U.S. DEPARTMENT OF AGRICULTURE Farm Service Agency

DRAFT ENVIRONMENTAL ASSESSMENT

Two Rock Road Waco, Georgia 30182 Haralson County, Georgia

Broiler Poultry Farm Proposal

Prepared by
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State Environmental Coordinator

February 13th, 2024

COVER SHEET

| Proposed Action: | The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to provide loan assistance for the applicant to establish an integrated (4) tunnel ventilated broiler houses that would each be 66'x600' Broiler Houses with the potential capacity to hold a maximum of approximately 39,600 birds/flock each, for a total of approximately 158,400 birds per flock. On average, 4 flocks would be raised each year. A flock of broilers is typically kept on the farm for approximately 60 days. The project site consists of 65.7 acres with 17.50 acres. The proposed project site is located Land Lot 189 in the 8 th District and 5th Section of Haralson County, Georgia (33°39'36.64"N, 85°18'33.63"W). |
|------------------------|--|
| Type of | This is a site-specific Environmental Assessment |
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| Further | USDA, Farm Service Agency |
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| Comments: | This PEA was prepared in accordance with USDA FSA National Environmental Policy Act (NEPA) implementing procedures found in 7 CFR Part 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 February 14 th , 2024, and February 21 th , 2024, in the Chatworth Times with instructions for providing written comments. A copy of the Draft EA and related material will be made available as provided by the NOA at USDA, Farm Service Agency, 1282 |
| | SR 53 Spur, STE 100, Calhoun, GA 30701-7636. The Draft EA document itself will also be posted from February 14 th , 2024 to March 15 th , 2024 on the FSA State website at: https://www.fsa.usda.gov/state-offices/Georgia/index . |
| | Written comments regarding the Draft EA will be accepted through March 15 th , 2024. Comments should be mailed to the following address: |
| | USDA, FSA Farm Service Agency Attn: Christopher R. Anderson 355 E. Hancock Ave. Athens, GA 30601-2775 |

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Acronyms and Abbreviations

| 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 | |
| 1-EQ | Environmental Quality Handbook | |
| EA | Environmental Assessment | |
| ЕО | Executive Order | |
| EPA | Environmental Protection Agency | |
| EQUIP | Environmental Quality Incentives Program | |
| FEMA | Federal Emergency Management Agency | |
| FONSI | Finding of No Significant Impact | |
| FSA | Farm Service Agency | |
| GADNR-EPD | Georgia Dep. Of Natural Resources – Environmental Protection Division | |
| GHG | Green House Gases | |
| GPM | Gallons per Minute | |
| GPM | Groundwater Management Plan | |
| HUC | Hydrologic unit code | |
| IPaC | Information for Planning and Conservation | |
| MA/NLAA | May Affect, Not Likely to Adversely Affect | |
| NASS | National Agricultural Statistics Service | |
| 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. Executive Summary

1.1 Background

The United States Department of Agriculture (USDA) Farm Service Agency (FSA) proposes to provide loan assistance for the applicant to establish an integrated (4) tunnel ventilated broiler houses that would each be 66'x600' Broiler Houses with the potential capacity to hold a maximum of approximately 39,600 birds/flock each, for a total of approximately 158,400 birds per flock. On average, 4 flocks would be raised each year. A flock of broilers is typically kept on the farm for approximately 60 days. The poultry houses would have dirt (compacted clay) floors and would be considered dry poultry litter houses. In addition, the applicant would be required to install related utilities and infrastructure. The project site consists of 65.7 acres with 17.50 acres. The proposed project site is located Land Lot 189 in the 8th District and 5th Section of Haralson County, Georgia (33°39'36.64" N, 85°18'33.63" W). Appendix A contain maps and photographs of the proposed project area. A detailed description of the components of the proposed project, the project area and related surrounding area is further described in Section 2.1 of this document.

1.2 Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to implement USDA FSA Farm Loan Programs, which makes available economic opportunity to help rural America thrive, and to promote agriculture production that better nourishes Americans and helps feed other 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 Code of Federal Regulations (CFR) Parts 762 and 764. FSA's proposed action is to make an FSA Direct Participation Loan to finance the construction of four (4) 66'x600' Broiler Poultry Houses located at Land Lot 189 in the 8th District and 5th Section of Haralson County, Georgia (33°39'36.64" N, 85°18'33.63" W).

The need for the action is to fulfill FSA's responsibility to consider an application for an FSA Direct Participation Farm Ownership Loan, provide access to credit when viable, help improve the stability and strength of the agricultural economy, provide viable farming opportunities for family size farmers or ranchers, and meet the financial needs of small and beginning farmers or ranchers, women, and minorities. Specifically, in the case of this FSA Loan, FSA's need is to respond to the applicant's request for funding to support the proposed action.

The University of Georgia Extension Service states that per capita chicken consumption in the United States has doubled since 1978. Haralson County is not in the top then poultry producing counties, indicating that the market is likely not saturated in the county.

National Chicken Council states that the 2023 poultry consumption per capita 100.1 lbs.¹ They project that in 2024 there will be a demand of 100.6 lbs. of poultry consumption per capita.² There has been an increasing demand for poultry in the United States, and it is projected to continue to increase, requiring additional production (UGA Extension – Poultry and Eggs).

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

1.3 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. NEPA requires that all agencies of the Federal Government prepare a detailed statement for major Federal actions significantly affecting the quality of the human environment. The detailed statement is to include the environmental impact of the proposed action, any adverse environmental effects that cannot be avoided, alternatives to the proposed action, statements assessing the environmental impact of the action and alternatives. These statements are commonly referred to as Environmental Impact Statements (EIS) and Environmental Assessments (EA).

1.4 Right to Farm

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 Georgia include the following protections: see appendix (C):

¹ National Chicken Council. September 2023. Per Capita Consumption of Poultry and Livestock, 1960 to Forecast 2024, in Pounds.

² National Chicken Council. September 2023. Per Capita Consumption of Poultry and Livestock, 1960 to Forecast 2024, in Pounds.

§ 41-1-7. Treatment of agricultural facilities and operations and forest land as nuisances.

It is the declared policy of the state to conserve, protect, and encourage the development and improvement of its agricultural and forest land and facilities for the production or distribution of food and other agricultural products, including without limitation forest products. When nonagricultural land uses extend into agricultural or agriculture-supporting industrial or commercial areas or forest land or when there are changed conditions in or around the locality of an agricultural facility or agricultural support facility, such operations often become the subject of nuisance actions. As a result, such facilities are sometimes forced to cease operations. Many others are discouraged from making investments in agricultural support facilities or farm improvements or adopting new related technology or methods. It is the purpose of this Code section to reduce losses of the state's agricultural and forest land resources by limiting the circumstances under which agricultural facilities and operations or agricultural support facilities may be deemed to be a nuisance.

As used in this Code section, the term:

"Agricultural area" means any land which is, or may be, legally used for an agricultural operation under applicable zoning laws, rules, and regulations at the time of commencement of the agricultural operation of the agricultural facility at issue and throughout the first year of operation of such agricultural facility. Any land which is not subject to zoning laws, rules, and regulations at the time of commencement of an agricultural operation of an agricultural facility and throughout the first year of operation of such agricultural facility shall be deemed an "agricultural area" for purposes of this Code section.

"Agricultural facility" includes, but is not limited to, any land, building, structure, pond, impoundment, appurtenance, machinery, or equipment which is used for the commercial production or processing of crops, livestock, animals, poultry, honeybees, honeybee products, livestock products, poultry products, timber, forest products, or products which are used in commercial aquaculture. Such term shall also include any farm labor camp or facilities for migrant farm workers.

"Agricultural operation" means:

The plowing, tilling, or preparation of soil at an agricultural facility;

- (B) The planting, growing, fertilizing, harvesting, or otherwise maintaining of crops as defined in Code Section 1-3-3 and also timber and trees that are grown for purposes other than for harvest and for sale;
- (C) The application of pesticides, herbicides, or other chemicals, compounds, or substances to crops, weeds, or soil in connection with the production of crops, timber, livestock, animals, or poultry;
- (D) The breeding, hatching, raising, producing, feeding, keeping, slaughtering, or processing of livestock, hogs, equines, chickens, turkeys, poultry or other fowl normally raised for food, mules, cattle, sheep, goats, dogs, rabbits, or similar farm animals for commercial purposes;
- (E) The production and keeping of honeybees, the production of honeybee products, and honeybee processing facilities;
- (F) The production, processing, or packaging of eggs or egg products;

- (G) The manufacturing of feed for poultry or livestock;
- (H) The rotation of crops, including without limitation timber production;
- (I) Commercial aquaculture;
- (J) The application of existing, changed, or new technology, practices, processes, or procedures to any agricultural operation; and
- (K) The operation of any roadside market.
- "Agricultural support facility" means any food processing plant or forest products processing plant together with all related or ancillary activities, including trucking; provided, however, that this term expressly excludes any rendering plant facility or operation.

"Changed conditions" means any one or more of the following:

Any change in the use of land in an agricultural area or in an industrial or commercial area affecting an agricultural support facility;

An increase in the magnitude of an existing use of land in or around the locality of an agricultural facility or agricultural support facility and includes, but is not limited to, urban sprawl into an agricultural area or into an industrial or commercial area in or around the locality of such facility, or an increase in the number of persons making any such use, or an increase in the frequency of such use; or

The construction or location of improvements on land in or around the locality of an agricultural facility or agricultural support facility closer to such facility than those improvements located on such land at the time of commencement of the agricultural or agricultural support operation or the agricultural facility or agricultural support facility at issue and throughout the first year of operation of said facility.

"Food processing plant" means a commercial operation that manufactures, packages, labels, distributes, or stores food for human consumption and does not provide food directly to a consumer.

"Forest products processing plant" means a commercial operation that manufactures, packages, labels, distributes, or stores any forest product or that manufactures, packages, labels, distributes, or stores any building material made from gypsum rock.

"Rendering plant" has the meaning provided by Code Section 4-4-40.

"Urban sprawl" means either of the following or both:

With regard to an agricultural area or agricultural operation:

The conversion of agricultural areas from traditional agricultural use to residential use; or An increase in the number of residences in an agricultural area which increase is unrelated to the use of the agricultural area for traditional agricultural purposes. With regard to an agricultural support facility: The conversion of industrial or commercial areas to residential use; or

An increase in the number of residences in an industrial or commercial area which increase is unrelated to the use of the industrial or commercial area for traditional industrial or commercial purposes.

No agricultural facility, agricultural operation, any agricultural operation at an agricultural facility, agricultural support facility, or any operation at an agricultural support facility shall be or shall become a nuisance, either public or private, as a result of changed conditions in or around the locality of such facility or operation if the facility or operation has been in operation for one year or more. The provisions of this subsection shall not apply when a nuisance results from the negligent, improper, or illegal operation of any such facility or operation.

For purposes of this Code section, the established date of operation is the date on which an agricultural operation or agricultural support facility commenced operation. If the physical facilities of the agricultural operation or the agricultural support facility are subsequently expanded or new technology adopted, the established date of operation for each change is not a separately and independently established date of operation and the commencement of the expanded operation does not divest the agricultural operation or agricultural support facility of a previously established date of operation.

1.5 Other Regulations

Other relevant policies, laws, and regulations applicable to this EA are summarized below.

- ➤ Clean Water Act (CWA), 33 USC §§ 1251-1387
- ➤ Clean Air Act (CAA), as amended, 42 USC §§ 7401-7671q, including 1990 General Conformity Rule
- ➤ Endangered Species Act (ESA) of 1973, as amended (7 USC 136; 16 USC 1531 et seq.)
- National Historic Preservation Act (NHPA) (16 USC 470 et seq.)

1.6 Public Involvement and Consultation

1.6.1 Public Involvement

This document is available for public review and comment from February 14th, 2024, through March 15th, 2024, at the USDA FSA Gordon County Farm Service Agency Farm Loan Office 1282 SR 53 Spur SW, STE 100, Calhoun, Georgia 30701-7636. It is also available on-line at available on-line at: https://www.fsa.usda.gov/state-offices/Georgia/index. A notice of the availability of the document was published in the Chatsworth Times on February 14th, 2024. Written comments may be submitted to USDA FSA Farm Loan Division, Christopher R. Anderson Farm Loan Specialist / Environmental Coordinator at 355 E. Hancock Ave. Athens, Georgia 30601-2775 through March 15th, 2024.

1.6.2 Agency Consultation

USDA undertook the following efforts and research to aid in determining the potential impacts of the proposed action:

- ➤ Consulted the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC) about the project potential to affect federally listed species. See Appendix (B). Also, completed informal consultations under Section 7 of the Endangered Species Act with the USFWS Field Office, and Georgia Ecological Service office in Athens, Georgia. See Appendix (B).
- ➤ Consulted with the State Historic Preservation Officer (SHPO) to ensure the requirements of 54 U.S.C. 306108 (Section 106 of the National Historic Preservation Act) were properly addressed. See Appendix (B).
- ➤ Consulted with eight Tribal Historic Preservation Officers (THPO) to ensure the requirements with Native American Graves Protection and Repatriation Act (NAGPRA). See Appendix (B).
- NRCS's consultant addressed potential jurisdictional waters of the U.S., and preformed screening for areas meeting the three (3) mandatory criteria of wetlands in accordance with the procedures of the U.S. Army Corps of Engineers (USACE) methods as described by the 1987 Corps of Engineers Wetland Delineation Manual³ and Atlantic Gulf Coast Regional Supplement⁴ were used to determine the potential presence, and extent of wetlands and waters of the United States relative to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

1.7 Decision to be Made

This EA analyzes the proposed actions to grant a request for FSA loan assistance toward for the applicant to establish an integrated (4) tunnel ventilated broiler houses that would each be 66'x600' Broiler Houses with the potential capacity to hold a maximum of approximately 39,600 birds each, for a total of

³ Environmental Laboratory. 1987. Wetlands Delineation Manual. U.S. Army Corps of Engineers Wetlands Research Program Technical Report Y-87-1. Vicksburg, MS.

⁴ Wetland Regulatory Assistance Program. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic Gulf Coast Region (Version 2.0). U.S. Army Corps of Engineers ERDC/EL TR-12-9. Vicksburg, MS.

approximately 158,400 birds per flock. These proposed actions are analyzed in this EA along with the associated no-action alternatives as required under federal law.

Chapter 2 of this EA includes the Description of the Proposed Actions and Alternatives, Chapter 3 includes the Affected Environments, and Chapter 4 includes the Environmental Impacts. If the result of the EA is the identification of no significant impacts resulting from the proposed actions, a Finding of No Significant Impact (FONSI) document will be prepared. If significant impacts are identified, the USDA would undertake mitigation to reduce impacts to below the level of significance to reach a FONSI, undertake the preparation of an EIS addressing the proposed actions, or abandon the proposed actions.

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The proposed action involves a request for FSA loan assistance to for the applicant to establish an integrated (4) tunnel ventilated broiler houses that would each be 66'x600' Broiler Houses with the potential capacity to hold a maximum of approximately 39,600 birds each, for a total of approximately 158,400 birds per flock. The proposed project site (Site) is located Land Lot 189 in the 8th District and 5th Section of Haralson County, Georgia (33°39'36.64" N, 85°18'33.63" W).

The applicant ("Grower") plan to enter into a contract with an established poultry production company ("Integrator"), to grow out broilers to market size on the proposed poultry farm. The Growers and their family would provide and maintain the housing, equipment, litter, utilities, and day to day labor required to house, care for, and manage the flock including feeding, watering, brooding, waste disposal, maintaining the houses, and providing for animal welfare, sanitation, and biosecurity.

The integrator would provide the Grower with poultry broilers, feed, labor to deliver broilers, labor for catching, loading, and hauling broilers from the farm, veterinary services, and technical support.

The Grower would be paid for his services and infrastructure per contractual agreement based on the amount/pounds of poultry produced for market and a relate formula that factors in various grower performance incentives and reductions. All chicken produced would be sold through the Integrators wholesale distribution network.

The applicant will be purchasing approximately 65.7-acre parcel of real estate from a timber company. Presently the Site property consists of 65.7-acres of woodland. The property is mostly landlocked but is accessible from the Northeast by 2 Rock Road. Approximately 17.50-acres will be graded for the construction of four poultry houses and related infrastructure.

The area surrounding the proposed poultry farm appears to be woodland, pasture, and rural residences. The closest residence to the Northeast point of the property is approximately 483.12 feet to the East and from the Southwestern point is approximately 1,451.98 feet. The boarder of the property consists of mature hardwoods and a mixture of softwoods.

The surrounding area in the vicinity of the Site is primarily rural in nature. Appendices (A) contain maps and photographs of the proposed project area. The development or construction of the poultry farm would include mechanical site preparation including leveling, excavating, trenching, drilling of well(s) and grading of approximately 17.50-acres of land. The leveling and grading would provide a level site for the poultry house construction and achieve the desired surface which would be graded to control water flow patterns and potential drainage from the Site. Following construction, the disturbed area around the poultry houses and other facilities would be seeded with grass seed and loading zones, roads, and parking areas would be graveled/stoned to stabilize exposed soils and reduce runoff. All poultry structures would

be designed by a professional engineer to meet integrator specifications as well as all applicable federal, state, and local regulations and laws.

Construction and improvements that would be funded include the following (details are provided in the following paragraphs).

- Four poultry (broiler) houses w/equipment.
- > Site preparation (clearing, leveling, grading, excavation, etc.).
- > Development of loading areas, roads, and parking areas.
- > Drilling of water well(s).
- > Trenching water and electrical lines to the buildings.
- Enclosed on concrete pads to house propane powered backup generator, concrete pads with bulk feed bins and liquid propane tank.
- Covered litter stacking shed.

As birds are removed, litter would be windrowed (heaped into rows using a skid loader, tractor, or specialized equipment, to allow for composing to destroy bacteria and other microorganisms).

Litter could be removed, based on the judgement of the Grower, before another flock is delivered; however, it is typically more efficient to complete whole house clean on an annual basis. When the solid litter is removed from the poultry houses it would be stored under cover in a specially designed litter stacking shed. Both the poultry houses and shed would be outfitted with heavy use load out pads to contain any spillage and mitigate potential for contact with rainwater or run off. Litter would be removed from storage on a limited/periodic basis per the provisions of applicant's site-specific Comprehensive Nutrient Management Plan see Appendix (C), based on related soil testing, for application as fertilizer. All such plans were developed by technically trained professionals employed by the USDA, Natural Resources Conservation Service. Biosecurity measures that would be employed on the proposed poultry farm would include, but not limited to, prohibiting the presence of other poultry or fowl and limitation of the movement of non-essential people, vehicles, and equipment in and around the poultry houses. In the event of a contagious disease outbreak threatening the farm, the applicant, as required by the Integrator would comply with all directives of local, state, and federal agencies.

The proposed construction project would begin in mid-2024 and require approximately 4 to 6 months to complete and all engineering plans are created, and all right sized permits awarded. Typically, construction would take place during normal day light working hours and primarily Monday through Friday. There will be an increase in large truck traffic during construction. Once completed traffic will be similar to current operations and include feed, delivery, and haul trucks.

2.2 Alternative Locations

This was the only parcel provided for consideration by the applicant, as other tracts are not desired to be used for the proposed action. Therefore, no other alternative locations besides the Site were provided for consideration as part of this EA.

2.3 Alternative Arrangements

Alternative Arrangements for the siting of the broiler houses were considered for locations on the Site that were at least five acres in size and feasible for construction. Selection criteria for the location of the proposed action on the Site were identified. The proposed action and suitable alternative location must:

- > Be located on property owned by the Grower.
- ➤ Avoid impacts to wetlands and floodplains.
- ➤ Avoid impacts to cultural or historic resources.
- > Require minimal land clearing and grading.
- ➤ Utilize existing Site infrastructure to the extent practicable; and
- Limit impacts to soils classified as prime farmland and farmland of statewide importance.

2.1.1 Alternative Arrangement 1 – Central Location of the property (Preferred location)

This area is currently pines (6-8 years-old). This location meets all the suitable selection criteria with the requirements of the civil engineer soil erosion, and sediment plan survey described above; therefore, this alternative has been retained for analysis.

2.1.2 Alternative Arrangement 2 - Eastern portion of Property

The location of the broilers could be moved to the Eastern portion of the property. This scenario is not suitable due to requirement of minimal land clearing and grading. The soil maps indicate not suitable soils with steeper land shown by the topography map. Furthermore, alternative arrangement 2 would not meet the counties set back requirements. This is not preferred from an operational efficiency perspective; it is excluded from detailed analysis.

2.4 No Action Alternative

The no action alternative means the proposed poultry farm facilities would not be funded and therefore would not be built. This would result in the continuation of existing conditions on the proposed site and no changes to the existing environment would occur.

3. AFFECTED ENVIRONMENT

3.1 Resources Eliminated from Detailed Analysis

CEQ regulations (40 CFR 1501.7(a)(3)) indicate that the lead agency should identify and eliminate from detailed study the issues that are not important 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.

The following resources have been eliminated from detailed analysis in this EA document because they are not applicable to the Site or proposed action due to avoidance by geographic location of the Site or constraints of the proposed action and therefor do not require detailed analysis to determine that the proposed action will have either no impact or no significant impact to the resource.

3.1.1 Coastal Barrier

Effects to coastal barriers were eliminated from detailed analysis because Haralson County does not have designated coastal barrier areas. Haralson County is 150 miles from the Georgia Coast. The proposed action will have no impact to this resource.

3.1.2 Coastal Zone

Effects to coastal zone were eliminated from detailed analysis because Haralson County does not have designated coastal zone management area. Haralson County is over 150 miles from the Georgia Coast. The proposed action will have no impact to this resource.

3.1.3 Wilderness Areas

Effects to wilderness areas were eliminated from detailed analysis. The nearest wilderness areas are Dugger Mountain Wilderness in Alabama approximately 40.1 miles and Cheaha Wilderness in Alabama is approximately 55.9 miles from the site, not within the Haralson County, and will not be impacted. The proposed action will have no impact on this resource.

3.1.4 Wild and Scenic Rivers/Nationwide Rivers Inventory {NRI}

Effects to Wild and Scenic Rivers/National Rivers Inventory were eliminated from detailed analysis because the Site is located approximately 177 miles from the Chattooga Wild and Scenic River. This is the nearest river found on the Wild and Scenic Rivers Systems and clearly will not be impacted by this project.

3.1.5 National Natural Landmarks

Effects to National Natural Landmarks were eliminated from detailed analysis because the nearest National Natural Landmark is the Marshall Forest, which is located approximately 50.7 miles from the Site. The landmark will not be impacted by this project. The proposed action will have no impact to this resource.

3.1.6 Sole Source Aquifers

Effects to sole source aquifers were eliminated from detailed analysis because Haralson County does not have any sole source aquifers or sole source aquifers recharge areas located beneath the surface. The proposed action will have no impact to this resource.

3.1.7 Topography

Effects to topography were eliminated from detailed analysis because the proposed action and alternatives considered are all located on a single Site and require minimal to no substantial change to topography therefore have no significant impact to this resource.

3.1.8 Geology

Effects to geology were eliminated from detailed analysis because the proposed action and alternatives considered are all located on a single Site and require minimal surface grading, there is no deep excavation or blasting required for the proposed action and therefor will have no impact to this resource.

3.1.9 Groundwater and Water Supply

Approximately 5 acres of impervious surface will result from the construction of four 66'x600' broiler houses. This is unlikely to have a significant impact on the percolation of surface water into the groundwater and water supply and the local or county level scale. Greater than 90 percent of the property will still be non-impervious surface. Because the proposed action and alternatives considered are all located on a single Site and require minimal surface grading, there is no deep excavation or blasting, and the planned use is consistent with current land use and is not a water intensive operation, the proposed action will have no significant impact to this resource.

3.1.10 Floodplains

Effects to floodplains were eliminated from detailed analysis because none of the proposed Alternative Arrangements are within the floodplain. None of the Alternative Arrangements considered would impact a floodplain. See Appendix (A). The proposed action will have no impact to this resource.

3.1.11 Hazardous Materials & Waste

Hazardous Materials and waste will not be produced during construction or by the broiler houses. The proposed action will have no impact to this resource.

3.1.12 Toxic Materials and Waste

Toxic materials and waste will not be produced during construction or by the broiler houses. The proposed action will have no impact to this resource.

3.1.13 Socioeconomics and Environmental Justice

The proposed action will not cause any adverse human health or environmental effects as defined in Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations". The proposed action will occur on land zoned for the activity and where the activity is currently occurring and is being pursued at the request of the property owner. The proposed action would have no impact to this resource and would provide beneficial impact to this resource.

3.1.14 Transportation

There will be nominal increases in vehicular traffic during construction, and no significant increase in traffic for operations. Given the rural nature of the area, and distance to the city of Chatsworth, the proposed action will have no impact to this resource.

3.2 Resources Considered with Detailed Analysis

This section describes the existing environment within the areas potentially affected by the proposed action. The existing environment resources provide the basis for analysis of potential impacts on the environment in Chapter 4 from the proposed action and no action alternatives. Site-specific information presented in this section is derived from onsite evaluation and information available from public information resources. A complete list of references used in the preparation of this EA is provided in Chapter 7.0 (References). The following table (Table 3-1) provides a summary of existing environmental resources that are present at the Site potentially affected by the proposed action.

| TABLE 3-1 SUMMARY OF EXISTING ENVIRONMENT | | |
|---|--|--|
| Threatened and | Mammals: Northern Long-eared Bat. | |
| Endangered Species | Birds: Whooping crane. | |
| | Clams: Finelined Pocketbook. | |
| | Insects: Monarch butterfly. | |
| Wildlife Species | Upland songbirds, game birds, deer, small mammals. | |
| Habitat | 65.7 ac. Timber | |
| Wetlands | None Present | |
| Steams & Rivers | 0.0-mi. | |
| Land Use | Commercial Timber | |
| USDA-NRCS Hydric Soil | 0.0 acres of the Site. | |
| Series | | |
| Prime Farmland | 0.0 ac. | |
| Farmland of Statewide | 0.0 ac. | |
| Importance | | |
| Cultural Resources | None Listed | |

3.1.15 Threatened and Endangered Species

The USFWS IPaC system was utilized to obtain an official species list for the Area of Potential Effect (APE). Animal species of concern identified by desktop analysis were the Northern Long-eared Bat, Whooping Crane, Finelined Pocketbook, and Monarch Butterfly. None of these species were identified on the property or within Alternative Arrangement 1. An attempt was made to consult with the USFWS by sending a consultation letter see Appendix (B). USFWS did not respond.

3.1.16 Wildlife and Habitat

Effort was made to determine non-threatened species that might be on or utilize the Site. Wildlife habitat on the Site is typical with agricultural and woodland in Northwestern Georgia. Common mammals in the area could include feral hogs, white-tailed deer, coyote, and raccoon. Common birds might include songbirds, game birds such as turkey, ducks, geese, and hawks. Reptiles and amphibians on site would primarily utilize the forested and wetland areas and could include box turtles, American alligator snaping turtle, and yellowbelly spider. The wildlife that exists within Alternative Arrangement 1 likely consists

of upland songbirds, game birds, deer, and small mammals.

Native vegetation on the Site is consistent with that found in the Southern western Mountains of Georgia. Vegetative cover on the Site is predominantly forested woodland for commercial timber. The Site is within the Talladega Upland and Southern Inner Piedmont Ecoregion. The vegetation that exists within the Alternative Arrangement is similar to the rest of the area in species composition. The forested area was composed mostly of mix of Oak (Quercus), Hickory (Carya), and mostly Pine (Pinus). Virginia Creeper (Parthenocissus quinquefolia), Muscadine (Witis rotundifolia) for flora.

3.1.17 Water Quality

Depth to groundwater or groundwater elevation at the Site was not determined during the course of this evaluation. According to the soil survey of the area, the depth to groundwater in the majority of the soils at the Site is greater than 200 centimeters below the surface. Based on the topographic map of the Site vicinity, the groundwater flow direction is estimated to be to the Southwest towards the creek off the property.

The Site and surrounding properties are not served by municipal water or sewer systems. Water supply in the area is provided by private wells.

3.1.18 Soils

Soil types were identified for the entire Site using USDA-NRCS Web Soil Survey. The soil types within the entire 65.7-acre Site are Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded, Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded, and Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded. according to the USDA-NRCS Web Soil Survey.

The soils that exist within Alternative Arrangement 1 are Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded, Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded, and Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded. The soils in Alternative Arrangement 1 did not meet USACE criteria for hydric soils during field verification, which Web Soil Survey rates theses soils at 0% for hydric.

3.1.19 Important Land Resources

According to Web Soil Survey there is no prime farmland and farmland of statewide importance within the Site, and prime farmland within the Project Area Alternative Arrangements.

3.1.20 Noise

There are currently no noises sources present on the Site. The nearest residences are two homes greater than 500 feet from the Site. Both residences are slightly downslope of the Site which should provide

some level of sound barrier. One neighbor lives close to the entry access to the property. The increase noise level will be when load in/out poultry trucks enter with the feed trucks. The other neighbor is located Southwest of the property and will not be affected by noise. There are no other residences within 1,000 feet.

3.1.21 Cultural Resources

Presently the Site is commercial timber stand which was previous harvested over 2 years ago with no apparent recent groundbreaking activity. Consultation letters were sent to the SHPO and THPO for eight tribes. The State Historic Preservation Office found that no historic properties that are listed or eligible for listing in the NRHP will be affected by this undertaking, as defined in 36 CFR Part 800.4(d)(1). HPD's option that the subject project, as proposed, will have **no adverse effect** to historic properties within its APE, as defined in 36 CFR Par 800.5(d)(1), due to the scope of work. The tribes contacted were the Alabama Coushatta Tribe of TX, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Kialegee Tribal Town, Muscogee Nation, Porach Band of Creek Indians, Seminole Nation of Oklahoma, and Thlopthlocco Tribal Town, indicating no concerns on the Site. FSA did not receive any concurrence from the tribes consulted with. The SHPO responded on November 27, 2023, indicating that this proposed action will have no adverse effect to historic properties.

4. Environmental Impacts

This chapter describes and analyzes the potential environmental impacts of implementing the proposed actions for this EA and alternatives considered. The environmental impacts for the activities associated with the proposed action are based on the description of the actions as presented in Chapter 2 and existing environmental conditions within the proposed action areas as presented in Chapter 3. The environmental impacts from the no-action alternatives address impacts as they currently occur or would occur in the future without implementation of the proposed actions.

A summary of the environmental impacts for each resource area for the proposed action is presented in Table 4-1 below.

| Tal | ble 4-1 | |
|---|-----------------------------|--|
| Summary of Environmental Impacts of Proposed Action | | |
| Physical Environment | | |
| Topography | No Significant Impact | |
| Geology | No Impact | |
| Soils | No Significant Impact | |
| Land Use | No Significant Impact | |
| Biological Environment | | |
| Vegetation | No Significant Impact | |
| Wildlife | No Significant Impact | |
| Endangered Species | No Impact | |
| Water Resources | | |
| Surface Waters and Water Quality | No Significant Impact | |
| Floodplains | No Impact | |
| Wetlands | No Impact | |
| Stormwater | No Significant Impact | |
| Groundwater and Water Supply | No Impact | |
| Air Quality | | |
| Air Quality | No Significant Impact | |
| Noise | | |
| Noise | No Significant Impact | |
| Cultural Resources | | |
| Cultural Resources | No Impact | |
| Socioeconomics and Environmental Justice | - | |
| Socioeconomics | Potential Beneficial Impact | |
| Environmental Justice | No Impact | |

4.1 Threatened and Endangered Species

4.1.1 Impacts of Proposed Actions

There would likely be no impact to threatened or endangered species from Alternative Arrangement 1. Adequate habitat was not identified to be present on the Site for any of the species listed. None of these species were identified during the site visit. See Appendix (B) There would be no impact to this resource.

4.1.2 Impacts of no Action

If the proposed action is not implemented, then the existing conditions for threatened and endangered species on the Site would continue and no impact would occur.

4.2 Wildlife and Habitat

4.2.1 Wildlife

4.2.2 Impacts of Proposed Actions

The Site would cause impact to approximately 17.50 acres of forested land that is serving as habitat for non-threatened or non-endangered species such as upland birds, game birds, deer, and small mammals. Several non-threatened and non-endangered species were encountered within the Site during the field survey. Even after this disturbance, the surrounding land would remain forested or native grassland/native habitat to support these species and the Proposed Action would likely not have an impact on populations on the Site or surrounding vicinity. There would be no significant impact to this resource.

4.2.3 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for non-threatened and non-endangered wildlife on the Site would continue and no impacts would occur.

4.2.4 Vegetation

4.2.5 Impacts of Proposed Actions

Approximately 17.50 acres of Talladega Upland and Southern Inner Piedmont Ecoregion habitat would be lost from the implementation of Alternative Arrangement. Even after this disturbance, the surrounding land area will hold enough habitat where loss of these species would not be a negative impact. There would be no significant impact to this resource.

4.2.6 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for vegetation on the Site would continue and no impacts would occur.

4.3 Wetlands and Waters

4.3.1 Wetlands

4.3.2 Impacts of Proposed Action

Effects on wetlands were analyzed within Alternative Arrangement 1. The results of the field screening indicated there are likely no jurisdictional waters of the US within the Site based on the U.S. Army Corps of Engineers definition. The poultry houses will be placed in the Northeastern central part of the property. The Site does not possess a positive indicator for wetland hydrology or hydric soils per USAACE requirements and are not considered to be wetlands. Care should be taken during construction of the new broiler houses to maintain proper drainage.

Given that Alternative Arrangement 1 is not located within a wetland, and that proper BMPs for erosion control would be followed, it is unlikely that permanent impacts will occur to wetlands on or adjacent to the property. There would be no impact to this resource.

4.3.3 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for wetlands on the Site would continue and no impacts would occur.

4.3.4 Waters

4.3.5 Impacts of Proposed Action

Alternative Arrangement 1 may further impact sheet flow to creeks, streams, or rivers outside the vicinity of the Site. This would occur because of grading and ditching for construction of the broiler houses. Stormwater and surface flow will still move South and West. If BMPs are followed it is unlikely that significant impacts to stormwater and surface flow will occur. There would be no significant impact to this resource.

4.3.6 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for waters on the Site would continue and no impact would occur.

4.4 Water Quality

4.4.1 Impacts of Proposed Action

The Environmental Protection Agency (EPA) set the standards for water pollution abatement and stormwater management for all U.S. waters under the programs contained in the Clean Water Act (CWA), but in most cases gives qualified States the authority to issue and enforce permits. In that regard, the Georgia Department of Natural Resources, Environmental Protection Division is the state agency in charge of monitoring water quality in Georgia. The proposed operation is defined by EPA as a large Concentrated Animal Feeding Operation (CAFO) based on the number of birds to be housed at any given time. This poultry farm produces dry litter. In Georgia, CAFOs that are dry litter operations do not have to obtain a permit from Georgia EPD unless they are discharging to a water of the State excluding subsurface water (groundwater). In this case, this operation will not be discharging into water of the State, therefore this operation is not required to obtain an operating permit.

The closest waterway to this farm appears to be an unnamed Branch which is approximately 1,226 feet Southwest of Alternative Arrangement 1. The branch runs along the Western property line from Northwest to Southwest. Waste is being shipped off site, sold locally, and should not affect the unnamed Branch.

The operator's do have to address storm water runoff and are required to obtain a General NPDES Permit No. GAR100001 for Stormwater Discharges Associated with Construction Activities for Stand Alone Construction Projects. In this regard, the operators will hire an engineering firm, to generate a Sediment and Erosion Control Plan. All the required permits pertaining to the construction have been applied for and awaiting to be awarded.

Based on these mitigation measures Alternative Arrangement 1 will not have an adverse effect on water quality. There would be no significant impact to this resource.

4.4.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for water quality on the Site would continue and no impacts would occur.

4.5 Soils

4.5.1 Impacts of Proposed Action

Alternative Arrangement 1 would not impact soils indicated as Hydric By USDA-NRCS, but not by field investigation using US Army Corps of Engineers methodology. Web Soil Survey indicates 0.0 acres of hydric soils with Alternative Arrangement 1. The soils in Alternative Arrangement 1 did not meet USACE criteria for hydric soil during field verification.

Alternative Arrangement 1 likely involve the least amount of soil disturbance relative to other alternatives, because there is already a partial access road, adequate grade, and best topography. Construction will entail the creation adequate grade to access road, clear cutting slash pines with stumping, adequate grade with raised berms that the houses will sit on, culvert construction across the branch, and new ditches.

This project is not considered an agricultural commodity since there is no annual tillage of the soil in association with this poultry operation. The concern is protecting cropland classified as being Highly Erodible Land in accordance with the Food Security Act of 1985. This project is not considered an agricultural commodity for the purpose of complying with Highly Erodible Land. There would be no significant impact to this resource.

4.5.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for soils on the Site would continue and no impacts would occur.

4.6 Important Land Resources

4.6.1 Impacts of Proposed Action

Alternative Arrangement 1 contains no acreage of prime farmland and does not contain any farmland of statewide importance. The preferred Alternative Arrangement 1 as currently proposed will have minimal to no impact to prime farmland or statewide important farmland on the property. There will be no significant impact to this resource.

4.6.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for important land resources on the Site would continue and no impacts would occur.

4.7 Noise

4.7.1 Impacts of Proposed Action

Alternative Arrangement 1 would produce noise during the construction period of 4 to 6 months. Construction noise will be temporary and will cease with the completion of the project. The noise would not be enough to impede communication or cause hearing damage. After construction noise would be similar to existing conditions, in that the chickens are enclosed in a house and muffled by its walls. There

is some noise from the fans, but this is minimal and cannot be heard from a few hundred feet away. There would be no significant impact to this resource.

4.7.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for noise on the Site would continue and no impacts would occur.

4.8 Cultural Resources

4.8.1 Impacts of Proposed Action

With the proposed action, approximately 17.50 acres of land will be disturbed to prepare the land for four 66'x600' broiler houses and their associated facilities. In accordance with FSA regulations and Section 106 of the National Historic Preservation Act (NHPA), Historic Preservation Division (HPD) was contacted for consultation purpose See Appendix (B). The SHPO responded on November 27, 2023, see Appendix (B), indicating that this proposed action will have no adverse effect to historic properties within its Area of Potential Effect (APE).

FSA also contacted several Tribal Historic Preservation Officers (THPO) who are responsible for historic preservation within their ancestral lands see Appendix (B). The tribes contacted were the Alabama Coushatta Tribe of TX, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Kialegee Tribal Town, Muscogee Nation, Porach Band of Creek Indians, Seminole Nation of Oklahoma, and Thlopthlocco Tribal Town, indicating no concerns on the Site. Consultation letters were sent, and FSA did not receive no correspondence. No tribes responded to the consultations.

Based on the information available and contacts with SHPO and TPO's, FSA has determined that Alternative Arrangement 1 will have no impact on cultural resources.

4.8.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for cultural resources on the Site would continue and no impacts would occur.

4.9 Solid Waste and Waste Management

4.9.1 Impacts of Proposed Action

Waste produced by the proposed action would primarily include dry litter and dead birds. Even though this operation is not required to obtain a permit, the operators have obtained a Comprehensive Nutrient Management Plan Appendix (C) developed by USDA, Natural Resources Conservation Service (NRCS). This CNMP is site specific and will help the operators manage their dry litter production and help mitigate

any potential water quality issues. The CNMP assists them with estimating the amount of dry litter produced and how much they can utilize on available pastures. Waste material produced will be sold to waste buyers and hauled off and spread offsite on available crop and pastureland. In Georgia, any person who removes and transports animal waste from its point of origin shall conform to the animal manure handler rules of the Georgia Department of Agriculture. The waste will likely be distributed in Haralson, Polk, Paulding, Doughlas, and Carroll Counties. This is a beneficial re-use of the waste material.

To address storage of dry litter before spreading and handling, the operators will utilize the grant for constructing a stack house on the site. They will utilize a pit for disposal of dead birds. All poultry production operations are required to have a written approval or certificate by the Georgia Department of Agriculture for the disposal of dead poultry. Before being hauled off site the waste will be stored in the litter stacking house. Once dry it will be collected and shipped off site. The litter stacking house is covered and does not allow stormwater to flow through and distribute waste into the watershed of the Site.

Land applications of the manure should be conducted in the morning houses to allow for greater odor dissipation and drying during throughout the day. Even though odor cannot be totally eliminated, by exercising best management practices and complying with Murray County Georgia Code of Ordinance, Section 5-3 Agricultural and Farm Operations, odor can be minimaxed. There would be no significant impact to this resource.

4.9.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for cultural resources on the Site would continue and no impacts would occur.

4.10 Air Quality

4.10.1 Impacts of Proposed Action

The EPA is responsible for the national air quality. In Georgia the Department of Natural Resources, Environmental Protection Division, Air Protection Branch is responsible for protecting Georgia's air quality through the regulation of emissions from industrial and mobile sources. There are no specific laws in Georgia that regulate agricultural odors. Odor is the most common complaint associated with poultry operations. "Properly operated and managed poultry houses emit minimal odor. This is due to advancements in ventilation and drinking systems for production houses that keep them relatively dry and free of any significant odors. It is almost impossible to operate a livestock farm without having some odor as result of normal production practices. With good management these occurrences are only occasional and provide only minor if any inconvenience to neighbors. Most of the odors associated with poultry production occur when the houses are cleaned out and the litter is spread for fertilizer.

Alternative Arrangement 1 is the closest to the interior of the property, relative to other alternatives. This makes it the furthest from the property boundary and adjacent neighbors, with the most minimal impact of odor and air quality. There would be no significant impact to this resource. See Appendix (C).

4.10.2 Impacts of No Action

If the proposed action is not implemented, then the existing conditions for cultural resources on the Site would continue and no impacts would occur.

5. 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, the result of numerous projects in the same area or region may cumulatively result in significant impacts.

Cumulative impact analysis is subject to interpretation in analyzing the magnitude of impacts to a particular area or region. For this EA, the analysis area for cumulative impacts is Haralson County which is within the Upper Tallapoosa River Watershed. The proposed project will consist of four 66'x600' broiler houses situated on 65.7 acres. The area potentially effected is the surrounding area around the farm in Haralson County and within the Upper Tallapoosa River Watershed in the State of Georgia. The time of consideration for this cumulative impact is the length of the loan.

5.1 Past, Present and Reasonably Foreseeable Actions

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 University of Georgia, College of Agricultural and Environmental Sciences, Farmgate statistics Haralson County being in the top 10 counties or commodities by Farmgate Value see Appendix (C). Top three commodities in Haralson County are Poultry and Eggs (57%), Livestock and Aquaculture (15%), Row and Forage Crops (7%). Continued growth in this area depends on Integrators' needs for additional production. In addition, to poultry operations in Haralson County, there are other farm related enterprises taking place in the area including row crops, hay, nursery crops, cattle, timber, etc.

5.2 Cumulative Analysis

Resources considered for detailed analysis (in Section 3.2) are those that 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. Cumulative impacts guidance from CEQ states that the significance of cumulative effects is dependent on how impacts compare with the environmental baseline and 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 way 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 charged to protect, to ensure through permitting and consultation that its activities are not likely to contribute to significant negative cumulative resource impacts.

Cumulative impacts can be positive or negative, short, or long term. Cumulative effects can be additive (effects of the action together with other past, present, reasonably foreseeable actions produce a total effect), countervailing (effects of some activities balance or mitigate the effects of others), or synergistic (effects of activities together are greater than the sum of their individual effects).

5.2.1 Wildlife and Habitat

The area for this proposed action will only impact 17.50 +/- acres of regrowth commercial pines with undergrowth habitat, that is already disturbed by commercial harvesting pulpwood. Construction noise and traffic will be short term (4 to 6 months), and not produce a lasting noise impact on wildlife and habitat.

No habitat for threatened or endangered species was identified within Alternative Arrangement 1, therefore it is unlikely that any impact to these species will occur at the county level or higher, because none of their habitat will be impacted or reduced.

The total habitat for several non-threatened and non-endangered species will be reduced after the completion of this project. Because of the rural nature of Haralson County there is an abundance of this wooded overgrown habitat. It is unlikely that the overall populations of animals that utilize this habitat will be impacted. The broiler houses do not constitute an impassible movement barrier that prevents animal movements. No nests were identified on site and most species utilizing the habitat are highly ambulatory in nature. This would allow them to escape as construction begins. Work will occur during daylight hours and is unlikely to impact sensitive, nocturnal species such as bats.

5.2.2 Water and Water Quality

Water quality is closely linked to the surrounding environment and land use. Human activities commonly affect the distribution, quantity, and quality of our water resources. Water quality in the cumulative impacts analysis area, as well as the entire state of Georgia, may have been affected by past and/or ongoing activities related to but not limited to; agriculture including livestock operations, irrigation systems, chemicals, industrial development, urbanization, soil erosion and wastewater release or runoff. The GADNR-EPD is responsible for provisions to protect surface and ground water from such sources of contamination. The agency carries out detailed field studies for monitoring of water in the state to determine whether a correlation exists between land use practices and any sources of contamination. Water is a very important resource in Georgia and would continue to be monitored by state and federal agencies at a high level to maintain the current level of water quality, of both surface and underground water sources.

Three streams in Haralson County are on the list of 2021 List of Biota Impaired Waters in Georgia. The impaired streams are Tallapoosa River, Little River, Greene Creek, Walker Creek, Swinney Branch. They are impaired for Mercury, Metals other than Mercury, Oxygen Depletion, Pathogens, and Unknown Impaired Biota. The rivers/creeks are located throughout the county and drains into Tallapoosa, Chattahoochee watersheds. The project will not further degrade any of the rivers/creeks nor watershed.

As previously discussed, the proposed facilities would be totally housed under roof with the poultry houses and litter stacking shed having concrete load-out pads to mitigate potential for any spillage of waste from encountering soil, run off, or surface waters. All waste generated would be entirely contained within the broiler houses for periodical removal and storage undercover until it could be appropriately land applied as crop nutrients as per the provisions of site-specific assessments of the nutrient needs and uptake capacity of various crops as detailed in the related Nutrient Management Plan. Such plans are prepared by trained professionals and include requirements for the land application of litter in a manner which would not contribute to water pollution to the waters of the state. In addition, rain/storm water would be diverted from the poultry houses and production area through grading and leveling, for retention in storm water pond or pit. During the construction period of the proposed poultry facility, there would be potential for mobilization of exposed soil and runoff; however, those impacts would be temporary and minor, and minimized by adherence to terms of the Storm Water Pollution Prevention Plan (SWPPP) as provided by the NPDES general permit issued by GADNR-EPD. In addition, once the disturbed construction area is revegetated or otherwise stabilized, no impacts to water quality would be expected. Since there would be no long-term effects to water quality, the proposed action is not expected to contribute significantly to cumulative effects to water quality in the designated impact area.

5.2.3 Cultural Resources

Based on the records searched, consultation with the GA SHPO see Appendix (B), consultation with the Native American Tribes see Appendix (B) with interest in Harlason County, it was determined that no impacts to known cultural resources would be expected as a result of the Proposed Action.

There is the potential for encountering unknown cultural resources during the proposed project. If such resources were encountered during activities related to the construction of the proposed poultry facility, activities/work would immediately stop, and the appropriate FSA state and national office personnel would be notified for further guidance.

Through 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/or destroy cultural resources.

5.2.4 Air Quality

The Georgia air regulations are primarily based on regulations developed by the Environmental Protection Agency (EPA) to address the Clean Water Act requirements. The Clean Water Act gives the EPA authority to establish national ambient air quality standards, or NAAQS. Ambient air is the air humans have access to outdoors and doesn't include air on private property. The NAAQS standards are

based on each pollutant's effects on our health and environment. A description of Georgia's air quality regulations can be found at: Air Protection Branch | Environmental Protection Division (georgia.gov). The cumulative impacts related to air quality would be primarily limited to dust generated from soil disturbance and equipment usage during the construction process, lasting approximately 4 to 6 months. Dust also be generated during operation from on farm equipment, delivery trucks, and feeding systems. Such impacts would be minor, intermittent, confined to the poultry farm and land immediately surrounding it, which is owned by the FSA applicants, and would not contribute to significant impacts to air quality in Haralson County, Georgia. Similarly, odor would be controlled through management of the poultry houses' ventilation systems, as is required by integrators for flock health and odor control.

The primary method of carcass disposal would be by composting. Odor impacts from the poultry houses, litter and storage would be confined to the poultry farm and would have minimal effects on Haralson County, Georgia. Most of the odors associated with poultry production occur when the poultry houses are periodically cleaned out and/or infrequently when the dry litter is spread as fertilizer on area fields. Therefore, odor produced as a result of the poultry facility are generally minimal, occasional and no significant negative cumulative contribution to odor is anticipated. See Appendix (C).

6. LIST OF PREPARERS AND PERSONS AND AGENCIES CONTACTED

| List of Preparers | | |
|--|--------------------------------------|--|
| Names and Title | Education and Experience | |
| Christopher R. Anderson | BS, Clemson University | |
| USDA | USDA, Farm Loan Officer | |
| Farm Loan Specialist / Environmental Coordinator | Conducted ENV in state of MN. | |
| - | USFWS, Biological Science Technician | |
| | Years of Experience: 8 | |

| Persons and Agencies Contacted | | |
|--------------------------------|---|--|
| Name and Title | Affiliation | |
| | State Historic Preservation Office (SHPO) | |
| | Georgia Ecological Services US Fish and Wildlife Service | |
| , | Tribal Historic Preservation Officer Alabama-Coushatta Tribe of TX | |
| | Chief Alabama-Quassarte Tribal Town | |
| | Tribal Historic Preservation Officer (THPO) Coushatta Tribe of Louisiana | |
| | Town King Kialegee Tribal Town | |
| | Tribal Historic Preservation Officer (THPO) Muscogee (Creek) Nation | |
| | Tribal Historic Preservation Officer (THPO) Poarch Band of Creek Indians | |
| | Tribal Historic Preservation Officer (THPO) Seminole Nation of OK | |
| | Tribal Historic Preservation Officer (THPO) Thlopthlocco Tribal Town | |
| | Loan Applicant, Proposed Property Owner | |
| | | |

7. REFERENCES AND NOTES

- CEQ 1997. Council on Environmental Quality (CEQ) 1997. Environmental Justice Guidance Under the National Environmental Policy Act. Accessed November 2023.
- CEQ 2005 Guidance on the consideration of Past Actions in Cumulative Effects Analysis Memorandum. Environmental Protection Agency (EPA) 1999. Consideration of Cumulative Impacts in EPA Review of NEPA Documents. Accessed November 2023.
- National Chicken Council Per Capita Consumption of Poultry and Livestock, 1960 to Forecast 2020, in Pounds. Available online at: https://www.nationalchickencouncil.org/statistic/per-capita-consumption-poultry/.

National Agricultural Statistics Service (NASS):

Census of Agriculture - 2017 Census Publications - State and County Profiles - Georgia (usda.gov).

Web Soil Survey (WSS):

http://www.websoilsurvey.nrcs.usda.gov/app/HomePage.htm

United States Fish and Wildlife Service (USFWS) – IpaC – Information for Planning and Conservation System. Listed and Sensitive Species in Colquitt County, Georgia. A U.S. Fish and Wildlife Service Environmental Conservation online system.

FEMA:

http://www.//msc.fema.gov/portal

- EPA 2016a. US Environmental Protection Agency Sources of Greenhouse Gas Emissions. Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture. Accessed XXXXX
- EPA 2016. US Environmental Protection Agency Greenhouse Gas Data Explorer. Available at:
 https://www3.epa.gov/climatechange/ghgemissions/inventoryexplorer/. Accessed November 2023.
- USDA Farm Service Agency (FSA) 1-EQ (Revision 3) Handbook Environmental Quality Programs for State and County Office (revised May 10, 2018).

8. EA DETERMINATION AND SIGNATURES

The FSA preparer of the EA determines:

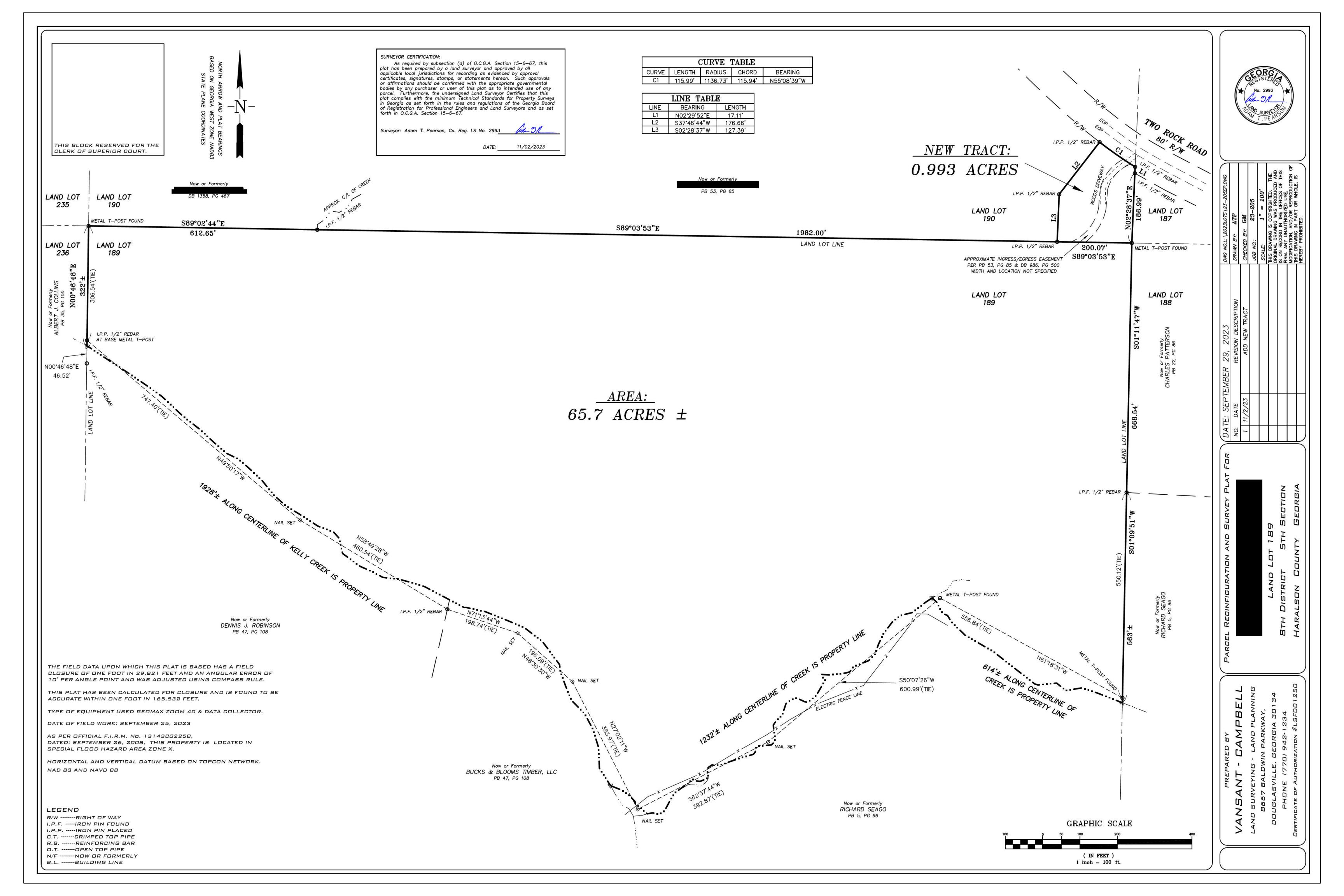
- 1. Based on an examination and review of the foregoing information and supplemental documentation attached hereto, I find that this proposed action:
 - a. Would not have a significant effect on the quality of the human environment and, therefore, an EIS will not be prepared.
- 2. I recommend that the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

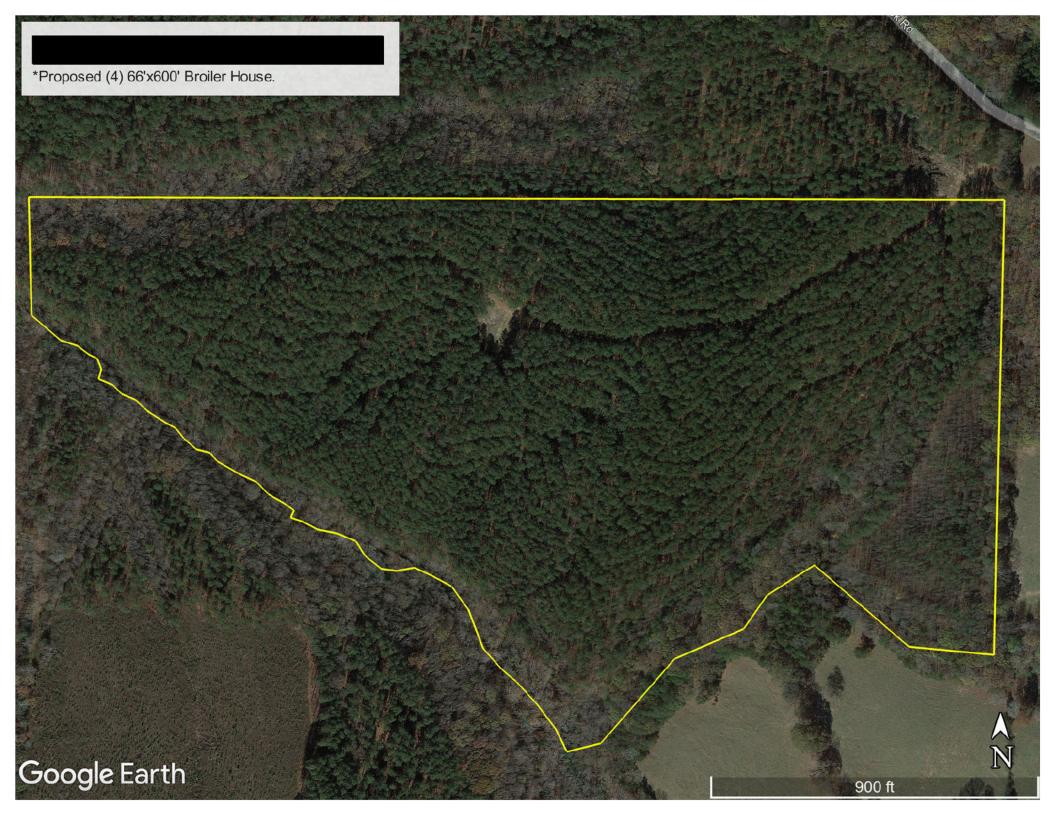
| Not in Compliance | In compliance | Not Applicable | |
|-------------------|---------------|----------------|--|
| _ | X | | National Environmental Policy Act |
| | X | | Clean Air Act |
| | X | | Clean Water Act |
| | X | | Safe Drinking Water Act |
| | X | | Endangered Species Act |
| | | X | Coastal Barrier Resources Act |
| | | X | Coastal Zone Management Act |
| | | X | Wild and Scenic Rivers Act/National Rivers |
| | | | Inventory |
| | X | | National Historic Preservation Act |
| | X | | Subtitle B, Highly Erodible Land |
| | | | Conservation, and Subtitle C, Wetland |
| | | | Conservation, of the Food Security Act |
| | X | | Executive Order 11988 and 13690, |
| | | | Floodplain Management |
| | X | | Executive Order 11990, Protection of |
| | | | Wetlands |
| | X | | Farmland Protection Policy Act |
| | X | | Department Regulation 9500-3, Land Use |
| | | | Policy |
| | X | | 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 for the proposed action. Based upon a consideration of these factors, from an environmental standpoint, this project may:

| Be approved without further environmental analysis prepared. | s and a Finding of No | Significant | Impact (FONSI) |
|--|-------------------------|---------------|----------------|
| | | | |
| | | 2/13/24 | |
| Signature of Prepare | | Date | |
| | | | |
| Christopher R. Anderson, Farm Loan Sp | ecialist / Environmenta | al Coordinate | or |
| Name and Title of Prep | parer (print) | | |

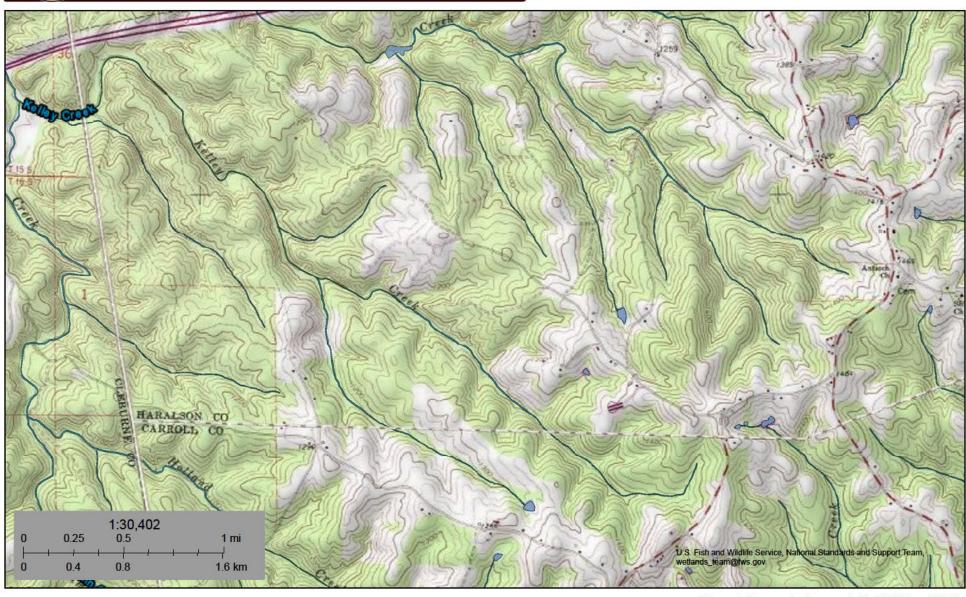






U.S. Fish and Wildlife Service **National Wetlands Inventory**

Topo Map



December 21, 2023

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Riverine

Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetland Map



December 21, 2023

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

Lake

Freshwater Forested/Shrub Wetland

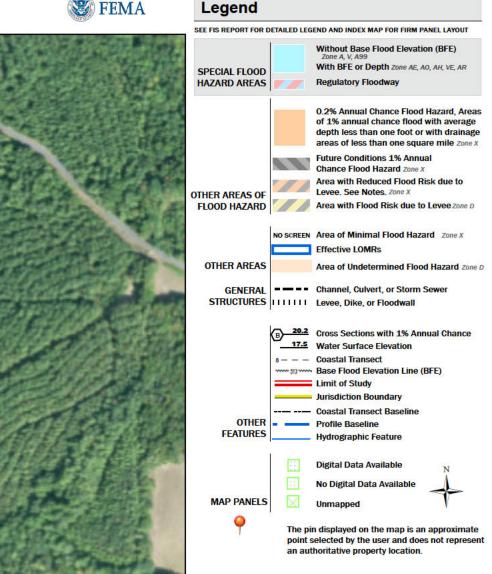
Other

Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMette

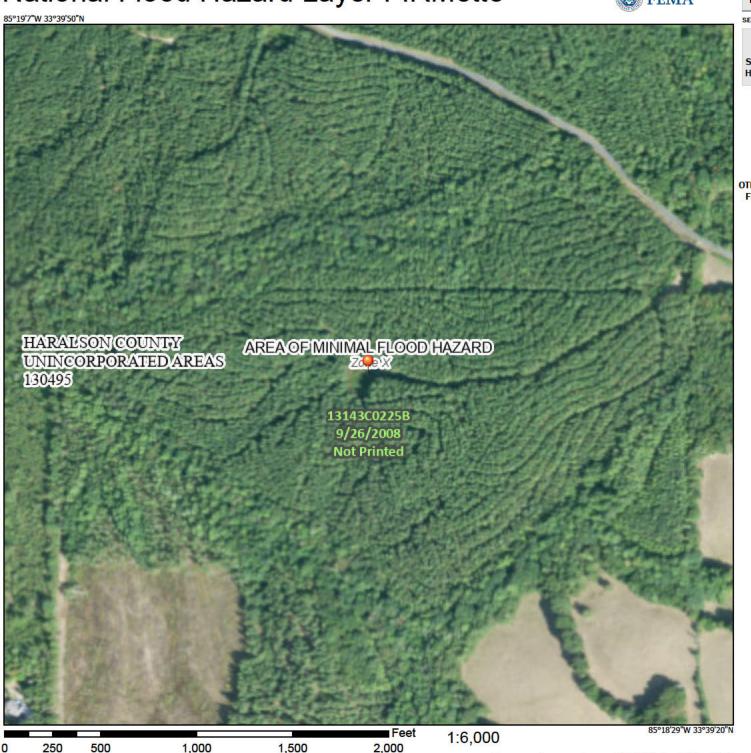


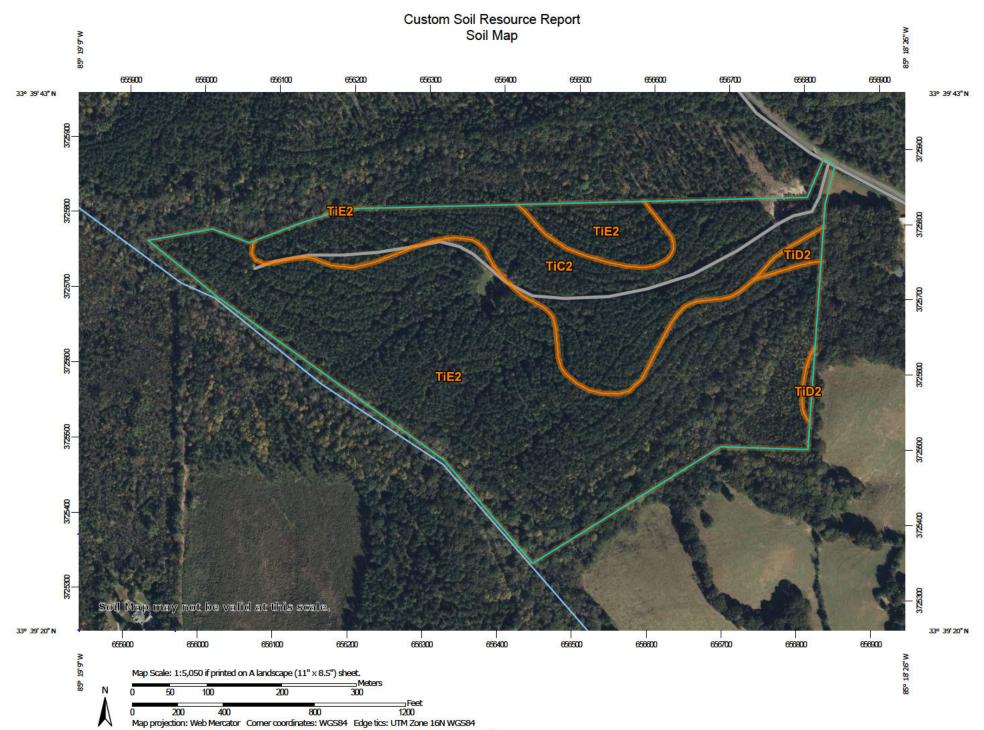


This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/21/2023 at 9:44 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.





Map Unit Legend

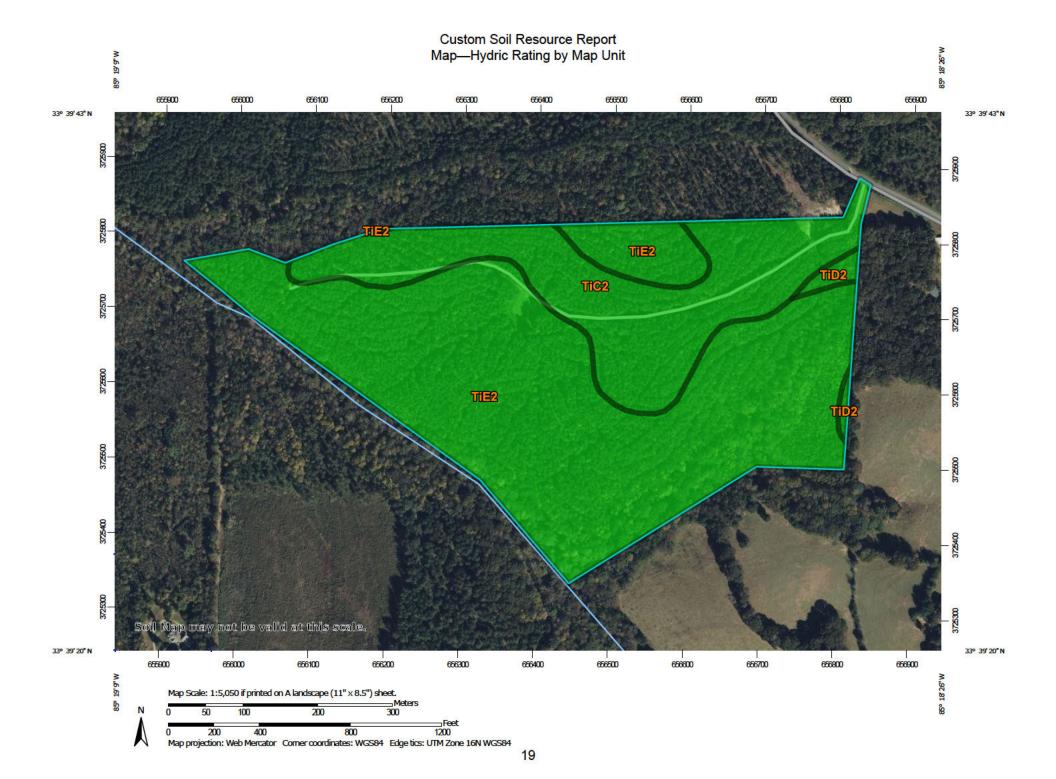
| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|--|--------------|----------------|
| TiC2 | Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded | 18.1 | 28.0% |
| TiD2 | Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded | 0.8 | 1.2% |
| TiE2 Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded | | 46.0 | 70.8% |
| Totals for Area of Interest | , | 64.9 | 100.0% |

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.



Table—Hydric Rating by Map Unit

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|----------------------------|--|--------|--------------|----------------|
| TiC2 | Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded | 0 | 18.1 | 28.0% |
| TiD2 | Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded | 0 | 0.8 | 1.2% |
| TiE2 | Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded | 0 | 46.0 | 70.8% |
| Totals for Area of Interes | st | | 64.9 | 100.0% |

Rating Options—Hydric Rating by Map Unit

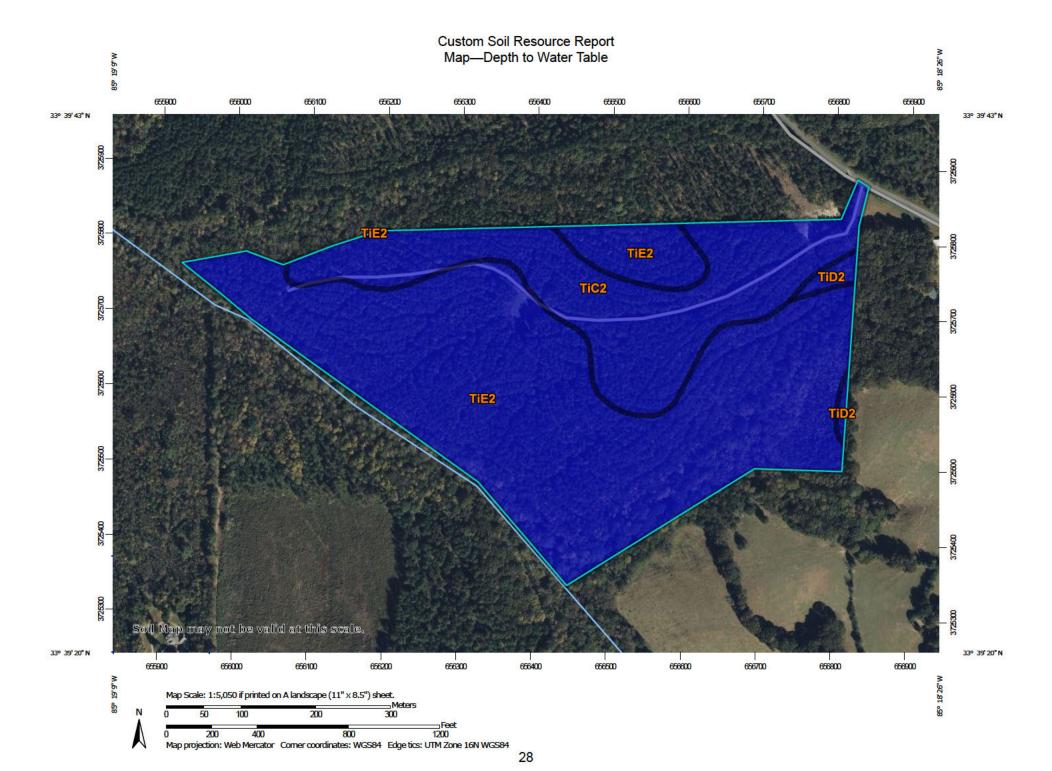
Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Farmland Classification

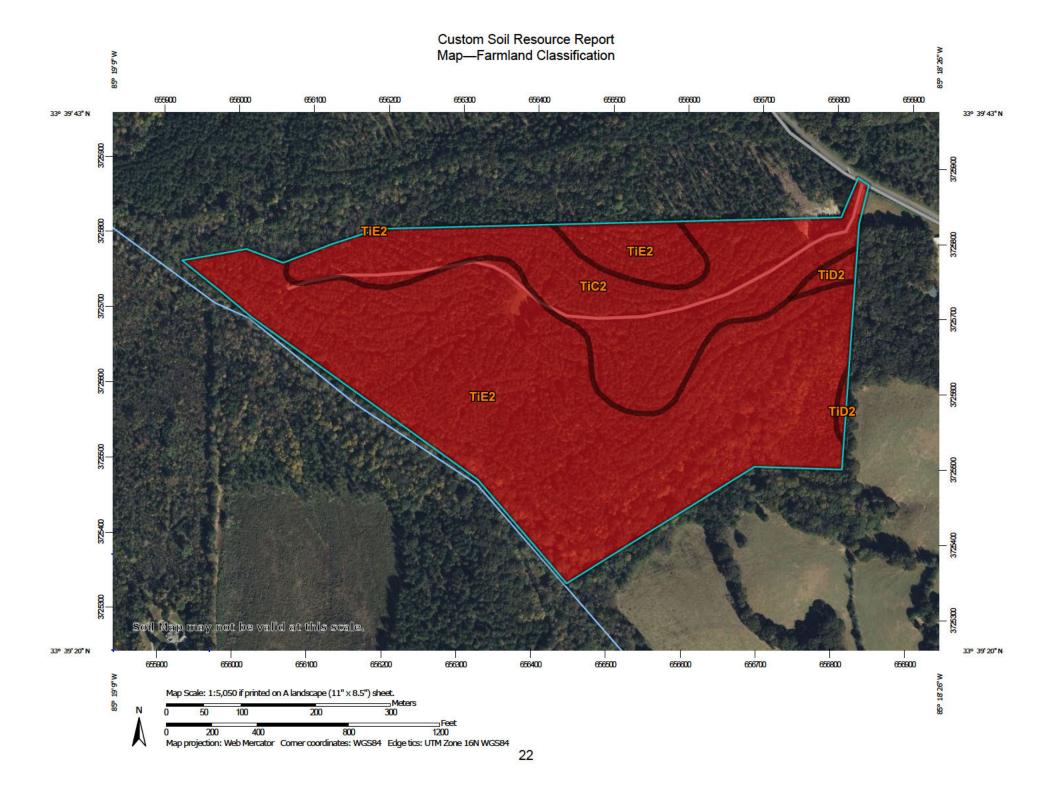
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.



Custom Soil Resource Report

Table—Depth to Water Table

| Map unit symbol | Map unit name | Rating (centimeters) | Acres in AOI | Percent of AOI |
|-----------------------------|--|----------------------|--------------|----------------|
| TiC2 | Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded | >200 | 18.1 | 28.0% |
| TiD2 | Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded | >200 | 0.8 | 1.2% |
| TiE2 | Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded | >200 | 46.0 | 70.8% |
| Totals for Area of Interest | | 64.9 | 100.0% | |



Table—Farmland Classification

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|-----------------------------|--|--------------------|--------------|----------------|
| TiC2 | Tallapoosa gravelly fine sandy loam, 6 to 10 percent slopes, eroded | Not prime farmland | 18.1 | 28.0% |
| TiD2 | Tallapoosa gravelly fine sandy loam, 10 to 15 percent slopes, eroded | Not prime farmland | 0.8 | 1.2% |
| TiE2 | Tallapoosa gravelly fine sandy loam, 15 to 25 percent slopes, eroded | Not prime farmland | 46.0 | 70.8% |
| Totals for Area of Interest | | 64.9 | 100.0% | |

Rating Options—Farmland Classification

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Alabama-Coushatta Tribe of TX

571 State Park Rd. 56 Livingston, Texas 77351

Dear Alabama-Coushatta Tribe of TX:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

In considering FSA's responsibilities pursuant to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations in 36, CFR Part 800, "Protection of Historic Properties (Section 106), we are requesting your assistance in identifying historic properties and /or other cultural resources that might be affected by this undertaking.

FSA has reviewed the National Register of Historic Places list and a site visit has been completed.

To the best of our knowledge there is no indication of the presence, or the probability of an historic property or cultural resource at the site. Attached for reference:

- Location Map
- Aerial view of property for its current use
- FEMA Flood Map
- GIS Topo Map
- Soils Map
- Drawings of project location or footprint and related design plans as appropriate
- Photos from our field visit

| If we do not hear from you within the specified time frame it will be assumed, you are in agreement and have no further interest in this matter. |
|--|
| Very Respectfully, |
| Shantelle M. Turner Farm Loan Manager |
| |

Service Agency

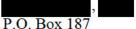
Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax:855-511-8748

October 4, 2023

Alabama-Quassarte Tribal Town



Wetumpka, Oklahoma 74883-0187

Dear Alabama-Quassarte Tribal Town:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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As a result, it is our belief that this project will not have an adverse effect on any historic properties, traditional cultural properties, and/or sacred sites. Your concurrence with this determination is requested withing thirty (30) days of the email delivery receipt or delivery of this letter based on standard United Stated Post Office delivery schedules not to exceed 5 days from the related post mark. If we do not hear from you within the specified time frame it will be assumed, you are in agreement and have no further interest in this matter.

Very Respectfully,

Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Coushatta Tribe of Louisiana

P.O. Box 10 Elton, LA 70532

Dear Coushatta Tribe of Louisiana:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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Very Respectfully,



Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Kialegee Tribal Town

P.O. Box 332 Wetumka, OK 74883

Dear Kialegee Tribal Town:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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Very Respectfully,

Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Muscogee Nation

P.O. Box 580 Okmulgee, OK 74447

Dear Muscogee Nation:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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Very Respectfully,

Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Poarch Band of Creek Indians

5811 Jack Springs Road Atmore, AL 36502

Dear Poarch Band of Creek Indians:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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Very Respectfully,

Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748 October 4, 2023

Seminole Nation of Oklahoma

P.O. Box 1498 Wewoka, OK 74884

Dear Seminole Nation of Oklahoma:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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Very Respectfully,



Farm Service Agency

Farm Loan Programs

1282 SR 53 Spur SW Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748

October 4, 2023

Thlopthlocco Tribal Town

P.O. Box 188 Okemah, OK 74859

Dear Thlopthlocco Tribal Town:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep.

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- Soils Map
- Drawings of project location or footprint and related design plans as appropriate
- Photos from our field visit

Very Respectfully,

10/04/2023

Farm Production and Conservation

Farm Service Agency

Division Director, Historic Preservation Division

ATTN: Environmental Review Request Jewett Center for Historic Preservation

2610 GA Hwy 155, SW Stockbridge, GA 30281

Farm Loan Programs 1282 SR 53 Spur SW

Suite 100 Calhoun, GA 30701

Voice: 706-629-2582 Fax: 855-511-8748

Dear Environmental Review Manager:

The Farm Service Agency has received an application regarding the undertaking described below:

The USDA, Farm Service Agency (FSA) is completing an environmental review for the construction of a (4) 66 ft x 600 ft Broiler Houses. The project will include tree clearing, site prep, well installation, and driveways.

The proposed undertaking will take place in: 0 Two Rock Road, Waco, GA 30182.

FSA has checked the following information sources concerning cultural resources:

| □ National Register Database | □ NRCS Information |
|------------------------------|----------------------|
| ☐ Historical Society | □ Landowner/Producer |

After examining the above checked sources FSA did not find any of known archaeological, historic or cultural resources that may indicate the presence of an historic property. FSA makes a finding of No Historic Properties Affected by this undertaking.

We are seeking your comments concerning whether or not any cultural, archaeological or historical resource sites exist within the project area that we may not be aware of.

Absent any response of this letter within 30 days from your receipt the Agency will assume that you are also not aware of any such site and agree with the agency finding. Should this be the case the Farm Service Agency has determined that this undertaking will not affect historic properties and will continue to process this application at the end of the 30 day time period.

Enclosed with this letter is the information data FSA used to arrive at this finding.

| This information includes: | |
|--|--------------------|
| □ Aerial photo □ Photos | □ Topo map □ Other |
| Very Respecfully, | |
| Shantelle M. Turner Farm Loan Manager Reviewing Official | |



Christopher Nunn Commissioner

November 27, 2023

Shantelle Turner Farm Loan Officer USDA/Farm Service Agency 1282 Highway 53 Spur SW, Suite 100 Calhoun, Georgia 30701

RE: Construct Building, 1532 Highway 78, Tallapoosa Haralson County, Georgia

HP-231027-003

Dear Ms. Turner:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced project. Our comments are offered to assist the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) and its applicants in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

The subject project consists of constructing a 24-foot (ft) overall height building of unknown design and massing on a portion of the circa (ca.) 1976 Haralson County parcel 0034 0010 located at 1532 Highway 78 in Tallapoosa. Based on the information provided and desktop research, HPD finds multiple historic resources within the proposed project's area of potential effect (APE), some of which may be eligible for listing in the National Register of Historic Places (NRHP). However, it is HPD's opinion that the subject project, as proposed, will have **no adverse effect** to historic properties within its APE, as defined in 36 CFR Part 800.5(d)(1), due to the scope of work and location of work.

This letter evidences consultation with our office for compliance with Section 106 of the NHPA. It is important to remember that any changes to this project as it is currently proposed may require additional consultation. HPD encourages federal agencies and project applicants to discuss such changes with our office to ensure that potential effects to historic properties are adequately considered in project planning.

Please refer to project number HP-231027-003 in any future correspondence regarding this project. If we may

| be of further assistance, please conta | act Michelle Bard, Environmental Review Historian, at |
|--|---|
| | Sincerely, |
| | Program Manager Environmental Review & Preservation Planning |
| SMR/mlb | |
| cc: | |





Part Farm Service Agency
and U. S. Department of Agriculture
Conservation Gordon FLP
1282 Hwy 53 Spur SW Suite 100
Calhoun, GA 30701

Fish and Wildlife Service Georgia Ecological Services Field Office 355 East Hancock Avenue Room 320

Athens, GA 30601-2523

Phone: (706) 613-9493 Fax: (706) 613-6059

Project Name:

Project Code: 2024-0001124

To Whom It May Concern:

USDA Farm Service Agency (FSA) is proposing to the construction of a (4) 66 ft x 600 ft Broiler Houses as authorized in Section 2202 of the Agricultural Improvement Act of 2018. The project will include tree clearing, site prep, well installation, and driveways. It will be located at 0 Two Rock Road, Waco, GA 30182. The project will include 1-2 back up wells at least 400'-600' deep, about 20-acres of estimated tree clearing, and site preparation. Type 104 gravel will be placed on site with an access road and a city water line ran from main road to the poultry houses and buried 3'-5' deep. Pursuant to Section 7(a)(1) of the Endangered Species Act (ESA) implementing regulations to carry out programs for the conservation of threatened and endangered species, this letter and attachments are being transmitted to initiate consultation, to assist FSA in fulfilling its duty to ensure federal actions do not jeopardize the continued existence of a species or destroy or adversely modify critical habitat. USDA is requesting written concurrence from the U.S. Fish and Wildlife Service, that the proposed action is consistent with the effect determinations identified below. The IPaC reports for this action indicated that there are 4 federally threatened and endangered species known to occur. These federally protected species include [1] mammal, [1] bird, [1] clam, and [1] insects. There are also no critical habitats within the identified project area.

Proposed Undertaking

[Detailed Description of Proposed Action]

| Listed species and critical habitat within the proposed action area. | | | | | | | |
|--|-------------------|------------------------------|--|--|--|--|--|
| Species (Common Name) | Listing Status | Present in Action Area | Effect Determination | | | | |
| Northern Long- eared Bat Myotis Septentrionalis | Endangered/ | No | The action area for the proposed action is agricultural poultry land. This does not have the potential to support the species. The proposed project would not increase the habitat availability for the bat. The implementation of the proposed action would result in no impact. FSA has made the determination of Not Likely to Adversely affect. | | | | |

| Species (Common Name) | Listing Status | Present in Action Area | Effect Determination |
|----------------------------------|--|------------------------------|--|
| Whooping Crane Grus Americana | Experimental Population, Non-Essential | No | The action area for the proposed action is agricultural poultry land. This does not have the potential to support the species. The proposed project would not increase the habitat availability for the bird. The implementation of the proposed action would result in no impact. FSA has made the determination of Not Likely to Adversely affect. |

| Listed species and critical habitat within the proposed action area. | | | | | | |
|--|-------------------|--|--|--|--|--|
| Species (Common Name) | Listing Status | Present in Action Area | Effect Determination | | | |
| Finelined Pocketbook Hamiota Altilis | Threatened | No; Location does not overlap critical habitat. | The action area for the proposed action is agricultural poultry land. This does not have the potential to support the species. The proposed project would not increase the habitat availability for the clam. The implementation of the proposed action would result in no impact. FSA has made the determination of Not Likely to Adversely affect. | | | |

| Species (Common Name) | | | Effect Determination |
|-------------------------------------|-----------|----|--|
| Monarch Butterfly Danaus Plexippus | Candidate | No | The action area for the proposed action is agricultural poultry land. This does not have the potential to support the species. The proposed project would not increase the habitat availability for the insect. The implementation of the proposed action would result in no impact. FSA has made the determination of Not Likely to Adversely affect. |

This project is not expected to have any impact upon migratory birds. The probability of presence is a very short time frame where construction will not take place.

If you have any questions or concerns about this project or program, please contact Christopher Anderson at 706-546-2166 or via e-mail at christopher.anderson@usda.gov

Best regards,

Shantelle M Turner, FLM



COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

PREPARED FOR

Two Rock Rd Waco, GA 30182

PREPARED BY

Andrew Cobb, Soil Conservation Technician
USDA Natural Resources Conservation Service
408 N White Street
Carrollton, GA 30117
770-832-8942
Andrew.cobb@usda.gov

September 21, 2023

Preliminary Comprehensive Nutrient Management Plan Recommendations

SITE INFORMATION:

FARM LOCATION

Two Rock Rd Waco, GA 30182

PHONE

1-404-695-0927

The information included in this plan is based on data provided by the producer. The information derived is from assumptions based upon average litter produced per animal and nutrient estimates.

It is recommended that a complete Comprehensive Nutrient Management Plan be developed for this farm. In order to have a CNMP developed, a litter analysis and soils test must be provided to the NRCS office. You can obtain this information by submitting a soil sample and litter sample through the local Cooperative Extension Service. The soil sample should be from fields that you are applying litter or plan to apply.

If flock size changes or new Soil Test and Animal Waste Reports are attained, please provide that information to the Carrollton Field Office so that appropriate corrections can be made to the Comprehensive Nutrient Management Plan (CNMP).

In response to your request for a nutrient management plan, I have made some assumptions in the absence of soil and litter nutrient analysis.

Farm

Two Rock Rd Waco, GA 30182

Type of Operation: Broiler

Size of Houses: 4 houses: 66' X 600' Number of birds: 39,600 per flock

Full weight: 9 lbs Flock lifespan: 60 days

Number of flocks annually: 4 flocks per year

Mortality: pits

Litter disposal: Sold offsite

- 4-39,600 broiler flocks will produce approximately 230 tons of litter annually.
- Approximately 10,810 pounds of nitrogen will be produced annually.
- Approximately 13,340 pounds of P₂O₅ will be produced annually.
- Approximately 10,350 pounds of K₂O will be produced annually.

Prior to the application of litter to an area, a soil test should be made to determine the application rate of the litter. The litter should be applied at a rate for the limiting nutrient to meet the nutrient needs of the crop for the particular nutrient. In most instances, P_2O_5 will be the limiting nutrient for applying the litter. Additional inorganic fertilizer should be applied to meet the needs for the remaining two nutrients. For example, if the litter is applied at a rate to meet the phosphorous needs of a crop, but the nitrogen and potash needs of the crop have not been met, then additional inorganic fertilizer should be applied. A fertilizer with a ratio of 2:0:1 is an example of an inorganic fertilizer that could be applied to meet the crop's needs without exceeding the need of the crop. If the soil test indicates the P_2O_5 or K_2O is high or very high, litter should not be applied to that area.

All litter spread will be applied according to state and federal regulations including record keeping. Due to the presence of live water on the property, it is highly suggested that all litter application and structures that contain litter application, are not applied or constructed within 100 feet of the live waterbody. The following table, Appendix 3, lists the Suggested non-application setback distance for applying manure on farm. NRCS highly recommends following these guidelines when conducting your farming operations.

Management Recommendations:

- A CNMP needs to be developed for all litter that is being spread offsite. Contact the Carrollton NRCS office or other Certified Nutrient Management Planner for assistance with developing additional CNMPs.
- Keep accurate records on all litter production, storage and application on and off site.
- Calibrate the spreader annually (minimum) before applying litter.
- Litter should not be applied within 50 feet of property boundaries or roads or within 300 feet of residences that are not your own.
- Follow setback regulations of 100' from <u>water bodies and wells</u> when applying litter to the fields.
- Avoid applying litter before a heavy rainfall event or during windy conditions.
- Litter should not be applied when the forage is not actively growing since nutrient uptake will not occur and the nutrient benefit of the litter will be lost.
- Provide additional copies of Animal Waste Reports for recipients of exported litter.
- All excess litter, litter being stored for future use, and composted mortality should be stored in a Stackhouse. If a Stackhouse is not available, it should be located in an area away from open water and wells. It should be located out of any concentrated flow area and the litter should be covered at all times.

Purpose of the Comprehensive Nutrient Management Plan:

The Comprehensive Nutrient Management Plan (CNMP) is a conservation system for your animal feeding operation. It is designed to address, at a minimum, the soil erosion and water quality concerns of your operation. The CNMP encompasses the storage and handling of the manure as well as the utilization and application of the manure nutrients on the land.

Manure and Nutrient Management involves managing the source, rate, form, timing, and placement of nutrients. The practice of nutrient management serves four major functions:

- 1. Supply essential nutrients to soils for plant utilization to produce adequate food, forage, and fiber.
- 2. Provide for efficient and effective use of scarce nutrient resources so they are not wasted.
- 3. Help maintain or improve the physical, chemical, and biological condition of the soil.
- 4. Minimize environmental degradation caused by excess nutrients in the environment.

The potential environmental and health risks that can occur from excessive levels of nitrogen and phosphorous are the reasons for nutrient management. Nutrient management plans are intended to prevent nutrients supplied for production purposes from contributing to water quality impairment. Nutrient management plans also aim to adequately meet the crop nutrient requirements with nutrients produced on the farm to minimize the amounts of fertilizer that must be purchased.

Phosphorous in the Soil

In soil, phosphorous (**P**) is the least mobile of the macronutrients. Under very acidic or very alkaline conditions, phosphorous may become fixed in insoluble compounds with iron, aluminum, or calcium. Thus soil pH is an important management factor for phosphorous availability to crops.

Because the soluble forms of phosphorous are rapidly converted to insoluble forms, phosphorous is not generally leached from the soil. It may leach from saturated soil or soil low in clay, especially when excess levels of P are present. However, phosphorous, especially in soils with high phosphorous levels or freshly fertilized or manured soils, particularly on steep slopes, may be lost because of erosion and runoff. The phosphorous carried into surface waters by erosion can eventually be converted to the orthophosphate form and become available for aquatic plant and algae uptake. Properly designed, installed, and maintained soil and water conservation practices are critical for minimizing phosphorous losses associated with runoff and erosion. The main characteristics of a site that must be evaluated to determine the potential for phosphorous loss include: soil erosion of the site, soil runoff class, distance from watercourses, soil test P level, P fertilizer rate and method of fertilizer application, organic P application rate, and method of application. All of these factors must be integrated to evaluate a site for phosphorous loss. A phosphorous index has been developed that uses these site characteristics to provide a relative potential phosphorous loss for your specific site.

Nitrogen in the Soil

Of the macronutrients, nitrogen (N) has the most complex cycle. Because most of the reactions of nitrogen in the soil are microbial, they are very sensitive to environmental conditions, such as moisture and temperature. With a few exceptions, saturated or air dry conditions limit most microbial activity. Likewise, at temperatures below 50°F or above 100°F limit activity. Our inability to predict the weather is a major factor in our difficulties in predicting N behavior in the soil and thus making specific N management recommendations and determinations about the fate of nitrogen.

Water, in excess of what can be held by a well-drained soil, moves down through the soil profile. This water will carry nitrate with it in a process called leaching. The potential loss of N by leaching is greatest in coarse textured soils, during periods of high moisture accompanying limited plant growth and low evapotranspiration (uptake of water through plants).

Only nitrate (NO₃) and ammonium nitrogen (NH₄) ions are taken up by plants. However, most nitrogen is taken up as nitrate because it is the predominant form of inorganic nitrogen in agricultural soil.

In soils, mineral and organic nitrogen are vulnerable to a complex variety of processes brought about by the interactive effects of climate, soil organisms, and human activity. Some of these processes may cause the loss of plant or animal available nitrogen. Other processes may transform the nitrogen into unavailable forms. Therefore the quantity of nitrogen in the soil and the transformations that take place are generally unpredictable.

Nutrients (N and P) in the Environment

Availability is the presence of a nutrient (or other material) in quantities and forms capable of being moved off-site. Detachment is the mobilization of nutrients (or other materials) allowing them to become available for transport. Examples of detachment are wind blown suspended particles, nutrients dissolving in water or soil particles detached by raindrop impact. Detachment results in dissolved particles, suspended particles, and sediment attached particles.

Transport is the physical movement of a nutrient or nutrient source (i.e. animal waste) from one place to another. Transport is significant whenever a nutrient is moved beyond the edge of the field or below the root zone. For example, even though very high soil phosphorous levels may exist, the environmental risk of this phosphorous depends on its transport to surface waters.

Factors that affect the potential for transport to surface water include:

- Distance to waterbody
- Slope
- Direction of flow
- Surface roughness
- Soil texture and permeability

Factors that affect the potential for transport to ground water include:

- Soil factors (permeability, organic matter, and texture)
- Subsurface geology or material
- Depth of water table

Nutrients that leach into the ground water have the potential to increase the nutrient concentration. Typically, elevated nitrate concentrations are of greatest concern because of the potential impact to drinking water quality. In some areas where ground and surface waters are interconnected, elevated phosphorous concentrations in ground water may be a concern if these ground waters discharge into a sensitive surface waterbody such as a lake or stream.

One of the most common impairments of surface waters is accelerated **eutrophication** (nutrient enrichment) caused by excess nutrient inputs, especially phosphorous and nitrogen. Impaired waters are those waters that no longer support one or more of the designated uses such as drinking, recreation, or fisheries.

Generally either phosphorous or nitrogen is limiting in an aquatic ecosystem and whichever is limiting will control the eutrophication process. Phosphorous is typically the limiting nutrient in most freshwater systems, especially lakes, while nitrogen is typically the limiting nutrient in most estuary or coastal ecosystems.

The eutrophication process involves several steps that are listed below:

- Nutrients enter the lake or stream through surface runoff and precipitation. Sediment, dissolved nutrients, and organic materials enter the waterbody.
 - The waterbody experiences an increase in biological productivity. Aquatic plant and algae growth increases when climactic conditions (temperature, dissolved oxygen content, and light) are favorable. Excess plant and algae growth can be a nuisance to lake users. Three common aquatic growth infestations for eutrophied waters are:
 - Floating or rooted large plants (macrophytes)
 - Algal mats (filamentous)
 - Phytoplankton (commonly seen as a pea soup appearance in highly infested waters)
- As plants and algae die, the biomass is decomposed by microbes. Sediment and organic materials begin to collect on the lake bottom. Increased turbidity, odor, and taste problems may become an issue.
- The decomposition process removes dissolved oxygen from the water. Microbes use carbon as an energy source, and through respiration remove the dissolved oxygen faster than it can be replaced by plants. This can lead to oxygen depletion (hypoxia).
- Some species such as trout, pike, and walleye avoid low oxygen water. Prolonged exposure to low oxygen conditions can lead to death of these species. These conditions tend to favor such fish species such as carp and suckers, which are more tolerant to reduced oxygen levels. This can lead to a reduction in species diversity. The loss of species diversity is undesirable for both economic and ecological reasons. The loss of sport fish from an aquatic system may constitute a major economic loss to local businesses dependent upon fishing.
- Ultimately, the lake fills with sediment and organic materials and becomes a wetland.

- O Perhaps the most serious adverse impact of eutrophication results from the explosive growth of nuisance algae that commonly occurs. These algae can produce chemicals that are harmful to other organisms, including livestock and humans. In freshwater ecosystems, blooms of blue-green algae (now called cyanobacteria) are a common symptom of eutrophication. These blooms can contribute to a wide range of water quality related problems including:
 - Fish kills
 - Foul odor
 - Unpalatable tastes in drinking water
 - Impaired recreational and aesthetic values
 - Livestock kills
 - Serious health risk to humans

Furthermore, when eutrophic waters are processed in water treatment facilities, the high organic load may react with chlorine to form carcinogens known as trihalomethanes.

Nutrient Removal by Selected Crops

| Crop | Unit Yield | Nutrient Removal | | | | |
|-----------------------|---------------|------------------|-----------------------|------------------|--|--|
| | | N T | 1/ D 0 | 2/ | | |
| | | N | P 2 O 5 | K ₂ O | | |
| Alfalfa hay | 1 ton | 52.00 | 12.00 | 50.00 | | |
| Bahiagrass hay | 1 ton | 25.00 | 7.00 | 42.00 | | |
| Bermudagrass hay | 1 ton | 50.00 | 12.00 | 43.00 | | |
| Clover hay | 1 ton | 40.00 | 10.00 | 40.00 | | |
| Corn, grain | 1 bu. | 0.96 | 0.40 | 0.27 | | |
| Corn, silage | 1 ton (wet) | 10.00 | 4.00 | 10.00 | | |
| Cotton, lint & seed | 1 bale | 32.00 | 12.00 | 16.00 | | |
| Oats, grain only | 1 bu. | 0.80 | 0.25 | 0.20 | | |
| Oats, grain and straw | 1 bu. | 1.15 | 0.40 | 1.45 | | |
| Onion, bulb | 10 lb. (bag) | 0.08 | 0.07 | 0.14 | | |
| Pasture, bahia or | 200 lbs. beef | 6.00 | 5.00 | 1.00 | | |
| Bermuda | | | | | | |
| Pasture, tall fescue | 300 lbs. beef | 9.00 | 7.00 | 1.00 | | |
| Peanuts, nuts only | 1 ton | 70.00 | 11.00 | 16.00 | | |
| Peanuts, nuts & vines | 1 ton | 120.00 | 15.00 | 93.00 | | |
| Potatoes, sweet | 1 bu. | 0.13 | 0.06 | 0.32 | | |
| Potatoes, white | 100 cwt. | 0.30 | 0.16 | 0.53 | | |
| Sorghum, grain | 1 bu. | 0.79 | 0.45 | 0.23 | | |
| Sorghum, silage | 1 ton (wet) | 10.50 | 4.40 | 10.00 | | |
| Soybean, grain | 1 bu. | 3.80 | 0.80 | 1.50 | | |
| Switchgrass hay | 1 ton | 23.00 | 6.00 | 46.00 | | |
| Ryegrass hay | 1 ton | 33.00 | 5.40 | 28.00 | | |
| Tall Fescue hay | 1 ton | 40.00 | 9.00 | 48.00 | | |
| Tomatoes, fruit | 100 cwt. | 4.20 | 0.80 | 8.60 | | |
| Watermelon | 100 cwt. | 10.20 | 2.36 | 14.65 | | |
| Wheat, grain | 1 bu. | 1.17 | 0.60 | 0.33 | | |
| Wheat, grain & straw | 1 bu. | 1.67 | 0.67 | 2.03 | | |

^{1/--} Phosphorus content of fertilizers is expressed as P₂O₅ equivalent, even though no P₂O₅ as such occurs in fertilizer materials. The P₂O₅ designation is a standard expression of relative P content. To convert P₂O₅ to P, multiply by 0.43; to convert P to P₂O₅ multiply by 2.29.

^{2/--} Potassium content of fertilizers is expressed a K₂O equivalent, or potash, even though no K₂O as such occurs in fertilizer materials. The K₂O designations is a standard expressions of relative K content. To convert K₂O to K multiply by 0.83, to convert K to K₂O multiply by 1.2.

^{3/ --} For additional crops and uptake rates refer to Chapter 6 – AWMFH – Or to NRCS Ecological Sciences Division web site at http://npk.nrcs.usda.gov

The University of Georgia College of Agricultural & Environmental Sciences Cooperative Extension Service

Proper Sampling Techniques for Determining Broiler Litter Nutrient Content

Michael P. Lacy

Obtaining an accurate nutrient profile of poultry litter/manure prior to its application to crops or pastures is critically important to ensure that adequate nutrient levels are available to the plants being fertilized as well as to ensure nutrients are being applied in a way that is beneficial to the environment. Take these recommendations into consideration when obtaining litter/manure samples for analysis.

- 1. Obtain 10 to 12 one pint samples of litter from throughout the poultry house or stockpile of litter.
- 2. Be certain that samples are representative of the litter in the entire house or stockpile. Samples taken around waterers, feeders, and brooders should be proportionate to the space these areas occupy in the house. When sampling in poultry houses, do not contaminate samples with soil by digging too deeply into the litter.
- 3. When sampling stockpiles, take samples from a depth of about 18 inches, again being careful not to intermix any soil with the sample.
- 4. Take the 10 to 12 one pint samples, combine them in a clean bucket or container and mix them together thoroughly. After mixing, place approximately one quart of the litter into a clean, plastic bag or container. Seal it tightly, but allow some room in the bag or container in case the sample expands.
- 5. Keep the sample cool and ship it to the laboratory the same day it is prepared if possible. If the sample must be held overnight, refrigerate the sample.
- 6. Collect the sample as close to the time planned for application as practical, taking into account the time needed for shipping and laboratory analysis.
- 7. In the case of liquid manure systems (such as manure slurries or lagoon sludges) stir the system before sampling if possible. As with dry manure systems, take multiple samples representative of the entire system. Combine and mix the samples prior to shipping for analysis.
- 8. Request an analysis for total N, P, K, and NH4+(ammonium) and any other minerals deemed important.
- 9. Nutrient analysis of litter and manure can be done at the University of Georgia Agricultural Services Laboratory or other qualified private laboratories. Contact your County Extension Agent for additional information and for assistance in submitting samples to the University of Georgia Analytical Services Laboratory.

SOIL TESTING

Cooperative Extension Service The University of Georgia College of Agricultural and Environmental Sciences/Athens

Determining the fertility level of a soil through a soil test is a critical step in developing and implementing a sound nutrient management plan. This step leads to higher crop yields and quality by following recommended application rates. A soil test provides the means of monitoring the soil so deficiencies, excesses and imbalances can be avoided.

Procedure

Soil sample bags-available from your county agent-should be used for submitting samples to the laboratory. Supply all the information asked for on the soil sample bag.

List your NAME and ADDRESS, CROP to be grown, sample number (please make simple and do not exceed 3 digits) and your COUNTY AGENT'S ADDRESS. This information is essential for the return of your sample results and fertilizer recommendations to the proper county office.

On the bag, indicate tests desired by checking the appropriate space and/or spaces. For most agronomic needs, a routine test will suffice. If you are in doubt about whether to request a special analysis, consult your local county Extension office.

Sampling Instructions

A soil test result can be no better than the sample submitted for analysis. For it to be representative of the area treated, follow these steps for sampling:

1. Use a soil sampling tube, auger, spade, trowel, or other tool which can take a thin vertical slice of soil to the desired depth. Do not take the sample just from the soil surface layer. Depth of sampling will vary depending upon the crop or cropping conditions. The following sampling depths are recommended:

| a. | Plowed fields | plow depth |
|----|----------------|-------------|
| b. | No-till fields | 4 inches |
| c. | Pastures | 4-6 inches |
| d. | Orchards | 8-12 inches |
| e. | Lawns | 4 inches |
| f. | Gardens | 6 inches |

2. Take at least 15 to 20 cores or thin slices at random over the field or area (in general 15 acres should be the maximum size area represented by a single composite sample.) Place the cores in a clean plastic bucket or other non-metal container and thoroughly mix. Fill the soil sample bag to the "fill line" marked on the bag. Fold the top and fasten metal flaps securely to avoid spillage during shipment. Note: Do not use a galvanized bucket for collecting

samples especially if the soil is to be analyzed for zinc or other micronutrients. Ensure that buckets and sampling tools are clean and free of fertilizer and limestone residues. Even a small amount of fertilizer transferred from the sampling tools to the soil can seriously contaminate the sample and produce misleading results

3. The area included in a sample should have been uniformly fertilized and limed in the past. When collecting the sample avoid small areas where the soil conditions are obviously different from those in the rest of the area – for example, wet spots, areas where wood piles have been burned, old building sites, fence rows, fertilizer bands, eroded areas, and areas immediately adjacent to roads. If a field contains more than one soil type, collect separate samples from each soil area. Problem areas within a field should be sampled separately.

When to Sample

Soil samples can be taken any time during the year; however, fall is the most desirable time. Soils should be dry enough to till when sampling, and fields are usually dry and easily accessible in the fall. The soil pH and nutrient levels will be at or near their lowest points during late summer and early fall. Therefore, samples collected in the fall are more representative of the actual fertility conditions during the growing season than samples collected in late winter or early spring.

How Often to Sample

For many situations soils should be tested every 2 to 3 years. However, test the soil when there is a suspected nutrient deficiency, once per crop rotation, or once every other year if the soil is fertilized and cropped intensively. Annual sampling is recommended (1) on areas where high-value cash crops such as tobacco and vegetables are grown and (2) on areas where the annual nitrogen application rate exceeds 150 pounds of N per acre. Soil samples should also be collected following crops where large amounts of nutrients are removed in the harvested portion of the plant, especially for silage crops and hybrid bermuda hay.

Record Keeping

Keep previous soil test results for each field and refer to them when planning nutrient applications. The fertility level of a soil is similar to a bank account. If the amount of deposits exceed the amount of withdrawals, there is a net buildup of the account. If the amount of nutrients applied exceeds the amount removed in harvested crops and the amount lost by leaching, there will be a net buildup of the soil fertility level. If the opposite is true, the fertility of the soil will decline. Periodic soil sampling of each field will help to determine whether you are following a soil buildup or soil depletion program. If a sound soil testing program is not followed, a deficiency or an excess in fertilization rates can result.

Routine Testing

The routine soil test includes the following analysis:

pH Calcium (Ca)
Lime Requirement (L.R.) Magnesium (Mg)
Phosphorus (P) Manganese (Mn)
Potassium (K) Zinc (Zn)

| Farm Name: | | |
|------------|--|--|
| | | |
| Owner: | | |

Litter Export Records

| Date | Destination (Name & Address) | Number Of Loads | Weight Of One Load | Total Weight | Litte N | er Ana P | llysis K |
|----------|--|--------------------|-----------------------|-----------------|------------|-------------|-------------|
| 0/0/0000 | Joe Farmer, 2009 Example Road, Any City, GA | 5 tons | 5 tons | 25 tons | 70 | 60 | 30 |
| | | | | | | | |
| | | | | | D. I | | |
| | | | | | | | |
| | | | | | 196 | | |
| | | | | | 98 | | |
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| | | | | | J.S | | |
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Calibration of Manure Spreader Including Swath Width

Cecil Hammond, former Extension Engineer; Charles Gould, Special Agent; Wayne Adkins, Extension Engineer

Contents

Manure spreaders similar to dry fertilizer spreader trucks, can be calibrated correctly when a swath width is determined along with spread pattern evaluation and application rate on "as spread" basis. This procedure helps ensure good nutrient management and utilization of waste as well as protect the environment if buffer zones and vegetative covers are properly used. Manure storage in stack houses for timely application to the land also improves environmental aspects.

Calibrating a manure spreader is a simple, easy management tool that can help the farmer use nutrients from animal waste more efficiently. The procedure takes less than an hour but can save hundreds of dollars. By knowing the application rate of the manure spreader, correct amounts of manure can be applied to meet the crop needs. Over-application of manure wastes nutrients and increases the chance of ground water contamination. Using manure wisely is important for the farmers' crops and for their pocketbooks.

There are two parts to "calibrating" a manure spreader: determining the application rate and determining the spreader swath width. The following procedures work best for solid or semi-solid animal waste including broiler litter, horse and cow manure.

Materials Needed

- Large plastic bucket (five gallon bucket)
- Plastic tarps (5-10' x 10')
- Tent stakes or large nails (20)
- Scale
- 100' tape measure
- Broom
- Small flag or colored rag
- Soil, Crop, Fertilizer and Chemical Recordbook (UGA Publication Agronomy 2-2)
- Calculator

Determining the Spreader Swath Width

- 1. Weigh individual tarps and bucket.
- 2. Lay the tarps out in a line perpendicular to the travel of the spreader. Fasten the tarp at each corner, eyelet on eyelet, with a tent stake or long nail through eyelets.
- 3. Push a flag into the ground or secure a colored rag at the center on the edge of the middle tarp. This helps the driver center the spreader as he drives over the tarps.
- 4. Drive the spreader over the tarps at the speed normally driven when applying manure on the field. Make sure speed and application rate are under steady state conditions.
- 5. Depending on how sticky the manure is, there are two options: (a) If the manure is dry, carefully pull up the tarps and pour the manure into the bucket or (b) If the manure is sticky, carefully pull up the tarps. Fold the tarps up and stuff them into the plastic bucket.
- 6. (a) If the manure is dry, weigh the bucket and waste. Subtract out the weight of the empty bucket. This will give the pounds of manure applied to the sheet or (b) If the manure is sticky, weigh each tarp in the bucket. Subtract the weight of the tarp and the bucket to get the pounds of manure applied to each sheet.
- 7. To plot the swath width on a graph, the "y" axis equals the amount of manure per square foot and the "x" axis is the distance from the center of the truck to the center of each tarp. The "y" axis also represents the center of the middle tarp. At the points on both sides on the "x" axis that are 1/2 the "y" axis is the effective swath width. By over-lapping swaths each trip up or down the field, even distribution of the manure can be achieved. (See Figure 1.) (Pounds of manure deposited on tarp) divided by (Square feet of the tarp) = Amount of manure per square foot. The advantage of plotting the swath width over visual inspection is being able to identify uneven patterns of manure distribution. This, of course, makes it easier for the operator to correct the spread pattern of his truck and helps prevent over-application of manure.

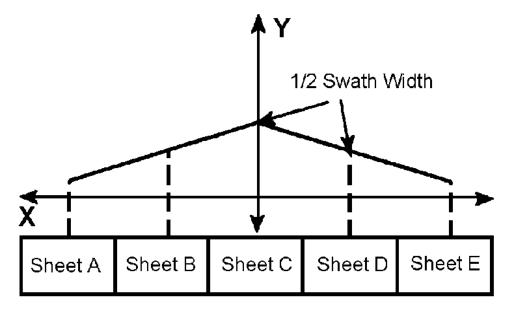


Figure 1. Plot the amount per square foot and plot on "y" axis at the point on "x" that is the center of that sheet.

Determining the Manure Application Rate

| Spreader Size (Bushels) | Tons of Manure |
|-------------------------|----------------|
| 70-75 | 1.5 |
| 90-100 | 2.0 |
| 125-135 | 2.5 |
| 180 | 3.0 |

- 1. Determine manure spreader capacity.
- 2. After determining the swath width, lay tarps and flag or rag back as outlined in Steps 2 and 3 previously mentioned.
- 3. Drive the spreader centered over the tarps, plus over each side using the proper swath width, at the speed normally driven when applying manure on the field. Make sure speed and application rate are under steady state conditions.
- 4. Carefully pull up a tarp and weigh it. If Step 3 is followed carefully, the weight per square foot of each tarp should be the same.
- 5. Check Chart 1 on Manure Application Rate for pounds applied and size of tarp, then read tons of manure applied per acre if you have tarps sized for the chart.
- 6. If the size of your tarp is not listed, use the following equation to determine the amount of manure applied per acre: (Pounds of manure on the sheet *21.79) divided by (Area of the sheet in square feet) = Tons per acre.
- 7. Record the tons per acre applied in the *Soil, Crop, Fertilizer and Chemical Record book* available at your County Extension office. Soon, possibly by the next Farm Bill, documentation of manure application rates will be required.
- 8. Sweep the tarps to get off any sticky or dry manure before folding.

Chart 1. Manure Application Rate

Size of Plastic Sheet

| Pounds of Manure Applied to Sheet | 8' x 8' | 10' x 10' | 10' x 12' |
|-----------------------------------|---------|---------------------|-----------|
| | Tons M | Ianure Applied/Acre | |
| 1 | 0.34 | 0.22 | 0.18 |
| 2 | 0.68 | 0.44 | 0.36 |
| 3 | 1.02 | 0.65 | 0.54 |
| 4 | 1.36 | 0.87 | 0.73 |
| 5 | 1.70 | 1.09 | 0.91 |
| 6 | 2.04 | 1.31 | 1.09 |
| 7 | 2.38 | 1.52 | 1.27 |
| 8 | 2.72 | 1.74 | 1.45 |
| 9 | 3.06 | 1.96 | 1.63 |
| 10 | 3.40 | 2.18 | 1.82 |
| 11 | 3.74 | 2.40 | 2.00 |
| 12 | 4.08 | 2.61 | 2.18 |
| 13 | 4.42 | 2.83 | 2.36 |
| 14 | 4.76 | 3.05 | 2.54 |
| 15 | 5.10 | 3.27 | 2.72 |
| 16 | 5.45 | 3.48 | 2.90 |
| 17 | 5.79 | 3.70 | 3.09 |
| 18 | 6.13 | 3.92 | 3.27 |
| 19 | 6.47 | 4.14 | 3.45 |
| 20 | 6.81 | 4.36 | 3.36 |
| 21 | 7.15 | 4.57 | 3.81 |
| 22 | 7.49 | 4.79 | 3.99 |
| | | | |



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States' Right-To-Farm Statues:

Georgia



This material is based upon work supported by the National Agricultural Library, Agricultural Research Service, U.S. Department of Agriculture

A National Agricultural Law Center Research Publication States' Right-To-Farm Statutes: Georgia

Ga. Code Ann. § 41-1-7

Current through the 2021 Regular and Special Sessions of the General Assembly.

§ 41-1-7. Treatment of agricultural facilities and operations and forest land as nuisances.

- (a) It is the declared policy of the state to conserve, protect, and encourage the development and improvement of its agricultural and forest land and facilities for the production or distribution of food and other agricultural products, including without limitation forest products. When nonagricultural land uses extend into agricultural or agriculture-supporting industrial or commercial areas or forest land or when there are changed conditions in or around the locality of an agricultural facility or agricultural support facility, such operations often become the subject of nuisance actions. As a result, such facilities are sometimes forced to cease operations. Many others are discouraged from making investments in agricultural support facilities or farm improvements or adopting new related technology or methods. It is the purpose of this Code section to reduce losses of the state's agricultural and forest land resources by limiting the circumstances under which agricultural facilities and operations or agricultural support facilities may be deemed to be a nuisance.
- (b) As used in this Code section, the term:
 - (1) "Agricultural area" means any land which is, or may be, legally used for an agricultural operation under applicable zoning laws, rules, and regulations at the time of commencement of the agricultural operation of the agricultural facility at issue and throughout the first year of operation of such agricultural facility. Any land which is not subject to zoning laws, rules, and regulations at the time of commencement of an agricultural operation of an agricultural facility and throughout the first year of operation of such agricultural facility shall be deemed an "agricultural area" for purposes of this Code section.
 - (2) "Agricultural facility" includes, but is not limited to, any land, building, structure, pond, impoundment, appurtenance, machinery, or equipment which is used for the commercial production or processing of crops, livestock, animals, poultry, honeybees, honeybee products, livestock products, poultry products, timber, forest products, or products which are used in commercial aquaculture. Such term shall also include any farm labor camp or facilities for migrant farm workers.
 - (3) "Agricultural operation" means:

- (A) The plowing, tilling, or preparation of soil at an agricultural facility;
- (B) The planting, growing, fertilizing, harvesting, or otherwise maintaining of crops as defined in Code Section 1-3-3 and also timber and trees that are grown for purposes other than for harvest and for sale;
- (C) The application of pesticides, herbicides, or other chemicals, compounds, or substances to crops, weeds, or soil in connection with the production of crops, timber, livestock, animals, or poultry;
- (D) The breeding, hatching, raising, producing, feeding, keeping, slaughtering, or processing of livestock, hogs, equines, chickens, turkeys, poultry or other fowl normally raised for food, mules, cattle, sheep, goats, dogs, rabbits, or similar farm animals for commercial purposes;
- (E) The production and keeping of honeybees, the production of honeybee products, and honeybee processing facilities;
- (F) The production, processing, or packaging of eggs or egg products;
- (G) The manufacturing of feed for poultry or livestock;
- (H) The rotation of crops, including without limitation timber production;
- (I) Commercial aquaculture;
- (J) The application of existing, changed, or new technology, practices, processes, or procedures to any agricultural operation; and
- (K) The operation of any roadside market.
- (3.1) "Agricultural support facility" means any food processing plant or forest products processing plant together with all related or ancillary activities, including trucking; provided, however, that this term expressly excludes any rendering plant facility or operation.
- (4) "Changed conditions" means any one or more of the following:
 - (A) Any change in the use of land in an agricultural area or in an industrial or commercial area affecting an agricultural support facility;
 - (B) An increase in the magnitude of an existing use of land in or around the locality of an agricultural facility or agricultural



- support facility and includes, but is not limited to, urban sprawl into an agricultural area or into an industrial or commercial area in or around the locality of such facility, or an increase in the number of persons making any such use, or an increase in the frequency of such use; or
- (C) The construction or location of improvements on land in or around the locality of an agricultural facility or agricultural support facility closer to such facility than those improvements located on such land at the time of commencement of the agricultural or agricultural support operation or the agricultural facility or agricultural support facility at issue and throughout the first year of operation of said facility.
- (4.1) "Food processing plant" means a commercial operation that manufactures, packages, labels, distributes, or stores food for human consumption and does not provide food directly to a consumer.
- (4.2) "Forest products processing plant" means a commercial operation that manufactures, packages, labels, distributes, or stores any forest product or that manufactures, packages, labels, distributes, or stores any building material made from gypsum rock.
- (4.3) "Rendering plant" has the meaning provided by Code Section 4-4-40.
- (5) "Urban sprawl" means either of the following or both:
 - (A) With regard to an agricultural area or agricultural operation:
 - (i) The conversion of agricultural areas from traditional agricultural use to residential use; or
 - (ii) An increase in the number of residences in an agricultural area which increase is unrelated to the use of the agricultural area for traditional agricultural purposes.
 - (B) With regard to an agricultural support facility:
 - (i) The conversion of industrial or commercial areas to residential use; or
 - (ii) An increase in the number of residences in an industrial or commercial area which increase is unrelated to the use of the industrial or commercial area for traditional industrial or commercial purposes.

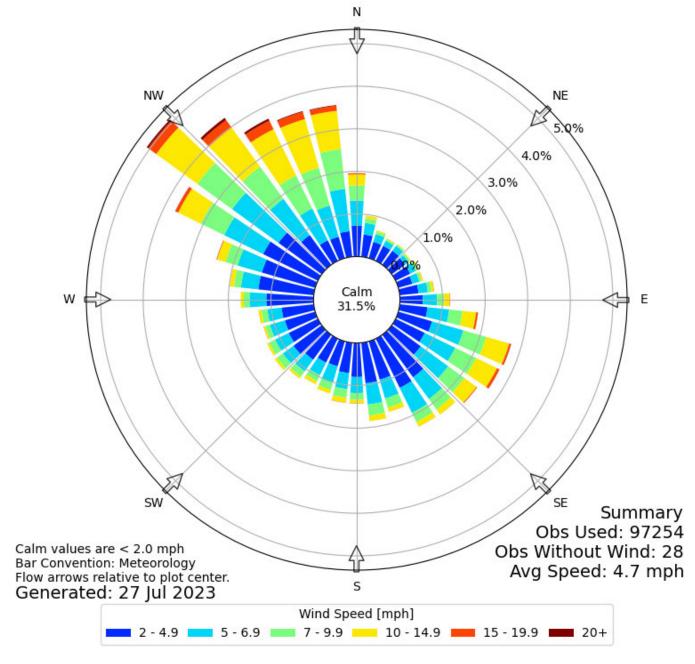
- (c) No agricultural facility, agricultural operation, any agricultural operation at an agricultural facility, agricultural support facility, or any operation at an agricultural support facility shall be or shall become a nuisance, either public or private, as a result of changed conditions in or around the locality of such facility or operation if the facility or operation has been in operation for one year or more. The provisions of this subsection shall not apply when a nuisance results from the negligent, improper, or illegal operation of any such facility or operation.
- (d) For purposes of this Code section, the established date of operation is the date on which an agricultural operation or agricultural support facility commenced operation. If the physical facilities of the agricultural operation or the agricultural support facility are subsequently expanded or new technology adopted, the established date of operation for each change is not a separately and independently established date of operation and the commencement of the expanded operation does not divest the agricultural operation or agricultural support facility of a previously established date of operation.



Farm gate value is the price of farm produce directly from the producer. It does not include transportation or marketing costs. See more data on farm gate value at https://farmgate.caes.uga.edu/. County entryYear 33 0 0 [9 Selections Haralson Filter by Year 2021 Farm Gate Value 70% 60% County Filter by Rural/Urban Area layer 50% 41.49M 40% Filter by Regional Commission 56 30% Filter by County 20% 10% Q Filter by Category 0% Forestry and Related Products Fruits and Nuts 0 Livestock and Aquaculture **L**∓ Category 100 km Ornamental Horticulture 2021 Top 10 Counties or Commodities by Farm Gate Value Other 30.000.000 Category Poultry and Eggs Rural/Urban - Agritourism 25,000,000 Row and Forage Crops Rural _ Forestry and Related Products 20,000,000 Q Filter by Commodity - Fruits and Nuts Livestock and Apples Aquaculture 15,000,000 Ornamental Asparagus Horticulture Banana Peopers 10,000,000 Other Barley - Poultry and Eggs Haralson 5,000,000 Beef Cattle Finished Outside Co Beef Cows Beef Stockers 2021 \$20,000,000 \$40,000,000 \$60,000,000

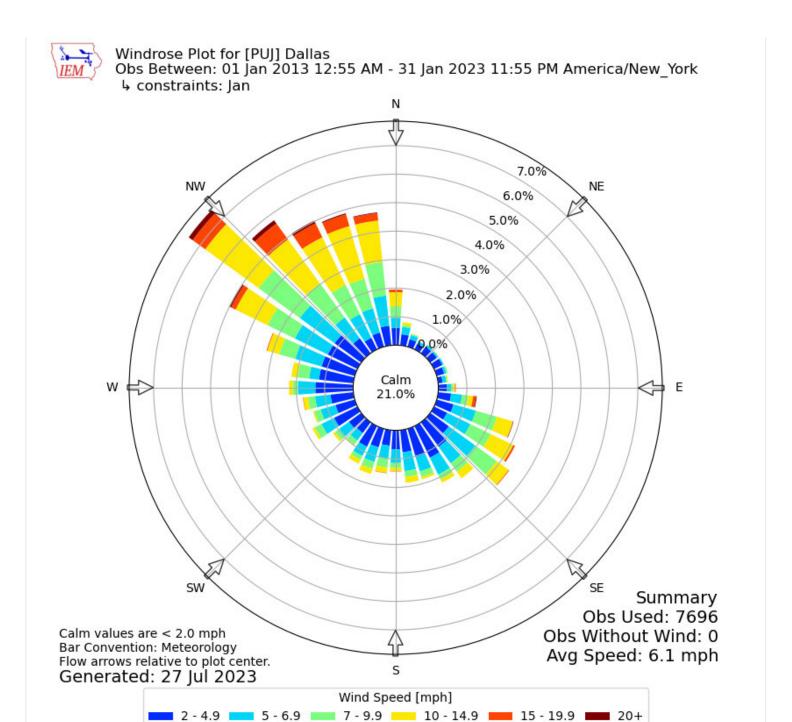
Year ▼ , La Category ▼ Farm Gate Value Source: Georgia Farm Gate Value Reports, Center for Agribusiness and Economic Development, College of Agricultural and Environmental Sciences, The University of Georgia, https://farmgate.caes.uga.edu/



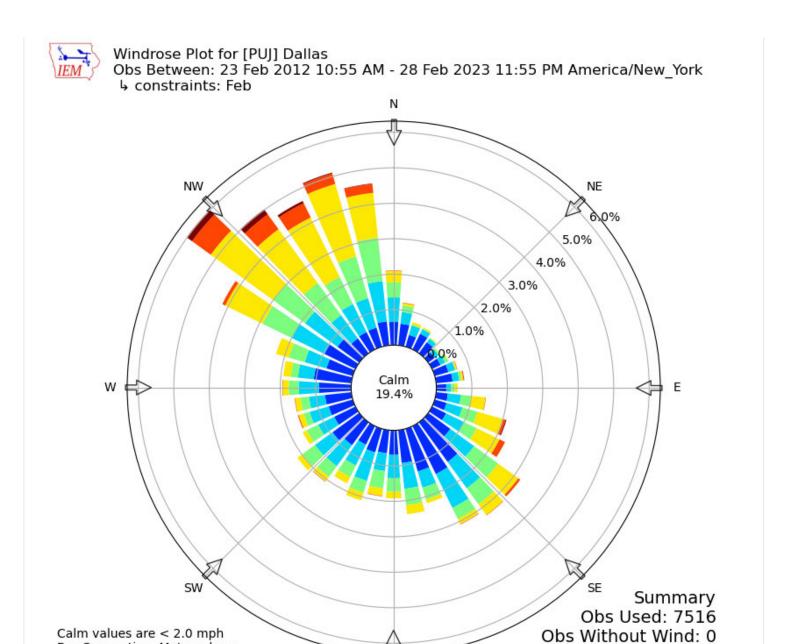


Monthly Climatology: (click thumbnail)









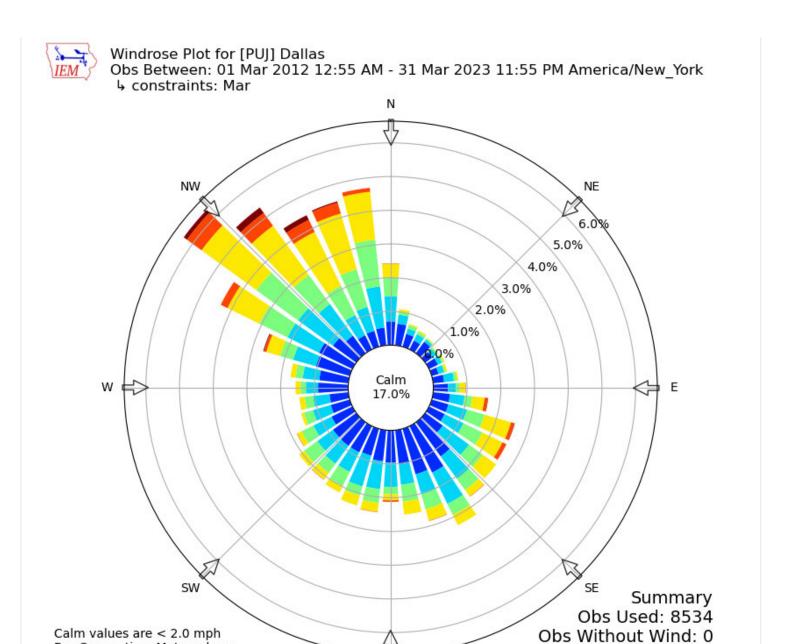
Wind Speed [mph]

2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Avg Speed: 6.2 mph

Bar Convention: Meteorology

Flow arrows relative to plot center.



Wind Speed [mph]

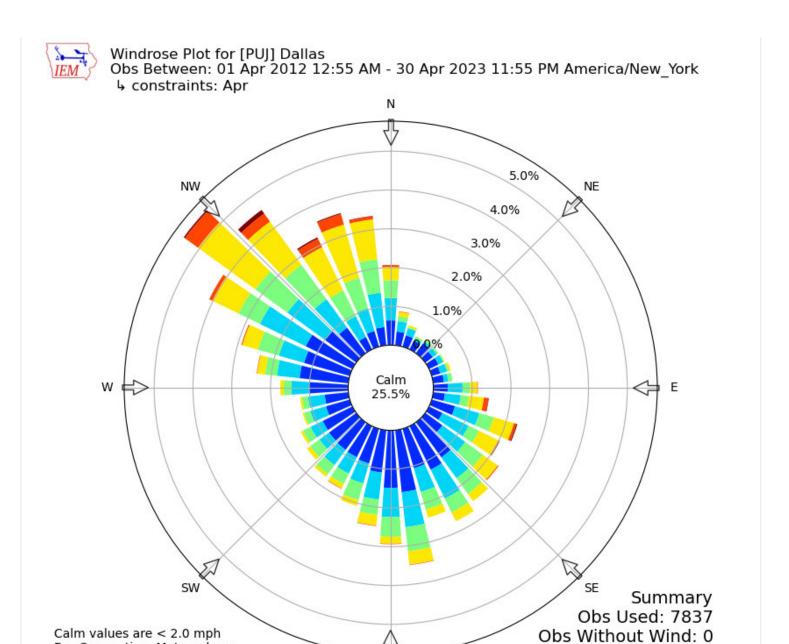
2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Avg Speed: 6.3 mph



Bar Convention: Meteorology

Flow arrows relative to plot center.



Wind Speed [mph]

2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Avg Speed: 5.4 mph

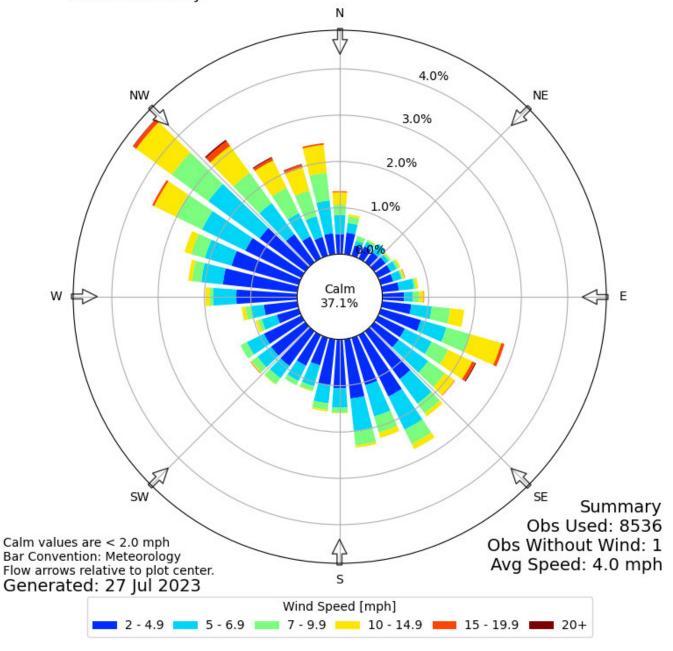
Bar Convention: Meteorology

Flow arrows relative to plot center.



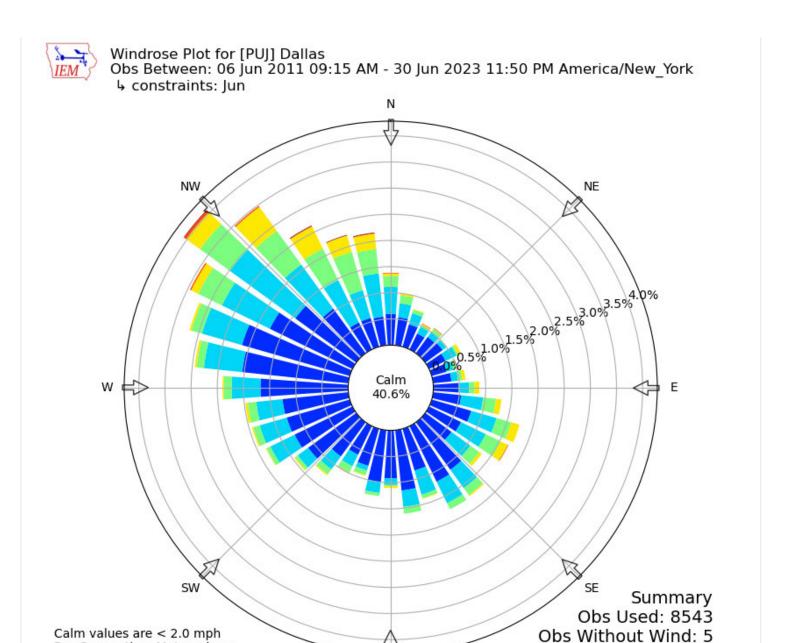
Windrose Plot for [PUJ] Dallas Obs Between: 26 May 2011 02:15 PM - 31 May 2023 11:55 PM America/New_York

4 constraints: May





I View raw data



Wind Speed [mph]

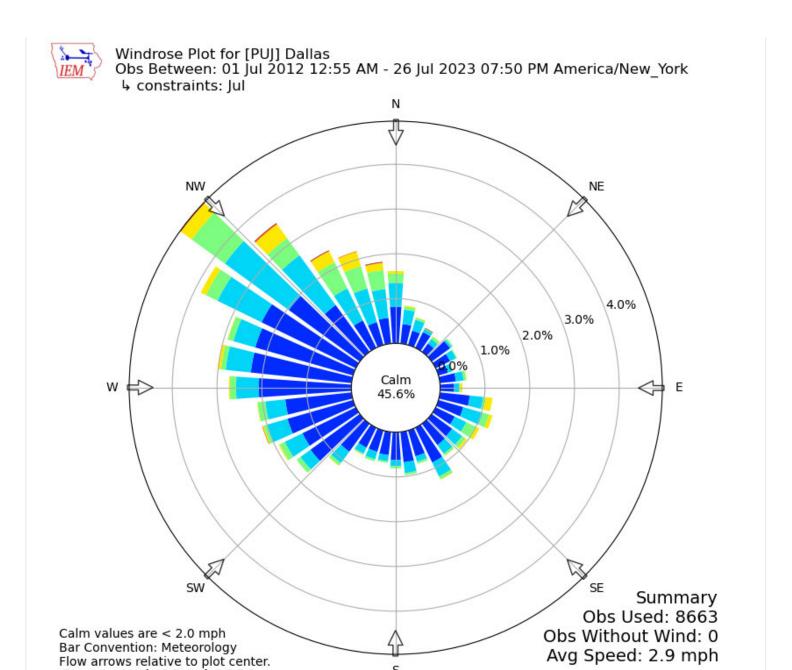
2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Avg Speed: 3.3 mph

July
iii View raw data

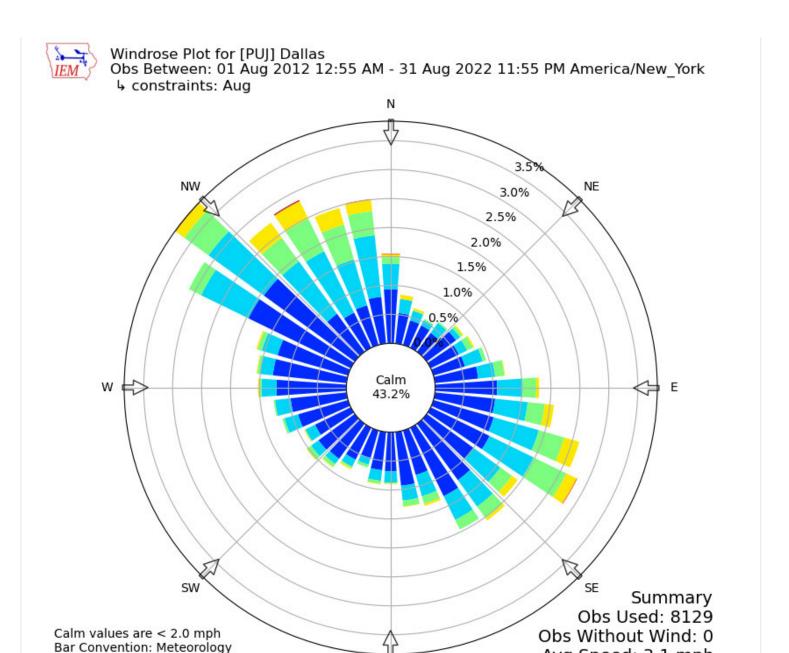
Bar Convention: Meteorology

Flow arrows relative to plot center.



Wind Speed [mph] 2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

August **I** View raw data

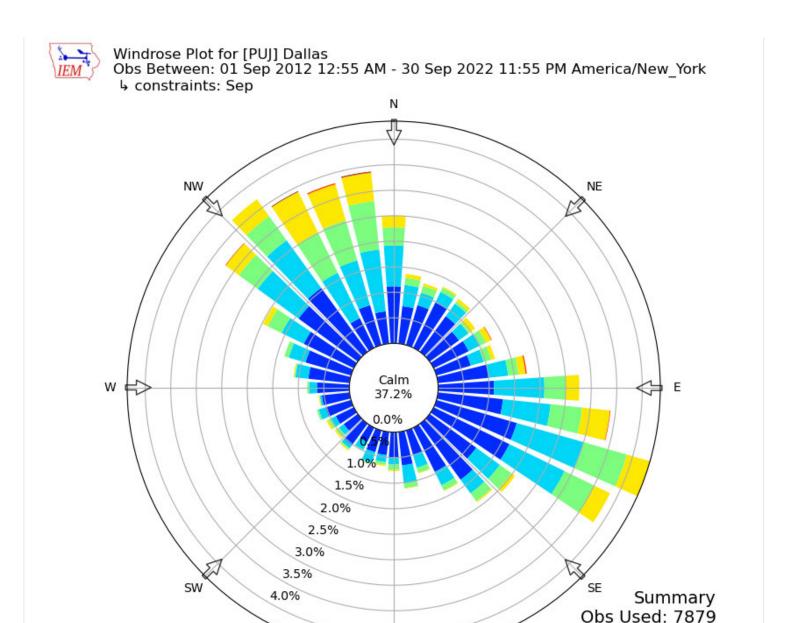


Wind Speed [mph]

2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Avg Speed: 3.1 mph

Flow arrows relative to plot center.



Wind Speed [mph]

2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

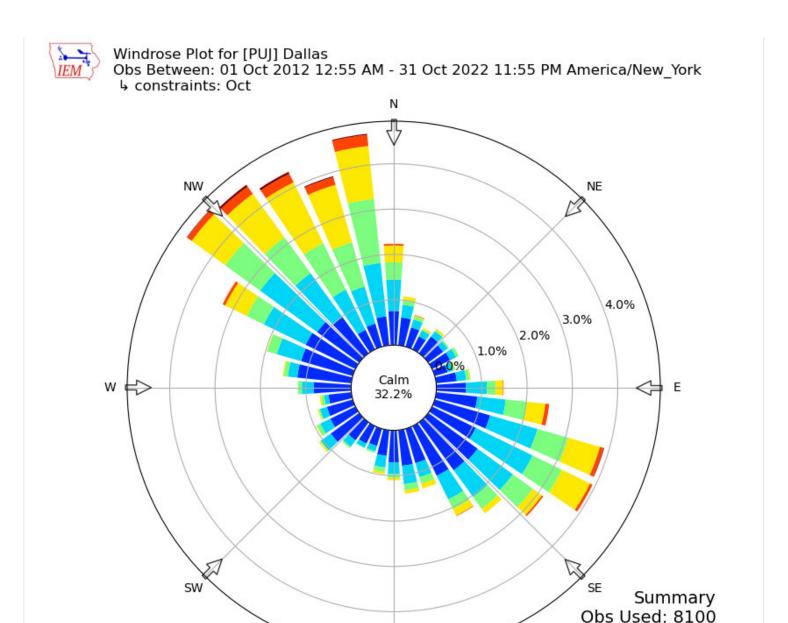
Obs Without Wind: 0

Avg Speed: 3.8 mph

Calm values are < 2.0 mph

Bar Convention: Meteorology

Flow arrows relative to plot center.



Wind Speed [mph]

2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

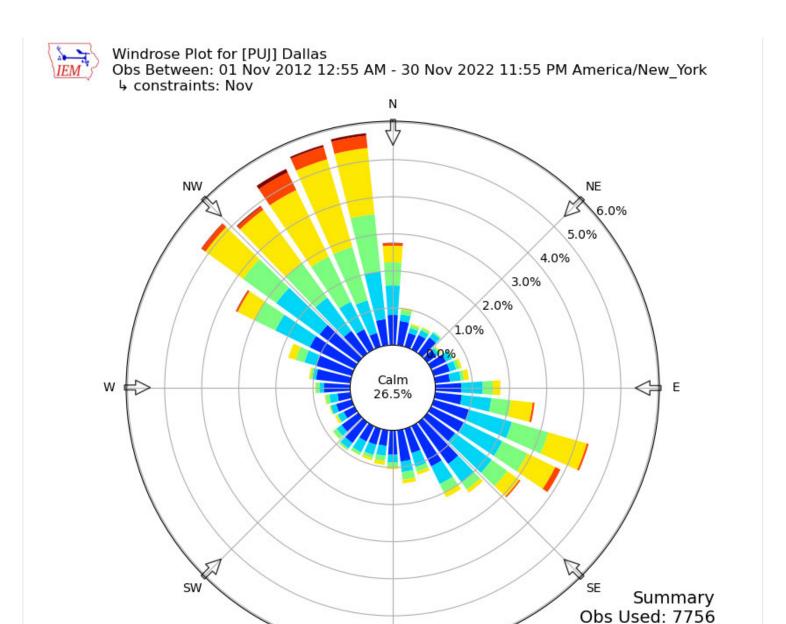
Obs Without Wind: 0

Avg Speed: 4.6 mph



Calm values are < 2.0 mph Bar Convention: Meteorology

Flow arrows relative to plot center. Generated: 27 Jul 2023



Wind Speed [mph]

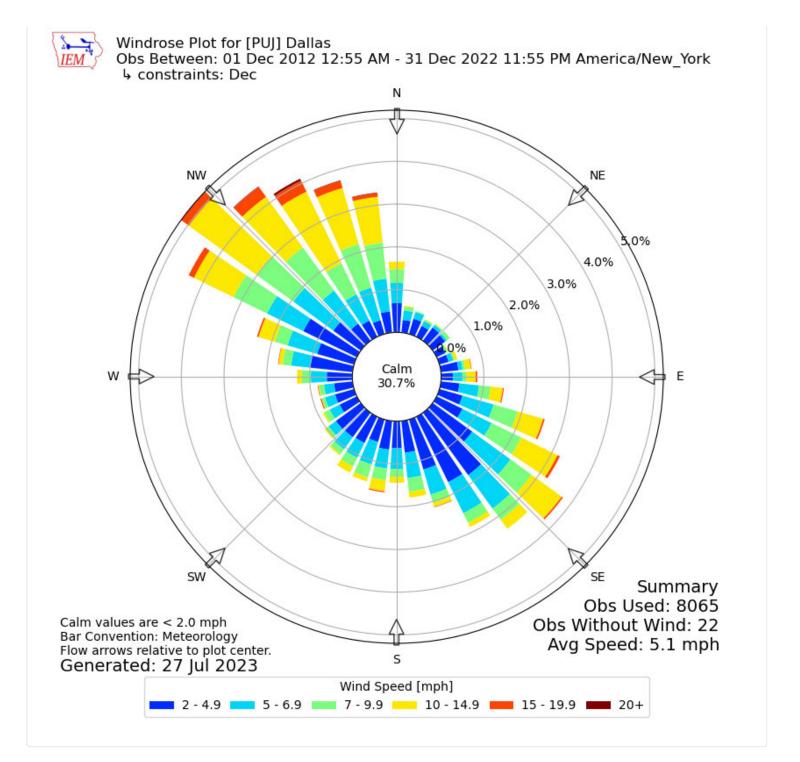
2 - 4.9 5 - 6.9 7 - 9.9 10 - 14.9 15 - 19.9 20+

Obs Without Wind: 0

Avg Speed: 5.4 mph

Calm values are < 2.0 mph Bar Convention: Meteorology

Flow arrows relative to plot center.



IOWA STATE UNIVERSITY

College of Ag

Department of Agronomy



