

June 27, 2019
Meeting Minutes
5:30 p.m. to 7:00 p.m.
Concentrated Animal Feeding Operation (CAFO) Working Group

Members of Working Group present:

Cristy Joy, Dale Softley, John Hansen, Marijane Hancock, Paula Peterson, Scott Johns, Stephen Martin, Steven Skoda and Tim Kalkowski; Theresa Pella absent.

Also present: Tom Cajka, Steve Henrichsen and Rhonda Haas, Planning Department and several members of the public.

Steve Henrichsen, Planning Department stated the purpose of this meeting is for public comment. An agenda, a handout and sign in sheets are available on the table. The working group will adopt meeting procedures that will be used at current and future meetings. With a brief introduction of the public comment draft and the process, and then going directly into public comment. These procedures were previously sent out for review on how the meeting would be conducted and how the public comment portion would be handled in the future.

Henrichsen requested a motion approving the meeting procedures.

Motion of approval made by Hancock, seconded by Joy and carried, 8-0: Joy, Softley, Hansen, Hancock, Peterson, Johns, Martin and Kalkowski voting 'yes'; Skoda, Pella absent.

Henrichsen noted that there was a copy of the Open Meetings Act on the sign in table.

Henrichsen stated that the main purpose of this meeting is to hear the public comments on the public comment draft. This is a potential revision to the Lancaster County Zoning Regulations. Lancaster County has zoning jurisdiction over all of the area outside of the zoning jurisdiction of the incorporated towns and for the City of Lincoln. For example, Waverly has jurisdiction over everything in their community and up to one mile outside of town. Lancaster County Board has zoning jurisdiction over the vast majority of Lancaster County. The Lancaster County Board established this working group with ten members who were appointed by the board. All members are volunteers. The purpose of this working group is to advise the Planning Department on potential revisions to the Lancaster County Zoning Regulations. There has been six meeting so far gathering information. They have been hearing from staff of various State and County agencies on the current regulation processes. Tonight's meetings purpose is to hear from the public on the draft put together showing some potential revisions. The group, is wanting to hear what you do and don't like and if there is anything that was left out. Staff will then put together a final version for the public review prior to going to Planning Commission and then the County Board. The County Board would then decide what changes would be made to the regulations. All information on the CAFO meetings will be available on the City website at <https://lincoln.ne.gov/city/plan>. To ensure that everyone has a chance to be heard, we will be limiting comments to five minutes. So, tonight we will listen to your comments and not be answering questions. However, after the meeting Tom Cajka and I will be available after the meeting to answer some of the questions.

Janis Howlett, 13200 W. Parker Road, Crete, stated she lives just 6/10 of a mile to the south of Essink proposed chicken farm. She wanted to address the bias composition of the membership of the working

group. Stating the Lancaster County Board directed the Planning Department to establish a working group consisting of members from operators, neighbors and government agencies. This working group has no neighbors on it. Two of the applications that were rejected are neighbors living adjacent to the property. The failure to include neighbors on this working group has weakened the group. This is in violation of the instructions that were given by the County Board.

Cathy Ingram, 15380 Bobwhite Trail, Crete, stated she is a resident of Lakeside Estates, located within a mile from the proposed 190,000 acre poultry CAFO operation. An industrial animal operation of this scale is not compatible with the residential properties surrounding it. Residents are on record stating concerns of air and water pollution, as well as the odors associated with these poultry CAFO operations.

Pam Wakeman, 15751 Bobwhite Trail, Crete, stated she lives 1.5 miles away from the proposed site. Special permit 18025 is the reason this task force was created with no regulations in place for this type of operation. This special permit should not have been granted until regulations were put into place. Concerned that having just a few meetings in not enough time to learn, study, explore and discuss these necessary regulations. She stated that the Comprehensive Plan has not been mentioned at all at CAFO meetings.

Peter Dowben, 12251 Bobwhite Trail, Crete, stated that the odor footprint tool does not include topography, which means the Essink CAFO has a footprint that is much larger than calculated. The odor footprint tool does not include extreme events, like the moving of 5000 tons of manure and waste and doesn't include people with heightened smell.

Greg Hollman, 15064 SW 128th Street, Crete, stated he lives one half mile from the proposed CAFO site and is a farmer. The laws mean nothing if they can be violated. Believing that accessibility is one of the first things that should be considered when looking for a place or getting permitted. If there is no accessibility, which should be specifically designed and written into the permit then it is just a waste, and it is doing an injustice to everything else.

Jane Egan, 7001 W. Old Cheney Road, Denton, stated evidence presented from numerous scientific studies identify hazards to human health and the environment and the reduction of property values to surrounding communities. Potential hazards include air pollution, damage to the county roads, exposure to pathogens from transport trucks, the mortality shed, air expelled from the barns by industrial fans, excessive water use, disease transmission and contamination of ground and surface water. Therefore, she proposed that a requirement be added that future operators, owners, and contractors associated with any new CAFO application provide evidence of liability insurance.

Andrew Knight, 5225 S. Windlesham Court, questioned if Lancaster County is the right county for this. Stating other counties have specific codes and zoning for confined animal feed operations, where it is very appropriate. There are counties in Nebraska that have transitional zoning and this type of operation is not allowed in those areas. It has been a disappointment to everyone that Lancaster County has not updated the zoning, but it is something that needs to be done in the future.

Jonathan Leo, 2321 Devonshire Drive, stated that under Article 13 Special Permit 13.035, No. 2, they need to also require a nutrient management plan. This is because of the insufficient environmental public health, contamination and pollution information that might result from a CAFO. It is essential that the nutrient plan be added as one of the requirements.

Dick Hollman, 26230 SW 72nd Street, stated he lives in the southwest corner of the county and if they had gone 10 miles south they could be up and running. He is against more regulations, more rules and permits. He believes that most livestock producers want to do a better job raising livestock and conserving land than what is now required. Each permit should be looked at as an individual case and not according to predetermined and inflexible rules and regulations.

Les Matulka, 902 W. Little Salt Road, Raymond, stated that he lives in the northern edge of the county. Millions have been spent on the school system in the area which relies on ground water. In the northern edge of the county the water runs from north to south. Meaning that the waste water from this chicken farm will run towards the school system.

Jessie Hermann, 4611 Cattle Drive, stated the cattle industry is highly regulated both at local and State levels along with Federal Environmental laws. Expressing concerns on who will decide what the setbacks will be. Current standards dictate scraping, watering for dust, fly control and general upkeep as typical. This needs to be clear to avoid confusion and uncertainty.

Russell Miller, 341 S. 52nd Street, stated we need to consider air pollution and what we already have for air pollution. Is it acceptable now and can you live with it. We need to bring new business into the county to have more money coming in to pay for roads and other needs.

Andy Scholting, Nutrient Advisors, stated that he helps livestock producers navigate through environmental compliance and the permitting process across the state. There is a need for clarity in the proposed language, which is essential. Article 13, No. 2 on the construction portion of that regulation, he is recommending the time line be clarified. It should be required at time of building permit. Currently, what you are requesting to be done prior to the building permit is very expensive. Needing to acknowledge the value of the matrix and the passing score. Define odor control measures. This does not acknowledge for distance waivers in terms of county setbacks and they are almost always included.

Bruce Barrett, 12501 Wittstruck Road, Crete, stated Lancaster County has a lot of homes in the area and not long chicken shed with a fan at the end, this is not compatible. The county and community has changed, supporting Agriculture on some sort of a scale. He wants to keep things the way they are now, and he doesn't feel this is where we want to be in 20 years. He has concerns with the different setbacks and wants a limit on the number of heads allowed.

Edison McDonald, 3921 Eagle Ridge Road, #85, stated his frustration with the failure to comply with meeting laws. Concerns need to be addressed. There needs to be a clear set process. Work needs to be done with other agencies. Currently, there is a lack of identification of zoning types and requirements. There needs to be mandatory regular water testing. There needs to be a shift in the matrix from things being optional to being mandatory standards.

Jack Daniel, 231 54th, Denton, stated he is retired now, but was employed for over 46 years for the State Health Department. The resource of the Counties Health Department needs to be used for review and input on CAFO's. The construction and operating permits are only as good at the operator. There needs to be an inspection program for odor and flies. The need to make sure there is water quantity and quality for this type of operation. Without water your health is not there and your property value is not there.

Melissa Baker, 7125 Yosemite Drive, stated she has concerns about the water. There needs to be a Nutrient Management Plan with ground and surface water testing within a half mile. The regulations should require cover cropping on all farms applying litter buffer strips along waterways within one mile. There needs to be Environmental Impact Statement on all large CAFO's. There needs to be a disaster fund for environmental litigation.

Steve Henrichsen, came forward and addressed some of the procedural questions asked during the meeting, and that comments can be sent to the Planning Department for distribution to group members.

Adjourn 6:58 p.m.

Sheldon's power plant 2017 emissions

On Aug 21, 2018, at 3:17 PM, Gary R. Bergstrom <gbergstrom@lincoln.ne.gov> wrote:

Mr. Miller,

The most recent full year of plant-wide emissions from the Nebraska Public Power District's (NPPD) Sheldon Station that we have available is for calendar year 2017. I have provided that information in the table below.

Pollutant	Emissions (tons)
PM10 (particulate matter >10 μm)	7.42
NOx (Nitrogen oxides)	1,406.13
SO ₂ (Sulfur dioxide)	1,961.79
VOC (Volatile Organic Compounds)	26.31
CO (Carbon Monoxide)	665.49
HAPs (Hazardous Air Pollutants — Combined)	32.34
Total	4,099.48

Additionally, I do want to correct one misconception on the plant's operations. NPPD Sheldon Station has not yet converted either of its two coal-fired boilers to hydrogen, and that conversion is not anticipated to occur for at least the next couple of years.

We do not have any data on how far the pollutants travel, as air pollution dispersion is heavily dependent on weather patterns. Some emissions may impact the nearby area, while some emissions may be transported hundreds of miles or more.

I hope you find this information helpful. Please let me know if you have any questions.

Gary R. Bergstrom

august 13, 2018 at 1:37pm

RE: request for Sheldon's power plant air pollution

To : Rusesll Miller

The reduction in emissions at Sheldon Station is due to a combination of factors. They did add emission controls to reduce their emissions air pollution emissions, but they have also seen lower levels of operation due to being part of the 'Southwest Power Pool'. I don't know exactly how much impact wind and solar power generation have had on power generation at Sheldon Station, but I would recommend contacting NPPD for questions on that matter.

The emissions of mercury are included in the 32.34 tons of HAP emissions. Mercury emissions in 2017 came to a total of 3 pounds, substantially lower than the 36 pounds emitted in 2014. Again, that reduction is due to a combination of emission controls and reduced power generation. For reference, 3 pounds of mercury equates to just under 7 tablespoons.

Hope this helps!



JOHNS HOPKINS

CENTER *for* A LIVABLE FUTURE

The Johns Hopkins Center for a Livable Future
Bloomberg School of Public Health
615 North Wolfe Street, W7010
Baltimore, MD 21205

September 19, 2016

Mayor Getzschman and Fremont City Council
400 E. Military Ave.
Fremont, NE 68025

Disclaimer: The opinions expressed herein are our own and do not necessarily reflect the views of The Johns Hopkins University.

RE: Costco Wholesale and Lincoln Premium Poultry Processing Plant and Broiler Production

Dear Mayor Getzschman and members of the Fremont City Council,

We are researchers at The Johns Hopkins Center for a Livable Future, based at the Bloomberg School of Public Health in the Department of Environmental Health and Engineering. The Center engages in research, policy analysis, education, and other activities guided by an ecologic perspective that diet, food production, the environment, and public health are interwoven elements of a complex system. We recognize the prominent role that food animal production plays regarding a wide range of public health issues surrounding that system.

We have been contacted by citizens of Dodge County who are concerned about Lincoln Premium Poultry and Costco Wholesale's proposed poultry processing plant south of Fremont. Citizens have also voiced concern about plans for approximately 400 new broiler* houses in the area, which would house a combined 17 million broilers (approximately 19 times larger than Nebraska's 2012 broiler inventory).[†] In response to local citizens' concerns, below we present a summary of the peer-reviewed scientific literature on the human health and environmental concerns associated with poultry processing facilities and industrial broiler production. Detailed

* Chicken raised for meat

[†] U.S. Department of Agriculture. Nebraska State Profile, 2012 Census of Agriculture. National Agricultural Statistical Service Website.
https://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Nebraska/cp99031.pdf.
Published 2012. Accessed July 18, 2016.

information regarding these concerns can be found in Appendices I and II. We have also reviewed information provided by the Greater Fremont Development Council regarding plans Lincoln Premium Poultry and Costco Wholesale have to address some community concerns, such as worker safety, water use, wastewater treatment, poultry transport, traffic, waste management and spread of disease.[‡] It is possible that these planned activities and practices could reduce risks to workers and community members, but many of the proposed plans lack regulatory requirements and enforcement mechanisms. Therefore, we are considering all relevant literature related to poultry processing plants and production operations to fully describe potential risks.

Based on evidence from numerous scientific studies of industrial poultry operations and processing facilities, the operations proposed by Costco Wholesale and Lincoln Premium Poultry may present a range of health risks to members of the surrounding communities. We recommend that these risks are taken into account as decisions are made about i) the future of this project and ii) requirements for active monitoring and plans for responding if human health risks or environmental degradation are identified.

Summary

There are serious human health and environmental concerns associated with large poultry processing plants, including occupational risks, exposure to air pollution and pathogens, and the environmental impacts of excessive water use and wastewater discharge (for a more in-depth review of these concerns and references, please refer to Appendix I on pages 5-6). The poultry processing industry has some of the highest injury rates among U.S. industries, and processing plant workers are at risk of exposure to pathogens, including those that are drug resistant, which can be spread to family members and the surrounding community. The anticipated increase in vehicular traffic to and from the processing plant may increase traffic-related air pollution, increasing the risk of developing or exacerbating respiratory and other conditions. Johns Hopkins researchers have also found that poultry trucks driving to processing plants can spread harmful bacteria, including drug-resistant bacteria, into the environment, exposing other drivers, pedestrians, and rural communities to these bacteria. Lastly, poultry processing plants require a substantial amount of water and discharge potentially hazardous wastewater. The extensive water needs of processing plants may affect the availability of water that neighboring communities need for drinking and household use, and wastewater high in nutrients, suspended solids, fecal coliforms and possibly pathogenic bacteria could threaten water quality if discharged into waterways.

[‡] Greater Fremont Development Council. Project Rawhide FAQ. http://www.fremontcodev.org/media/userfiles/subsite_34/files/RAWHIDE/Project%20Rawhide%20FAQ%204%2022%2016.pdf. Published April 22, 2016. Accessed August 5, 2016.

Industrial broiler production is also associated with a range of human health and environmental risks (a more in-depth review of these risks, including references, is provided in Appendix II on pages 7-10). The dense confinement used in industrial broiler operations present opportunities for disease transmission among animals, and between animals and humans. Nearby residents, especially if they live in proximity to multiple operations, may have an increased risk of infection from the transmission of harmful microorganisms from broiler operations via flies or contaminated air and water. Community members living near broiler operations also face increased exposure to air pollution from broiler operations, which can exacerbate respiratory conditions including asthma, bronchitis, and allergic reactions. Manure from broiler operations can also contaminate ground and surface waters with nitrates, drug residues, and other hazards. Increased exposure to these agents is associated with adverse health effects, including cancer, birth defects, thyroid problems, methemoglobinemia, neurological impairments, and liver damage.

Recommendations

We recognize that the Greater Fremont Development Council, Costco Wholesale, and Lincoln Premium Poultry have identified some steps to reduce risks to poultry workers and the community. Many of these plans fall outside of the current regulatory structure that applies to poultry production and processing facilities, so monitoring and enforcement is unlikely to occur without strict requirements developed by the City Council and other government agencies. To address existing regulatory gaps, we recommend developing a plan for robust, transparent environmental monitoring that includes baseline and periodic testing of air and water quality around production sites and the processing plant facilities. The plan should also clearly state what actions would be required of Costco Wholesale and/or Lincoln Premium Poultry if environmental contamination and increased human health risks were found.

Conclusion

We appreciate your consideration of environmental and human health risks associated with industrial poultry production and processing. We are available to answer any questions about the information we have presented. Through our research, we know that local government agencies

often face barriers related to regulating industrial food animal production due to narrow regulations and limited resources,[§] and we are prepared to serve as a resource to your office.

Sincerely,

Jillian P. Fry, PhD, MPH

Assistant Scientist, Department of Environmental Health and Engineering
Johns Hopkins Bloomberg School of Public Health
Project Director, Food Production and Public Health
Johns Hopkins Center for a Livable Future
Johns Hopkins University

Robert Martin

Senior Lecturer, Department of Environmental Health and Engineering
Johns Hopkins Bloomberg School of Public Health
Program Director, Food System Policy
Johns Hopkins Center for a Livable Future
Johns Hopkins University

Claire M. Fitch, MSPH

Program Officer, Food Systems Policy
Johns Hopkins Center for a Livable Future
Johns Hopkins University

Carolyn R. Hricko, MPH

Research Assistant, Food Systems Policy
Johns Hopkins Center for a Livable Future
Johns Hopkins University

[§] Fry JP, Laestadius LI, Grechis C, Nachman KE, Neff RA. Investigating the role of state and local health departments in addressing public health concerns related to industrial food animal production sites. *PloS one*. 2013;8(1):e54720.

Fry JP, Laestadius LI, Grechis C, Nachman KE, Neff RA. Investigating the role of state permitting and agriculture agencies in addressing public health concerns related to industrial food animal production. *PloS one*. 2014;9(2):e89870.

Appendix I. Environmental and human health concerns associated with poultry processing

The main environmental and human health concerns associated with large poultry processing plants are:

- Occupational safety risks including injury and exposure to pathogens;
- Air pollution from increased traffic;
- Exposure of citizens to pathogens from poultry transport trucks; and
- Environmental impacts due to excessive water use and wastewater discharge.

Occupational safety risks for workers

There are significant occupational safety risks for slaughterhouse workers. According to the U.S. Government Accountability Office, the poultry processing industry ranks among the highest among all industries in the U.S. for occupational injury rates.¹ In addition, poultry processing plant workers, particularly those who are in contact with live poultry or carcasses, are at risk of exposure to pathogens.² Researchers have also found that poultry processing plant workers are at a higher risk than the general public of being carriers of drug resistant pathogens, such as methicillin-resistant *Staphylococcus aureus* (MRSA).³ These pathogens can cause infections that are harder to treat due to their resistance to certain antibiotics, and workers can spread these pathogens to their families and other community members.⁴⁻⁶

Our understanding is that Costco Wholesale and Lincoln Premium Poultry may plan to raise poultry without the routine use of antibiotics. While this practice would likely lessen the risk to workers and community members of infection with antibiotic-resistant bacteria, pathogens (antibiotic-resistant or otherwise) may still spread from industrial livestock operations to workers and into communities.⁷

Air pollution from increased traffic

The proposed poultry processing facility will increase vehicular traffic significantly due to the transportation needs of the 1,100 anticipated employees, the poultry transport trucks traveling to and from the 400 planned broiler houses, as well as other transport related to management and distribution operations. Air pollution from traffic increases the risk of developing or exacerbating respiratory and other conditions.⁸

Exposure to pathogens from transport trucks

Poultry transportation also has another important health risk. In 2008, Johns Hopkins researchers found that poultry trucks driving to processing plants spread harmful bacteria into the environment, exposing other drivers, pedestrians, and rural communities to these bacteria.

Researchers consistently detected drug-resistant bacteria in the air and on surfaces inside vehicles while driving behind poultry trucks.⁹ The study was conducted on a roadway as poultry trucks were transporting live birds to a processing plant. It is likely that driving behind poultry trucks in Dodge County would produce similar outcomes. This study exemplifies one facet of the increased burden of risk that the community may face as a result of having hundreds of thousands of birds transported to the proposed processing plant each day. According to the Greater Fremont Development Council, poultry transport trucks and the processing plant receiving dock will be enclosed.¹⁰ These steps may reduce the risk to community members, and should therefore be both required and monitored.

Excessive water use and wastewater discharge

Poultry processing is a water-intensive endeavor, requiring, on average, seven gallons of potable water per bird.¹¹ The Fremont City Council's decision to annex the land under consideration for the poultry processing plant allows the city to extend utilities services, including water, to this area. It is essential that the water allocation to the processing plant not impact the availability of water to the neighboring communities that also rely on this water source for drinking and household use.

In addition, the discharge of processing plant wastewater is a potential hazard to nearby waterways and communities. Poultry processing plant effluents are high in nitrogen, phosphorus, and total suspended solids,¹² all of which could threaten water quality if discharged into waterways. The proposed poultry processing plant would be a source of these nutrients, as well as fecal coliforms and possibly other pathogenic bacteria,¹³ discharged into the surrounding waterways including the Platte River, a major tributary of the Missouri River. Dodge County encompasses four watersheds (the Lower Platte-Shell, Lower Platte, Lower Elkhorn and Logan), all of which contain water bodies considered impaired in 2014, the most recent reporting year.¹⁴ Nitrogen, phosphorus and pathogens are already among the listed contaminants causing the impairment of these water bodies.¹⁴

In light of these concerns, it is especially important to ensure that the City of Fremont and Costco Wholesale maintain their commitment to treat all wastewater from the processing facility at the city's municipal wastewater treatment plant.¹⁰ Baseline and periodic monitoring should be conducted to ensure that the processing plant does not adversely affect the water quality in the area.

Appendix II. Human health concerns associated with industrial broiler production

The main human health concerns associated with industrial broiler production include:

- Infections resulting from the potential transmission of harmful microorganisms from broiler operations to nearby residents, for example, via flies or contaminated air and water;
- Increased exposure to air pollution from broiler operations associated with health effects, including exacerbation of asthma, bronchitis, and allergic reactions; and
- Increased exposure to nitrates, drug residues, and other hazards that may be present in ground and/or surface waters contaminated by manure from broiler operations associated with health effects, including thyroid problems, methemoglobinemia, neurological impairments, and liver damage.

Disease transmission

Crowded conditions in industrial broiler operations present opportunities for the transmission of bacterial pathogens among animals, and between animals and humans.¹⁵ Human exposure to infectious agents can occur through multiple routes, including breathing contaminated air and drinking contaminated water.^{6,9,16-18}

Of additional concern is exposure to pathogens that are resistant to antibiotics used in human medicine. The non-therapeutic use of antibiotic drugs as a means for growth promotion** in animals is commonplace—an estimated 80 percent of antibiotics sold for human and animal uses in the U.S. are sold for use in food-producing animals.¹⁹ Administering antibiotics to animals at levels too low to treat disease fosters the proliferation of antibiotic-resistant pathogens. Resistant infections in humans are more difficult and expensive to treat²⁰ and more often fatal²¹ than infections with non-resistant strains. As mentioned previously, it is our understanding that antibiotics may not be used in the proposed broiler production. While this may reduce the risk of infection with antibiotic resistant-bacteria to community members and workers, pathogens can still spread from poultry operations to communities.⁷

A growing body of evidence provides support that pathogens can be found in and around broiler operations. In broiler operations that administer antibiotics for non-therapeutic purposes, broilers have been shown to be carriers of antibiotic-resistant pathogens^{22,23} and these resistant pathogens have also been found in the environment in and around broiler production facilities, specifically in the manure^{24,25} and flies.²⁶ Additionally, *Salmonella* and *Campylobacter* are highly prevalent among U.S. broilers, and *Campylobacter* is found in about 50% of manure samples.³

** U.S. Food and Drug Administration (FDA) voluntary industry guidelines continue to endorse the use of antibiotics in livestock production for “disease prevention”, which allows for dosing that is largely indistinguishable from growth promotion, thus tolerating business as usual.

Campylobacter infections in people have led to gastrointestinal illness, neuromuscular paralysis, and arthritis.³ Manure runoff from broiler operations may introduce these harmful microorganisms into nearby water sources. Land application of broiler manure may present an opportunity for pathogens contained in the manure to leach into the ground or run off into recreational water and drinking water sources, potentially causing a waterborne disease outbreak.²⁵ This is of particular concern for the approximately 16% of Dodge County residents who rely on private wells for drinking water and household use.²⁷

Several studies have shown that workers in broiler operations are disproportionately exposed to pathogens: in a Dutch study, 5.6% of workers in broiler houses were carriers of MRSA²⁸ vs. 0.01% of the general population, and workers in broiler houses on the Delmarva Peninsula were found to have 32 times the odds of carrying gentamicin-resistant *E. coli* compared with other residents in the community.⁶ Colonized or infected workers may transport pathogens into their communities.⁶

People living near broiler operations may be exposed to harmful microorganisms, which have been found to spread in the air up to 3,000 meters from broiler operations.¹⁶ The shape and spread of this airflow varies with changes in wind patterns, making it difficult to predict which residents might be most affected.¹⁶ Infectious agents have been found on deposits of particulate matter several miles from operations.¹⁶ Harmful bacteria such as *Campylobacter* have been reported to enter and leave poultry operations via insects and ventilation systems.¹⁸

The elevated presence of flies near broiler operations can be more than a nuisance; it also may facilitate residents' exposure to pathogens, including antibiotic-resistant strains of *Enterococci* and *Staphylococci*.^{9,18} One study found that residences within a 0.5 mile of broiler operations had 83 times the average number of flies compared to control households.²⁸

Air pollution from broiler operations

The air inside broiler operations contains elevated concentrations of gases, particulate matter, pathogens, endotoxins, and other hazards.^{9,17,18,29,30} While these studies provide important insights on worker exposure to broiler operation air pollution, additional studies are needed to characterize community exposures and health outcomes. Despite the need for more research, some studies suggest that communities face health risks from poultry operation air pollution. For example, airborne contaminants from broiler operations are transported from broiler houses through large exhaust fans and may pose a health risk to nearby residents.^{16,18,25,31-36} In addition, ammonia,³⁷ particulate matter,²⁵ endotoxins,³⁵ and microorganisms^{16,18,25} have been detected in air samples surrounding poultry operations. While there are currently few data available on odor, nitrous oxide, hydrogen sulfide, and non-methane volatile organic compound levels surrounding poultry operations, odors associated with air pollutants from intensive livestock hog operations

have been shown to interfere with daily activities, quality of life, social gatherings, and community cohesion.^{29,33,38}

Exposure to airborne contaminants expelled from broiler operations has been associated with a range of adverse health effects. Ammonia emissions have been implicated in respiratory health issues, with up to 50% of poultry workers suffering from upper respiratory illnesses that are believed to be due to ammonia exposure.³¹ Studies have shown that endotoxin exposure can exacerbate pre-existing asthma or induce new cases of asthma, and exposure was found to be a significant predictor of chronic phlegm for poultry workers.^{33,39} Additionally, poultry workers demonstrated a high prevalence of obstructive pulmonary disorders, with increasing prevalence associated with longer exposure, regardless of smoking status.³⁴ Particulate matter—consisting mainly of down feathers, mineral crystals from urine, and poultry litter in broiler operations—may also have detrimental effects on human health, causing chronic cough and phlegm, chronic bronchitis, allergic reactions, asthma-like symptoms in farmers, and respiratory problems in people living in the vicinities of operations.³⁵

A 2010 USDA study measured volatile organic compounds (VOCs) inside industrial broiler operations and found that not only were ten classes of VOCs present, but that areas of the compound with birds had VOC levels seven fold higher than those without birds.⁴⁰ Exposure to VOCs is associated with short- and long-term adverse health effects, including nausea; headaches; eye, nose and throat irritation; and liver and kidney damage, while some are suspected or known to cause cancer.⁴¹ It is important to note that even industrial broiler operations that employ best management practices and mitigation techniques have been shown to generate airborne contaminants.³²

Contaminated ground and surface water

Based on manure production data from the American Society of Agricultural Engineers,⁴² 17 million broilers would produce an estimated 3,910,000 pounds of waste per day (0.23 lbs. per bird), or more than twice the equivalent amount of human waste generated daily by the entire city of Omaha, Nebraska's largest city. Although animal manure is an invaluable fertilizer, waste quantities of this magnitude - concentrated over a small geographic footprint - represent a public health and ecological hazard.

Manure from industrial poultry operations contain nutrients and may contain heavy metals, drug residues, and pathogens that can leach into groundwater or runoff into surface water.^{17,28,36,43,44} Studies have demonstrated that humans can be exposed to waterborne contaminants from livestock and poultry operations through the recreational use of contaminated surface water and the ingestion of contaminated drinking water.^{30,44} Furthermore, the disposal and decomposition

of diseased poultry carcasses may contaminate water sources and pose a threat to human health.²⁸

The nutrients nitrogen and phosphorus--naturally occurring in chicken manure--have been found in both ground and surface water near Maryland broiler chicken operations⁴⁵ and can have deleterious effects on water quality and human health.^{25,28,30,34,44,46-48} In one study, proximity to broiler chicken and corn production was associated with higher nitrate concentrations in drinking water in Maryland wells.⁴⁶ Ingesting high levels of nitrate has been associated with increased risks for thyroid conditions,^{30,49,50} birth defects and other reproductive problems,^{30,50,51} diabetes,^{30,50} various cancers,^{50,52} and methemoglobinemia (blue baby syndrome), a potentially fatal condition among infants.^{30,53} As stated previously, approximately 16% of Dodge County residents rely on private wells for drinking water,²⁷ so there is cause for concern regarding the spread of nitrate into groundwater that is used for drinking and other household uses and is not monitored by government agencies.

Nutrient runoff has also been implicated in the growth of harmful algal blooms,^{25,28,47} which may pose health risks for people who swim or fish in recreational waters, or who consume contaminated fish and shellfish. Exposure to algal toxins has been linked to neurological impairments, liver damage, gastrointestinal illness, severe dermatitis, and other adverse health effects.^{54,55} According to the Nebraska Department of Environmental Quality (NDEQ), water quality degradation is already a concern for sandpit lakes in the state.⁵⁶ These lakes, used for fishing, swimming, and other recreational activities, are affected by nutrient loading, especially phosphorus, leading to eutrophication.⁵⁶ Fremont Lake #20 near the city of Fremont is one of the lakes affected by nutrient runoff. Algal toxins discovered in the lake from 2005 to 2007 resulted in significant restrictions on recreational water use and monitoring of water quality during this period identified high concentrations of phosphorus and nitrogen as the cause of blue green algae blooms.⁵⁶ More recently, eight lakes in the Fremont State Lake System were identified as impaired by nutrients in the NDEQ 2012 Water Quality Integrated Report.⁵⁷ Introducing a poultry processing plant and waste from 17 million birds will likely exacerbate existing water quality issues, and introduce nutrient runoff to previously unaffected areas.

References

1. Government Accountability Office (GAO). Workplace safety and health: Safety in the meat and poultry industry, while improving, could be further strengthened. Report to the ranking minority member, Committee on Health, Education, Labor, and Pensions, U.S. Senate (report no. GAO-05-96) Washington: GAO. Published 2005.
2. You Y, Leahy K, Resnick C, Howard T, Carroll KC, Silbergeld EK. Exposure to pathogens among workers in a poultry slaughter and processing plant. *Am J Ind Med.* 2016;59(6):453-464.
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From: [Tom J. Cajka](#)
To: [Rhonda M. Haas](#)
Subject: FW: Working group presentation
Date: Monday, July 1, 2019 8:16:48 AM

Please add to the minutes of the June 27th meeting.

Tom Cajka, Planner II
County Planner
Lincoln-Lancaster County Planning
402-441-5662

From: Cathy Ingram [mailto:cathyingram05@gmail.com]
Sent: Friday, June 28, 2019 10:17 AM
To: Jonathan Leo <jonathan.s.leo@gmail.com>; Tom J. Cajka <tcajka@lincoln.ne.gov>
Subject: Fwd: Working group presentation

For your records regarding public hearing 6/27/19

My name is Cathy Ingram. I am a resident of Lakeside Estates, a residential acreage development formed over 40 years ago which is located within a mile from the proposed 190,000 poultry CAFO operation. My husband and I spent two years looking for a property and have happily invested in Lakeside Estates for the last 4.5 years. It's a peaceful community, comprised of 22 acreages, surrounded by more a residential acreages and farms. Overall, 65 family homes are located within a one mile radius of Randy Essinks proposed four barn, 190,000 chicken CAFO operation.

There has been and continues to be significant opposition to this particular poultry CAFO location. An industrial animal operation of this scale is not compatible with the numerous residential properties surrounding it. Area residents have engaged in all available pursuits including letter writing and presentations before the Lancaster county Planning Commission and the Board of County Commissioners to voice opposition.

These residents are clearly upset over the possible intrusion of a large poultry CAFO into their community and the introduction of air and water pollutants and odors associated with these poultry CAFOS. Several residents are on record stating their respiratory health will be compromised by increased airborne dust and microbial pollutants. Residents are on record stating concerns about surface water pollution from poultry litter and the ability of the nearby aquifer to provide enough water for existing homeowners and the aquifers ability to remain uncontaminated by CAFO poultry fecal/bacterial contamination.

These residents are expressing clear quality of life concerns about their neighborhood and community. What will happen to the character of our neighborhood and community of 65 family homes with the intrusion of a 190,000 chicken CAFO? Residents expressed concerns that air and water pollutants as well as strong odors associated with poultry CAFOS will dramatically diminish current property values. These are serious and well founded concerns. Overall, a clear majority (68%) of the Lakeside Estates neighborhood oppose the siting of this proposed poultry CAFO. Additionally, there are 104 households represented in the Lancaster Hills Alliance (LHA) which was formed to represent the geographical community of residents in southwest Lancaster County who oppose the siting of SP 18025. I would like to impress

upon this Working Group that the ongoing concerns of this community of residents regarding the character of their neighborhood should not be ignored when generating siting recommendation guidelines for Lancaster county. These residents continue to voice their concerns in the prescribed manner- in front of the Planning Commission, the Board of County Commissioners and now this Working Group.

Please consider the existing character of neighborhoods and communities as you work to generate guidelines for site zoning regulations concerning these large poultry CAFOS.

My name is Jane Egan, 7001 W. Old Cheney Rd, Denton, NE. I represent the Lancaster Hills Alliance of citizens concerned with the numerous hazards associated with locating Randy Essink's planned concentrated animal feeding operation (CAFO) at 13350 W. Wittstruck Rd, Crete, NE in Lancaster County.

Evidence presented from numerous scientific studies of industrial poultry operations identifies hazards to human health and the environment, and the reduction of property values to surrounding communities. Our membership has done due diligence in researching and reporting on the perils of locating a large poultry feeding operation in the midst of an established residential area, near a state recreation lake, and located on a minimally maintained gravel county road with only one access to and from the site.

Potential hazards include air pollution from increased traffic, risks to children and adults using the state recreation area and private lakes nearby, damage to the county road, exposure to pathogens from transport trucks, the mortality shed, and the air expelled from the barns by industrial fans, excessive water use that could drop the water table for surrounding farms and acreages, disease transmission caused by crowded conditions inside the four barns housing nearly 50,000 chickens in each, contamination of ground and surface water including nutrients in water runoff that contribute to the harmful growth of algae blooms.

If environmental contamination and/or public health damage occur, I doubt that Lincoln Premium Poultry's contract with Randy Essink states that it will indemnify him from and against his responsibility for damage to the land and/or public health as the result of his operation of his 4-barn poultry CAFO in accordance with the thorough instructions LPP has said it will provide to him. Who will be responsible for clean-up costs? How can we in Lancaster County ensure that someone solvent will be responsible for those costs, if they occur?" The land and barns are owned by Randy Essink, the chickens and feed are owned by Costco Wholesale, and the trucks are either owned or contracted by Costco/Lincoln Premium Poultry. Where is the primary liability going to be established?

The proposed zoning ordinance changes do not include any requirement to establish a financial responsibility guarantee that is commensurate with the potential damage the operation could create if the operator leaves or when the business closes. Therefore, we propose adding a requirement that future operators, owners, and contractors associated with any new CAFO application provide evidence of liability insurance of not less than one million dollars (\$1,000,000) as a requirement of the special permit application for CAFO's in Lancaster County to mitigate any damages that may occur to the land, water, air, and human health related to their operations.

Our research has shown that local government agencies face barriers to regulating CAFOs due to non-existent or inadequate regulations and insufficient financial and human resources to provide for timely, efficient, and meaningful enforcement. Requiring evidence of financial responsibility would be a step toward accountability that does not now exist.

Respectfully,

Jane Egan, Chair

Lancaster Hills Alliance

CAFO TASK FORCE PUBLIC MEETING

June 27, 2019

My name is Pam Wakeman. I live at 15751 Bobwhite Trl., Crete, Nebraska, in Lancaster Co. Our home is approx. 1 ½ miles from the proposed Essink Costco Chicken factory barns. We have lived in our home since 2015. We also own approx. 300 acres in Saline Co. that is about the same distance from the proposed industrial site.

I am glad to have an opportunity to speak and ask questions this evening. I attended and participated in all 3 of the Lincoln Lancaster Planning Commission hearings for SP# 18025, which was the reason for the formation of the CAFO Task Force. Why? **Because of the lack of existing regulations in Lincoln Lancaster.** Which is why the permit should not have been granted **UNTIL** regulations were in place!

I have attended 5 of the 6 CAFO Task Force meetings and appreciate the willingness of the committee to serve. However, I have some concerns about the ability of the committee to effectively complete its task. Six meetings at 1 ½ hours in length, is not enough time to learn, study, explore, discuss, and formulate regulations that will be proposed. This process should not be hurried and should be done with intentional deliberation.

Others are speaking this evening to some of these concerns. My emphasis today deals with the **2040 Comprehensive Plan.**

The Lincoln Lancaster Planning Commission Staff cited 4 key quotes as being “compatible with the Comprehensive Plan to justify endorsing SP# 10825. However, discussion of the Comprehensive Plan was **NOT** included in ANY of the CAFO Task Force meetings.

The Comprehensive Plan does **NOT** focus only on agriculture. As stated in the Comprehensive Plan—“Lincoln and Lancaster Co. will continue to grow...and by the year 2060 will see a population of well over a half million people.” The Plan also states that “approx. 40,000 dwelling units will need to be added to support the additional 106,000 persons by 2040.” “The county’s 306,468 residents comprise the second largest metropolitan area in the State. And of course, “the city of Lincoln serves as the capital for the State and the seat of government for Lancaster County.” The Plan states that “*Development decisions made today will affect the choices available in the community of the future.*” The introduction to the 2040 Comprehensive Plan states that the core promise is to maintain and enhance the health, safety, and welfare of our community during times of change...” This is an important consideration in formulating or recommending any regulations! **How** will a CAFO impact the health, safety, and welfare of our community??!! Where will people live as the county grows? How is this growth going to be managed with CAFOs so close to the growing population?

In the section of the Comprehensive Plan entitled “neighborhoods and housing”, it “discusses the desired pattern of development in existing and developing neighborhoods and rural areas and describes strategies for meeting future housing demand.” I believe a key word here is “existing”.

This should be a consideration in forming CAFO regulations. There was no discussion during the CAFO Task Force meetings about protection for existing rural residents living where a CAFO wants to be established. The Plan states “Preserve areas throughout the county for agricultural production by designating area for residential development—thus limiting potential conflicts between farms and acreages.” This needs to be addressed in establishing regulations for CAFOs in Lancaster Co.

Besides population change, The Plan also refers to climate change, resulting environmental challenges and changes it brings, and states concerns “to design management plans that address both quantity and quality of surface water.” It also states “Groundwater is almost exclusively the source of drinking water in Lancaster Co.” “The soils of Lancaster Co. are intimately tied to the groundwater”, as stated in the PLAN. HOW ARE CAFOs GOING TO AFFECT ENVIRONMENTAL QUALITY IMPORTANT TO LIFE?

According to the PLAN, “Lancaster County is also home to several State and Federal threatened and endangered species...” “Recent decreases in some pollinator species, drawing national attention, are also a priority for research and habitat restoration.” The PLAN also references “the Greenprint Challenge which offers a basis within which crucial planning decisions concerning the wide range of environmental resource features can be effectively pursued.” “The purpose of the Greenprint Challenge is to assure the long term health and integrity of the ecosystem upon which Lancaster Co. is superimposed, and to capture the community-wide quality of life and economic benefits that can be derived from the area’s environmental resource features.” It further mandates that “the Challenge reflect... the prospects of long-term results.” There are 13 separate environmental resource features recognized in the PLAN! What are the long-term results of CAFOs going to be?

“Lancaster Co. boasts a diverse set of environmental resources and landscape types that should be respected and maintained.” ...“agricultural land does constitute a distinctive natural resource feature ...and are an integral element in the natural landscape..and is a basic element in the County’s historic signature landscape.” CAFOs are NOT a historical use of the land! CAFOs are not an agricultural use, they are an industrial use!

The PLAN also states “the impact of the actions taken by the community extend beyond the borders of Lancaster Co. and oftentimes influence the natural resource features of adjacent counties, states, nations, and the world.” This is a grave and sobering responsibility and consideration. The Planning Commission Staff, Planning Commission, and County Commissioners definitely did not take this into consideration or accept responsibility when looking at the impact on Saline Co. roads as a result of granting SP#18025.

“Although the Comprehensive Plan is intended primarily to guide the physical development of our community, the results of such development are ultimately felt by individuals and their families.” —Those people are Nebraskans--living and working in Nebraska because it is “A Good Life”. Not “a good life” to be exploited and robbed by corporations for their own profit without

any accountability or responsibility. **That is why the CAFO Task force needs to also consider and discuss that CAFOs don't belong in Lancaster Co. PERIOD!**