

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

DRAFT ENVIRONMENTAL ASSESSMENT



Pike County, Arkansas

**Prepared By
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State Environmental Coordinator**

08/21/2019

COVER SHEET

Proposed Action:	The Farm Service Agency of the United States Department of Agriculture proposes to provide Farm Loan Program assistance to finance the construction of (2) 50' x 630' breeder houses, 10' x 14' generator shed, access road, turnaround area, utilities, and related infrastructure. The physical location of this proposal would take place approximately 8 miles west of Glenwood and .7 miles north of AR highway 84 West. (34.318365,-93.692398) Section 8, Township 5 South Range 25 West, in Pike County Arkansas.
Type of Document:	This is a site-specific Environmental Assessment
Lead Agency:	United States Department of Agriculture (USDA) Farm Service Agency (FSA)
Cooperating Agencies:	None
Further Information:	Adam Kaufman, USDA, Farm Service Agency, 419 West Gaines Street, Monticello, AR 71655.
Comments:	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. A Notice of Availability (NOA) of the Draft EA will be published on 08/21/2019 and 08/28/2019 in the Glenwood Herald with instructions for providing written comments. A copy of the Draft EA and related material were made available as provided by the NOA at USDA, Farm Service Agency, 101 South Washington Street, Nashville, AR 71852-2554. The Draft EA was also be posted from 08/21/2019 thru 09/20/2019 the FSA State website at: https://www.fsa.usda.gov/state-offices/Arkansas/index Written comments regarding the Draft EA will be accepted thru 09/20/2019. No comments were received in regards to the Draft EA at the following address: USDA, Farm Service Agency 419 West Gaines Street Monticello, AR 71655

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ACRONYMS AND ABBREVIATIONS

ADEQ	Arkansas Department of Environmental
ANRC	Arkansas Natural Resource Commission
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

1.1 Background

- The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to provide assistance for the applicant to expand an existing (4) house integrated breeder hen facility with (4) 50' x 630' breeder hen houses on a 45.5 acre tract of land currently owned by the applicants. The applicants are proposing to construct (2) additional 50' x 630' breeder hen houses on their farm. The existing (4) house farm has 126,000 square feet of growing capacity. At maximum capacity this can accommodate approximately 60,000 hens and roosters per flock, which meets FSA's definition of a Medium Confined Animal Feeding Operation (CAFO). The proposed expansion of this existing facility would add an additional 63,000 square feet of growing space and increase the maximum capacity on this farm by approximately 30,000 hens and roosters per flock. If approved, the proposed expansion would give the farm 189,000 square feet of total growing space that would be able to accommodate approximately 90,000 hens and roosters per flock at maximum capacity, which would meet FSA's definition of a large CAFO. Flock placement would be dependent on bird variety, needs of the integrator, supply and demand, and several other factors. A flock of hens and roosters is typically kept on the farm for approximately 20 weeks. It is anticipated that the farm would receive approximately 2 flocks annually.
- Pike 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.

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 Jason Floriani, USDA, Farm Service Agency on 06/27/2019. Site visit notes and photographs are included in APPENDIX B.

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 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-1.
- Consultation with Tribal Historic Preservation Officers (THPO): Bob Komardley of the Apache Tribe of Oklahoma, Autumn Gorrell of the Chickasaw Nation, Derek Hill of the Caddo Nation, Lindsey Bilyeu of the Choctaw Tribe of Oklahoma, Everett Bandy of the Quapaw Tribe of Indians, Linda Langley of the Coushatta Tribe of Louisiana, Elizabeth Toombs of the Cherokee Nation, Dr. Andrea Hunter of the Osage Nation, and Tonya Tipton of the Shawnee Tribe of Oklahoma, to ensure that compliance 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 for Section 106 consultation documentation
- 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

1.5.3 Public Involvement

The Draft EA will be made available for public review and comment from 08/21/2019 to 09/20/2019 at USDA, USDA, Farm Service Agency, 101 South Washington Street, Nashville, AR 71852-2554. The Draft document will also be posted on the Arkansas FSA state website <https://www.fsa.usda.gov/state-offices/Arkansas/index> from 08/21/2019 to 09/20/2019. A notice of the availability of the draft EA will be published in the Glenwood Herald on 08/21/2019 and 08/28/2019. Public notice instructed that written comments regarding this proposal should be submitted by mail to USDA, Farm Service Agency, Attn: Adam Kaufman, 419 West Gaines Street Monticello, AR 71655 through 09/20/2019.

Description of Proposed Action and Alternatives

1.6 Alternative A - Proposed Action

The proposed action involves FSA providing a guarantee to a commercial lender for a loan that would be used to expand an existing breeder hen farm on a 45.5 acre tract of land in Pike County, 8 miles west of Glenwood and .7 miles north of AR highway 84 West. (34.318365,-93.692398) Section 8, Township 5

South Range 25 West, in Pike County Arkansas. This tract of land is located in the Athens Plateau eco region of Arkansas. The proposed site is currently established in grasslands, which is utilized to graze beef cattle and located south of the existing poultry operation. Timber surrounding the proposed site consists primarily of various oaks and other hardwood species. Slopes on the proposed site range from 0 to 15 percent. SEE APPENDIX I-2.

The applicants would enter into a contract with a poultry integrator, who would place flocks of hens and roosters on the farm, where they would lay eggs, which would be gathered multiple times daily and stored in a cooling facility located on the eastern ends of the houses. The eggs would be picked up from the cooling facility twice a week, then taken to a hatchery. Once hatched, the chicks would be placed on broiler farms in this area and grown to market size. The applicants, as growers, would be responsible for providing the equipment, utilities, and labor required to house and manage the flock including feeding, watering, brooding, egg gathering, waste disposal, maintaining the houses, and providing for animal welfare, sanitation, and biosecurity. The integrator would supply the hens, roosters, feed, labor to deliver and remove the birds from the farm, pick up the eggs, veterinary services, and technical support to the grower.

Existing structures on the 45.5 acre tract of land consists of (4) 50' x 630' broiler houses on the northern end of this tract, which were constructed in 2018. These existing structures are running east and west and are stacked north to south. The majority of the 45.5 acres tract of land is established in mixed grasses and other native vegetation. The proposed broiler houses would run east and west and would be located approximately 30' south of the southernmost existing poultry house.

The proposed site is surrounded by hardwood and pine timber in all directions. The nearest neighboring dwellings in relation to the proposal are approximately 1,800' to the east. SEE APPENDIX A-8. There are several rural residences along the county roads that are used to access this proposed site as well as State Hwy 84, which runs east and west in between Glenwood and Umpire, AR. SEE APPENDIX A-1. The nearest church, Free Will Baptist Church is located 1.28 miles to the southwest of this proposed site. SEE APPENDIX A-6. The nearest school in relation to the proposal is Kirby Elementary, which is located 5.71 miles to the southeast. SEE APPENDIX A-5. Agriculture has a strong presence in this area. There are several integrated poultry operations, and cattle and hay operations in this area. According to the Pike County Conservation District 86 poultry farms register for the 2018 production year in 2019. According to NASS, Pike county has 25,500 head of cattle, including calves as of January 2019. SEE APPENDIX K-1.

Improvements for this proposed broiler operation would consist of (2) 50' x 630' breeder hen houses that would be running east and west and would stacked north and south. SEE APPENDIX A-2. These structures would be built on top of earthen pads with dimensions slightly larger than the proposed poultry houses. All soil to build these proposed pads would come from the site, no soil would be hauled in. A load out pad to be leveled and graded, which be built on the east side of each poultry house pad and would 100' wide running east and west houses. The load out pad is necessary and would need to be wide enough for feed and live haul trucks to safely enter and exit this proposed facility. A 10' x 14' generator shed would be placed in the very center of this proposed operation. The generator shed would house an 80 kw diesel powered generator, which would serve as backup energy supply for the proposed broiler houses in the even of a power outage. The generator shed would have a wooden frame, metal sides and roof, and would sit on top of a concrete slab. The generator would be fueled by

low sulfur diesel, supplied by a 300 gallon above ground storage tank (AST) and would be controlled by (1) 400 amp transfer switch. Underground wires in conduit would run from the generators and be plumbed into each poultry house.

Related infrastructure would include an access road all the way to the proposed site, access roads in between the (2) breeder hen houses themselves, utility lines for water and electricity, and above ground storage tanks for propane to heat these facilities. The existing facility is currently accessed via a gravel road running north and south from Lodi Loop. The proposed layout of this facility would be configured as specified on the attached site plan found in APPENDIX A-2. It should be noted that the (4) existing houses were built in 2018, therefore these facilities do not show up on any aerial imagery. Electricity to the proposed poultry house facilities would be ran underground from the existing power connection at the existing (4) poultry houses.

Water to the (2) proposed houses would also be supplied by the existing rural water connection utilized by the existing (4) houses. Water lines would be trenched to an approximate depth of 3.5'

According to the SWPPP developed by the applicant, this proposal would involve an estimated 2.5 acres of ground disturbance. The proposed site is established in pasture ground and utilized to graze beef cattle. No tree removal would be necessary to implement this proposal.

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).

1.7 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 to utilize this proposed site for hay production, hunting, and other recreational purposes with no impacts as the proposed action would not go forward.

1.8 Alternative C

An alternative location would not be feasible, as the proposed project would take place on property currently owned by the applicant that is in very close proximity to the dwelling and farming headquarters of their existing breeder hen operation. Integrators typically require a farm manager to live in close proximity to the farm. Expanding their existing operation on this site, instead of another site, would allow them have everything on one site, eliminate travel time between two different farms, which would allow them more time to devote towards their farming operation.

The proposed project was designed to be cost effective while requiring the least amount of ground disturbance possible while trying to maximize the remaining grasslands that would be available for grazing cattle. If this proposal were to be moved farther to the south, tree removal would be necessary, thus more overall ground disturbance and vegetation removal. Leaving the proposed layout of this expansion as is, would allow the applicants to utilize a lot of the existing infrastructure that is place at the existing operation. Existing infrastructure, including access roads and utilities are already in place at the proposed site. Electing to move the proposal farther to the east would put the proposal closer to

neighbors and traffic traveling down Lodi Loop, and would also require longer access roads and utility lines.

The proposed site configuration was designed to create the least amount of ground disturbance and vegetation removal, 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.

1.9 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 FSA-guaranteed loans to fund the expansion of their existing integrated breeder hen facility, which would result in a 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.

2. AFFECTED ENVIRONMENT AND IMPACTS

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	

2.1 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 Caney Creek Wilderness Area, which is located 19.6 miles northwest of this proposed project. SEE APPENDIX F-1. This proposal should have no effect on Caney Creek Wilderness Area.

Wild and Scenic Rivers/NRI

Wild and Scenic Rivers/NRI were eliminated from detailed analysis in this EA. This proposal would take place within the northeast corner of the Self Creek-Lake Greeson Watershed HUC 12 ID: HUC 12 ID: 080401030104 SEE APPENDIX G-3. The nearest Wild and Scenic River is the Little Missouri River, which is located 11.4 miles to the northwest of this proposal. SEE APPENDIX G-1. The Little Missouri River also has a Nationwide Rivers Inventory designation which is located 8.34 miles southwest of this proposal before river flows into lake Greeson. SEE APPENDIX G-2

National Natural Landmarks

There are five National Natural Landmarks in Arkansas. 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 Research Natural Area is located approximately 16.6 miles northwest of the proposed site, therefore National Natural Landmarks are eliminated from detailed analysis. SEE APPENDIX H-1

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. This particular area of Pike County does not participate in FEMA's National Flood Hazard Layer (NFHL). According to an elevation map, the proposed construction site would be located at an approximate elevation of 872' compared to the nearest stream in proximity to the proposal, Forrester Branch, which is 1,200' west of this proposal and is at an elevation of 839'. Given the elevation of the proposed site sits 33' higher than the nearest stream, FSA anticipates that there will be no impact on floodplains. SEE APPENDIX J-1.

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 2.5 acre proposed site where the proposal would be located, therefore no additional screening is necessary. SEE APPENDIX I-2.

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.

2.2 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.

2.2.1 Wildlife and Habitat

Existing Conditions

The proposed 2.5 acre project site would take place approximately 30' south of an existing (4) house poultry operation on land that has been historically established in grasslands and utilized for grazing beef cattle. Wildlife typical of such areas include whitetail deer, squirrels, wild turkeys, raccoons, various other mammals, and birds. Streams and rivers in this area offer a water supply and habitat for several different species of mammals, fish, and other aquatic species and birds. A site visit was conducted by FSA on 06/27/2019. SEE APPENDIX B for site visit notes and photographs. The nearest streams in relation to this proposal are approximately 3/10 of a mile to the east and to the west.

An official list of threatened and endangered species and designated critical habitat for this area of Pike 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 Pike County:

Northern Long-eared Bat *Myotis septentrionalis* (threatened), Ouachita Rock Pocketbook *Arkansia wheeleri* (endangered), and the Rabbitsfoot *Quadrula cylindrica cylindrica* (threatened). USDA, Farm Service Agency entered a Programmatic Consultation Agreement with USFWS on 05/02/2019. This agreement was utilized by FSA to make affect determinations on these threatened and endangered species listed above that are known to occur in this area of Pike County. SEE APPENDIX D-1. In addition, the USFWS, IPaC website was utilized for an effect determination for the Northern Long Eared Bat. According the Programmatic Biological Opinion on Final 4(d) Rule for this threatened species, the proposal would have no affect on the northern long eared bat since no tree removal would be necessary

to implement this proposal. According to the programmatic decision key and map provided by USFWS, this proposal would not take place within any buffered stream reaches, therefore the proposal is not likely to adversely affect the other (2) aquatic species that are known to occur in this area of Pike county. SEE APPENDIX D-1.

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-1.

Impacts of Proposed Action

According to the SWPPP, an estimated 2.5 acres of ground disturbance would occur would be necessary to implement this proposal. SEE APPENDIX C-1. The proposed site would take place on grasslands south of an directly south of a poultry operation that has been in existence since 2018. This 2.5 acres of vegetation could contribute somewhat as habitat to wildlife that lives in and around this area. The proposal would result in a long term loss of wildlife habitat that this 2.5 acres of vegetation provided. Based on the results of the FSA's Programmatic Decision Key and BMP's that would be implemented for this proposal, no significant impacts to Wildlife and Habitat would be expected to result from the Proposed Action. No adverse impacts on migratory birds are anticipated as a result of this proposal. The primary nesting season for birds in Arkansas is 1 April through 15 July, no tree removal would be necessary to implement the expansion of this existing operation.

2.2.2 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 06/27/2019. The nearest structures in relation to the proposal that are listed on the National Register of Historic Places is the Self Creek Bridge which is located 6.7 miles southwest of this proposal. SEE APPENDIX A-4. This proposal would not be visible from this historic structure. It is unlikely that the proposed expansion of this existing operation would have an effect on this historic building.

FSA consulted with the Arkansas State Historic Preservation Office (SHPO), Bob Komardley of the Apache Tribe of Oklahoma, Autumn Gorrell of the Chickasaw Nation, Derek Hill of the Caddo Nation, Lindsey Bilyeu of the Choctaw Tribe of Oklahoma, Everett Bandy of the Quapaw Tribe of Indians, Linda Langley of the Coushatta Tribe of Louisiana, Elizabeth Toombs of the Cherokee Nation, Dr. Andrea Hunter of the Osage Nation, and Tonya Tipton of the Shawnee Tribe of Oklahoma on 07/08/2019 by providing the location and details of the Proposed Action. SEE APPENDIX E-2. Arkansas SHPO provided a response on 08/07/2019 which concurs with FSA's finding of no historic properties affected. A response was received from the Coushatta Tribe of Louisiana on 08/08/2019. The Coushatta Tribe does not believe this project would have any negative impacts on any archaeological, cultural, or historic

resources of the Coushatta people. No other responses from Indian Tribes with an interest area were received.

Impacts of Proposed Action

Based on the proximity to The Self Creek Bridge in relation to the Proposed Action, response from SHPO, response from the Coushatta Tribe of Louisiana, and lack of response from the additional Tribes listed above, FSA anticipates no impacts to known cultural resources would result from the Proposed Action. 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 of this proposal, 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. Any potential resources discovered would be professionally evaluated for eligibility for listing on the National Register of Historic Places.

4. Water Quality

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 (SWPPP), 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. SWPPPs 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, Carroll, Crawford, Madison, Marion, Polk, Scott, Sebastian, and Washington Counties. For land application outside this area, usage of a nutrient management plan is voluntary. There is currently not a NMP for this proposed broiler farm, however the applicants would have the option to have a plan developed, if they wish to do so.

The proposal is not located within a nutrient surplus area in Arkansas. SEE APPENDIX A-7. The applicants are currently operating their existing poultry operation in compliance with ANRC regulations. The applicants have registered their existing operation with ANRC in 2019 for the 2018 production year. SEE APPENDIX C-3. This proposal is located within the Self Creek-Lake Greeson. (HUC 12 ID: 080401030104) SEE APPENDIX G-3. The predominant land cover in this watershed consists of forest and pasture land.

The Self Creek-Lake Greeson Watershed is located within the Upper Ouachita River Basin, which 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 is generally good. REFERENCE ARKANSAS WATER PLAN. According to the 2017 Census of Agriculture, Pike county land uses consist of 43% pastureland, 28% cropland, 23 percent woodland, and 6% is devoted to other land uses. SEE APPENDIX K-2. There are 7,400 lakes within the Upper Ouachita River Basin, which impound 1.5 million acre feet of water. REFERENCE ARKANSAS WATER PLAN. According to ADEQ's 2016 Water Quality Monitoring Assessment Report, water in this area have been designated as suitable for the propagation of fish and wildlife, primary and secondary contact recreation, and public, industrial, and agricultural water supplies. Approximately 17% of the waters within this segment area designated as Extraordinary Resource Waters. REFERENCE ADEQ. Waters in this area heavily used for boating, canoeing, and fishing year round.

Impacts of Proposed Action

The applicants have prepared a SWPPP for the proposed expansion of their existing (4) house breeder hen operation which indicates 2.5 acres would be disturbed. C-1. The proposed disturbance would be under the 5 acre threshold, therefore the applicants would not be required to submit their SWPPP to ADEQ for approval. The applicant 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 SWPPP, minimal impacts to surface water from the proposed construction are anticipated. The proposed farm would 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 need to comply with ANRC requirements in order to be protective of surface water quality. REFERENCE ANRC

The applicant's SWPPP would implement BMP's into the design of this proposed project to help protect water quality on and around this proposed site. SEE APPENDIX C-1. A silt fence would be implemented along the perimeter of the proposed construction site as needed, a stabilized entrance and exit would be used, and any exposed soils would be mulched and seeded to establish permanent ground cover on

the site as soon as possible. Non disturbed areas surrounding the site will act as a natural buffer to help filter out sediment in storm water runoff during the construction phase of the proposal.

The applicants currently utilized freezers for mortality disposal for their existing operation as they would for the proposed expansion. Freezing is considered an ANRC approved method of mortality disposal. 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. Having a litter shed would help them store litter on site, out of the elements, until an opportune time presented itself for land application or transportation off site. The applicants would be responsible for record keeping and adherence to the recommendations of a NMP, which would be a voluntary action of the applicant as the existing operation is not located within a nutrient surplus area.

In summary, the applicants existing operation is compliant with ANRC regulations, the applicants have prepared a SWPPP for the proposed expansion of their existing operation and have obtained a NPDES permit thru ADEQ for proposed construction activities to take place, which would help protect surface and ground water quality within this area and surrounding areas. These proposed measures should be adequate to help prevent contamination of stormwater off site during the construction phase of this proposed farm.

No significant impacts to water quality are anticipated to result from the Proposed Action.

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 rural Pike County 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 Pike County Conservation District, 86 poultry farms registered with ANRC in 2019 for the 2018 production year in Pike County. According to USDA, NASS, the cattle inventory for Pike County in January of 2019 was 25,500 head, including calves. SEE APPENDIX K-1. The nearest neighboring dwellings in relation to the proposal are approximately 1,800’ to the east. SEE APPENDIX A-8. There are several rural residences along the county roads that are used to access this proposed site as well as State Hwy 84, which runs east and west in between Glenwood and Umpire, AR. SEE APPENDIX A-1. The nearest church, Free Will Baptist Church is located 1.28 miles to the southwest of this proposed site. SEE APPENDIX A-6. The

nearest school in relation to the proposal is Kirby Elementary, which is located 5.71 miles to the southeast. SEE APPENDIX A-5. The discharge fans on these proposed facilities would point towards the west. The proposal would be completely surrounded by mature mixed hard and softwood timber in all directions. SEE APPENDIX A-1. 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.

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, which could last anywhere from 4-8 months if this proposal were to be approved. 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 poultry houses.

Odor would be controlled through management of the poultry houses ventilation systems, as is required by integrators for flock health. The applicants would utilize freezers as 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) existing breeder hen houses and (2) proposed breeder hen 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 and either stored in the houses or tarped in an elevated location to be kept out of the elements until it could be removed from the farm.

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 (CO₂e), 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 CO₂e), crops (330.68 million metric tons CO₂e), and fuel combustion (51.79 million metric tons CO₂e).

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.

6. Noise

Existing Conditions

Existing noise at the site of the proposed action is from the owners and existing day to day activities associated with the existing (4) house operation on this 45.5 acre tract of land. Existing noise conditions exists also from surrounding neighbors, other integrated poultry operation in this area, cattle and hay operations, and traffic from nearby county roads and highways. The existing (4) house operation went into operation in 2018. The proposed site is currently used to graze cattle. Noise from farm tractors and equipment, vehicle traffic, live haul and feed trucks, poultry house fans, and other traffic and farming related activities associated with integrated poultry do exist, but is temporary in nature. Flocks of birds are typically kept on a breeder hen farm for 20 weeks. Noise levels are typically at their highest when birds are being delivered, or picked up from this existing operation. This is not a very densely populated area. The nearest neighboring dwellings in relation to the proposal are approximately 1,800' to the east. SEE APPENDIX A-8. There are several rural residences along the county roads that are used to access this proposed site as well as State Hwy 84, which runs east and west in between Glenwood and Umpire, AR. SEE APPENDIX A-1. The nearest church, Free Will Baptist Church is located 1.28 miles to the southwest of this proposed site. SEE APPENDIX A-6. The nearest school in relation to the proposal is Kirby Elementary, which is located 5.71 miles to the southeast. SEE APPENDIX A-5. There are no non-farm businesses in close proximity to this proposed facility.

Impacts of the Proposed Action

The Proposed Action would establish a new, four 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 on average. 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, east and to the west. 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

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: Pike County encompasses approximately 614 square miles, 2% of which consists of water and has a population of roughly 11,000. Pasture lands account for the majority of the ground cover in the county, followed by cropland, then forests. SEE APPENDIX K-2. According to the 2017 Census of Agriculture, 82,459 acres are established in farmland on 394 farms in Pike County. SEE APPENDIX K-2.

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.

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 FSA Programmatic Consultation indicates the proposal is not likely to adversely affect the aquatic species that are known to occur in this area. No tree removal would be necessary to implement the proposed action. Implementation of BMP's in the SWPPP for the proposal would help protect water quality in this area, thus protecting aquatic species in the area. The proposed site is established in grasslands and other native vegetation. 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

7.2.2 Cultural Resources

Based on program requirements, which call for coordination and consultation with State and Tribal Historic Preservation Offices, no impacts to known cultural resources are expected to result from the Proposed Action. There is the potential for encountering unknown cultural resources if the proposal is implemented. 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.

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. The existing operation is also compliant with state regulations and requirements.

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:

The site of the Proposed Action lies in a rural area of Pike County, AR. This existing operation is surrounded by mixed timber in all directions. The existing vegetation would act as a buffer to filter the odor, dust, and other particulate matter emitted by the existing and proposed poultry houses. Exhaust fans would point towards the west. The nearest neighboring dwellings in relation to the proposal are approximately 1,800' to the east. SEE APPENDIX A-8. There are several rural residences along the county roads that are used to access this proposed site as well as State Hwy 84, which runs east and west in between Glenwood and Umpire, AR. SEE APPENDIX A-1. The nearest church, Free Will Baptist Church is located 1.28 miles to the southwest of this proposed site. SEE APPENDIX A-6. The nearest school in relation to the proposal is Kirby Elementary, which is located 5.71 miles to the southeast. SEE APPENDIX A-5. The proposal would be completely surrounded by trees, which would help maintain existing air quality levels in this area. The surrounding area should not experience any changes in air quality as there has been an operational poultry farm on this 45.5 acre tract of land since 2018.

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, land application 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.

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: 11

Persons and Agencies Contacted	
Name and Title	Affiliation
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
Stacy Hurst	Arkansas SHPO
Melissa Lombardi	US Fish and Wildlife Service
Bob Komardley	Apache Tribe of Oklahoma
Everett Bandy	Quapaw Tribe of Indians

Autumn Gorrell	Chickasaw Nation
Derek Hill	Caddo Nation
Linda Langley	Coushatta Tribe of Louisiana
Lindsey Bilyeu	Choctaw Nation of Oklahoma
Dr. Andrea Hunter	Osage Nation
Tonya Tipton	Shawnee Tribe of Oklahoma

8. REFERENCES

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:

<http://www.arwaterplan.arkansas.gov/plan/ArkansasWaterPlan/AppendicesUpdate.htm>

National Agricultural Statistics Service (NASS):

https://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Arkansas/cp05083.pdf:

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

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

Arkansas Water.Org Pike County:

http://arkansaswater.org//index.php?option=com_content&task=view&id=101&Item

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: Pike County:

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

Arkansas Air Pollution Control Regulations:

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

ANRC 2016: Strawberry River Watershed-Based Management Plan. Prepared for the Arkansas Natural Resources Commission. Little Rock, AR. Available at:

<http://www.arkansaswater.org/319/pdf/Management%20Plans/Strawberry%20River%20Watershed%20based%20Final%202016-11-15.pdf>. Accessed September 8, 2017.

Arkansas 2018-2023 NPS Pollution Management Plan [https://static.ark.org/eeuploads/anrc/2018-2023_NPS_Pollution_Management_Plan.compressed_\(2\).pdf](https://static.ark.org/eeuploads/anrc/2018-2023_NPS_Pollution_Management_Plan.compressed_(2).pdf)

9. EA DETERMINATION AND SIGNATURES

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
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	

