

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

DRAFT ENVIRONMENTAL ASSESSMENT



**Prepared By
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10/16/2019

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 (6) 46' x 700' broiler houses, 32' x 50' generator shed, (2) water wells, 40' x 60' litter stacking shed, load out pad, utilities, a composter, a 2,800 square foot dwelling, and related infrastructure on a 82 acre tract of land the applicants are under contract to purchase. The physical location of this proposal would take place approximately 1.67 miles east of the Oklahoma-Arkansas state line and 2.2 miles northeast of the Maysville community. The legal description of the proposed location is Section 11, Township 20 north, Range 34 West in Benton 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 10/16/2019 and 10/23/2019 with instructions for providing written comments in the Siloam Springs Herald-Leader. A copy of the Draft EA and related material will be made available as provided by the NOA at USDA, Farm Service Agency, 2898 Point Circle, Fayetteville, AR 72704. The Draft EA document itself will also be posted from 10/16/2019 thru 11/15/2019 the FSA State website at: https://www.fsa.usda.gov/state-offices/Arkansas/index Written comments regarding the Draft EA will be accepted thru 11/15/2019. 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
NLEB	Northern Long Eared Bat
NMP	Nutrient Management Plan
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination
NRCS	Natural Resources Conservation Service
SHPO	State Historic Preservation Officer
SWPPP	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 purchase an 82 acre tract of land and establish an integrated broiler facility. This proposed facility would have (6) 46' x 700' broiler houses. Each broiler house would have 32,200 square feet of growing space. According to the nutrient management plan developed by the Eucha/Spavinaw Watershed Management Team this proposed facility would grow a 3.8lb chicken. SEE APPENDIX C-4. Each house would be able to accommodate 47,000 broilers per flock at maximum capacity. The proposed (6) house farm would have a total of 193,200 square feet of growing space, and be able to accommodate 282,000 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. It is anticipated that the farm would receive approximately 4 to 6 flocks annually.
- This proposal would take place within the Spavinaw Creek Watershed of Benton County (HUC 11070209). Benton County is located within the Nutrient Surplus Area. SEE APPENDIX A-8. 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 Adam Kaufman, USDA, Farm Service Agency on 07/09/2019. 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.
- FSA entered a Programmatic Consultation Agreement with USFWS on 05/02/2019. The FSA programmatic decision was key was utilized to conduct Section 7 Consultation for Threatened and Endangered Species. 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.
- Consultation with Tribal Historic Preservation Officers (THPO): Bob Komardley of the Apache Tribe of Oklahoma, Derek Hill of the Caddo Nation, Elizabeth Toombs of the Cherokee Nation, Corain Lowe-Zepeda of the Muscogee (Creek) Nation, Dr. Andrea Hunter of the Osage Nation, Everett Bandy of the Quapaw Tribe of Indians, Tonya Tipton of the Shawnee Tribe of Oklahoma, and Erin Thompson of the United Keetoowah Band of Cherokee Indians 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. A cultural resource survey was also conducted by Flat Earth Archaeology. SEE APPENDIX E-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-1

1.5.3 Public Involvement

The Draft EA and supporting documentation will be made available for public review and comment from 10/16/2019 to 11/15/2019 at USDA, Farm Service Agency, 2898 North Point Circle Drive, Fayetteville, AR 72704. The Draft document itself will also be posted on the Arkansas FSA state website <https://www.fsa.usda.gov/state-offices/Arkansas/index> from 10/16/2019 to 11/15/2019. A notice of the availability of the draft EA will be published in the Siloam Springs Herald Leader on 10/16/2019 and 10/23/2019. 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 11/15/2019.

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Alternative A - Proposed Action

The primary objective of the proposed action would involve FSA providing a guaranteed loan to a commercial lender that would be used to establish a new (6) house broiler farm on an 82 acre tract of land in Benton County, 1.67 miles east of the Oklahoma-Arkansas state line and 2.2 miles northeast of the Maysville community. SEE APPENDIX A-2. The legal description of the proposed location is Section 11, Township 20 north, Range 34 West in Benton County Arkansas. This tract of land is located in the Springfield Plateau eco region. This eco region covers 4,110 square miles across Arkansas, Oklahoma, Kansas, and Missouri. The proposed site is currently established in improved pasture ground consisting primarily of Bermuda grass. The 82 acre tract has historically been utilized for grazing beef cattle and for hay production. Existing improvements on the 82 acre tract of land consists of perimeter fencing and (2) ponds that are utilized for watering livestock. SEE APPENDIX A-1. The proposed site is a relatively flat area. Slopes on this proposed site range from 1 to 8 percent. SEE APPENDIX I-1.

The applicants would enter into a contract with a poultry integrator, who would place flocks of broilers on the farm, where they would be grown to market size. The applicants, as growers, would be responsible for providing the facilities, 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. 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.

There are no existing structures on this 82 acre tract of land, which is predominantly established in grasslands. This proposed broiler farm would be accessed by Austin Road, which runs east and west along the northern border of the 82 acre tract and also by Love road, which runs north and south and borders this 82 acre tract of land to the west, both of which are county gravel roads. The nearest major highways in this area are highway 72, which runs east and in between Gravette and Maysville and highway 43 which runs north and south in between Arkansas and Oklahoma.

The proposed poultry house site is surrounded by pasture ground, rural residences, small blocks of timber, and integrated poultry operations in all directions. The nearest neighboring dwellings in relation to the proposal are approximately 800' to the southwest of this proposed broiler farm. SEE APPENDIX A-5. There are several residences along the county roads to the north, south, east and west of this proposal. The nearest church in relation to this proposal is Pleasant Center Church, which is located 2.8 miles to the southeast. SEE APPENDIX A-7. Sulphur Springs High School is located 7.16 miles northeast of the proposed site. SEE APPENDIX A-6. Agriculture has a strong presence in this area. There are several integrated poultry operations, and cattle and hay operations in this area. Benton County encompasses 884 square miles or roughly 565,760 acres. According to the 2017 Census of Agriculture approximately 43% of the land in Benton County is established farmland. SEE APPENDIX K-2. According to the Arkansas Natural Resource Commission 2019 Final Report on County Registration, 237 Poultry Farms Registered in 2019, for the 2018 production year. SEE APPENDIX K-4. According to NASS, Benton county has 97,000 head of cattle, including calves as of January 2019. SEE APPENDIX K-1.

Improvements associated with the proposed action would consist of (6) 46' x 700' broiler houses that would be running east and west and would be stacked north and south. SEE APPENDIX A-4. These

structures would be built on top of earthen pads. The dimensions of the pads with dimensions slightly larger than the dimensions of the houses themselves. Each house would have the potential to typically accommodate approximately 42,933 birds at maximum capacity, which would equate to 257,600 birds per flock. The proposed broiler houses would be accessed via a gravel road that would extend southeasterly at the junction of Love Road and Austin Road. The proposed poultry houses would lie approximately 200' east of Love Road. A 100' wide load area would be also be graded and covered with gravel and placed in between Love Road and the proposed poultry houses. SEE APPENDIX C-1. The load out pad would extend the length of the poultry houses and would allow live haul, feed trucks, and other traffic to turn safely while entering and existing this proposed facility. The northernmost poultry house would lie 200' south of Austin Road. A 32' x 50' generator and water shed would be placed in the very center of the (6) proposed broiler houses. SEE APPENDIX This generator shed would have a wood frame, metal roof and sides, sit on top of a concrete slab with 12" deep footers, and would house (1) 250 kW diesel generator which would be controlled by a (3) 400 Amp transfer switches. The generators would serve as a backup power supply for this proposed broiler facility in the event of a power outage and utilize low sulfur diesel as a fuel source, stored in a 500 gallon above ground tank. Underground wires in conduit would run from the generators and be plumbed into each poultry house. The shed would also store (6) 5,000 gallon plastic above ground water storage tanks. The tanks would be utilized as a backup water supply in the event of an emergency. Wells would serve as the primary water source on this farm. The water and generator shed would also have a small office space which would be used for record keeping for the applicants farming operation.

A 12' x 40' x 6' stacking shed with a 12' x 60' lean to shed on one side wall of the stacking shed would be placed south of the proposed broiler houses. This proposed structure would have a reinforced concrete floor. The stacking shed would be used to store poultry litter after the houses are cleaned, or "caked out" in between flocks. An in-vessel composter would be utilized as the method of mortality disposal for this proposed operation. The composter would be stored underneath the 12' x 60' lean-to shed. SEE APPENDIX C. Composting is considered a more eco-friendly method of mortality disposal, which is an ANRC approved method.

Water to the proposed broiler operation would be supplied by (2) wells, which would be drilled to an estimated depth of 1,700'. The location of these wells would be determined by the well driller. Underground plumbing would run from the wells into the water storage facility in the center of the proposed operation, then underground to the proposed broiler facilities. The proposed houses would utilize propane as a heat source, stored in 1000 gal above ground storage tanks placed in between each house. Electricity would be provided by Carroll County Electric, which would be ran underground on the farm from the existing connection in place on Austin Road to a depth of 42".

According to the SWPPP developed by Frank Walker, this proposal would involve an estimated 12.4 acres of ground disturbance. The proposed site is currently established predominantly in improved pasture ground with mixed Bermuda and other warm season grasses, legumes, and native forbs. No tree removal would be necessary to implement this proposal.

The load out area, roads in between the proposed houses, and the access road to the proposed site, would all be covered with gravel. The plans for this proposal indicate it would be necessary to haul in 1,300 tons of gravel for the proposed roads and load out pads. The 2,800 square foot dwelling would be placed north of a patch of woods, on the east side of Love Road, approximately 650' south of where the

southernmost poultry house would go. The proposed dwelling would be accessed via a small gravel driveway that would run east and west from Love Road to the dwelling. The farm dwelling would serve as the farming headquarters for the applicant's existing cattle operation and proposed broiler operation.

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 (revision 3).

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 not purchase the 82 acre tract of land they are under contract to buy and the current owners would continue to utilize the pasture for grazing beef cattle and for hay production 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 the applicants are under to contract to purchase. The proposed action would also allow the applicants to construct a farm dwelling on the farm. The proposed dwelling would be the farming headquarters of this proposed operation. Integrators typically require a farm manager to live in close proximity to the farm.

The proposed project was designed to require the least amount of ground disturbance as possible while taking the surrounding environment into consideration, as well as maximizing the amount of grasslands that would remain. If this proposal were to be moved farther to the south it would sit farther away from Austin road and would require a longer access road. In addition, more overall ground disturbance as well as disturbance on a greater slope would be required than that of the proposed action. Electing to move the proposal farther south would result in more overall ground disturbance, taking additional pasture ground out of production and potentially accelerating any runoff that might leave this site during the construction phase of this proposal. Moving this proposal farther to the south would also put it closer to the Beaty creek Reach Code: 11070209000220, the nearest stream, which lies approximately 850' to the south of where the southernmost poultry house would be placed. In addition, some tree removal would be necessary if the proposal were to be moved farther to the south. Moving the proposal farther to the south would also put the proposed poultry houses closer to the 100 year floodplain along Beaty Creek. SEE APPENDIX J-1. Electing to move the proposal farther to the north would not be an option, as the proposal would encroach on the property boundary to the north and violate property line setback requirements of the integrator. The northernmost proposed poultry house would lie 100' south of Austin road. Electing to move this proposal to the east, would require a longer access road and would take more pasture ground out of production to implement this proposal.

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 while maximizing the amount of productive grazing land that would remain. 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 FSA-direct-participation loans to 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

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.

Wild and Scenic Rivers/NRI

Wild and Scenic Rivers/NRI were eliminated from detailed analysis in this EA. The nearest wild and scenic river in relation to the proposed project is the Mulberry river whose nearest wild and scenic designation in relation to the proposal is 67.4 miles to the southeast of this proposal SEE APPENDIX G-2. The Elk River has a Nationwide Rivers Inventory designation located 9.3 miles northeast of the proposal. SEE APPENDIX G-3. This proposal should have no effect on either of these rivers.

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, in proximity to this proposal is Marvel cave in Missouri and is located 70.4 miles northeast 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 05007C_429 indicates that the proposed project would not be located within a flood plain. 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 12.4 acre site where the proposal would be located, therefore no additional screening is necessary. SEE APPENDIX I-1. The proposal would involve filling in (2) manmade ponds, which would be replaced by a sediment basin that would be placed on the south side of the proposed broiler houses. SEE APPENDIX C-1. This proposal would result in a "No Net Loss of Wetlands."

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-2.

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-3.

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.

3.2.1 Wildlife and Habitat

Existing Conditions

The proposed 12.4 acre project site is currently established in improved pasture ground. Ground cover and vegetation consists of Bermuda grass, other warm season grasses, legumes, and other native forbs. There is a patch of mixed hardwood timber south of the proposed poultry house site, however no tree removal would be necessary to implement this proposal. The proposed site is currently utilized to graze beef cattle and for hay production. There are (2) manmade ponds located in the southeastern corner of the proposed poultry house site. One pond is approximately 1/10 acre, the other is approximately 2/10 of an acre. SEE APPENDIX A and C-1. It would be necessary to fill these (2) ponds in. These ponds could contribute to wildlife as habitat for aquatic species and also serve as a water supply for other terrestrial species in the area. Wildlife typical of such areas include whitetail deer, squirrels, raccoons, various other mammals, and birds. A site visit was conducted by FSA on 07/09/2019. SEE APPENDIX B-1 for site visit notes and photographs. A 50,000 cubic foot sediment basin would be placed on the southern end of the southernmost poultry house to replace the ponds that would be filled and would also catch sediment from the proposed site, preventing runoff. SEE APPENDIX C-1.

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

Gray Bat *Myotis grisescens* (endangered), Indiana Bat *Myotis sodalist* (endangered), Northern Long-eared Bat *Myotis septentrionalis* (threatened), Ozark Big-eared Bat *Corynorhinus (=Plecotus) townsendii ingens* (endangered), Piping Plover *Charadrius melodus* (threatened), Ozark Cavefish *Amblyopsis rosae* (threatened), Missouri Bladderpod *Physaria filiformis* (threatened)

FSA has entered a programmatic consultation agreement with USFWS on 05/02/2019. The programmatic taxa key was utilized for effect determinations on the threatened and endangered species listed above. SEE APPENDIX D-2.

There are no cave or karst features located where the proposal would take place and no tree removal would be necessary to implement the proposal, therefore the proposal may affect, but is not likely to adversely affect the (4) bat species listed above. The proposal would not alter a sand or gravel shoreline, bar, or island in a larger river, therefore the proposal may affect, but is not likely to adversely affect the piping plover. SEE APPENDIX D-2. The proposal would take place 2.4 miles to the north of the nearest karst recharge area, therefore the proposal may affect, but is not likely to adversely affect the cavefish. SEE APPENDIX D-3. The improved pasture would not be considered suitable habitat for the Missouri Bladderpod.

The SWPPP would implement best management practices (BMP's) that would help protect water quality on and around this proposed site during the construction phase of this proposal. The established pasture ground surrounding the 12.65 acre site, would remain and act as a buffer to help protect water quality. The proposed broiler operation would utilize a composter for mortality disposal.

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 12.65 acres of ground disturbance would occur would be necessary to implement the proposed poultry houses and related infrastructure. SEE APPENDIX C-1. Implementation of the proposal would result in a long term loss of 12.65 acres of grasslands and trees all of which currently contribute to wildlife habitat. The proposal would result in a long term loss of wildlife habitat that this 12.65 acres of vegetation provided. Based on the results from the USFWS Programmatic Consultation, 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 April 1 through July 15.

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 require detailed analysis. This proposed 12.65 acre site has historically been utilized as pasture for a beef cattle operation and for hay production. A site visit was conducted by USDA, Farm Service Agency on 07/09/2019. There are no existing structures on this 82 acre tract of land. The only existing improvements on the tract consist of (2) manmade ponds and perimeter barbed wire fencing. The nearest structure in relation to the proposal that are listed on the National Register of Historic Places is The Sellers Farm in Maysville, which is located 2.1 miles to the southwest of where the proposed poultry houses would be placed on the 82 acre tract. SEE APPENDIX E-2. This historic site would not be visible from the proposed site, therefore the proposal should have no effect on it.

FSA consulted with the Arkansas State Historic Preservation Office (SHPO), Bob Komardley of the Apache Tribe of Oklahoma, Derek Hill of the Caddo Nation, Elizabeth Toombs of the Cherokee Nation, Corain Lowe-Zepeda of the Muscogee (Creek) Nation, Dr. Andrea Hunter of the Osage Nation, Everett Bandy of the Quapaw Tribe of Indians, Tonya Tipton of the Shawnee Tribe of Oklahoma, and Erin Thompson of the United Keetoowah Band of Cherokee Indians on 07/11/2019. SEE APPENDIX E-3. Arkansas SHPO provided a response on 08/09/2019, which concurred with FSA's finding that no historic property would be affected as a result of this proposed undertaking. A response was received on 08/05/2019 from the Cherokee Nation which indicated this proposal is within close proximity to the Cherokee Trail of Tears, a significant cultural and historical resource to the Cherokee Nation and required that a cultural resources survey be conducted. A response from the Muscogee (Creek) Nation dated 07/12/2019 indicates that Benton County is outside of the Muscogee (Creek) Nation's historic area of interest. No other responses from Indian Tribes with an interest in this area of Benton County replied to consultation letters. A cultural resource survey for this proposal would be conducted by Flat Earth Archaeology, LLC in August of 2019. Based on the results of the survey, Flat Earth Archeology recommends that the proposed undertaking meets the criteria for a finding of No Historic Properties Affected as per 36 CFR 800.4 (d)(1). No additional cultural resources investigation is recommended for the Project Area. SEE APPENDIX E-4. The results of the survey were forwarded to Arkansas SHPO and the Tribes listed above with an interest in Benton County on 09/03/2019.

Impacts of Proposed Action

Based on the proximity to the Sellers Farm in Maysville in relation to the Proposed Action, the response from Arkansas SHPO and the results of the cultural resource survey conducted by Flat Earth Archaeology, LLC, and the 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 (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. For land application outside this area, usage of a nutrient management plan is voluntary, however this proposed poultry farm would be located within the NSA.

This proposal would be located within the Beaty Creek Watershed (HUC 12: 110702090307) SEE APPENDIX G-1. Beaty Creek watershed is located within the Arkansas River basin and also located within the Spavinaw Creek Watershed (HUC: 11070209). SEE APPENDIX This proposal would take place within a designated nutrient surplus area of northwest Arkansas. SEE APPENDIX A-8. According to the Arkansas water plan the Arkansas River basin consists of nearly 6.7 million acres across the central and western part of Arkansas. Terrain in the Arkansas basin consist primarily of rolling hills and mountainous areas, as well as alluvial plains along the Arkansas River across the central part of the state. Streams in this basin have an annual approximate average yield of 12.4 million acre feet. Land

use in this basin is primarily established in forestland, followed by grasslands. REFERENCE ARKANSAS WATER PLAN. A Nutrient Management Plan (NMP) has been developed for this proposed operation by the Eucha/Spavinaw Watershed Management Team. SEE APPENDIX C-4. The NMP indicates that this proposed operation could receive 6 flocks per year, which would total 1,692,000 birds a year. Birds grown in these proposed houses could produce 1,600 tons of litter in one year, all of which would be exported off of this farm and land applied at another location outside of the Eucha/Spavinaw watershed. SEE APPENDIX C-4.

Impacts of Proposed Action

The applicants have submitted the 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 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 was developed by Frank Walker who implemented BMP's into the design of this proposed project. SEE APPENDIX C-1. The SWPPP indicates that stormwater leaving the proposed side would flow to the south. A 50,000 cubic foot sediment basin would be placed along the southern border of the proposed poultry house pads which would prevent runoff and sediment from leaving the proposed site. A 50' wide filter strip of existing vegetation surrounding the proposed site would be maintained and would act as a natural buffer. Sand bag barriers across drains, straw waddles, hay bales, and rock barriers would also be strategically placed in areas with concentrated flow. All exposed soil would eventually be mulched and seeded for stabilization once ground disturbing and grading activities associated with this proposal have taken place. A concrete washout area would be placed in the northwestern corner at the proposed site entrance. Any exposed soil would be seeded with a cool season grass mix once all proposed grading and ground disturbing activities have been completed. SEE APPENDIX C-1.

The applicants would utilize a composter as a method of dead bird disposal on the proposed broiler operation, which is an approved method by ANRC. The composter would lie in the southwest corner of this proposal.

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. According to the NMP, approximately 240 tons of cake would be produced on this farm annually and total house cleanout would produce 1,360 tons annually, all of which would be exported off the farm to another location. The applicants would be responsible for record keeping and adherence to the recommendations of the NMP that has been developed for this proposed operation. SEE APPENDIX C-4.

In summary, the applicants have submitted a SWPPP to ADEQ, 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. The Eucha/Spavinaw Watershed Management Team has developed a NMP for this proposed operation. The applicants would have an acceptable method of mortality disposal for their proposed operation and would be required to register their farm annually with the ANRC. 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 Benton 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 Arkansas Natural Resources Commission Final Report on Poultry Registration, 237 poultry farms registered for the 2018 production year in 2019. SEE APPENDIX K-4. According to NASS, Benton county had 97,000 head of cattle, including calves in 2019. SEE APPENDIX K-1. The proposed poultry house site is surrounded by pasture ground, rural residences, small blocks of timber, and integrated poultry operations in all directions. The nearest neighboring dwellings in relation to the proposal are approximately 800' to the southwest of this proposed broiler farm. SEE APPENDIX A-5. There are several residences along the county roads to the north, south, east and west of this proposal. The nearest church in relation to this proposal is Pleasant Center Church, which is located 2.8 miles to the southeast. SEE APPENDIX A-7. Sulphur Springs High School is located 7.16 miles northeast of the proposed site. SEE APPENDIX A-6. Agriculture has a strong presence in this area. There are several integrated poultry operations, and cattle and hay operations in this area. Benton County encompasses 884 square miles or roughly 565,760 acres. According to the 2017 Census of Agriculture approximately 43% of the land in Benton County is established farmland.

The discharge fans on these proposed facilities would point towards the east, away from the nearest neighboring residence. Any trees surrounding this proposal would act as a natural buffer that would help 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. An existing driveway would be extended, covered with gravel and 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 a composter 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 (6) broiler houses which would keep it dry and reduce the impacts of odor emitted by the litter. No litter produced by this proposed operation would be spread on pastures located within the Eucha/Spavinaw Watershed.

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, either in the proposed litter shed or it would be tarped in an elevated location to be kept out of the elements until it could be removed from the farm and land applied as fertilizer elsewhere.

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 routine farming operations that currently take place on this 86 acre tract of pasture ground, neighboring residences, and traffic is common along the numerous gravel county roads that surround this 86 acre tract. Existing conditions on site are generally quiet. The proposed site is currently used for grazing beef cattle. Noise from farm tractors and equipment, vehicle traffic, and other farming and human activity does exist, but is temporary in nature. The nearest neighboring dwellings in relation to the proposal are approximately 800' to the southwest of this proposed broiler farm. SEE APPENDIX A-5. There are several residences along the county roads to the north, south, east and west of this proposal. The nearest church in relation to this proposal is Pleasant Center Church, which is located 2.8 miles to the southeast. SEE APPENDIX A-7. Sulphur Springs High School is located 7.16 miles northeast of the proposed site. SEE APPENDIX A-6.

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. 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: According to the 2017 Census of Agriculture, there were 1,936 farms in Benton County and 243,753 acres devoted to farm ground. Pastureland accounts for 48% of the land use, Woodland accounts for 17%, Cropland accounts for 30%, and 5% of the land is for other land uses. 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. According to the Official Endangered and Threatened Species list that was obtained for this area and the Farm Service Agency Programmatic Decision Key, the proposed project may affect, but is not likely to adversely affect threatened or endangered species in Arkansas and that no further consultation with the USFWS Arkansas Regional Field Office is necessary. 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 as well as the water supplies utilized by wildlife in this vicinity. The proposed site is currently utilized as pasture ground and primarily established in Bermuda grass. No tree removal would be necessary to implement the proposed action. The proposal would require the removal of (2) man made ponds, however these ponds would be replaced with the sediment basin that would be placed south of the proposed poultry house pads. 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. Shovel testes from the cultural resource survey yielded negative results. SEE APPENDIX E. 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. Adherence to the SWPPP and ADEQ Permit ARR 150000 would help

protect water quality in this area. Poultry litter produced as a result of this proposed broiler operation would be exported off of the farm, or stored in the broiler houses, or in the proposed litter shed until it could be exported to another location outside of the Eucha/Spavinaw watershed. The proposed operation would have an ANRC approved method of mortality disposal in place, would be required to maintain a current NMP, as well as register their proposed operation with ANRC on an annual basis.

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 Sevier County, AR. This proposed operation is surrounded by hardwood timber to the south and west, which 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 south. The nearest neighbor is 720 feet to the northeast of 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 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]	Applicants
[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
Derek Hill	Caddo Nation

Elizabeth Toombs	Cherokee Nation
Lindsey D. Bilyeu	Choctaw Nation of Oklahoma
Corain Lowe-Zepeda	Muscogee (Creek) Nation
Dr. Andrea Hunter	Osage Nation
Tonya Tipton	Shawnee Tribe of Oklahoma
Erin Thompson	United Keetowah Band of Cherokee Indians
Frank Walker	Storm Water Pollution Prevention Plan
Chris Branam, RPA	Flat Earth Archaeology, LLC

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 Benton 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: Benton County:

<https://www.uaex.edu/business-communities/strategic-planning/docs/county-profiles/sevier-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

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	

