



BOARD OF DIRECTORS

SUSAN DAVIDSON
President
Madison

DAVE CLAUSEN
Amery

DAN COLLINS
Sturgeon Bay

TOM DAWSON
Madison

MAUREEN FREEDLAND
La Crosse

JAN GENTRY
Treasurer
Madison

JIM GOODMAN
Wonegan

WILLIAM H. LYNCH
Milwaukee

ALANA MCKEEVER
Secretary
Madison

MELISSA SCANLAN
Founder
Norwich, VT

GORDON STEVENSON
Vice President
Black Earth

STEPH TAI
Madison

DAVID WERNECKE
Baraboo

ARLEN CHRISTENSON
Emeritus Board Member
Madison

STAFF

TONY WILKIN GIBART
Executive Director

RY CARPENTER

ANDREA GELATT

ROB LEE

ROBERT LUNDBERG

**HANNAH (FISHER)
MORTENSEN**

PEG SHEAFFER

ADAM VOSKUIL

JODI HABUSH SINYKIN
Of Counsel

November 23, 2020

Secretary Preston Cole
Wisconsin Department of Natural Resources
101 S. Webster St.
Madison, WI 53707

Re: Request for Environmental Impact Statement Request for Roth Feed Pigs
Proposed Expansion

Dear Secretary Cole,

Midwest Environmental Advocates (MEA) is writing in support of the undersigned residents of Crawford County (collectively "Petitioners") regarding the concentrated animal feeding operation (CAFO) proposed by Roth Feeder Pig, Inc. The proposed operation (Roth II), when considered with its sister operation about 4 miles away (Roth I), would constitute the largest confinement of hogs in Wisconsin in a known sensitive region.

Crawford County is in southwest Wisconsin, in an area that is rich in natural beauty and environmental resources. The county is also in an area of known groundwater sensitivity primarily due to the unique geology and topography of the region. While local communities and experts agree that the county as a whole is susceptible to groundwater contamination, minimal analysis has been done to identify or map specific field geography. This lack of locally specific information leaves neighbors and downgradient communities concerned that the proposed operation will contaminate their wells or degrade natural resources.

Roth II's Wisconsin Pollution Discharge Elimination System (WPDES) permit application is currently under review by DNR, and Petitioners are very concerned with how this new, large CAFO may detrimentally affect the environment, natural resources, and their quality of life, given the existing environmental impact of Roth's current operation. For over a decade, many Crawford County residents have documented environmental changes occurring near Roth I. For example, in recent years, local organizations and citizen monitors have found substantial spikes in bacteria levels in surface waters near the Roth I production facility and land-spreading fields.¹ Petitioners are concerned that Roth II will cause similar, but amplified environmental impacts due to the increased size of the operation and environmental characteristics of the region, such as steep slopes, sensitive soils, and hundreds of miles of streams connected throughout the county.

Further, many residents and experts have reviewed the materials submitted to DNR and find the information lacking. For example, Roth II's Nutrient Management Plan incorporates Roth I's Manure Hauling Equipment Calibration & Emergency Response Procedures from 2007 rather than a more recent report or one specific to the proposed operation. Additionally, the Environmental Analysis Questionnaire (EAQ) limits the potential negative impacts of the proposed operation to increased traffic and visual changes to the landscape and further concludes that those impacts are not significant. The EAQ omits groundwater and surface water contamination, soil health, as well as a number of other environmental impacts that result from CAFOs and are particularly prevalent in an area of known sensitivity like the portion of Crawford County where Roth II will be sited. In sum, the permit application is incomplete and provides no certainty that Roth II, as currently proposed, would be safely and adequately constructed and operated or that it would comply with applicable groundwater and surface water laws.

On their own, these facts justify preparation of an environmental impact statement (EIS). For these reasons as well as the others described more fully below, Petitioners ask the Wisconsin Department of Natural Resources (DNR) to exercise its discretion and prepare an EIS pursuant to its authority under Wis. Admin. Code § NR 150 before deciding whether to issue permits to the operation, including the WPDES permit.

While the deleterious effects of CAFOs on human health, the environment, and local economies are understood generally, the proposed project raises specific, significant environmental concerns that warrant a robust environmental review.

The Wisconsin Environmental Policy Act (WEPA) requires state agencies to consider the environmental impact of "major actions significantly affecting the quality of the human environment."² Even a cursory analysis of the proposed project indicates that its scope and potential environmental effects clearly rise to a level that supports DNR using its discretionary authority to undertake an environmental review. Moreover, a thorough EIS would reinforce the stated dedication of DNR and the Evers Administration to restoring science-based decision-making to the agency.³

Wisconsin regulations identify eight criteria that the DNR considers when determining whether a project is of such magnitude and complexity that it warrants an EIS. MEA, alongside Crawford Stewardship Project and concerned community members address the factors in turn below. Notably, the attached signatories represent only a fraction of the people in the area who are concerned and oppose Roth II.

(2) The project may be in conflict with local, state, or federal environmental policies.

The Kickapoo River Wildlife Area is a 5,697-acre property in Crawford County nestled between the Kickapoo River and Lower Wisconsin River.⁴ DNR determined that the area bears "continental significance" for its driftless features in Wisconsin's Wildlife Action Plan.⁵ That plan identified the Kickapoo and Lower Kickapoo as Conservation Opportunity Areas (COA). DNR has

found that Wisconsin has a “responsibility for protecting and conserving” COAs given their significant ecological features and natural communities.⁶

Moreover, in 2020, the Lower Wisconsin State Riverway was designated a Wetland of International Importance under the International Ramsar Convention on Wetlands.⁷ The Ramsar Convention on Wetlands is an international treaty for the conservation and sustainable use of wetlands. The Lower Wisconsin Riverway designation covers approximately 17,700 hectares and runs from the Prairie du Sac dam to the confluence with the Mississippi River. As such, the designated area runs past the Roth I operation and spreading fields and could be detrimentally affected by a second, much larger operation in the immediate vicinity. The designation was secured or sponsored by DNR, the Ho Chunk Nation, U.S. Fish and Wildlife Service, Senator Tammy Baldwin, Friends of the Lower Wisconsin Riverway, Lower Wisconsin State Riverway Board, Wisconsin Wetlands Association, and many local organizations, landowners, and public officials.⁸ While a Ramsar designation does not impose restrictions or regulations, it indicates that those selected wetlands provide many environmental and economic services to the region and should therefore be protected.⁹

The proposed spreading fields for Roth II will run adjacent to the Hogback Prairie, which exists within the Kickapoo River Wildlife Area. Like the Kickapoo River Wildlife Area, the Hogback Prairie possesses unique ecological importance. The prairie has been described as a “site that contains the last vestiges of a functioning prairie ecosystem”¹⁰ and serves as an ideal location for migratory birdwatching.

Permitting an intensive agricultural operation that produces millions of gallons of waste runs contrary to DNR’s stated responsibility to “protect” and “conserve” a COA. While the applicant identified that the Kickapoo Wildlife Area is nearby in permitting documents, those documents do not adequately analyze the potential impacts on the environment or wildlife that rely on resources in the area. Agency officials, ecologists, and outdoors enthusiasts all champion the value of the Kickapoo River Wildlife Area (both ecologically and economically), yet the proposed project and associated documents only mention the area in passing, concluding with no evidence that no harm will occur.¹¹

In late 2019, DNR undertook a process to identify agricultural areas sensitive to groundwater contamination through manure spreading.¹² DNR’s proposed rule revisions recognize that manure spreading setbacks and restrictions should vary based on topography and geology throughout the state. Crawford County, like 15 counties in northeastern Wisconsin already protected by special regulations,¹³ is primarily characterized by karst topography and shallow depth to bedrock. As such, water resources in the county are particularly susceptible to pollution and contamination from manure spreading practices or overflows/runoff from the production area.¹⁴ Should Roth II receive a final WPDES permit, the operation will begin spreading manure on fields that could eventually be considered “sensitive” or “susceptible” once DNR concludes its rulemaking process. In the interim, Roth II would likely be spreading on known or suspected sensitive soils with no additional groundwater protections.

(3) The project may set a precedent for reducing or limiting environmental protection.

Permitting new CAFOs in sensitive regions without adequate scientific research may establish a precedent for continued land and water degradation from resource exhaustive agricultural practices with minimal oversight. Recognizing and responding to this concern, resident volunteers and experts have monitored the spreading fields of Roth I as well as adjacent surface waters over the last decade, finding a significant increase in nutrient and bacteria levels, particularly in fields closest to the production facility.¹⁵ The size of the proposed operation leaves Petitioners concerned that, absent a robust environmental review, DNR's approval continues the recent practice of rubber-stamping CAFO permits without adequate environmental review.

Furthermore, out-of-date or inadequate baseline data contributes to an insufficient permit decision-making process that undermines environmental protection. For example, Crawford County residents continue to raise groundwater and surface water concerns to elected officials and agency staff. Their concerns are based on a lack of adequate baseline data in geology and hydrology. Soil maps have not been updated in Crawford County since 1961 and statewide maps are likewise out of date. Specifically, in the Plans and Specifications submissions to DNR, Roth II attached a geological survey map from 1876 in the "Bedrock Map, Well Logs, Hillside Relief Map" section.¹⁶ This means that permitting decisions are occurring without proper baseline data, leaving residents at risk of continued or increased exposure to nitrates, bacteria, and other pollutants.

Based on what is known of the local geology and soils, Roth II's spreading fields are largely over karst geology and shallow depth to bedrock. In karst formations, groundwater may flow in complex manners at a relatively high velocity, rapidly spreading contaminants.¹⁷ Permitting Roth II without a comprehensive environmental review may reduce groundwater protections as the CAFO could spread on sensitive soils, quickly contaminating many downgradient wells due to inadequate restrictions.

(4) The project may result in deleterious effects over large geographic areas.

The proposed Roth II site is about a half-mile from the Kickapoo River, which feeds into the Lower Wisconsin River. The operation is expected to produce over 9,400,000 gallons of liquid manure and process wastewater each year and essentially store that waste at the top of a hill, adjacent to waterways and a wildlife area. The likelihood of runoff and contamination to sensitive and valuable natural resources in the County cannot be overstated.

As described previously, the relevant topographic maps are out of date and do not show the full extent of karst geology and shallow depth to bedrock. However, USGS maps confirm that dolomite is pervasive in Crawford County and residents have noted a number of key geological features indicative of karst topography near the facilities and fields used by both Roth I and Roth II. Recent USGS studies, using liquid dyes to track transport of manure on karst topography, found the dye miles away in surface water and groundwater, showing that the

complex and high velocity flow of groundwater in karst formations can easily spread contaminants.¹⁸ Nonetheless, the Roth II application does not identify any karst formations in any of the fields. Petitioners disagree with Roth's conclusion and are concerned that manure spreading may contaminate groundwater and private well water because the operation will spread without the necessary restrictions. Therefore, the proposed location of Roth II's production facility and land-spreading fields all pose substantial risks for down-gradient communities that rely on water resources.¹⁹

Ultimately, the water resources within Crawford County and downstream of the operation are likely to be deleteriously affected by the proposed CAFO. In the event of a manure spill at the Roth II operation, manure could quickly flow downhill, directly into the Kickapoo River or eventually flow into the river through a number of intermittent and disappearing streams that are prevalent throughout the County. Absent a spill, manure spreading in sensitive areas may cause groundwater contamination and widespread, lasting damage to the waters in Crawford County.

(5) The project may result in long-term deleterious effects that are prohibitively difficult or expensive to reverse.

Roth II would add over 9,400,000 gallons of manure and process wastewater to fields in Crawford County.²⁰ Although Crawford County has a long agricultural heritage, intense, sustained nutrient application is novel for the area.

Roth I currently produces less than 2,000,000 gallons of manure. In recent years, the number of proposed spreadable acres (ac) per animal unit (au) at Roth I has decreased from 0.35 ac/au to 0.14 ac/au. During that time, there has been a rapid build-up of soil phosphorus on many Roth I fields, in some cases exceeding 300 ppm.²¹ Roth II is proposing 0.40 ac/au, which is insufficient to adequately protect water resources or soil health in Crawford County. In sum, the combined facilities will produce over 11,000,000 gallons of manure and process wastewater to be spread on a limited land-base that includes fields already high in total phosphorus.

It is challenging to determine the full cost of returning agricultural fields to optimal nutrient levels. The simplest tool for reversion is time. Other options include crop rotations or additives like zinc and iron. Regardless, solutions for addressing extreme excess nutrients in agricultural fields are likely difficult, time-prohibitive, or expensive. Nonetheless, if Roth II operates similarly to Roth I, Petitioners anticipate excessive and unsustainable nutrient application, further justifying a comprehensive review of current soil health and capacity.

Groundwater quantity has also become a significant concern for residents that rely on private wells near the proposed operation. Although aquifers are capable of recharging, CAFOs often draw water much faster than an aquifer can recharge. Roth II's application materials indicate that the operation intends to pump 25,000 gallons per day. While Roth II's wells do not meet the high-capacity well threshold, Petitioners believe that water quantity issues will occur as a result of the combined water use from both Roth operations. An analysis of wells in close

proximity to Roth II shows a specific capacity ranging from 0.1 to 0.4 gpm/ft, indicating severely limited well performance.²² Should Roth II begin operation, nearby residential wells may require substantial rehabilitation or maintenance to ensure continued use. Moreover, there is no guarantee that rehabilitation will be sufficient or lasting based on projected use. Also of concern, given the large number of animals, the operation may eventually require a high-capacity well permit.

(6) The project may result in deleterious effects on especially important, critical, or sensitive environmental resources.

Much of the land in Crawford County is characterized by hills, valleys, and ravines, which drain into small and intermittent streams. Roth II's spreading fields run atop and along these hills.²³ As such, steep slopes and increased rainfall raise significant concerns about manure and contaminated storm water runoff.

Many of the intermittent streams serve an important ecological purpose as filtration systems to control the input of sediment and nutrients to downstream waters.²⁴ Those streams feed into the Kickapoo River and eventually the Lower Wisconsin River. Should these feeder streams receive excess nutrients and bacteria, their value as a natural habitat and ecological filter will be severely impeded. The potential environmental effects of this project may affect miles of streams and rivers, and could hinder critical environmental resources at the production site, below the spreading fields, and downstream.

To date, there has not been an adequate analysis of these runoff concerns. Phosphorus, nitrates, and bacteria are all likely to be carried to surface waters, down the Kickapoo River, and eventually into the Lower Wisconsin River, which is a Class II Trout Stream. Each of these surface waters could be affected by contamination from Roth II. For comparison, streams around Roth I have seen a precipitous decline in water quality in the past decade with *E. coli* and phosphorus levels rising dramatically.²⁵ Specifically, an unnamed stream just below Roth I's production facility was declared impaired by DNR in 2019. Petitioners hold a legitimate concern that Roth II could contribute to more substantial contamination of the water resources.

Runoff contamination will be further exacerbated by anticipated increases in precipitation due to climate change. One of the primary intersections between climate change and CAFO regulations relates to precipitation frequency and intensity. Multiple reports have indicated that the frequency and intensity of extreme rainfall events in Wisconsin are expected to increase throughout most of the state, including Crawford County.²⁶ Of note, Crawford County has experienced the biggest increase in average rainfall over the last 50 years in the state, and projections show that those increases are likely to continue.²⁷ Absent a robust environmental review, important environmental resources near the operation (e.g., the Kickapoo River Wildlife Area and Hogback Prairie), surface waters, and groundwater may all be at risk from runoff and manure storage overflows.

Petitioners note that there may be impacts to cultural resources or endangered species. To date, the submitted documentation does not address the affects the proposed project may have on cultural or historic resources. Additionally, Petitioners are unable to provide more comprehensive comments on endangered species because a review has not yet been performed.²⁸

(7) The project involves broad public controversy.

Crawford County residents have consistently reaffirmed their support for high-quality water resources in the county. In Crawford County's most recent Comprehensive Plan (2009-2029), residents identified the most important resources that Crawford County should protect. Groundwater ranked first in the survey, followed closely by rivers and streams. In a similar vein, a recent Environmental Law and Policy Center poll of southwestern Wisconsin voters found that safe, clean drinking water was the most important issue to them.²⁹

In recognition of this environmental ethic, residents of Crawford County have been involved in citizen monitoring and oversight of Roth I for over a decade. There are more letters to the editor, calls to action, monitoring reports, newsletters, and mail-outs than can be individually referenced in this request.³⁰ A significant number of the community continues to engage with local government officials and agency decision-makers. Those individuals annually review nutrient management plans, test surface water and groundwater for contamination, and evaluate Roth I's annual reports. Informed by this history, residents understand the risks posed by the proposed operation. They demand informed decision-making, permitting, oversight, and enforcement of Roth II. This is realistically only possible through a robust environmental impact statement.

Beyond general opposition to Roth facilities in Crawford County, Roth II has specifically been a topic of broad public controversy. Petitioners have attended town meetings, county committee hearings, and Crawford County Board meetings, all of which have been covered by local news sources.³¹ While attending those meetings, many members of the public raised concerns regarding the environmental and public health effects large CAFOs will have in Crawford County, prompting CAFO moratoria both at town and county level.³² Many community members have also reached out to DNR staff with questions or concerns about the proposed operation. DNR, recognizing this broad public controversy, created a webpage dedicated to the Roth II permitting process.³³

Many potential Roth II neighbors and other concerned residents and landowners in Crawford County have signed a petition, attached below, urging DNR to review the environmental effects of the proposed operation.

(8) The project may result in substantial risk to human life, health, or safety.

Concerns over nitrate and bacteria contamination from CAFOs are not new. The Wisconsin Groundwater Coordinating Council regularly identifies agricultural and nonpoint source

pollution as a major area of concern in Wisconsin. Importantly, 100% of Crawford County residents rely on groundwater for their drinking water. The 2020 Coordinating Council report identified nitrate, pesticide, and bacteria contamination from agriculture as a primary concern in the state.³⁴ The report also noted that nitrate levels are of particular concern in areas with sensitive geology, like Crawford County.³⁵ Relatedly, the Southwest Wisconsin Groundwater and Geology (SWIGG) study has found nitrate contamination present in a concerning number of wells in Iowa, Lafayette, and Grant Counties.³⁶ As such, while nitrate and bacteria concerns are not new in Wisconsin, our increased understanding of geologic conditions and historical tracking of Roth I show how susceptible Crawford County groundwater is to contamination. Elevated levels of nitrates, pesticides, and bacteria all pose significant public health concerns.³⁷

Further, the siting of the production facility could pose a substantial risk to human health. Roth II will sit along a ridge that slopes southwest and feeds into a region where twenty-eight families live.³⁸ The contour of the land creates serious runoff during heavy rain events, and it is likely that manure or other contaminated storm water will flow down-hill, affecting the residents to the west of the operation.³⁹ While the region currently experiences flooding from rainwater during storms, Petitioners are concerned that manure and additional contaminants may be released and flow onto their property or into waters of the state.

Finally, Petitioners demand a review of the potential effects of Roth II based on the operation's air emissions. Given their experience with Roth I and general driftless air flow patterns, Petitioners understand that emissions from the CAFO will frequently settle in valley basins, creating excessive odor and health problems for those residents living in the area. A recent study out of UW-Madison noted that "ammonia, hydrogen sulfide, endotoxins, and viral and bacterial pathogens from animal manure can be absorbed by dust particles and stay airborne for long periods and travel several miles, potentially exposing nearby residents."⁴⁰ Other studies have found significant mental health effects from living near hog CAFOs, noting that neighbors of swine operations reported "significantly more tension, depression, and anger than did control subjects."⁴¹ Ultimately, studies have shown that air emissions from CAFOs pose a significant risk to the public's life, health, and safety.

In sum, preparing an EIS for Roth II is consistent with the purpose of the environmental review process as well as administrative initiatives to restore science to DNR decision-making. An EIS would address the apparent need to understand the full effects of Roth I and Roth II's potential effect on the residents and important resources located in Crawford County. Therefore, we believe that a comprehensive EIS is not only warranted, but necessary to protect Wisconsin's natural resources, wildlife, and communities around the state.

Sincerely,

/s/

Adam Voskuil
Staff Attorney
Midwest Environmental Advocates
(608) 251-5047
AVoskuil@midwestadvocates.org

Cc:

Brian Weigel – DNR Watershed Management Director
Adam Mednick – DNR WEPA Coordinator
Chris Clayton – DNR NR Program Manager
Tyler Dix – DNR CAFO WPDES Permit Coordinator
Claire O’Connell – DNR Wastewater Specialist
Mark Cain – DNR Wastewater Engineer
Eric Struck – DNR Wastewater Specialist
Andrew Craig – DNR Water Resources Management
Laura Bub – DNR NR Basin Supervisor

Governor Tony Evers
Lt. Gov. Mandela Barnes
Attorney General Josh Kaul
Representative Loren Oldenburg
Senator Brad Pfaff
Representative Todd Novak
Representative Katrina Shankland

-
- ¹ CSP 2009-2020 E. coli and Total Phosphorus Report, Water Quality Monitoring Program (Ex. 1).
- ² Wis. Stat. § 1.11(2)(c).
- ³ See WisPolitics, How Evers' budget tries to 'bring science back' to DNR (Mar. 6, 2019) (Ex. 2).
- ⁴ Kickapoo River Wildlife Area Map (Ex. 3).
- ⁵ Wisconsin's Wildlife Action Plan (2015-2025) Priority Conservation Actions & Conservation Opportunity Areas (Ex. 4).
- ⁶ DNR, Conservation Opportunity Areas and Actions: Wisconsin Wildlife Action Plan (<https://dnr.wisconsin.gov/topic/WildlifeHabitat/actionPlanActions.html>).
- ⁷ Ramsar, United States names Lower Wisconsin Riverway as its 41st Wetland of International Importance (Aug. 26, 2020) (Ex. 5).
- ⁸ U.S. Bureau of Land Management, Lower Wisconsin Riverway Designated a Wetland of International Importance (Sept. 22, 2020) (Ex. 6).
- ⁹ U.S. Fish and Wildlife, The Convention on Wetlands of International Importance Fact Sheet (May 2015) (Ex. 7).
- ¹⁰ Natural Resources Foundation of Wisconsin, Sustaining State Natural Areas: Restoring Wisconsin's Natural Heritage Through Giving (Sept. 12, 2017) (Ex. 8).
- ¹¹ See Roth II Environmental Analysis Questionnaire p. 8 (Ex. 9).
- ¹² DNR NR 151 Updates Scope Statement (Ex. 10).
- ¹³ Wis. Admin. Code NR § 151.015(17) (Ex. 11).
- ¹⁴ See Grobbel Environmental & Planning Associates, Environmental Review and Assessment – Proposed Roth Feeder Pig II CAFO, Groundwater/Drinking Water p. 9 ("Grobbel Review") (Ex. 12).
- ¹⁵ See 2015 Roth Feeder Pig NMP Review, Steve Oberle, submitted to DNR May 2015 (Ex. 13).
- ¹⁶ See Roth II Plans and Specifications, Appendix C – Bedrock Map, Well Logs, Hillshade Relief Map (Ex. 14).
- ¹⁷ See Grobbel Review pp. 5-6.
- ¹⁸ USGS, Utilizing Fluorescent Dyes to Identify Meaningful Water-Quality Sampling Locations and Enhance Understanding of Groundwater Flow Near a Hog CAFO on Mantled Karst, Buffalo National River, Southern Ozarks, Brahana, V., Bitting, C., Kosič-Ficco, K., Turk, T., Murdoch, J., Thompson, B., Quick, R., U.S. Geological Survey Karst Interest Group Proceedings (May 2017) (Ex. 15). See Grobbel Review pp. 5-6.
- ¹⁹ See Dave Collins, Flyover II – Where pig manure spreads (available at: <https://vimeo.com/452004976>).
- ²⁰ *Id.*
- ²¹ See 2020 Roth II Nutrient Management Plan Review Summary, Steve Oberle (Ex. 16).
- ²² See Steve Oberle, Specific Capacity Notes (Ex. 17).
- ²³ See Dave Collins, Flyover II – Where pig manure spreads (available at: <https://vimeo.com/452004976>).
- ²⁴ Evaluating the Biological Significance of Intermittent Streams, Leslie M. Reid and Robert R. Ziemer, USDA Forest Service, Pacific Southwest Research Station (1994) (available at: <https://www.fs.fed.us/psw/publications/reid/2IntermitStr.htm#:~:text=Intermittent%20channels%20and%20associated%20riparian,of%20moisture%20and%20temperature%20stress>) (Ex. 18).
- ²⁵ CSP 2009-2019 E. coli and Total Phosphorus Report, Water Quality Monitoring Program.
- ²⁶ See Wisconsin Initiative on Climate Change Impacts, *Climate Change 2050: Scenarios of a State of Change* (2016) (Ex. 19); & Environmental Protection Agency, *What Climate Change Means for Wisconsin* (Aug. 2016) (Ex. 20).
- ²⁷ WICCI Historical Trends and Projections (available at <https://wicci.wisc.edu/wisconsin-climate-trends-and-projections/>).
- ²⁸ EAQ at 9.
- ²⁹ ELPC, Wisconsin Water Poll (Nov. 5-7, 2019) (available at http://elpc.org/wp-content/uploads/2019/12/ELPC_SW-Wisconsin-Water-Poll-Results.pdf) (Ex. 21).
- ³⁰ See selection of attached public controversy documents provided by Crawford County Residents (attached separately).
- ³¹ See DAWs drinking water study moving forward October Testing (Aug. 27, 2020) (<https://www.swnews4u.com/local/public-safety/daws-drinking-water-study-moving-forward-october-testing/>) (Ex. 22).

Extension of Crawford County CAFO Moratorium discussed (Aug. 13, 2020) (<https://www.swnews4u.com/local/public-safety/extension-crawford-county-cafo-moratorium-discussed/>) (Ex. 23).

Crawford County Land Conservation Committee recommends CAFO moratorium (Dec. 12, 2019) (<https://www.swnews4u.com/local/crawford-county-land-conservation-committee-recommends-cafo-moratorium/>) (Ex. 24).

UPDATE: Crawford County passes concentrated animal feeding operation (CAFO) moratorium (Dec. 17, 2019) (<https://www.midwestfarmreport.com/2019/12/17/update-crawford-county-passes-concentrated-animal-feeding-operation-cafo-moratorium/>)

DATCP presentation opens possibility CAFO moratorium may be rescinded (Nov. 6, 2019) (<https://www.swnews4u.com/local/datcp-presentation-opens-possibility-cafo-moratorium-may-be-rescinded/>)

Marietta Township citizens discuss Roth Feeder Pig expansion plans (Jul. 24, 2019) (<https://www.swnews4u.com/local/marietta-township-citizens-discuss-roth-feeder-pig-expansion-plans/>)

³² Town of Marietta, Moratorium on Livestock Facilities Ordinance #2019-01 (Ex. 25); Crawford County, An Ordinance to Impose a Moratorium on the Expansion and Creation of New Livestock Facility Siting Operations Within the Unincorporated Areas of Crawford County, Ordinance No. 219-2019 (Ex. 26)

³³ Wisconsin Department of Natural Resources, Roth Feeder Pig II (<https://dnr.wisconsin.gov/topic/CAFO/RothII>).

³⁴ See Wisconsin Groundwater Coordinating Council, Report to the Legislature: Fiscal Year 2020.

³⁵ *Id.* at 9.

³⁶ Southwest Wisconsin Groundwater and Geology Study, Fact Sheet, Aug. 2019 (Ex. 27).

³⁷ See 2020 Wisconsin Groundwater Coordinating Council Report to Legislature, Nitrate (Ex. 28); DNR, Bacteriological Contamination of Drinking Water Wells (Ex. 29).

³⁸ See Dave Collins, Proposed pig CAFO site threatens health of many landowners (available at: <https://vimeo.com/user20827926>).

³⁹ See Grobbel Review p. 7.

⁴⁰ Residential proximity to concentrated animal feeding operations and allergic and respiratory disease, Amy Schultz, Paul Peppard, Ron Gangnon, and Kristen Malecki (Sept. 2019) (Ex. 30).

⁴¹ Health Effects for Breathing Air Near CAFOs for Feeder Cattle or Hogs, Susanna Von Essen and Brent Auvermann (2005) (Ex. 31).

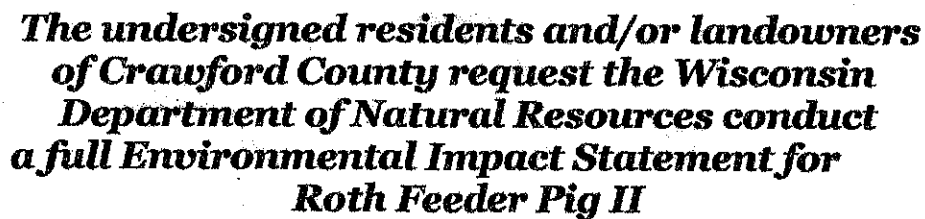
**The undersigned residents and landowners of Crawford County request that the WI
Department of Natural Resources conduct a full Environmental Impact Statement for Roth**

Feeder Pig II

1	Full Name	Township/Village in Crawford County
2	Forest Jahnke	Clayton
3	D.K. Franson	Freeman
4	Nancy Lu Rosenheim	Steuben
5	Dave Collins	Marietta Township
6	Kathleen J. Tigerman, PhD	Marietta Township, Village of Steuben
7	Gina Holtz	Steuben
8	William Holtz	Steuben
9	Marta W. Engel	Utica
10	Carl Bargabos	Freeman/Ferryville
11	Cheryl Lynn Russell	Village of De Soto
12	Carol Dagnon	Freeman Township
13	Aaron L. Colson	Wauzeka
14	Kenneth D. Cornish and Martha J. Cornish	Mariette
15	Phyllis Huerta	Freeman
16	Susan Robinson	Wauzeka
17	Jeff Robinson	Town of Wauzeka
18	Karen deschane	Clayton
19	Steve and Martha Querin-Schultz	Town of Scott
20	Robert and Laura Schultz	Eastman Township
21	Edie Ehler	Freeman Township
22	Madison White	Prairie du Chien
23	Darlene Oberhauser	Wauzeka
24	Lee Paterson	Eastman
25	Alison Paterson	Eastman
26	Christine E. Watson	Marietta
27	Drew Watson	Steuben
28	Jill Hurwitz	Marietta Township
29	Merle Lewis	Marietta township
30	Jude M Hartwick	Marietta
31	Suzanne Hartwick	Marietta
32	Gary Porter	Marietta Township
33	Diane Caldwell Porter	Marietta
34	Brittany Bulfer	Eastman
35	Sandy Collins	Marietta
36	Gordon Tribbey	Marietta
37	Eli Mandel	Clayton
38	Kathleen M Byrne	Freeman
39	Paul F. Byrne	Freeman
40	Stephen Arthur Peck	Mount Sterling
41	Timothy and Linda Eisele	Landowners in Seneca Township
42	Ed Block	Prairie du chien
43	Robert C Tober	Clayton Township

44	Katherine A Neidert	Freeman Township
45	Ross Shrargo	Clayton
46	Elizabeth Ann Jensen	Gays Mills
47	Monica Horner	Clayton Township, Soldiers Grove
48	Dale Rinkel	Freeman Township
49	Alison Barazani	Marietta
50	Samantha Goodwin	Soldiers Grove
51	Deborah K Rider	Eastman
52	Christine Myhr	Gays Mills
53	Jamie Barker	Freeman
54	Mary D.Benoit	Gays Mills
55	Candice Miller	Prairie du Chien
56	Renee C. Randall	Township Crawford County
57	Michael Wheeler	Clayton
58	Laura DeMars	N. Clayton
59	Scott Calvert	Soldiers Grove
60	Lynda Schaller	Clayton Township
61	Stacie Anthony	Clayton
62	Yes John Zehrer	Utica
63	Mary Sundberg Stirling	Clayton
64	Ken Freedman	Freeman Township
65	Sharon Murphy	Clayton
66	Barbara J Cox	Utica Township
67	Cindy Wiar	Soldiers Grove
68	David T. Edinger	Haney
69	Darlene Severson	Scott Township
70	Deborah A. Conlon and Richard J. Thill Jr.	Clayton Township
71	JoAnn Gonos	Clayton township
72	Camille Smith	Seneca
73	Todd Christopher Osman	Haney
74	Harriet Behar	Clayton
75	Thomas George Helgersen	Soldiers Grove
76	Gloria Adams	None (City of Eau Claire, WI)
77	Ellen Kate Brooks	Haney Township
78	Melodi Luko	Steuben
79	Rikardo Jahnke	Clayton
80	David Herington	Bell Center
81	Patricia K Helgersen	Village of Soldiers Grove
82	John L. Koethe	Town of Scott
83	Rick Redfield	Clayton
84	Sarah Olson	Gays Mills
85	Skye Harnsberger	Freeman
86	Sara M Tedeschi	Freeman Township
87	amy fenn	utica township
88	Cory R W Redfield	Crawford
89	Connie Weedman	Freeman
90	Benjamin Prostine	Clayton

91	Britt O'Hara	Clayton
92	Matthew E. Murphy	Clayton/Rolling Ground
93	kenneth I vold	marietta
94	Richard Polodna	Eastman
95	Maggie Jones	Scott
96	Judy M. Warpinski	Prairie Du Chien
97	Ira Daniel Johnson	Utica
98	Jesse Aaron Byers	Eastman
99	Dale R Huston	City of Prairie du Chien
100	Barbara Andree	Soldiers Grove
101	Rachel Jepson	Utica Township
102	Dale Klemme	Prairie du Chien
103	Jayne Marie Swiggum	Gays Mills
104	Sharon Renee Sanders	Clayton Township
105	Edward Mort	Gays Mills
106	Adrienne Fox	Clayton
107	Erica Burger	Freeman
108	James Fleischmann	Eastman
109	Eric Pauer	Marritia
110	Marriah Sondreal	Clayton
111	Irv Balto	Vernon county
112	Dennis Spector	Soldiers Grove
113	Guiliana Welby	Steuben
114	Kaila Larson	Ferryville
115	Scott Noe	Clayton
116	Lyle & Pam Dalton	Scott
117	Cele Wolf	Clayton
118	Jerome N Ziemann	Eastman township
119	Willard W Ray & Judy M Ray	Eastman
120	Barbara Richards	Viroqua, Vernon
121	Thomas Lind	Prairie Du Chien
122	Leland Lavern hagen	Gays Mills
123	Jayne Brassington	Clayton
124	Dawn G Adams	Soldiers Grove
125	Matthew and Jennifer Olson	Eastman
126	Ronnah Metz	Freeman

[illegible]



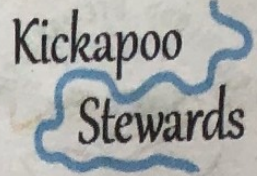
The undersigned residents and/or landowners
of Crawford County request the Wisconsin
Department of Natural Resources conduct
a full Environmental Impact Statement for
Roth Feeder Pig II

Kickapoo
Stewards

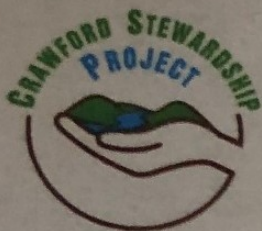
NAME	CITY/TOWN/VILLAGE
Mitchell Bowers	31579 Boydton Ln, Wauzeka, WI
Janna Bowers	31579 Boydton Ln Wauzeka
A. Frederick Hausler	48072 Quab Ln. Wauzeka
M. B.	40355 Ryan Rd sold. Grove
Patricia Ann Bergema	40355 Ryan Rd sold line
James Miller	42101 Marietta Valley Rd
Gary Aines	42914 Marietta Valley Rd
John L. Brewer	42914 Marietta Valley Rd Boscobel
Robert B. Brewer	44281 Spring Valley Rd Boscobel WI 53805
Dominic Peralta	48210 Lewig Ln. Wauzeka, WI
Alison Peralta	48210 Lewig Lane Wauzeka WI
Ben Bird	30345 Brown Hollow Rd Wauzeka WI
Sheila Zink	30059 Boydton Hollow Rd Wauzeka
Al P. Zink Jr	30059 Boydton Hollow Rd, Wauzeka, WI
Sam Bird	30407 Brown Hollow Rd Wauzeka, WI
Lizzie Bird	30407 Brown Hollow Rd Wauzeka, WI
Ben Bird	30407 Brown Hollow Rd Wauzeka, WI



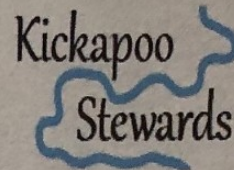
The undersigned residents and/or landowners
of Crawford County request the Wisconsin
Department of Natural Resources conduct
a full Environmental Impact Statement for
Roth Feeder Pig II



NAME	CITY/TOWN/VILLAGE
Harry Gontompasie	Soldiers Grove WI 54655
SCG	Wheatland Township
Linda Eick	Seneca
Jim Eick	Seneca
Don Hulseberg	Menasha, Crawford
Susan Robinson	Town of Wauzeka
R. Hull	CLAYTON TOWNSHIP
Sheri Schwert	Haney Township
Deb Conlon	Clayton Township
Don Lobb	Menasha
Tom W. W.	"
Adrienne Fox	Clayton
Ellen Ilara Pestcoe	Clayton Township
Rikardo Vahnke	Clayton Township
Burt O'Hara	Clayton
David Jones	Clayton
Trevor Davis	Clayton
Laurence Bishop	Freeman
Larry Anderson	Freeman



The undersigned residents and/or landowners
of Crawford County request the Wisconsin
Department of Natural Resources conduct
a full Environmental Impact Statement for
Roth Feeder Pig II



NAME	CITY/TOWN/VILLAGE
Andreas Transp	Scott Township
EDWARD W MORT	GAYS MILLS
Ericka Stubbs	Soldiers Grove
Lumen Hobbins	Bell Center
Hatley Benson	Soldiers Grove
Adam Stanton	Scott Gays Mills
Thomas B. Bice	Soldiers Grove
Laure Macasuet	GAYS Mills
Barbara Cox	Townville,
Peg Habetler	Townville
Mickey Keeley	SOLDIERS GROVE
E. Schaffer	Readstown
Ormy Matthews	Mount Sterling
Becky S. Brown	Mt. Sterling
Jillian Cox	Soldiers Grove
Erica Burger	Ferryville
Tara White	Soldiers Grove
Anne Nelson	Clayton Clayton

NAME

CITY/TOWN/VILLAGE

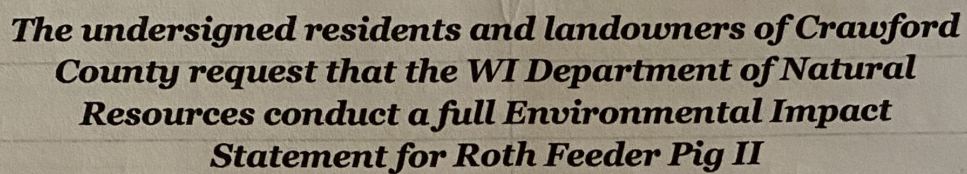
Jerome D. Jenkins
Marilyn Jenkins
Susan Jerrett
Greg Jerrett

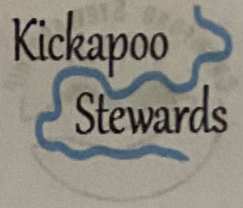
TOWN OF HANEY

" " "
" " "
" " "

Rebecca Redfield

Scott

[illegible]

[illegible]