

**U.S. DEPARTMENT OF AGRICULTURE  
Farm Service Agency**

**DRAFT ENVIRONMENTAL ASSESSMENT**



**Prepared By  
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***05/08/2019***

## COVER SHEET

<b>Proposed Action:</b>	The Farm Service Agency of the United States Department of Agriculture proposes to provide Farm Loan Program assistance to finance the construction of (4) 54' x 550' broiler houses, load out pad, a generator shed, (3) water wells, an incinerator, utilities, and related infrastructure. This proposal would result in the establishment of a large CAFO. The proposal would take place on the west side of Polk County road 75, approximately 5 miles northeast of Mena, AR. The legal description of the proposal is Section 35, Township 01 South, Range 30 West Polk County Arkansas.
<b>Type of Document:</b>	This is a site-specific Environmental Assessment
<b>Lead Agency:</b>	United States Department of Agriculture (USDA) Farm Service Agency (FSA)
<b>Cooperating Agencies:</b>	None
<b>Further Information:</b>	Adam Kaufman, USDA, Farm Service Agency, 419 West Gaines Street, Suite 2, Monticello, AR 71655
<b>Comments:</b>	<p>This Environmental Assessment (EA) was prepared in accordance with USDA FSA National Environmental Policy Act (NEPA) implementing procedures found in 7 CFR 799, as well as the NEPA of 1969, Public Law 91-140, 42 US Code 4321-4347, as amended.</p> <p>A Notice of Availability (NOA) of the Draft EA will be published in the Mena Star on 05/08/2019 and 05/15/2019 with instructions for providing written comments. A copy of the Draft EA and related material will be made available as provided by the NOA at USDA, Farm Service Agency 508 7th Street, Mena, AR 71953-3203 on 05/08/2019 thru 06/07/2019. The EA will also posted for the same time period to the FSA State website at: <a href="https://www.fsa.usda.gov/state-offices/Arkansas/index">https://www.fsa.usda.gov/state-offices/Arkansas/index</a></p> <p>Written comments regarding this draft EA will be accepted thru 06/07/2019 at the address below:          USDA, Farm Service Agency          419 West Gaines Street, Suite 2          Monticello, AR          71655</p>

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## ACRONYMS AND ABBREVIATIONS

ADEQ	Arkansas Department of Environmental
ANRC	Arkansas Natural Resource Commission
AOG	Arkansas Oklahoma Gas Corp
AR	Arkansas
ATV	All-terrain vehicle
BMP's	Best Management Practices
CAFO	Concentrated Animal Feeding Operation
CEQ	Council on Environmental Quality
CNMP	Comprehensive Nutrient Management Plan
CFR	Code of Federal Regulations
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
EQIP	Environmental Quality Incentives Program
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FSA	Farm Service Agency
GHG	Green House Gases
GPM	Gallons per minute
HUC	Hydrologic unit code
IPaC	Information for Planning and Conservation
MA/NLAA	May Affect, Not Likely to Adversely Affect
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMP	Nutrient Management Plan
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination
NRCS	Natural Resources Conservation Service
SHPO	State Historic Preservation Officer
SPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officers
TSP	Technical Service Provider
TMDL	Total Maximum Daily Load
WMA	Wildlife Management Area
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

# 1. INTRODUCTION

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## 1.1 Background

- The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to provide assistance for the applicant to construct a (4) house integrated broiler facility on an 89 acre tract of land currently owned by the applicants in Polk county. This proposed farm would have 118,800 square feet of growing space, giving this facility the capacity to grow 174,704 broilers per flock at maximum capacity, which would meet FSA's definition of a large Confined Animal Feeding Operation (CAFO). Flock placement would be dependent on bird variety, needs of the integrator, supply and demand, and several other factors. A flock of broilers is typically kept on the farm for approximately 6-8 weeks. According to Nutrient Management Plan (NMP) this proposed operation would grow broilers out to a target weight of 3.9lbs and would receive approximately 6.25 flocks annually. SEE APPENDIX C-3.
- This area of Polk County is not located in the Nutrient Surplus Area. Appendices A and B contain maps and photos of the proposed project area. A detailed description of the components of the proposed project, the project site and related surrounding area of potential effect is further described in Section 2.1 of this document.

## 1.2 Purpose and Need for the Proposed Action

The purpose of the proposed project/action is to implement USDA, Farm Service Agency programs, to make available economic opportunity to help rural America thrive, and to promote agriculture production that better nourishes Americans and help feed others throughout the world. FSA is tasked with this mission as provided for by the Food and Security Act of 1985 as amended, the Consolidated Farm and Rural Development Act as amended, and related implementing regulations found in 7 CFR Parts 762 and 764.

The need for the proposed action is to fulfill FSA's responsibility to provide access to credit, and to help improve the stability and strength of the agricultural economy, including to start, improve, expand, transition, market, and strengthen family farming and ranching operations, and to provide viable farming opportunities for family and beginning farmers and meet the needs of small and beginning farmers, women and minorities. Specifically, in the case of this loan request, FSA's need is to respond to the applicant's request for funding to support the proposed action.

FSA Farm Loan Program Assistance is not available for commercial operations or facilities that are not family farms, or to those having the ability to qualify for commercial credit without the benefit of FSA assistance. The applicants have been determined to be a family farm as defined by 7 CFR 761.2. The proposed action would allow them the opportunity to establish their family farming operation and provide the economic stability to meet the needs of the family.

In addition, poultry integrators have a demand for new facilities such as these to provide an adequate supply for processing plants and keep them operating at an economically feasible capacity. Specialized livestock facilities such as those proposed, have a limited useful life as they become functionally obsolete as technology advances. Accordingly, a pipeline of new facilities is necessary to insure an adequate and economical supply of low cost protein food for the nation.

### **1.3 Decision To Be Made**

FSA's decision is whether to:

- Approve the applicant's loan request;
- Approve the request with additional mitigations; or
- Deny the loan request.

### **1.4 Regulatory Compliance**

This Environmental Assessment is prepared to satisfy the requirements of NEPA (Public Law 91-190, 42 United States Code 4321 et seq.); its implementing regulations (40 CFR 1500-1508); and FSA implementing regulations, *Environmental Quality and Related Environmental Concerns – Compliance with the National Environmental Policy Act* (7 CFR 799). The intent of NEPA is to protect, restore, and enhance the human environment through well informed Federal decisions. A variety of laws, regulations, and Executive Orders (EO) apply to actions undertaken by Federal agencies and form the basis of the analysis.

All fifty states have enacted right-to-farm laws that seek to protect qualifying farmers and ranchers from nuisance lawsuits filed by individuals who move into a rural area where normal farming operations exist, and who later use nuisance actions to attempt to stop those ongoing operations. The Right to Farm law for Arkansas (Ark. Code Ann. § 24101) protects farming operations from nuisance claims when farms were established prior to the use of the area surrounding the agricultural operation for nonagricultural activities and those farms employ methods or practices commonly or reasonably associated with agricultural production.

### **1.5 Public Involvement and Consultation**

Scoping is an early and open process to involve agencies, organizations, and the public in determining the issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates issues determined not to be important; identifies other permits, surveys and consultations required with other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping is a process that seeks opinions and consultation from the interested public, affected parties, and any agency with interests or legal jurisdiction.

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#### ***1.5.1 Internal Scoping***

USDA staff of various specialties have been consulted regarding the purpose and need, issues and impact topics appropriate for consideration for the proposed activity. A site visit and pedestrian review was completed by Adriana Aguilar, Farm Loan Officer, USDA, Farm Service Agency on 12/18/2018. Site visit notes and photographs are included in APPENDIX B.

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### ***1.5.2 External Scoping***

USDA FSA has completed research and the following tasks and efforts:

- Research of U.S. Fish and Wildlife Service (USFWS) - Information, Planning, and Conservation System (IPaC) about the project's potential to affect federally listed species as required by the Endangered Species Act of 1973. SEE APPENDIX D-1.
- Consultation with the USFWS regarding the possibilities of any impacts to threatened and endangered species that might be known to occur in this area SEE APPENDIX D-2.
- Consultation with the State Historic Preservation Officer (SHPO) to ensure that compliance with the requirements of Section 106 of the National Historic Preservation Act (NHPA) are met and that significant impacts to historic properties would not result from the project SEE APPENDIX E-3.
- Consultation with the Apache Tribe of Oklahoma, Caddo Nation, Osage Nation, Quapaw Tribe of Indians, Choctaw Nation, and Shawnee Tribe to comply with the requirements of Section 106 of the NHPA are met and that significant impacts to historic properties would not result from the project. SEE APPENDIX E-3.
- Consultation with the National Parks Service regarding proximity to the Ouachita river, in accordance with the National Wild and Scenic River's Act. SEE APPENDIX G-4.
- FSA staff completed Form FSA-858, "Determining if a Wetland May Be Present" to screen for wetland indicators where ground disturbance associated with project would take place. SEE APPENDIX I-2

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### ***1.5.3 Public Involvement***

A notice of the availability of the Draft EA for public review and comment will be published in the Mena Star 05/08/2019 and 05/15/2019. SEE APPENDIX L-1. The Draft EA and supporting documents will be made available at USDA, Farm Service Agency, 508 7th Street, Mena, AR 71953-3203. The Draft EA document itself will be posted online at <https://www.fsa.usda.gov/state-offices/Arkansas/index> from 05/08/2019 thru 06/07/2019. Written comments will be accepted thru 06/07/2019 and given consideration in the final EA document.

## **2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**

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### **2.1 Alternative A - Proposed Action**

The proposed action involves FSA making a direct participation loan to the applicants in conjunction with a commercial lender that would establish a (4) house integrated broiler operation on an 89 acre tract of land. This proposal would take place approximately 5 miles northeast of Mena, AR, on the west side of Polk Road 75. At maximum capacity, this proposed operation would have the ability to house 174,704 broilers per flock.

The applicants would enter into a contract with a poultry integrator, who will place flocks of broilers on the farm, where they would be grown to market size. As growers, the applicants would be responsible for providing the equipment, utilities, and labor required to house and manage the flock including feeding, watering, brooding, waste disposal, maintaining the houses, and providing for animal welfare, sanitation, and biosecurity as they are currently doing with their existing operation. The integrator would supply the chicks, feed, labor to deliver and remove the birds from the farm, veterinary services, and technical support to the grower.

This proposed expansion would take place in the Ouachita Mountains ecoregion of Arkansas on an 89 acre tract of land. Polk county records classifies the land uses on the 89 acre tract as follows: 58.63 acres of pasture, 29.6 acres of timber, and the rest is miscellaneous. Slopes where the poultry houses would be built range from 0-8%. This site is currently utilized as pasture for the applicants existing beef cattle operation and utilized for hay production as well. The proposed site is currently established in mixed warm and cool season grasses, hard and softwood trees, and other native vegetations and underbrush. An estimated 3 acres where the proposed action would be implemented is wooded and approximately 50 trees would need to be removed to implement the proposal. The rest of the proposed side is open pasture. Ten of these tree are pines, the tallest being approximately 25' tall with a diameter of 1.5'-2'. The rest of the trees consists of mixed native hardwood species with an approximate height of 18' and diameters of 1-2' and smaller. SEE APPENDIX B-1

Existing improvements on the 89 tract consist of a 17' x 35' dairy barn, 55' x 70' general purpose barn, 14' x 58' lean-to shed, and a 12' x 14' utility building built in 2007. The age of the other structures is unknown. These buildings are located on the southeastern end of the 89 acre tract and utilized for equipment, hay, and supply storage for the applicant's cattle operation. The farm is approximately 5 miles northeast of Mena, AR and lies 2.7 miles north of Highway 88 and 1.9 miles south of Highway 71. The farm is accessible via county gravel roads from the north and the south.

The 89 acre tract of land is surrounded by mixed hardwood and softwood timber to the north, west, and the south, and bordered by Polk Road 75 to the east. The nearest neighboring dwelling in relation to the proposal is approximately 300' to the northeast SEE APPENDIX A-5. The nearest churches in relation to the proposal is Holly Springs Church, which is located 1.15 miles to the southeast and Acorn Methodist Church, which is 2.17 miles northwest. SEE APPENDIX A-6. The nearest schools in relation to the proposal are Acorn schools, which is 2.74 miles northwest and Rich Mountain Community College, located 4 miles to the southwest. SEE APPENDIX A-6. Agriculture has a strong presence in this area, there were 893 farms in Polk county in 2012 on 118,851. SEE APPENDIX K-1. There are several cattle, hay, and integrated poultry operation in this vicinity. According to the Rich Mountain Conservation

District, 100 poultry farms registered with the Arkansas Natural Resource Commission in 2017. SEE APPENDIX K-3. NASS studies show that Polk county had 31,000 head of cattle in 2018, including calves. SEE APPENDIX K-2

Proposed Improvements would consist of (4) 54' x 550' broiler houses, a load out pad, a generator shed, (3) water wells, an incinerator, utilities, and related infrastructure. SEE APPENDIX A-4. The proposed broiler houses would be built on top of earthen pads. Each house would have the potential to typically accommodate approximately 43,676 birds at maximum capacity, which would equate to roughly 174,704 birds per flock for a 3.9lb target weight. The southern end of the proposed site is relatively flat, and slopes upward towards the north property line. The proposed broiler houses would run north and south and be stacked east and west. The eastern most house would lie approximately 150' west of Polk Road 75. A load out pad would be leveled and graded, which be built on the south side of the (4) proposed broiler houses. The load out pad would extend the length of the poultry houses running east and west and would be 100' wide north to south. The load out area would provide a place for live haul and feed trucks to enter, turn around, and exit this proposed facility. An access road would run northeast and southeast from the Polk road 75 to the southeastern corner of the load out pad. The generator shed would be placed in between house #2 and house #3. Underground wiring in conduit would run from the generator shed and be plumbed into each poultry house. The shed would house a generator that would serve as an emergency backup power supply. The generator would be powered by low sulfur diesel fuel, that would be stored in an above ground storage tank. The generator shed would also store (6 )5,000 gal water tanks. The tanks would be utilized for an emergency water supply. Underground wires in conduit and underground water lines would run from the generator shed and be plumbed into each poultry house. An incinerator would be utilized for mortality disposal for this proposed operation. The incinerator would be located at the southwestern corner of this proposal, be equipped with an afterburner, and would also be fueled by low sulfur diesel. Related infrastructure would include access roads in between the (4) broiler houses themselves, utility lines for water and electricity, and above ground storage tanks for propane to heat these facilities. The proposed layout of this facility would be located as specified on the attached site plan found in APPENDIX A-4.

Electricity to proposed poultry house facilities would be provided by Rich Mountain Electric. Overhead electric lines would be ran along the east side of the proposed access road to the southeast corner of the loadout pad, then ran underground into the generator shed.

Water to the proposed broiler operation would be supplied by (4) wells. The wells could be drilled to an estimated depth of 200.' The proposed water wells would be positioned along the southern border of the load out pad. The proposed broiler houses would utilize propane as a heat source, stored in 1,000 gallon above ground storage tanks placed in between each house

According to the SPPP developed by the applicant, this proposal would involve 8.2 acres of ground disturbance. The proposed site is primarily established in pasture ground and mixed trees. Approximately 50 trees would need to be removed to implement the proposal. Ten of these trees are pines, the tallest being approximately 25' tall with a diameter of 1.5'-2'. The rest of the trees consists of mixed native hardwood species with an approximate height of 18'-30' and diameters ranging from 6''-2'. The majority of the tree removal that would be necessary to take place to implement this proposal are located towards the western and northern ends of the site. Four of these trees are dead. SEE EXHIBIT B. Overhead power lines would be placed along the east side of the access road, then to the south of the

load area, then be ran underground north in between house 3 and house 4. Trenches for the proposed water and underground electric lines would be dug with a ditch witch to an approximate depth of 1.5' deep.

There are no connected actions associated with this proposal at this time, however it would be possible to expand this operation in the future if the applicants were presented the opportunity to do so. Any future expansion financed with FSA funds would require a subsequent environmental review that meets the requirements of 1-EQ (revision3).

## **2.2 Alternative B - No Action Alternative**

The No Action Alternative means the loan would not be made and the farm described in Section 2.1 above (Proposed Action) would not be built. The applicants would continue with their existing cattle operation and no changes in land use would take place and with no impacts as the proposed action would not go forward.

## **2.3 Alternative C**

An alternative location would not be feasible, as the proposed project would take place on property currently owned by the applicants that is in close proximity to the headquarters of their existing cattle operation. Integrators typically require a farm manager to live on or near the farm. Having the applicants near their proposed farming operation would minimize traffic and allow them to devote more time towards management of their cattle and proposed broiler operation.

Encroachment on the property line would be an issue if the proposal were to be moved farther to the north on the 89 acre tract and encroachment on Polk road 75 would be an issue if it were to be moved farther east. Either of these options would also put the proposal closer to neighboring residences. Electing to move the proposal farther to the west, would put the broiler houses closer to Chance's Creek, would involve ground disturbance on a greater slope, and involve additional tree removal. Moving the proposal farther west would eliminate more pasture and existing natural vegetation that acts as a buffer for Chance's creek. Electing to move the proposal farther west would also involve a longer access road, which would require additional ground disturbance. Moving the proposal farther south would be a viable option as the proposal would be built on a lesser slope than that of the proposed action. However, moving the proposal farther south would take some of the applicants more productive pasture out of production.

The proposed site configuration was designed to create the least amount of ground disturbance and vegetation removal, while maximizing the amount of pasture ground available to graze cattle on, therefore having the smallest impact on the environment and its surroundings during the construction phase of the proposal. Alternative configurations were not considered due to the possibility of having a greater impact on the affected environment. Integrated poultry producers must comply with very specific logistical and design requirements provided by the integrators.

## **2.4 Alternatives Considered but Eliminated From Analysis**

Other locations for the farm or other uses for the land in question are not considered here because such options do not meet the purpose and need for the proposed action. The applicant has applied for a FSA direct loan to help fund the construction of a new large CAFO. FSA's decision to be made is to approve the loan for the proposed farm as designed, to deny the loan, or to approve the loan with additional mitigations, practices or methods that would be needed to minimize or eliminate impacts to protected resources.

Similarly, alternative designs of farm components are not considered as the producer's agreement with a poultry integrator requires adherence to the integrator's construction and equipment specifications, which are in place to ensure consistency, maximize production, and reduce loss. Design alternatives that would involve modification of features and infrastructure put in place by an integrator would jeopardize the availability of bird placement, be grounds for a potential loss of the contract with the integrator, and therefore the viability of the farm. Accordingly, this alternative would not warrant further consideration.

### 3. AFFECTED ENVIRONMENT AND IMPACTS

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The impacts to a number of protected resources, as defined in FSA Handbook 1-EQ (Revision 3) Environmental Quality Programs for State and County Offices, are considered in this EA. Some resources are eliminated from detailed analysis following CEQ regulations (40 CFR 1501.7), which state that the lead agency shall identify and eliminate from detailed study the issues that are not significant or that have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief presentation of why they would not have a significant effect on the human or natural environment. Resources that are not eliminated are carried forward for detailed analysis. The table below shows the resources that are eliminated from detailed analysis and those carried forward. Section 3.1 contains discussions of those resources eliminated from detailed analysis. Section 3.2 describes the existing conditions for resources carried forward for detailed analysis and the anticipated impacts to those resources resulting from the Proposed Action.

Resource	Eliminated	Carried Forward
Wildlife and Habitat		X
Cultural Resources		X
Coastal Barriers	X	
Coastal Zones	X	
Wilderness Areas	X	
Wild and Scenic Rivers, NRI		X
National Natural Landmarks	X	
Sole Source Aquifers	X	
Floodplains	X	
Wetlands	X	
Soils	X	
Water Quality		X
Air Quality		X
Noise		X
Important Land Resources	X	
Socioeconomics and Environmental Justice	X	

#### 3.1 Resources Eliminated from Detailed Analysis

##### Coastal Barrier Resources System

Coastal barriers are eliminated from detailed analysis as there are no designated Coastal Barriers in Arkansas.

##### Coastal Zone Management Areas

Coastal Zone Management Areas are eliminated from detailed analysis because there are no Coastal Zone Management Areas in Arkansas.

## **Wilderness Areas**

Wilderness areas were eliminated from detailed analysis in this EA. There are 12 designated Wilderness areas in Arkansas. The closest Wilderness Area would be Black Fork Wilderness Area, which is located 10 miles northwest of this proposed project. SEE APPENDIX F-1. Caney Creek Wilderness is located 15.75 miles southeast of the proposal and the Upper Kiamichi River Wilderness is located 21 miles northwest of the proposal. The proposal should have no affect on these wilderness areas.

## **National Natural Landmarks**

There are five National Natural Landmarks in Arkansas. SEE APPENDIX H-1. The site of the Proposed Action is not located in close proximity to any of these nor would the proposal threaten to alter or impair them. The closest, Roaring Branch Natural Research Area is located approximately 18.4 miles southeast of the proposed site, therefore National Natural Landmarks are eliminated from detailed analysis. SEE APPENDIX H-2.

## **Sole Source Aquifers**

Sole source aquifers are eliminated from detailed analysis because there are no sole source aquifers in Arkansas.

## **Floodplains**

Floodplains were eliminated from further detailed analysis. According to FEMA's National Flood Hazard Layer, Panel 0504730002A indicates that the proposed project would lie outside of a flood plain. SEE APPENDIX J-1. The elevation of the southwestern corner of the proposed site is 1010'. The elevation of Chances Creek is at 994'.

## **Wetlands**

Wetlands have been eliminated from further detailed analysis. According to FSA Form-858 "Determining if a Wetland May Be Present," wetland indicators were not present on the 8.2 acre area where the proposal would be implemented, therefore no additional screening is necessary. SEE APPENDIX I-2. Web Soil Survey indicates there are no hydric soils where the proposal would take place. SEE APPENDIX I-2. USFWS website, National Wetlands Inventory does list wetlands where the proposal would be placed.

## **Soils**

Soils are eliminated from detailed analysis because no land on this farm would not be cropped and is therefore not subject to the Highly Erodible Land provisions of the Food Security Act. Furthermore, there would be no annual tillage of the soil associated with this proposed project. The applicants have both signed AD-1026 "Highly Erodible Land Conservation and Wetland Conservation Certification." SEE APPENDIX I-1.

## **Important Land Resources**

Prime and unique farmland, forestland and rangeland resources are eliminated from detailed analysis because the proposed action would not result in prime and/or important farmland being converted to a nonagricultural use.

## Socioeconomics and Environmental Justice

No impact to population, housing, income, or employment in the region are anticipated to result from the Proposed Action, nor are disproportionate adverse impacts to minority or low income populations anticipated. Therefore, socioeconomics and environmental justice are not carried forward for detailed analysis. SEE APPENDIX K-4 for demographic information for the area.

### 3.2 Resources Considered with Detailed Analysis

This section describes the environment that would be affected by implementation of the alternatives described in Chapter 2. Aspects of the affected environment described in this section focus on the relevant major resources or issues. Under the no action alternative, the proposed action would not be implemented. The no action alternative would result in the continuation of the current land and resource uses in the project area. This alternative will not be evaluated further in this EA.

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#### 3.2.1 Wildlife and Habitat

##### Existing Conditions

The proposed project site is an existing cattle operation and farming headquarters for this family farm. A site visit was conducted by FSA on 12/18/2019. SEE APPENDIX B-1. The proposed site is currently established as pasture ground and utilized to graze beef cattle. The southern portion of the proposed site is a relatively flat area and established in mixed warm and cool season grasses and other native vegetation. The northern and western end of the site has mixed hard and softwood timber, warm and cool season grasses and other native vegetation and underbrush. Approximately 50 trees would need to be removed to implement the proposal. Ten of these trees are pines, the tallest being approximately 25' tall with a diameter of 1.5'-2'. The rest of the trees consists of mixed native hardwood species with an approximate height of 18' and diameters of 1-2' and smaller. SEE APPENDIX B-1. The applicants are currently grazing approximately 20 head of female beef cows on their pastures, along with their offspring and one bull.

Both the land that would be taken out of pasture and the wooded areas and trees themselves could potentially be utilized by various wildlife species. Wildlife typical of such areas include whitetail deer, squirrels, raccoons, various other mammals, reptiles, and birds.

An official list of threatened and endangered species and designated critical habitat for this area of Polk County was obtained from the US Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) system. SEE APPENDIX D-1. The following threatened and endangered species are known to occur in this area of Polk County:

Northern Long-eared Bat *Myotis septentrionalis* (*threatened*), Red-cockaded Woodpecker *Picoides borealis* (*Endangered*), Arkansas Fatmucket *Lampsilis powellii* (*threatened*), Rabbitsfoot *Quadrula cylindrica cylindrica* (*threatened*), and Harperella *Ptilimnium nodosum* (*endangered*).

A consultation letter was sent to the USFWS on 01/30/2018. USFWS replied to FSA's consultation letter on 02/05/2019. SEE APPENDIX D-2. The response from USFWS indicates they concur with FSA's may

affect, not likely to adversely affect determination for the Arkansas Fat Mucket and the Northern Long Eared Bat. The response states that suitable habitat for the Red-cockaded Woodpecker, Rabbitsfoot, and Harperella does not occur within the project area, therefore the proposal should have no effect on these species.

The Bald Eagle has been known to occur in this area, however the Bald Eagle is not covered by the Endangered Species Act. No Bald Eagles, or Bald Eagle nests were observed on this proposed site during the site visit. SEE APPENDIX B.

### **Impacts of Proposed Action**

According to the SPPP that was developed to obtain a construction permit for this proposed facility, an estimated 8.2 acres of ground disturbance would occur, resulting in a long term loss of 8.2 acres of pasture ground, trees, and underbrush all of which contribute to wildlife habitat. The proposal would result in a long term loss of wildlife habitat that this 8.2 acres of vegetations provided. No significant impacts to Wildlife and Habitat would be expected to result from the Proposed Action based on the response from USFWS.

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## ***3.2.2 Cultural Resources***

### **Existing Conditions**

The Proposed Action involves some ground disturbing activities in areas not previously evaluated or previously disturbed to the depth required for the Proposed Action, therefore cultural resources requires detailed analysis. A site visit was conducted by USDA, Farm Service Agency on 12/18/2019. The nearest structures in relation to the proposal listed on the National Register of Historic Places is the Elks Lodge, located 5.05 miles southwest of this proposed site. SEE APPENDIX E-1. This historic site would not be visible from the location of this proposal, therefore the proposal should have no effect Elks Lodge.

FSA consulted with the Arkansas State Historic Preservation Office (SHPO) on 01/30/2019 by providing the location and details of the Proposed Action. SEE APPENDIX E-3. In addition to Arkansas SHPO, FSA consulted with the following federally recognized Tribes: Apache Tribe of Oklahoma, Caddo Nation of Oklahoma, Osage Nation, Quapaw Tribe of Indians, Shawnee Tribe and Choctaw Nation. SEE APPENDIX E-3. SHPO's response to FSA's consultation indicates that the proposed undertaking will have no affect on to historic properties and no cultural resource survey would be required. SEE APPENDIX E-4. An email response was received from the Shawnee Tribe on 02/23/2019. The Shawnee Tribe concurred with FSA's findings that no known historic properties would be negatively impacted by the proposed undertaking. SEE APPENDIX E-4. No other responses were received from the Tribes that have an interest in this area which are listed above.

### **Impacts of Proposed Action**

Based on the proximity to Elks Lodge, consultations with Arkansas SHPO and the Tribes with an interest in this area listed above, no impacts to known cultural resources would be anticipated to result from the Proposed Action. SEE APPENDIX E. Impacts to previously unidentified historic properties, including archaeological and historic resources, could occur during land clearing and construction activities. If such resources were encountered during construction, all activities would cease, FSA state and national office

personnel would be notified, along with Arkansas SHPO and Tribes with an interest in this area, and the resources would be professionally evaluated for eligibility for listing on the National Register of Historic Places.

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## **4. WILD AND SCENIC RIVERS, NATIONWIDE RIVERS INVENTORY**

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### **Existing Conditions**

The proposal lies within the eastern border of the Ouachita River Headwaters watershed HUC 10: 0804010101. SEE APPENDIX G-1. The nearest stream in relation to this proposal is Chances Creek Reach Code: 08040101000321, which is located approximately 680' west of where ground disturbing activities associated with proposal would take place. Chances Creek is a tributary to the Ouachita River, which has a Nationwide Rivers Inventory (NRI) designation. The Ouachita River is approximately 1.3 miles west of where the westernmost poultry house would be placed. SEE APPENDIX G-3. The confluence of Chances Creek and the Ouachita River is 1.2 miles south of the proposed broiler houses. A natural buffer consisting of mixed grasses, native forbs, and mature hard and softwood timber exists on both sides of the bank of Chances Creek. The buffer width on Chances creek on the applicant's property ranges from 260'-380' wide on the east bank and 130'-500' wide on the western bank.

### **Impacts of Proposed Action**

In considering FSA's responsibilities pursuant to the Wild and Scenic Rivers Act, 16 U.S.C. 1271-1288 [36 CFR Part 297 Subpart A and/or Presidential Directive dated August 2, 1979] regarding Federal actions which could adversely affect a river in the Nationwide Rivers Inventory (NRI), Farm Service Agency consulted with the National Parks Service on 01/30/2019. SEE APPENDIX G-4. No response was received from the National Parks Service. In accordance with 1-EQ, Revision 3, USDA, Environmental Quality Programs Handbook, FSA may assume the National Parks Service is in agreement that the proposal would have no affect to the Ouachita River and has no further interest in this matter.

## 5. WATER QUALITY

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### Existing Conditions

In Arkansas, the Arkansas Department of Environmental Quality (ADEQ) has the authority to enforce provisions of the Clean Water Act that are protective of water quality and to issue permits that are protective of water quality standards. This authority is delegated to ADEQ by the Environmental Protection Agency. The ADEQ Water Division issues Stormwater National Pollutant Discharge Elimination System (NPDES) Permits to protect surface waters from contamination from runoff associated with construction. Coverage under General Permit AR1500000 is required for construction that causes ground disturbance in excess of 1 acre. Permit AR1500000 for small sites is for disturbance between 1 and 5 acres and requires operators to post required forms and documents, including a stormwater pollution prevention plan (SPPP), on the site rather than coordinate directly with ADEQ. Permit AR 1500000 for large sites including disturbance in excess of 5 acres, required documents are submitted to ADEQ. SPPPs are documents that describe construction activities to prevent stormwater contamination, control sedimentation and erosion, in order to prevent significant harm to surface waters and comply with the requirements of the Clean Water Act. ADEQ is also responsible for issuing Non-stormwater NPDES Permits issued to facilities that discharge water. Animal Feeding Operations and Confined Animal Feeding Operations that do not discharge into waters of the state do not require NPDES permits for ongoing operations. SEE ADEQ Reference

The Arkansas Natural Resource Commission (ANRC) Water Division is responsible for developing and implementing the Arkansas Water Plan, the state's policy for long-term water management, and for the State's Non-point Source Pollution Management Program. The Arkansas Water Plan describes each of the state's river basins. The ANRC Conservation Division supports development, management and conservation of the state's land and water resources, in part through nutrient management planning. A nutrient management plan (NMP) is a document approved by a conservation district board that assists landowners and operators in the proper management and utilization of nutrient sources for maximum soil fertility and protection of state waters. ANRC requires NMPs for farms that plan to land apply litter, sewage sludge, or commercial fertilizer within an area designated as the Nutrient Surplus Area (which includes parts of Baxter, Benton, Boone, Carrol, Crawford, Madison, Marion, Polk, Scott, Sebastian, and Washington Counties. SEE APPENDIX A-7 and Reference ANRC REGS. For land application outside this area, usage of a nutrient management plan is voluntary. A Nutrient Management Plan (CNMP) has been developed for this proposed operation as well as a conservation plan. SEE APPENDIX C-3 and C-4.

This farm is located within the Ouachita River Headwaters Watershed, which lies within the Upper Ouachita River Basin. SEE APPENDIX A-1. The Upper Ouachita River Basin encompasses approximately 5,410 square miles, or roughly 3.5 million acres across southwestern Arkansas. Streams in this basin have a combined yield of 5.4 million acre feet annually. According to the Arkansas water plan, the largest land use in the Upper Ouachita River Basin forest land at 76% and water quality in the basin in generally good. REFERENCE ARKANSAS WATER PLAN. According to the 2012 Census of Agriculture, land

uses in Polk County are as follows: 44.2% pastureland, 26.9% cropland, 24.3% woodland, and 4.6% other uses. SEE APPENDIX K-1. According to ADEQ's 2016 Integrated Water Quality Assessment Report Approximately 36 percent of the waters within the Ouachita River and its tributaries planning segment are designated as Extraordinary Resource Waters. Water quality in this segment of the report is generally good and trends seem to indicate it is improving. Waters within this segment have been designated as suitable for the propagation of fish and wildlife; primary and secondary contact recreation; and public, industrial, and agricultural water supplies. The nearest stream listed on ADEQ's 2018 Draft List of Impaired Waterbodies 303(d) list is Prairie Creek (Reach Code AR\_08040101\_048). Prairie Creek is impaired due to dissolved oxygen levels from an unknown source and located approximately 3 miles south of the proposal. REFERENCE ADEQ

### **Impacts of Proposed Action**

The Proposed Action would involve 8.9 acres of ground disturbance. The owner has submitted required paperwork to ADEQ and has been granted coverage under Storm water NPDES General Permit AR1500000 SEE APPENDIX C-1 and C-2. With adherence to the best management practices described in the SPPP, minimal impacts to surface water from the proposed construction are anticipated. The farm does not discharge into waters of the state and therefore no impacts to state surface waters are anticipated. Any land application of litter produced on the farm would be in compliance with ANRC requirements in order to be protective of surface water quality. REFERENCE ANRC

The applicant's SPPP was developed by the applicants who implemented BMP's into the design of this proposed project. SEE APPENDIX C-1. Sand bags would be placed at areas where with concentrated flow as shown on the plan, sediments traps would be installed, and maintained, natural buffer areas would be maintained, and exposed soil would be mulched, seeded, and maintained in accordance with the NRCS grass planting guide. Once the proposed ground disturbing activities have ceased, exposed soil would be seeded to establish ground cover for stabilization.

The applicants would utilize an incinerator as a method of mortality disposal for the proposed broiler operation, which is an approved method by ANRC. The incinerator would be placed in the center of this operation. Integrators typically require their growers to "cake out" in between flocks, which consist removing the top few inches of litter. Depending on integrator requirements and management practices utilized by the grower, a full house clean out is typically conducted annually, where all the litter is removed from the houses. The applicants would have the option to sell this litter and have it transported off site to another location. This proposed operation would be placed outside of a nutrient surplus area SEE APPENDIX A-7 however a NMP has been developed for this proposed operation by the Rich Mountain Conservation District. SEE APPENDIX C-3. According to the NMP, the proposed farm would generate 719 tons litter in a full cleanout annually and 240 tons of litter annually in between cake outs, for a total of 958 tons a year. According to the NMP, a 30.9 acre field and a 24 acre field on the 89 acre tract would be able to receive litter applications. The NMP would allow land application of 52 tons out of the 958 tons. The remaining 906 tons of litter that would be produced on this proposed farm would be exported and land applied on another location. SEE APPENDIX C-3.

In summary, the applicants have developed a SPPP and obtained a NPDES permit thru ADEQ for proposed construction activities to take place and have also had a NMP and Conservation Plan prepared for this proposed broiler operation. Adherence to the SPPP during the proposed construction of this

facility would help protect surface and groundwater quality for this area. The BMP's should be adequate to help prevent contamination of stormwater off site during the construction phase of this proposal. Strict adherence to setback and application requirements in the NMP and Conservation plan would help protect surface water quality in this area. No significant impacts to water quality are anticipated to result from the Proposed Action.

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## **5. Air Quality**

### **Existing Conditions**

As of February 1, 2018, all of Arkansas is in attainment for all criteria pollutants established by the Environmental Protection Agency in compliance with the Clean Air Act. The proposed farm would not be required to obtain an air permit in accordance with Arkansas Air Pollution Control Regulation 18.301 since air emissions for defined criteria pollutants at the facility do not exceed the permitting thresholds considered protective of air quality. Potential air quality effects considered here include odor and dust production, which may be associated with construction activities and the ongoing operations of the farm. SEE REFERENCES

The site of the Proposed Action lies in Polk County in a rural area where agriculture, including livestock feeding operations, are common. There are numerous cattle and hay operations in close proximity to this existing cattle farm, as well as integrated poultry farms in this vicinity. According to the Rich Mountain (Polk County) Conservation District, 100 poultry farms registered with the Arkansas Natural Resource Commission in 2017. SEE APPENDIX K-3. NASS studies show that Polk county had 31,000 head of cattle in 2018, including calves. SEE APPENDIX K-2.

The nearest neighboring dwelling in relation to the proposal is approximately 300' to the northeast SEE APPENDIX A-5. The nearest churches in relation to the proposal is Holly Springs Church, which is located 1.15 miles to the southeast and Acorn Methodist Church, which is 2.17 miles northwest. SEE APPENDIX A-6. The nearest schools in relation to the proposal are Acorn schools, which is 2.74 miles northwest and Rich Mountain Community College, located 4 miles to the southwest. SEE APPENDIX A-6. The proposal would be surrounded by mature timber to the north, northeast, west and to the south. These trees would act as a natural buffer that would filter help filter out odors, dust, and other particulate matter emitted by the proposed poultry houses. There is an existing 8 house broiler farm that lies 1000' to the east of the proposal on the east side of Polk Road 75.

Arkansas Water and Air Pollution Control Act, Subchapter 3 Air Pollution exempts "Agricultural operations in the growing or harvesting of crops and the raising of fowls or animals" and the "use of equipment in agricultural operations in the growth of crops or the raising of fowls or animals." There are no local ordinances regulating odor in this area.

### **Impacts of Proposed Action**

Construction activities that disturb the soil surface could generate dust. Such impacts would be minor, temporary and localized, generally confined to the farm property and ongoing only during construction activities. A gravel driveway would be implemented that would run northwest and southeast from Polk Road 75 to the south end of the load out pad. This driveway would be utilized as the entrance and exit

to the proposed construction site. Exposed soils could be wet down to control fugitive dust. Similarly, during construction, minor and localized emissions associated with heavy machinery could be expected. None of these construction related impacts would have a significant or long-term adverse impact to surrounding air quality.

During operation of the farm, roads used by delivery trucks in between the proposed broiler houses would also be covered with gravel to minimize dust associated with travel. Dust generated while the poultry facility is in operation would occur mostly during feeding. Humidity and misting systems inside poultry houses would keep down dust, within the barns.

Odor would be controlled through management of the poultry barns' ventilation systems, as is required by integrators for flock health. The applicants would utilize the incinerator described in earlier sections of the EA for mortality disposal for their proposed broiler operation, which is an approved method of disposal by the Arkansas Poultry and Livestock Commission. Poultry litter on the proposed broiler operation would be stored in the (4) broiler houses which would keep it dry and reduce the impacts of odor emitted by the litter.

The poultry houses would be cleaned per integrator specifications between flocks as appropriate on an as-needed basis. Litter would be stored in accordance with ANRC regulations, or tarped in an elevated location to be kept out of the elements until it could be removed from the farm, all in accordance with the NMP. SEE APPENDIX C-3.

Dilution of odors is caused through the mixing of odors with ambient air and is a function of distance, topography, and meteorological conditions. Prevailing winds are from the west and would serve to facilitate the dispersion of odors. Based on the climate of the southeastern United States, there would be a few days in the year when weather conditions and humidity may cause odor to linger in the vicinity.

According to the EPA, total GHG emissions in the US in 2014 were 6,870 million metric tons of carbon dioxide equivalent (CO<sub>2</sub>e), a metric measure used compare the emissions from various greenhouses gases based upon their global warming potential. Agriculture accounted for approximately 9 percent of the total or 625.4 million metric tons. The contribution of agriculture to GHG emissions is comprised of livestock (242.96 million metric tons CO<sub>2</sub>e), crops (330.68 million metric tons CO<sub>2</sub>e), and fuel combustion (51.79 million metric tons CO<sub>2</sub>e).

Agricultural activities contribute to GHG in several ways:

Management of agricultural soils accounts for over half of agriculture emissions. Activities including fertilizer application, irrigation and tillage, can lead to production and emission of nitrous oxide. Livestock, particularly cattle, produce methane as part of their digestion accounting for almost one third of the agricultural emissions. Manure storage and management also contribute methane and nitrous oxide, accounting for about 14 percent of the agricultural GHG emissions. Smaller agricultural sources include methane produced by rice cultivation and the burning of crop residue, which produces methane and nitrous oxide. Odor impacts would not be expected to be significant.

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## **6. Noise**

### **Existing Conditions**

Existing noise at the site of the proposed action is from the owners of the farm, who raise cattle on the 89 acre tract. Existing conditions on site are generally quiet, although this is an existing cattle operation and noise from farm tractors and equipment, vehicle traffic, cattle, and other farming and human activity does exist, but is temporary in nature. This is not a very densely populated area. Noise also exist from routine traffic from county roads on to the north, south and east of this proposed operation. There are no non-farm businesses in close proximity to this proposed facility. The nearest neighboring dwelling in relation to the proposal is approximately 300' to the northeast SEE APPENDIX A-5. The nearest churches in relation to the proposal is Holly Springs Church, which is located 1.15 miles to the southeast and Acorn Methodist Church, which is 2.17 miles northwest. SEE APPENDIX A-6. The nearest schools in relation to the proposal are Acorn schools, which is 2.74 miles northwest and Rich Mountain Community College, located 4 miles to the southwest. SEE APPENDIX A-6. The proposal would be surrounded by mature timber to the north, northeast, west and to the south. These trees would act as a natural buffer that would help dampen any increase surrounding neighbors may experience should the proposal be implemented.

### **Impacts of the Proposed Action**

The Proposed Action would establish a new, (4) house, integrated poultry operation. Noise levels would increase slightly during normal, daylight working hours during the construction phase of this project, which typically lasts about 6 months. Upon completion, noise from the Proposed Action would permanently increase noise levels in this area; however, noise from birds would be insignificant as they are contained within the poultry houses which are set back from property lines and further muffled by insulation in between the roofs, and ceilings and solid side walls within these structures and vegetative buffers to the south, west, and to the north. These measures would also aid in mitigating periodic equipment usage and truck noise associated with the movement of birds, feed, supplies and materials. Such activities would rarely take place other than during daylight hours, be infrequent in nature, of brief duration and low intensity. Similarly, noise from generators would be limited to a few minutes of periodic testing and they would only operate on a temporary basis in the event of emergencies should power be lost. As such noise would be of irregular and infrequent duration it would not be significant. Additionally, Arkansas's Right to Farm Law protects operation of farms that were established prior to the use of the area surrounding the agricultural operation for nonagricultural activities and those farms which employ methods or practices commonly or reasonably associated with agricultural production. As integrated poultry production is a mainstay of the state's economy the related production methods have long been the accepted prevailing practice for widespread production both in Arkansas and throughout the country. SEE ARKANSAS RIGHT TO FARM REFERENCE

The proposed action is not expected to significantly affect ambient noise levels in the area or the nearest dwelling.

## 7. CUMULATIVE IMPACTS

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The cumulative impacts analysis is important to understanding how multiple actions in a particular time and space (e.g., geographic area) impact the environment. The CEQ regulations define cumulative effects as “...the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions” (40 CFR § 1508.7). Whereas the individual impact of one project in a particular area or region may not be considered significant, numerous projects in the same area or region may cumulatively result in significant impacts.

Cumulative impacts most likely arise when a relationship exists between a proposed action and other actions occurring in a similar location or time period. Actions overlapping with or in proximity to the proposed action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide in time, may have the potential for cumulative impacts.

Establishing an appropriate scope for cumulative impacts analysis is important for producing meaningful analysis that appropriately informs agency decision making. This involves identifying geographic or temporal boundaries within which to identify other activities that could contribute to cumulative impacts to resources. Boundaries should consider ecologically and geographically relevant boundaries which sustain resources of concern. Temporal boundaries will be dependent on the length of time the effects of the proposed action are estimated to last and analysis commensurate with the project’s impact on relevant past, present, and reasonably foreseeable activities within those boundaries. For example, small scale projects with minimal impacts of short duration would not likely contribute significantly to cumulative impacts. CEQ guidance (2005) reinforces this, stating:

*“The scope of the cumulative impact analysis is related to the magnitude of the environmental impacts of the proposed action. Proposed actions of limited scope typically do not require as comprehensive an assessment of cumulative impacts as proposed actions that have significant environmental impacts over a large area. Proposed actions that are typically finalized with a Finding of No Significant Impact usually involve only a limited cumulative impact assessment to confirm that the effects of the proposed action do not reach a point of significant environmental impacts”*

This cumulative impacts analysis focuses on the potentially affected resource (identified in section 3.2 of this document) and uses natural local boundaries to establish the geographic scope within which cumulative impacts could occur. Relevant past, present and reasonably foreseeable activities identified in Section 5.1 are based on potential geographic and temporal relationships with the proposed action within those identified boundaries. Cumulative effects on those resources are described in Section 4.2.

## **7.1 Past, Present and Reasonably Foreseeable Actions**

Analysis of cumulative analysis is forward looking and focuses on Randolph County where the proposed action would be implemented and the related area which includes the resources of concern. The purpose is to assess if the reasonably foreseeable effects of the proposed action would have an additive relationship to other past effects that would be significant, and to examine its relationship other actions (e.g. Federal, State, local, and private activities) that are currently taking place or are expected to take place in the reasonably foreseeable future.

Federal, State, local, and private activities that are currently taking place, have occurred in the past, or may reasonably be assumed to take place in the future in the cumulative effects area include the following:

Polk County encompasses approximately 862 square miles and has a population of roughly 20,500. Pasture lands account for the majority of the ground cover in the county, followed by cropland and forests. SEE APPENDIX K-1. According to the 2012 Census of Agriculture, 118,851 acres are established in farmland on 893 farms in Polk County. SEE APPENDIX K-1.

According to the University of Arkansas Research and Extension Service, Agriculture accounted for 10% of the jobs in Polk County, behind other services, manufacturing, trade, government and government services, and professional services. All of these other sectors are somewhat related to and are all dependent on agriculture in this area. SEE POLK COUNTY EXTENSION SERVICE REFERENCE.

The poultry industry has maintained a strong presence in this areas of Polk county for decades. According to the Rich Mountain (Polk County) Conservation District, 100 farms registered with ANRC in 2018 for the 2017 production year. Poultry integrators have a finite processing capacity and have a need for new facilities, such as the proposed project, as older facilities are routinely retired due to functional obsolescence or otherwise phased out of production. As there is no foreseeable expectation that integrators would be having a significant expansion in processing capacity in the area, the quantity of bird produced in the area would remain relatively stable, even if the number of farms fluctuates.

## **7.2 Cumulative Analysis**

Some resources considered for detailed analysis above (in Section 3.2) could be directly or indirectly affected by the Proposed Action and therefore the Proposed Action could contribute to additive or interactive cumulative effects to these resources. For other resources, no such contributions to cumulative effects are anticipated because no direct or indirect impacts would occur based on program requirements.

The significance of cumulative effects is dependent on how impacts compare with relevant thresholds, such as regulatory standards. Regulatory standards can restrict development by establishing thresholds of cumulative resource degradation (CEQ 1997):

“Government regulations and administrative standards...often influence developmental activity and the resultant cumulative stress on resources, ecosystems, and human communities. They also shape the manner in which a project may be operated, the amount of air or water emissions that can be released, and the limits on resource harvesting or extraction.”

Cumulative effects in this analysis are described relative to regulatory standards and thresholds in accordance with CEQ guidance. FSA relies on the authority and expertise of regulatory agencies, which have broad knowledge of regional activities that could affect the sensitive resources they are responsible for protecting, and to ensure through their permitting and consultation processes that its activities are not likely to contribute to significant negative cumulative resource impacts.

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### ***7.2.1 Wildlife and Habitat***

Contributions of the Proposed Action to cumulative impacts include removal of existing vegetation and the loss and fragmentation of wildlife habitat. No impacts to Threatened and Endangered Species are anticipated based on program requirements. The site has been established and historically utilized as pasture ground. The northern end of site is partially wooded. It would be necessary to remove approximately 3 acres of mature, mixed hard and softwood timber to implement this proposal. Such impacts would add to vegetation and habitat lost as a result of past, present and reasonably foreseeable activities in the region of the Proposed Action including loss of native vegetation communities to agriculture, residential and commercial development and road building, recreation and other human activities. The Proposed Action would not be anticipated to result in long term or adverse impacts or to endangered species or their habitat. No cumulative impacts are anticipated based on coordination and consultation with USFWS and program requirements

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### ***7.2.2 Cultural Resources***

Based on the results of the response from SHPO and the response from the Shawnee Tribe no impacts to known cultural resources are expected to result from the Proposed Action based on the results of the cultural resource survey and consultations. There is the potential for encountering unknown cultural resources during construction. Though unlikely, potential loss and damage to unknown cultural resources could occur, adding to similar potential impacts from other past, ongoing, and future developments that have the potential to degrade and destroy cultural resources.

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### ***7.2.3 Wild and Scenic Rivers***

Based on the location of the site in relation to the proposal and lack of response from the National Parks Service, FSA anticipates the proposal would have no adverse effects to the Ouachita. The Ouachita River is located 1.2 miles south of the proposal. The proposal would not involve withdrawing or discharging into the Ouachita and would not be visible from the river. Noise levels would increase slightly in this area, although odor from the proposal if implemented could possibly be smelled from the Ouachita River. The applicants have an approved SWPPP from ADEQ, and have been permitted for the construction of the proposal. In addition, there is a nutrient management plan and conservation in place for the proposal, which would help protect water quality in and around the Ouachita River.

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## **7.2.4 Water Quality**

During construction of the Proposed Action there is the potential for mobilization of exposed soil; however those impacts would be temporary and minor, and minimized by adherence to terms of the SWPPP. Such impacts would add to impacts to water quality resulting from residential, municipal, industrial, and commercial development, particularly the use of septic systems, as well as runoff from roads and development, and agricultural production. Once the disturbed areas are revegetated or otherwise stabilized, no impacts to water quality would be expected. Since there are no long-terms effected to water quality, the proposed action would not be expected to contribute significantly to cumulative effects to water quality.

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## **7.2.5 Air Quality**

The Council on Environmental Quality Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change In National Environmental Policy Act Reviews states:

Arkansas Water and Air Pollution Control Act, Subchapter 3 Air Pollution exempts "Agricultural operations in the growing or harvesting of crops and the raising of fowls or animals" and the "use of equipment in agricultural operations in the growth of crops or the raising of fowls or animals." There are no local ordinances regulating odor in existence in this area.

Arkansas's Right to Farm Law protects operation of farms that were established prior to the use of the area surrounding the agricultural operation for nonagricultural activities and those farms employ methods or practices commonly or reasonably associated with agricultural production. Management of agricultural soils accounts for over half of agriculture emissions. Activities including fertilizer application, irrigation and tillage, can lead to production and emission of nitrous oxide.

- Livestock, particularly cattle, produce methane as part of their digestion accounting for almost one third of the agricultural emissions.
- Manure storage and management also contribute methane and nitrous oxide, accounting for about 14 percent of the agriculture GHG emissions.
- Smaller agricultural sources include methane produced by rice cultivation and the burning of crop residue, which produces methane and nitrous oxide.

Dust would be generated from soil disturbance and equipment usage during construction and during operation as a result of equipment use, delivery trucks, and feeding systems. Such impacts would be minor, intermittent, and localized. Though such impacts are not expected to be significant, they would add to dust generated by other activities in the immediate vicinity of the farm.

Odor impacts from the proposed action including from the barns, litter storage facility, possible land applications of litter on the farm, though not significant, would add to other sources of odor in the area including existing cattle and poultry farms nearby.

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### 7.2.6 Noise

Increases in noise levels would be minimal compared to existing conditions. There are no local or state noise ordinances, based on Program Requirements.

### 7.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitments of resources which would be involved should an action be implemented. The term irreversible refers to the loss of future options and commitments of resources that cannot be renewed or recovered, or can only be recovered over a long period. Irreversible commitments apply primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to factors such as soil productivity, that are renewable only over a long period. Irretrievable refers to the loss of production or use of natural resources. For example, when a road is built through a forest, some, or all of the timber production from an area is lost irretrievably while an area is serving as a road. The production lost is irretrievable, but the action is not irreversible. If the use changes, it is possible to resume timber production. No irreversible resource commitments would occur as a result of the Proposed Action. Irretrievable resources include those raw materials and fuels used during construction. List of Preparers and Persons and Agencies Contacted

8. List of Preparers	
Name and Title	Education and Experience
Adam Kaufman, State Environmental Coordinator, FSA, Arkansas	BS, Crop, Soil, and Environmental Sciences Years of Experience: 10

Persons and Agencies Contacted	
Name and Title	Affiliation
[REDACTED]	Landowner/applicant
[REDACTED]	Landowner/applicant
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
Stacy Hurst	Arkansas Department of Heritage
Melissa Lombardi	US Fish and Wildlife Service
Bob Komardley	Apache Tribe of Oklahoma

Everett Bandy	Quapaw Tribe of Indians
Phil Cross	Caddo Nation of Oklahoma
Tonya Tipton	Shawnee Tribe of Oklahoma
Dr. Andrea Hunter	Osage Nation
Lindsey Bilyeu	Choctaw Nation
Steve Swall	NRCS
Adriana Aguilar	FSA

## 8. REFERENCES

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- CEQ 1997. Council on Environmental Quality (CEQ). 1997. Guidance under the National Environmental Policy Act. December.
- TCEQ 2016. Texas Commission on Environmental Quality (TCEQ). 2016. Economic Values and Impacts of Poultry Production Activities in East Texas. <http://www.tceq.state.tx.us/> Accessed on 19 September 19, 2016.
- Arkansas Water Plan:** [https://static.ark.org/eeuploads/anrc/awp\\_upper\\_ouachita\\_basin.pdf](https://static.ark.org/eeuploads/anrc/awp_upper_ouachita_basin.pdf)
- National Agricultural Statistics Service (NASS):**  
[https://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/County\\_Profiles/Arkansas/cp05083.pdf](https://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Arkansas/cp05083.pdf):
- ADEQ Impaired Streams:** <https://www.adeq.state.ar.us/water/planning/integrated/303d/list.aspx>
- Web Soil Survey (WSS):** <https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>
- IPAC (Information):** <https://ecos.fws.gov/ipac/>
- FEMA:** <https://msc.fema.gov/portal>
- NEPASSIST:** <https://www.epa.gov/nepa/nepassist>
- National Agricultural Statistics Service (NASS):**  
[https://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_County\\_Level/Arkansas/st05\\_2\\_001\\_001.pdf](https://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_County_Level/Arkansas/st05_2_001_001.pdf)
- Arkansas Department of Environmental Quality (ADEQ), Impaired Streams/TMDL Lists:**  
<https://www.adeq.state.ar.us/water/>
- Arkansas Department of Environmental Quality (ADEQ), Rules and Regulations:**  
<https://www.adeq.state.ar.us/regs/>
- Arkansas Natural Resource Commission (ANRC) Regs:** <http://www.anrc.arkansas.gov/rules/current-rules/>
- Arkansas Air Pollution Control Regulations:**  
[https://www.adeq.state.ar.us/regs/files/reg18\\_final\\_160314.pdf](https://www.adeq.state.ar.us/regs/files/reg18_final_160314.pdf)
- Arkansas Water.Org Polk County:** <https://arkansaswater.org/>
- Burns, R.T., H. Li, H. Xin, R.S. Gates, D.G. Overhults, J. Earnest, and L. Moody. 2008. Greenhouse Gas (GHG) Emissions from Broiler Houses in the Southeastern United States. Published in Proceedings of the American Society of Agricultural and Biological Engineers Agricultural and Biosystems Engineering Conference.

**EPA 2016a. US Environmental Protection Agency Sources of Greenhouse Gas Emissions. Available at:** <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture>. Accessed March 1, 2017.

**EPA 2016b. US Environmental Protection Agency Greenhouse Gas Data Explorer. Available at:** <https://www3.epa.gov/climatechange/ghgemissions/inventoryexplorer/>. Accessed March 1, 2017.

**National Forest Service:** <https://www.fs.usda.gov/osfnf>

**University of Arkansas Research and Extension: Polk County:**

<https://www.uaex.edu/business-communities/strategic-planning/docs/county-profiles/polk-county-profile.pdf>

**Arkansas Air Pollution Control Regulations:**

[https://www.adeq.state.ar.us/regs/files/reg18\\_final\\_160314.pdf](https://www.adeq.state.ar.us/regs/files/reg18_final_160314.pdf)

**Arkansas Right to Farm:**

[http://www.farmlandinfo.org/sites/default/files/Arkansas\\_RTF\\_law\\_1.htm](http://www.farmlandinfo.org/sites/default/files/Arkansas_RTF_law_1.htm)

## 9. EA DETERMINATION AND SIGNATURES

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### ENVIRONMENTAL DETERMINATION – The FSA preparer of the EA determines:

1. Based on an examination and review of the foregoing information and supplemental documentation attached hereto, I find that this proposed action
  - would have a significant effect on the quality of the human environment and an Environmental Impact Statement (EIS) must be prepared;
  - would not have a significant effect on the quality of the human environment and, therefore, an EIS will not be prepared.
  
2. I recommend that the Project Approval Official for this action make the following compliance determinations for the below-listed environmental requirements.

Not in compliance	In compliance	Not applicable	
			National Environmental Policy Act
			Clean Air Act
			Clean Water Act
			Safe Drinking Water Act
			Endangered Species Act
			Coastal Barrier Resources Act
			Coastal Zone Management Act
			Wild and Scenic Rivers Act/National Rivers Inventory
			National Historic Preservation Act
			Subtitle B, Highly Erodible Land Conservation, and Subtitle C, Wetland Conservation, of the Food Security Act
			Executive Order 11988 and 13690, Floodplain Management
			Executive Order 11990, Protection of Wetlands
			Farmland Protection Policy Act
			Department Regulation 9500-3, Land Use Policy
			E.O. 12898, Environmental Justice

3. I have reviewed and considered the types and degrees (context and intensity) of adverse environmental impacts identified by this assessment. I have also analyzed the proposal for its consistency with FSA environmental policies, particularly those related to important farmland protection, and have considered the potential benefits of the proposed action. Based upon a consideration of these factors, from an environmental standpoint, this project may:
  - Be approved without further environmental analysis and a Finding of No Significant Impact (FONSI) prepared.
  - Not be approved because of the reasons identified under item b.

Signature of Preparer	Date
Adam Kaufman, State Environmental Coordinator	
Name and Title of Preparer (print)	

**Environmental Determination – FSA State Environmental Coordinator determines:**

Based on my review of the foregoing Environmental Assessment and related supporting documentation, I have determined:

- The appropriate level of environmental review and assessment has been completed, and substantiates a Finding of No Significant Impact (FONSI); therefore, an EIS will not be prepared and processing of the requested action may continue without further environmental analysis. A FONSI will be prepared.
  
- The Environmental Assessment is not adequate and further analysis or action is necessary for the following reason(s):
  
  
  
  
  
  
  
  
  
  
- The Environmental Assessment has established the proposed action cannot be approved for the following reason(s):

Additional SEC Comments:

Signature of SEC	Date
Printed Name Adam Kaufman	

