adding fences, gates, etc. Beyond the mere fact that the facility will be an eyesore, how will this affect property values in the area?

Additionally, the Applicant suggests that the facility will be compatible with the community because there is a feedlot directly south. However, the feedlot is not the entire neighborhood, there are houses, fields, pastures, and timber. To infer that this facility will operate similar to the feedlot is a stretch in my opinion. Furthermore, because there is a feedlot that has operated in this neighborhood since the 1940's one should not assume the general neighborhood would support a composting facility being built here.

Finally, under Criteria 6, this Commission should take a hard look at the proposal and add safeguards to avoid any impacts to the surrounding natural, scenic, and historical area. I am concerned that an industrial composting facility is being considered in the Loess Hills along a scenic byway. The Loess Hills are an incredible piece of Iowa natural history that should not be converted into an industrial facility. Also, the Owego Wetland Complex is less than a mile from this facility, but the Applicant did not submit any engineering showing that stormwater runoff will not reach the wetlands. This commission's staff analysis already recommended that the conditional use permit be granted only with an archeological study that clears the area from any designation of historical significance. While I feel the Commission should recommend denying the permit, if this Commission recommends approving the permit, I request that the Board require the Applicant

conduct a detailed engineering assessment that considers the full impact of the surrounding environment.

In summary, I am opposed to this proposed facility. It would be unsightly, incompatible with our neighborhood, and potentially negatively affect adjacent properties. What's worse, I am directly downhill from the facility and could be impacted by any runoff from the facility particularly following rains and snows. For that reason, I ask this commission to recommend denying the conditional use permit. If the Commission does not recommend denying the permit, I request the following conditions be put in place:

- The Applicant should conduct an engineering analysis showing the hydrology of this project to ensure my property will not be impacted by runoff. This analysis should also include any groundwater impacts.
- The Conditional Use Permit should include provisions with appropriate setbacks from my property line, both for the facility and the stormwater containment basin. Engineering will likely be necessary to determine how far the setbacks should be from my property.
- And finally, the Applicant should modify the berm located near my property line. The berm is currently on the Applicant's parcel and it should be lined with rock or concrete and made taller.

Thank you for your time.

Kimberly Sulsberger
2853 Grundy Ave
Hornick, IA 51026

Please enter these comments into the public record.



Completing The Nutrient Cycle

FEBRUARY 7, 2024

ABE SANDQUIST
CCA - USDA TSP



1

Who Am I?



- Northwest Missouri State graduate
- Previous NRCS soil conservationist
- Own and Operate Natural Fertilizer (Woodbine) and Soil Solutions (Onawa)
- We consult with feeding operations on environmental compliance
- Our goal is to repurpose and reuse natural waste

2



Creating WINS



"If everyone wins it's impossible to fail."
- Abe Sandquist

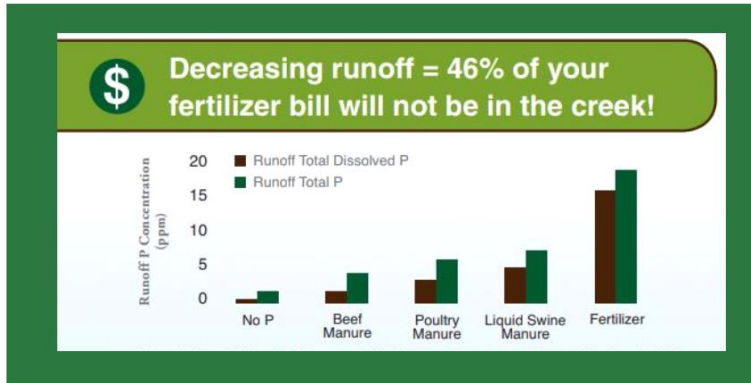
3

Why is manure popular?



4

Need for better Environmental Stewardship



5

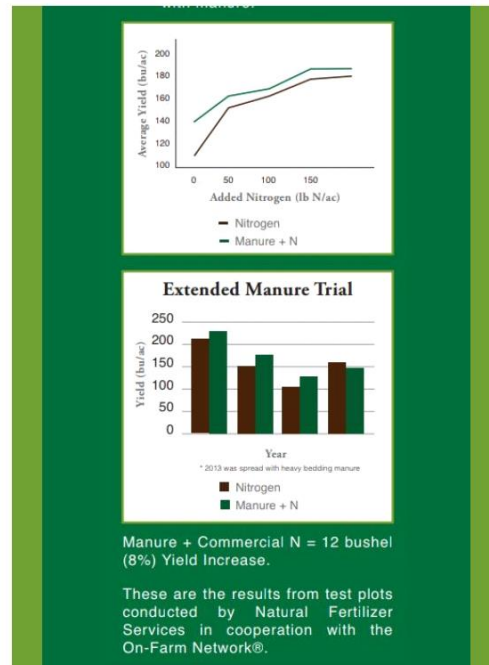
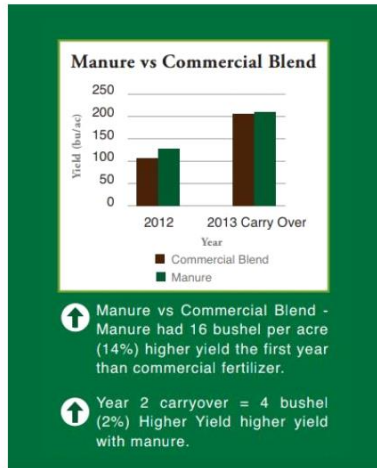
Fertilizer prices have increased

Figure 1. USDA Fertilizer Index for Prices Paid on Mixed Fertilizers and Nitrogen Fertilizers from Jan 1990 to Jun 2021 (2011 = 100)



6

Improving soils and yields



7

Not enough manure to fertilizer the midwest

8

By [REUTERS](#) April 6, 2022

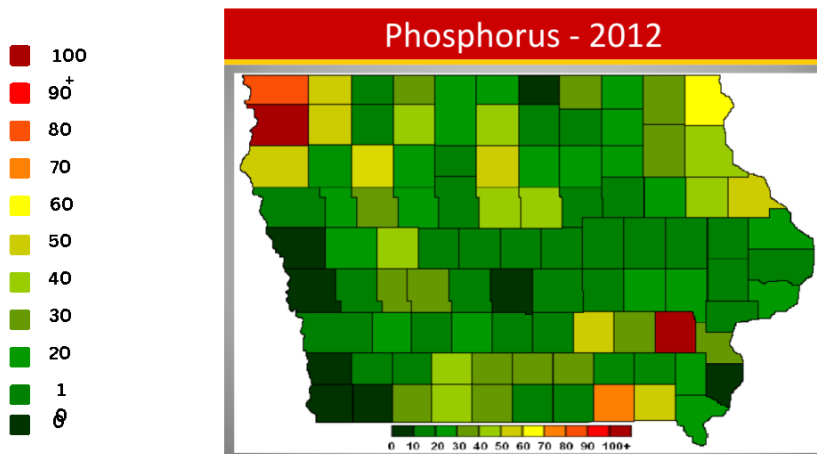
For nearly two decades, Abe Sandquist has used every marketing tool he can think of to sell the back end of a cow. Poop, after all, needs to go somewhere. The Midwestern entrepreneur has worked hard to woo farmers on its benefits for their crops.

Now, facing a global shortage of commercial fertilizers made worse by Russia's invasion of Ukraine, more U.S. growers are knocking on his door. Sandquist says they're clamoring to get their hands on something Old MacDonald would swear by: old-fashioned animal manure.

"I wish we had more to sell," said Sandquist, founder of Natural Fertilizer Services Inc, a nutrient management firm based in the U.S. state of Iowa. **"But there's not enough to meet the demand."**

9

% Phosphorus needs obtained from manure.



10

**Can the same “wins” and benefits
be created while repurposing
other organic residuals?**

11

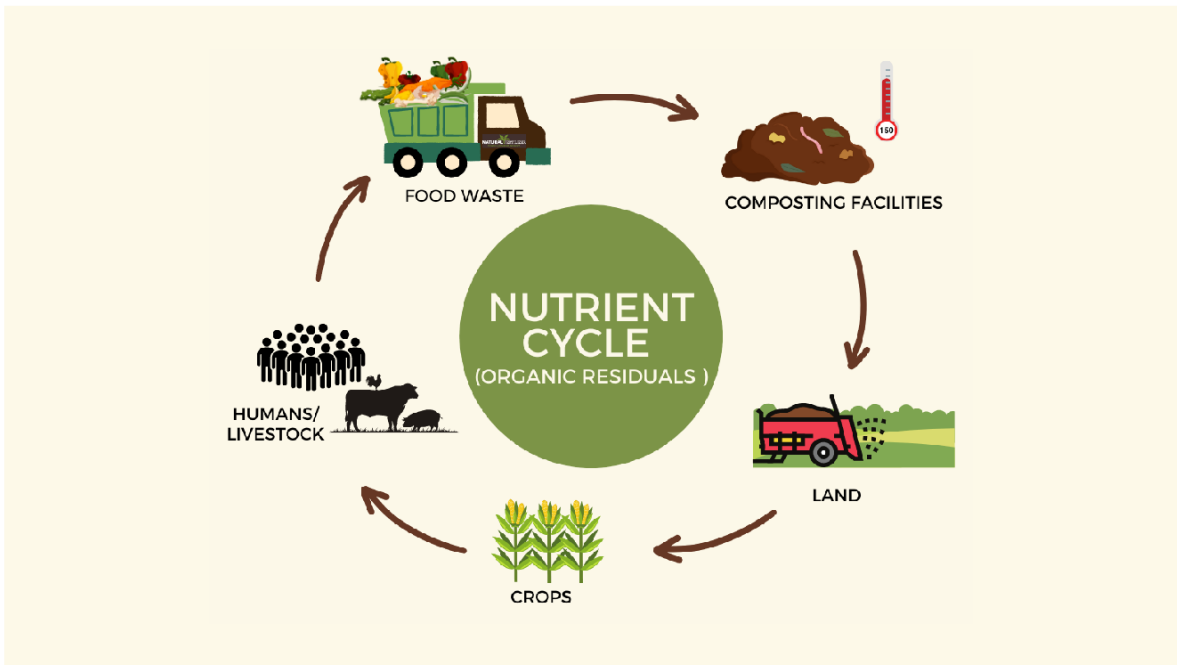


Creating WINS



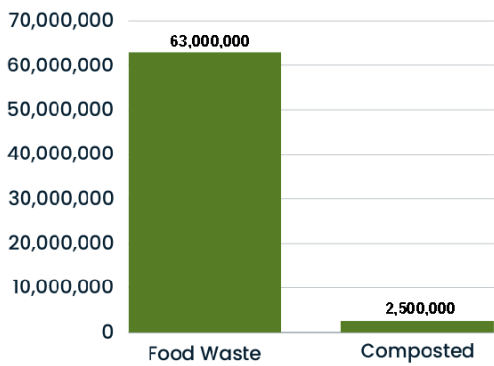
“If everyone wins it's impossible to fail.”
- Abe Sandquist

12



13

EPA STUDY 2018 IN US TONS



14

Composting of food waste can reduce carbon dioxide emissions by 1.4 million metric tons.

This would be like...



removing emissions from 303,000 passenger vehicles a year



conserving nearly 162 million gallons of gasoline



or not burning 7,700 railcars of coal.

*Iowa DNR 2022 Iowa Outdoor Magazine data

15

Creating **WINS** with the nutrient cycle

- ✓ Suppliers
- ✓ Buyers
- ✓ Environment
- ✓ Economy

“If everyone wins it’s impossible to fail.”
- Abe Sandquist

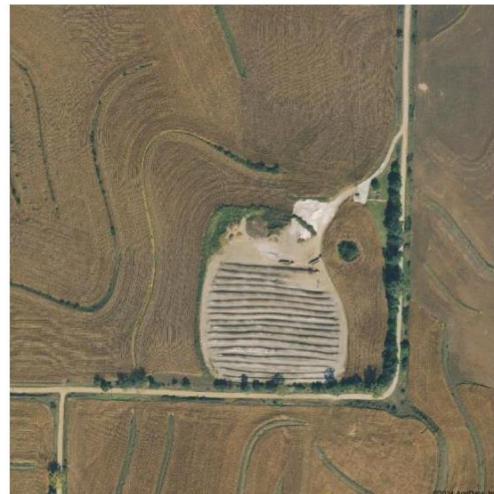
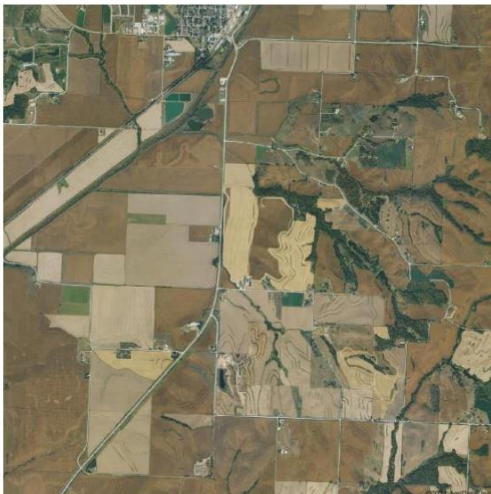
16

Iowa State University Compost Site



17

Natural Fertilizer Products Current Livestock Manure Compost Sites



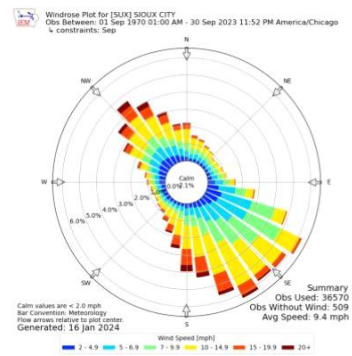
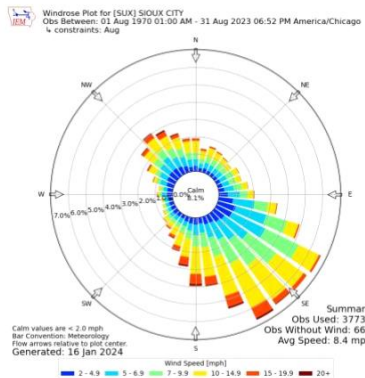
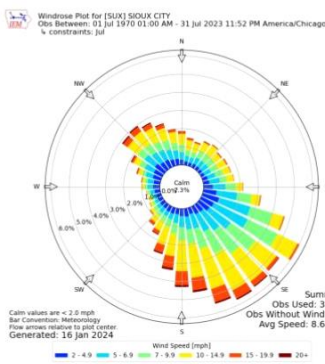
18

Natural Fertilizer Products Current Livestock Manure Compost Sites



19

ISU Wind Charts



20



We Make  Happen!

any questions?

21

Thank You

Abe Sandquist

Certified Crop Advisor (CCA)

USDA Technical Service Provider (TSP)

22

Abraham Sandquist History

Agriculture has used food waste residuals, manures, and burnt or broken-down plant residues as fertilizers for decades or maybe even centuries. Production agriculture has moved away from and in some cases even forgot about the “old” technologies until the last 20 years. From 2002 to 2006 I was employed by the USDA Natural Resources Conservation Service and assisted farmers with soil conservation and nutrient management planning. Working with many livestock producers to help them better understand the nutrients they already have on their farm was one of my goals as a conservationist. Many farmers were sold to believe “man” could make better fertilizer than what their livestock produce but in many cases all “man” could produce for fertilizer was the concentrated elements, N, P, K and so on. Over the years research has demonstrated time and time again that soil plant available nutrition is more of a process of biological consumption and release of organic matter and the soil's parent materials. Fertilizing the soil with elements is like feeding your body by taking supplements. You could live for a while just taking protein and mineral supplement but your body will not have the energy to really thrive without consumption of organic materials.

During my employment with NRCS I realized a need for consulting with livestock producers and offering a service to the livestock producer to gain value from their manure, if in abundance, by creating marketing plans, logistic and application services and agronomy consulting to help sell their excess manure to local farmers to create multiple wins. I always believed that if in a business relationship everyone wins, it would be impossible to fail as all parties see value and pushing for it to work and continue. I like to think that the business I began in 2007 created a quadruple “win”. The livestock producer won as he did not need to spend the time and resources to handle his/her manure and in some cases could create revenue for their manure, the crop farmer who purchased the manure could, in some cases could save money compared to commercial nutrient application and was able to purchase a product that offered more than just nutrients which has increased their crop productivity, the environment won because if the manure was continually applied to the same field as the livestock producer has applied to over the past many years the nutrient concentration in that field could rise to levels where nutrients could detach from the soil exchange and runoff or leach to surface or subsurface waters, and finally the economy won because Natural Fertilizer Products has 12 full time employees and has up to 50 subcontracted employees to help facilitate the transfer and application of the manure. A business-like Natural Fertilizer Products was not needed before the “sale” of manure because the feedlot used his own labor to haul the manure to the closest field possible.

Abe's Successes

- Abe Sandquist has a Bachelor's Degree and Agronomy and Ag Business from Northwest Missouri State University and graduated in 2002 with a 3.4 GPA.
- Educated in Nutrient Management and Soil Conservation from the USDA Natural Resources Conservation Service.
- Over the past 20 years Abe has practiced as a Certified Crop Advisor (CCA) and consulted with crop producers on over 100,000 acres.
- Abe is a certified Technical Service Provider (TSP) for the Natural Resources Conservation Service overseeing the development of over 30 Comprehensive Nutrient Management Plans (CNMP) over the state of Iowa.

- Abe has designed two business models to consult, and implement best management practices for crop and livestock producers pertaining to nutrient management.
- Abe has designed a web-based software tool called Ag Simplified to manage all aspects of his agricultural business and is used by their clients to manager their environmental compliance documents, logistics, and organize the distributions and sales of products.
- Abe was recommended by Iowa State University and was asked by the upper Midwest manure expo committee to have him speak in Norfolk Nebraska in 2011 about the value of manure.
- Abe has been interviewed by Reuters, Progressive Beef Magazine, Bloomberg's, Manure Manager Magazine, Germanys DW News, and other news networks throughout.
- Abe has worked with his local high school to fund and design a curriculum that prepares youth for careers in agriculture though Woodbine Community Schools Ignite Pathways.
- Abe has been composting manures on a smaller scale for the past 6 years to perfect his practices and recipes. Abe's compost is sold through his Natural Fertilizer Products company and been on over 15000 acres over the past 6 years. Every year NFP has sold out of material and they have a waiting list to get product.
- Abe is currently the Vise Chair of the Iowa Composting Council and sits on a committee with the Iowa Department of Natural Resources to help direct the Iowa Chapter 105 Composting Rules for the State of Iowa.
- Abe owns 300 acres of farm land which he farms as a hobby to learn how to be a better agronomist.

The Businesses

Abraham Sandquist has three different businesses that all work together to come goals, create and offer sustainable natural fertilizer products to improve the environment, improve soil health, and improve the bottom line of its customers and clients. Natural Fertilizer Services, Inc or (NFS) was incorporated in 2006 as Abe began consulting with large livestock producers on their facilities environmental compliance and crop producers on managing their soil fertility. Pretty much we like to say we "Make Sh't Happen" by offering services to both crop and livestock producers to complete the nutrient cycle. Livestock producers want to feed animals so NFS works with each producer to help coach them through there DNR and EPA compliance permits and acts as a liaison between the livestock producer and the regulatory agency. Crop producers want to improve their soils and raise the best crops possible with the least funds spent. Some of the services NFS offers producers with its 6 full time employees are manure and soil testing and creating Manure and Nutrient Management Plans. NFS work with over 100 livestock facilities over the state of Iowa. NFS also consults with over 200 crop producers sampling their soil and providing recommendation to improve their soils profitability. In most cases natural fertilizers are part of that recommendation.

Natural Fertilizer Products, Inc. (NFP) was incorporated in 2007 and owns material handling equipment and employees' people to clean feedlot pens, haul to the fields, and apply manure, lime, and other soil amendments to NFS's customers fields. NFP also contracts with over 30 different subcontracted trucking and manure application business to get all of its work done which are hired from the local area of the operation. Natural Fertilizer Products, Inc, applies over 160000 tons over about 32000 acres of land. Manure availably is becoming limited with the livestock industry shrinking to less interest with

young livestock producers and livestock producers retiring. This reduction in livestock numbers is lowering our natural fertilizer supply in areas of the state and over the nation.

On December 15th 2021 Abe Sandquist purchase Soil Solutions, LLC of Onawa Iowa. Soil Solutions offers products and services to improve soil productivity. Soil Solutions also retains contracts with many large Processors to remove gypsums, biomasses, and filter cakes which are by-products that used to be hauled to the landfills and now are sold as fertilizers, soil conditioners, and soil amendments. Soil Solutions has retained these removal contracts for many years and applies its products to over 50000 acres for more than 100 plus crop producers.

The Expansion Plans

Natural Fertilizer Products, Inc is being awarded a FPEP grant from the USDA to build a facility to work with its sister companies to offer products and services to crop producers, animal feeding operations, organics by-products and food processing industries. There will be 2 sites, one will be around Harlan Iowa which can service Des Moines, Omaha, Council Bluffs, Denison and other related areas and the other is planning to be around Sioux City Iowa which will mainly source materials from the Sioux City area. All of these larger cities have food processing facilities which create organic waste products that are more than likely going to the land fill.

These facilities will be constructed with the environment in mind. Roof structures, concrete and impervious surfacing will need to be installed to mitigate the potential environmental impacts of these organic nutrients being concentrated and processed in one location. Organic wastes and food processing wastes have grown with a growing population. Many of these food manufacturing companies are forced to use land fill as their means of disposal because other options are slim or not available in Iowa. Some companies have begun to use raw land application as their disposal method but although that process keeps the organic materials from the land fill, that means of disposal creates other potential concerns and are less appealing as far as odors and such are concerned. Another issue with sending organic materials to the land fill is if organic materials are broken down anaerobically, methane is a lot of time produced which is a greenhouse gas that has negative potential affects to climate change. If these same organic materials are composted and processed aerobically, they will be converted back to plant available nutrient and carbon to feed the soil. If this business model is scaled this process will complete the nutrient cycle and bring a sustainable and renewable fertilizer for hundreds of thousands of acres across Iowa and other agricultural states. Natural Fertilizer Products plans to build this site and perfect and repeat this business model over the state and the Midwest over time.



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