DRAFT ENVIRONMENTAL ASSESSMENT

Auburn University Land Swap and Construction of New Laboratory Facilities for the USDA Agricultural Research Service

Auburn, Alabama



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Prepared by United States Army Corps of Engineers, Mobile District Planning & Environmental Division

Inland Environment Team

for

United States Department of Agriculture Agriculture Research Service

Southeastern Area Office





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List of Acronyms

Agricultural Research Services (ARS) Auburn University (AU) Best Management Practice (BMP) Code of Federal Regulations (CFR) Council for Environmental Quality (CEQ) Engineer Regulation (ER) Environmental Assessment (EA) Environmental Impact Statement (EIS) Environmental Protection Agency (EPA) Executive Order (EO) Finding of No Significant Impact (FONSI) Government Owned Vehicles (GOV) National Environmental Policy Act (NEPA) National Registry of Historic Places (NRHP) National Soil Dynamics Laboratory (NSDL) Privately Owned Vehicles (POV) Threatened and Endangered (T&E) U.S. Army Corps of Engineers (USACE) U.S. Department of Agriculture (USDA) Volatile Organic Compounds (VOC's

1. INTRODUCTION

This Environmental Assessment (EA) presents and discusses impacts that would potentially result from the land exchange between the U.S. Department of Agriculture (USDA) and Auburn University (AU) and the construction of two new facilities by the USDA. Auburn University is a state owned public- land grant university located in south eastern Alabama.

1.1 Location

The proposed action would occur at four sites in the area in and around Auburn in Lee County, Alabama. Lee County is located along US Interstate 85. Auburn is 100 miles southwest of Atlanta, GA, 100 miles southeast of Birmingham, AL, and 50 miles east of Montgomery, AL. The proposed action will occur at four sites shown in Figure 1.1 below. Site 1, the current USDA Agricultural Research Service (ARS), is located at the SE corner of W. Samford Ave and S. Donahue Drive (32.596 N, -85.489W); this property will be transferred from the USDA to AU. The Site 2 is one mile southwest of Site 1 at 32.583 N, -85.495 W, at the SW corner of Devall Dr and Camp Auburn Rd; where the new office and laboratory building will be built by the USDA this land will be transferred to the USDA by AU. The Site 3 is located 8 miles southeast of Site 1 at 32.502 N, -85.436 W and contains the current Auburn Fisheries Field Lab, located at the USDA. The Site 4 is located one mile west of Site 1 at 32.593, -85.509W at the NE corner of Shug Jordan Parkway and Wire Rd; this site is currently owned by USDA and will be used to construct new storage barns for the USDA ARS.



Figure 1: The location of the four proposed sites for the Auburn University and USDA land exchange and construction within Lee County, AL

1.2 Purpose and Need for Proposed Action

The purpose of the project is to exchange the ARS and in Auburn, AL with land owned by Auburn University in Auburn, AL. ARS and Auburn University have a long history of collaboration on research that solves problems related to soil-based agriculture at the ARS National Soil Dynamics Laboratory (NSDL). The ARS NSDL facilities were built in 1934 and are located on property embedded on the Auburn University campus. Funding in the 2019 agriculture appropriations bill provided ARS with the opportunity to develop new laboratory facilities for NSDL. However, since the NSDL facilities are in the center of the Auburn University campus, there is little room on the property for expansion, and the University has been particularly interested in acquiring the land for the campus' long term design needs. Auburn University has land that will be suitable for allowing the NSDL to meet its current research needs and mission priorities in these new facilities and this project seeks to exchange lands in a way that benefits both the USDA and Auburn University.

1.3 Authority

Per the Federal Land Policy and Management Act 43 U.S.C. §§1701-1785 §1713. [FLPMA §203] States: "A tract of the public lands (except land in units of the National Wilderness Preservation System, National Wild and Scenic Rivers Systems, and National System of Trails) may be sold under this Act where, as a result of land use planning required under section 1712 of this title, the Secretary determines that the sale of such tract meets the following disposal criteria: (1) such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public lands, and is not suitable for management by another Federal department or agency; or (2) such tract was acquired for a specific purpose and the tract is no longer required for that or any other Federal purpose; or (3) disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in Federal ownership".

Funding and authorization for the modernization of the Auburn USDA ARS site was included in 2019 Consolidated Appropriations Act. "The conference agreement provides \$381,200,000 for ARS Buildings and Facilities for the next highest priorities identified on the 2012 USDA ARS Capital Investment Strategy and 2015 ARS Co-located Cooperator Facility Report."

1.4 Proposed Action

1.4.1 Land Exchange

The USDA proposes to exchange of all the lands, non-removable property, buildings, and grounds of the original USDA NSDL (Site 1) to AU. In exchange, AU will provide all lands, non-removable, property and buildings at sites 2 and 3.

1.4.2 Construction of New Facilities

At Site 2, the USDA proposes to construct a new laboratory and office space to be used by ARSNSDL on approximately 6 acres of land at the SW corner of Devall Drive and Camp Auburn Road. This new facility will include parking for approximately 45 Privately Owned Vehicles (POVs) and 15 Government Owned Vehicles (GOVs), a 30,000 square foot laboratory/office building and a separate building for a nuclear research lab and a greenhouse. At Site 4 the USDA will construct "high-bay" storage and a new parking lot to allow for the storage of ARS vehicles, trailers, and equipment outside of AU designated architectural control area. The proposed action is described in detail in Section 2.2.

1.5 Scope

The National Environmental Policy Act (NEPA) and Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508 (40 CFR 1500-1508), require Federal agencies to consider the potential environmental consequences of proposed actions and alternatives. 7 CFR § 520.3 further states USDA ARS will comply with the NEPA. An Environmental Assessment (EA) is prepared for an action that is not clearly categorically excluded, but does not clearly require an Environmental Impact Statement (EIS) [40 CFR §1501.3 (a) and (b)]. Based on the EA, the federal agency either prepares an EIS, if one appears warranted, or issues a "Finding of No Significant Impact" (FONSI), which satisfies the NEPA requirement. This EA is prepared according to the Engineer Regulation (ER) 200-2-2, Procedures for Implementing NEPA, and the Council for Environmental Quality (CEQ) regulations (40 CFR § 1500-1508). This EA is being prepared in accordance with the 1978 CEQ regulations, as this project began prior to the effective date of the updated 2020 CEQ regulations.

This EA, written by the U.S. Army Corps of Engineers (USACE), Mobile District, presents the potential impacts associated with the USDA Auburn University Land Exchange. Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality (amended by EO 11991), provides policy directing the Federal government to take leadership in protecting and enhancing the environment.

Per CEQ guidance, the EA focuses on resource areas where there are potential impacts.

1.6 Public Involvement

NEPA requires that the public be involved in the decision-making process on Federal actions. Consideration of the views and information of all interested parties promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the proposed action are urged to participate in the decision-making process.

2. ALTERNATIVES

2.1 No Action Alternative

Under the No Action alternative, the ownership of all four parcels of land would remain the same. The USDA would not construct a new laboratory/office facility as a part of this action. The USDA would have to continue leasing Site 3 from AU or vacate the property. Site 4 will continue to function as usual; no storage will be constructed on the site.

2.2 Proposed Action

The proposed action consists of the exchange of federally owned property currently occupied by the USDA ARS Auburn office for two separate parcels of land currently owned by Auburn University. The USDA will transfer Site 1 (Market Value \$7,888,000) to the ownership of Auburn University. Auburn University will transfer ownership of Site 2 (Market Value \$5,750,000) and Site 3 (Market Value \$400,000) to the USDA. 43 U.S. Code § 1716 requires "the values of the lands exchanged by the Secretary under the Act and by the Secretary of Agriculture under applicable law relating to lands within the National Forest System either shall be equal, or if they are not equal, the values shall be equalized by the payment of money to the grantor or to the Secretary concerned as the circumstances require so long as payment does not exceed 25 "percent" of the total value of the lands or interests transferred out of Federal ownership". Market values for these properties were calculated in 2020 reports by Collins and Null. The USDA will maintain ownership of Site 4.

After the transfer of lands and equalization payments, the USDA will construct a new laboratory and office facility at Site 2. In addition, the construction (at Site 4) of high bay storage, low bay storage and a CO2 testing facility will be used to meet current and projected needs for the ARS NSDL. No construction is proposed at Sites 1 or 3.



Figure 2: The proposed construction at Site 2 consisting of a main office building, a headhouse/greenhouse, parking, and fencing.

The USDA will construct at Site 2, also know as Auburn Research Park, (the approximately 6 acres of land at the SW corner of Devall Drive and Camp Auburn Road) a new laboratory and office space to be used by ARS's Soil Dynamics Laboratory, see Figure 2. This new facility will include parking for approximately 45 POVs and 15 GOVs, a 30,000 square foot laboratory/ office building and a separate building for a nuclear research lab and a greenhouse. This location will be secured using a chain link fence. Construction at Auburn Research Park will meet the current and future research needs of USDA ARS in Auburn Alabama. This will create approximately 3.20 acres of impermeable surfaces considering the buildings, roads, and parking lot. This action will include the removal of a stand of new growth experimental crape myrtles, the cut, fill, and grading of soils, the pouring of concrete pads and asphalt, and the construction of the buildings.



Figure 3: Proposed construction at Site 4 consisting of gravel/ dirt roads, a parking pad, CO₂ experiment stations and two storage buildings.

At Site 4, the USDA will construct "high-bay" storage and a new parking lot to allow for the storage of ARS vehicles, trailers, and equipment outside of AU designated architectural control area. In addition the current CO2 experimentation station at Site 1 will be moved to Site 4, see Figure 3. The USDA will construct two "high-bay" storage buildings and an access road for use by the ARSNSDL. Construction will begin with the filling of manmade "Pond #7" and roads to aid in construction. Construction of the storage buildings and road will require the removal of 3.5 acres of new growth timber and underbrush from the site. Stormwater drainage for the new road and buildings will be incorporated into the existing infrastructure on site. This site will create about 1.07 acres of impervious surfaces.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 Physical Environment

3.1.1 Climate

Affected Environment: The project is in a Köppen Cfa climate (humid-subtropical). Lee County experiences warm summers with mild winters. On average there are 113 days of rain a year, totaling on average 52.6 inches of rain a year. The hottest summer month (July) has an average high of 90.8° Fahrenheit (F) and the coldest month (January) has an average low of 33.8° F.

No Action: No changes to climate would be expected under the no action alternative.

Proposed Action: The proposed action would have a negligible effect to the local and global climate. Air temperatures around the newly constructed blacktop parking lots are likely to increase due to the albedo of a black parking lot, asphalt surfaces such as roofs, parking lots, and roads can be up to 60° F higher than a grass surface in a similar area (M.T.Simmons, 2008). These higher temperatures however dissipate quickly to adjacent areas, and the size of the proposed Site 2 complex does not constitute a major "heat island". Small amounts of greenhouse gases will be released by construction equipment at Sites 2 and 4, however these emissions will be localized and temporary in nature and not significantly contribute to climate change.

3.1.2 Geology and Soils

Affected Environment: The project is located within the East Gulf Coastal Plain (see Figure 4) which is a broad, flat coastal plain that stretches across the southern portion of Alabama, extending north from the Gulf coast to the fall line near Montgomery, Alabama. The geologic units, composed mainly of sediments, are described variously as gravels, sands, silts, and clays. The rocks are mainly composed of chalk, sandstone, limestone, and claystone. The beds slope gently southward at about 40 ft per mile. Locally, higher elevations are underlain by more resistant material (in some areas it is sediment, in others sedimentary rock), and the lowlands are underlain by softer material. The type of resistant material varies from one physiographic district to another. A soils map of Site 2 where construction will occur is included in the appendix to this EA.



Figure 4: The location of the proposed project in reference to Alabama's geological regions. Note that Auburn is just South of the fall line between the Piedmont Upland and the Eastern Coastal Gull Plain. (The University of Alabama, n.d.)

No Action: No impacts would occur to geology or soils under the No Action because no changes to existing geology or soils would occur.

Proposed Action: The proposed action would involve the cut/ fill and grading of existing topography at Site 2 to allow for the construction of the new laboratory facilities. Most of the soils at Site 2 have been previously graded and disturbed. Fill soils are likely to come from the local area. Impacts to the major geography and soils of the area would remain unchanged.

There may be minor impacts to the soils from the construction of temporary roads, tree clearing and grubbing, and grade work. During grading and construction, compaction of soils at Site 2 may occur. Soil compaction can reduce water infiltration capacity, reduced biomass and increased heat retention (Stoessel, Sonderegger, Bayer, & Hellweg, 2018). While the compaction of the soils may negatively affect water infiltration at Site 2, stormwater infrastructure will be used to mitigate the effects of soil compaction and increased imperious surfaces to local water quality and minimize erosion.

The soils at site four will also require cut/fill and grading to accommodate for the construction of the new high bay buildings. In addition, a gravel road will be constructed at Site 4 that will be frequently traveled by large trucks creating additional compaction.

Institution of high-quality construction and best management practices can be used to mitigate some of these effects. There will be no changes to the geology or soils at Sites 1 or 3.

3.1.3 Water Quality

Affected Environment: The project will occur entirely within the Chewacla Creek watershed (see Figure 5), a tributary of the Tallapoosa River, which is part of the greater Mobile Bay Watershed. None of the proposed action sites lie within state listed 303(d) waters. Only Site 3 is transected by Odom Creek; Sites 1, 2, and 4 are not near a waterbody.



Figure 5: The watersheds around Auburn, AL. Note: The project locations were NOT included to make the map easier to read.

No Action: No impacts would occur to water quality under the No Action because no changes to existing water resources would occur.

Proposed Action: The proposed action would increase the impervious surfaces at Site 2 by approximately 4.0 acres and at Site 4 by 1.5 acres. This may cause small minor changes to water quality in surrounding water bodies. Temporary impacts from construction, cut/fill, and grading are thought to be minimal as Alabama Stormwater and

Construction Best Management Practices (BMPs) will be adhered to as appropriate. Any construction disturbance more than one acre will require the obtainment of a National Pollutant Discharge Elimination System (NPEDS) permit, pursuant to Section 402 of the Clean Water Act. A stormwater retention pond is proposed to be constructed at Site 2. If conditions allow (capacity and connectivity), the USDA may obtain an easement in perpetuity to use existing AU owned stormwater retention infrastructure at Site 2. Site 4 will utilize an existing detention pond for stormwater stilling and detention. No change in water quality is predicted to occur at Site 3 as there will be no change in operation. While Site 1 is leaving Federal ownership, it is unlikely negative affects to water quality will occur as it is not near a waterbody.

3.1.4 Groundwater

Affected Environment:

No Action: No impacts would occur to groundwater under the No Action because no changes to existing groundwater would occur.

Proposed Action: Impacts to groundwater will be minimized by utilizing BMPs during construction. Groundwater impacts will also be minimized by designing appropriate stormwater retention, infiltration and sewage infrastructure.

3.1.5 Air Quality

Lee County, Alabama is not within an Environmental Protection Agency (EPA) nonattainment area (Enivronmental Protection Agency, 2021).

No Action: No impacts would occur to air quality under the No Action because no changes to existing pollution loading would occur.

Proposed Action: The local area will receive a minor increased amount of air pollution due to the approximately 50 cars for the employees that will work at Site 2. There will also be temporary increased in air pollution during the construction of the project at Site 2 and 4. The impacts of this pollution will not cause Lee County or Auburn to become EPA an nonattainment area. No changes to air quality are anticipated at Sites 1 or 3.

3.1.6 Floodplain

Site 1 lies adjacent to a small creek and the southern end of the property is associated with that floodplain. Site 2 does not lie within a surface water feature or a floodplain. Site 3 lies within the floodplain; however, all infrastructure is already constructed on manmade upland berms. Site 4 lies adjacent to a creek with lots of natural relief and topography, no construction will occur in the floodplain. Figure 6 shows the floodplain maps of the four sites.



Figure 6: The National Flood Hazard Layer Map for the Four Sites.

No Action: No impacts would occur to the floodplain under the No Action because no changes to existing floodplain would occur.

Proposed Action: No construction is proposed at Sites 1 or 3 and therefore no impacts to the floodplain would occur. Sites 2 is not near a floodplain and construction at Site 4 will occur at a distance from the floodplain, given this the requirements of EO 11988 do not apply to this project.

3.1.7 Wetlands

Wetlands are not present in the project areas of Sites 1, 2, and 4. They are present at Site 3. This is shown in Figure 7.



Figure 7: The wetlands maps associated with the 4 sites of the proposed project.

No Action: No impacts would occur to wetlands under the No Action because no changes to the existing wetlands would occur.

Proposed Action: No construction or changes in operation will occur in or adjacent to

wetlands and therefore no impacts to wetlands are anticipated.

3.2 Biological Resources

3.2.1 Fish and Fishery Resources

There are no commercial fisheries in the vicinity of the proposed project.

No Action: No impacts would occur to fish or fishery resources under the No Action because no changes to existing fish habitat would occur.

Proposed Action: No impacts would occur to fish or fishery resources under the Proposed Action because no changes to existing fish habitat would occur.

3.2.2 Wildlife Resources and Habitat

Affected Environment: The wildlife habitat varies between the four project sites: Site 1 contains only a small stand of a few trees: species residing in the area are most likely adapted to the close proximity of human habitation. Site 2 contains a stand of experimental trees, an old 2-acre (1990s) stand of Crepe myrtle (*Lagerstroemia spp.*), and an open field. This site is likely to be home to squirrels, Eastern cottontail rabbit (*Sylvilagus floridanus*), racoons (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*). Site 3 is likely to contain all species at Site 1 and 2 in addition to white - tailed deer (*Odocoileus virginianus*), and Eastern wild turkey (*Meleagris gallopavo silvestris*). Site 4 is likely to contain similar species as site 3.

No Action: No impacts would occur to wildlife resources under the No Action because no changes to existing wildlife habitat would occur.

Proposed Action: A relatively minor amount of wildlife habitat will be lost to the construction of the new laboratory building at Site 2. This will consist of the removal of an old 2-acre (1990s) stand of Crepe myrtle (*Lagerstroemia spp*.) that were planted as part of an experiment. It is likely small urban adapted species that live in this area will move 100 yards across Camp Auburn Rd to the 50-acre unbroken forested area adjacent to Auburn Research Park. Minor habitat loss will occur at Site 4 with the removal of some old growth trees however the heavily vegetated area adjacent should support the local wildlife. No loss of habitat will occur at Site 1 or 3.

3.2.3 Endangered, Threatened, or Protected Species

Under the Endangered Species Act of 1973, any federally funded project has the responsibility to address impacts to federally listed and proposed species. A list of species and habitats of concern was obtained from the Information for Planning and Conservation website (United States Fish and Wildlife Service, 2021). Five threatened or endangered species are thought to occur within the proposed project areas in Lee County, Alabama (see Table 1)

Table 1: Effects of the No Action Alternative on Threatened and Endangered Species in the area.

Common Name	Scientific Name	Status
Wood Stork	Mycteria americana	Threatened
Finelined Pocketbook	Lampsilis altilis	Threatened
Ovate Clubshell	Pleurobema perovatum	Endangered
Southern Clubshell	Pleurobema decisum	Endangered
Relict Trillium	Trillium reliquum	Endangered

No Action: No impacts would occur to threatened or endangered species under the No Action because no changes to existing wildlife habitat would occur.

Proposed Action: No effect will occur to the threatened and endangered (T&E) species will occur as a result of the proposed action (see Table 2). Site 1 will be given to Auburn University and leave federal ownership, it is unknown what the University intends to do with the site; however, the site is already high urbanized and has no potential habitat for T&E species. Site 2 will be given to the USDA where a laboratory building, and green house will be constructed. This site is already disturbed and regularly mowed and therefore no potential habitat for T&E species is thought to occur at this site. Site 3 is currently leased by the USDA from Auburn University; as part of this exchange, ownership will be given to the USDA and operations will remain unchanged. No changes in the flow of or runoff into Odom Creek is expected as a course of the proposed federal action. Construction at Site 4 should not contribute negatively to the success of any T&E species. The USACE has surveyed all four of these sites and seen no potential habitat for any listed species.

Table 2: Effects of the Prosed Action on Threatened and Endangered Species in the area.

Common Name	Scientific Name	Status	Determination
Wood Stork	Mycteria americana	Threatened	No Effect
Finelined Pocketbook	Lampsilis altilis	Threatened	No Effect
Ovate Clubshell	Pleurobema perovatum	Endangered	No Effect
Southern Clubshell	Pleurobema decisum	Endangered	No Effect
Relict Trillium	Trillium reliquum	Endangered	No Effect

3.3 Socioeconomics and Cultural Resources

3.3.1 Socioeconomic Conditions

According to the 2010 Census, there were 140,247 people living in Lee County, Alabama. The population was 71.3% White, 22.7% Black, 0.3% Native American, 2.6% Asian, 0.1% Pacific Islander, 1.3% from other race, and 1.6% from two or more races. 3.3% of the population identified as Hispanic or Latino. The median household income was \$40,894. 19.2% of the population lives below the poverty line (United States Census Bureau, 2010).

No Action: No changes in socioeconomics in the area would occur under the no action.

Proposed Action: No changes to the socioeconomics in the area are anticipated because of the project at Site 1 or 3. A temporary increase in jobs in association with the construction at Site 2 and 4 may occur however the sourcing and effect of the jobs are unknown.

3.3.2 Land Use

Land use around Site 1 includes an urban college with asphalt paved roads, and concrete parking lots with a large amount of the site being covered in impervious surfaces. Site 2 consists of a field covered in commercial grasses surrounded by small drainages and wetlands. Site 3 consists of agricultural fishponds. Site 4 consist of government research lands with laboratories, storage, and fishponds.

No Action: No changes in land use to the area would occur under the no action.

Proposed Action: No alterations to major land use patterns would occur, with the exception of Site 2. The area around Site 2 is being converted into "Auburn Research Park" and will likely include the development of more offices and laboratories in the coming years (The Park at Auburn, 2021). Construction at Site 4 is consistent with the current land use, as the adjacent area contains laboratories and storage space. No changes to land use are expected at Sites 1 or 3.

3.3.3 Historic and Archaeological Resources

Site 1 is eligible for listing on the National Register of Historic Places (NRHP) under Criterion A, C, and D.

No action: The retention of Site 1 under the no action alternative would have no effect on cultural resources.

Proposed Action: Under the proposed action, Site 1, which is eligible for listing on the NRHP, would leave federal control. Real property transfers are typically considered to be undertakings subject to the review process under Section 106 of the National Historic Preservation Act, 54 U.S.C. § 306108, and its implementing regulations at 36 C.F.R. part 800 ("Section 106"). The Section 106 regulations state that the transfer or sale of a historic property out of federal ownership or control constitutes an adverse effect when undertaken without adequate and legally enforceable restrictions or conditions to ensure the long-term preservation of the property's historic significance (36 C.F.R. § 800.5(a)(2)(vii)) (Advisory Council on Historic Preservation, 2016).

Due to the nature of the future use by the University at Site 1, there was no opportunity for meaningful mitigation of the loss of the Real Property at Site 1 and will result in an adverse effect on the cultural resources associated with this area.

3.3.4 Water Supply

Water supply for the City of Auburn comes from Auburn City Lake on Chewacala Creek.

No Action: No impacts would occur to water under the No Action because no changes to existing water usage would occur.

Proposed Action: No impacts would occur to water supply under the Proposed Action because no large changes to existing water usage would occur.

3.3.5 Traffic

Traffic around the University, where Sites 1, 2, and 4 are located, mainly travels along Shug Jordan Parkway, South College Street, and Samford Avenue. The City of Auburn lies along Interstate 85 between Montgomery, AL and Atlanta, GA where traffic is moderate. Site 3 is remote in Lee County accessed by a small county road.

No Action: No impacts would occur to traffic under the No Action because no changes to existing traffic volume or patterns would occur.

Proposed Action: Minor alterations to the traffic patterns around Site 2 may occur, but should have no noticeable effects based on the number of employees at Site 2. No changes to traffic patterns are thought to occur at Sites 1, 3, and 4. Traffic is not expected to be detoured because of construction at Sites 2 or 4.

3.3.6 Noise

Sites 1, Site 2, and Site 4 are in an urban area with moderate traffic and urban noise. Site 3 is in a primary agricultural area with a lower noise level.

No Action: The No Action would not result in any noise generation.

Proposed Action: Noise would be generated at Sites 2 and 4 by the proposed project from a number of construction-related sources. These include the vehicular traffic cited above and heavy construction equipment. Typical sources of construction-related noise are shown in Table 3, along with expected noise levels at 25 and 50 feet from the source. It is estimated that such noise levels from the proposed action would be comparable to noise originating from a residential home or commercial building construction project. This may constitute a minor nuisance to the nearby area. Work would occur only during daylight hours assuring no sleep disturbance for most people, and the overall impact would be short term and minor. The noise levels at Sites 1 and 3 would be unaffected.

Construction Phase	Equipment	Noise Level at 25 feet (dBA-Leq)	Noise Level at 50 feet (dBA-Leq)
Clearing and grubbing	Bulldozer, backhoe	95	89
Earthwork	Scraper, bulldozer	97	91
Foundation	Backhoe, loader	94	88
Superstructure	Crane, loader	95	89
Base preparation	Trucks, bulldozer	97	91
Paving	Paver, trucks	98	92

Fable 3: Typical noises from construction in urban environment	ts. Source: U.S. Department of Transportation, 1977
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3.3.7 Aesthetics

Affected Environment: Auburn University maintains building and landscaping standard for areas on and around University property, where Sites 1, 2, and 4 occur. Site 3 is an established fisheries lab with no real aesthetic value.

No Action: No impacts would occur to the area aesthetics under the No Action because no changes to view frames, vegetation, or architecture would occur.

Proposed Action: The proposed building at Site 2 will be required to follow Auburn University's building design and architecture standards. No major changes to the aesthetics of Auburn Research Park will occur. The Site 4 construction will look similar to the structures already present within the project area. No changes to aesthetics will occur at Site 1 or 3.

3.3.8 Hazardous and Toxic Material Liabilities

There are no EPA Superfunds sites within the project area. A Phase I Environmental Site Assessment was conducted by Aleut Federal, LLC on Sites 1, 2, and 3. No Environmental Site Assessment was done on Site 4 as it is already federal property nor is it changing ownership. The Environmental Site Assessment of Sites 1 and 2 did not reveal anything significant. At Site 3 it was revealed isotope Carbon-14 as a potential contaminant of concern. The information available is not sufficient to fully evaluate the environmental impact from previous use of the subject site.

No Action: No impacts would occur to risks of hazardous and toxic materials under the No Action because no disturbances to the soils, air, and waters would occur.

Proposed Action: No major impacts to hazardous and toxic waste at Site 1, 2 or 4 would occur. It was recommended by Aleut Federal, LLC that the USACE obtain additional information on the use of Carbon-14, pesticides and VOC's and their potential environmental impact to the subject property at Site 3. The USACE plans to further investigate the impacts that the federal acquisition of Site 3 would have on hazardous and toxic waste liability and impacts. The construction equipment at Sites 2 and 4 will be operated and maintained to prevent the leaking of hazardous fluids and materials.

3.3.9 Public Safety

For both the No Action and the Proposed Action alternatives, there would be no specific change in public safety hazards on site. During construction, standard safety measures would be taken to ensure unauthorized persons do not have access to the site. This would include use of construction fencing, signage, prohibiting trespassers, etc. No

interruption to the travel of emergency vehicles is expected as a result of the proposed action.

3.3.10 Protection of Children

On April 12, 1991, the President issued EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. The EO seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of Federal policies, programs, activities, and standards. Children are potentially at greater risk for accidents such as falls, entrapments, ect.

During construction, standard safety measures would be taken to ensure children do not have access to the site. This would include use of construction fencing, signage, prohibiting trespassers, etc. After construction, placement of a fence around the property at Site 2 would help prevent accidents by preventing access to the property.

3.3.11 Environmental Justice

On February 11, 1994, the President issued EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The EO is designed to focus Federal attention on the environmental and human health conditions in minority and low-income communities with the goal of achieving environmental justice. The EO is also intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment. The EO states that Federal activities, programs, and policies should not produce disproportionately high and adverse impacts on minority and low-income populations.

No negative impacts to minority or low-income communities are expected the proposed action.

3.4 Cumulative Impacts

The CEQ regulations define cumulative impacts 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 other action." (40 CFR. § 1508.7). Actions considered in the cumulative impacts analysis include implementation of the proposed action and no action alternatives and other Federal, State, Tribal, local agencies, or government or private actions that impact the resources affected by the proposed action.

This project does not cumulatively contribute to the environmental degradation of the local area.

4. COORDINATION

Coordination with the Alabama State Historic Preservation Office has been initiated and comments on the proposed project and on the draft Memorandum of Agreement have been requested.

5. IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED SHOULD THE PROPOSED ACTION BE IMPLEMENTED

Any irreversible or irretrievable commitments of resources involved in the proposed action have been considered and are either unanticipated at this time or have been considered and determined to present minor impacts by scope and scale. Although natural habitat would be impacted at Site 2 and Site 4, it is not considered irreversible.

6. ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED

The negative effects of the loss of federal ownership of the Site 1 buildings that are eligible for listing on the NRHP are unavoidable as part of this proposed action. A Memorandum of Agreement is being developed between the USACE and the Alabama State Historic Preservation Office to mitigate the loss of historical data.

7. LIST OF PREPARERS

Terry Rickey Biologist, Mobile District U.S. Army Corps of Engineers

Darrell Williamson Safety, Health and Environmental Manager, Agricultural Research Service, Administrative and Financial Management

References

- Advisory Council on Historic Preservation. (2016, December 29). *Guidance on Use of Real Property Restrictions or Conditions in the Section 106 Process to Avoid Adverse Effects*. Retrieved from https://www.achp.gov/digital-library-section-106landing/guidance-use-real-property-restrictions-or-conditions-section
- Enivronmental Protection Agency. (2021). *Nonattainment Areas for Criteria Pollutants* (*Green Book*). Retrieved from EPA: https://www.epa.gov/green-book
- M.T.Simmons, B. G. (2008). Green roofs are not created equal. *Urban Ecosystems*, 11:339.
- Stoessel, F., Sonderegger, T., Bayer, P., & Hellweg, S. (2018). Assessing the environmental impacts of soil compaction in Life Cycle Assessment. *Science of the Total Environment, 630*, 913-921.
- The Park at Auburn. (2021). *Auburn Research Park*. Retrieved from https://www.auburnrtf.org/research-park/
- The University of Alabama. (n.d.). *General Physiography*. Retrieved from http://alabamamaps.ua.edu/contemporarymaps/alabama/physical/basemap6.pdf
- United States Census Bureau. (2010). *Census Quick Facts*. Retrieved from https://www.census.gov/quickfacts/fact/table/leecountyalabama,US/PST045219
- United States Fish and Wildlife Service. (2021, June 28). Retrieved from Offical Species List 04EA10000-2021-SLI-0589.

Appendix





1 mile Ring Centered at 32.597300,-85.490456, ALABAMA, EPA Region 4

Approximate Population: 10,263

Input Area (sq. miles): 3.14

Site 1

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	88	82	83
EJ Index for Ozone	88	80	79
EJ Index for NATA [*] Diesel PM	85	77	77
EJ Index for NATA [*] Air Toxics Cancer Risk	89	84	87
EJ Index for NATA [*] Respiratory Hazard Index	89	86	89
EJ Index for Traffic Proximity and Volume	92	85	81
EJ Index for Lead Paint Indicator	71	72	70
EJ Index for Superfund Proximity	74	67	67
EJ Index for RMP Proximity	84	76	75
EJ Index for Hazardous Waste Proximity	94	91	83
EJ Index for Wastewater Discharge Indicator	78	84	81



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

March 01, 2021





1 mile Ring Centered at 32.597300,-85.490456, ALABAMA, EPA Region 4

Approximate Population: 10,263 Input Area (sq. miles): 3.14 Site 1



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

March 01, 2021





1 mile Ring Centered at 32.597300,-85.490456, ALABAMA, EPA Region 4

Approximate Population: 10,263

Input Area (sq. miles): 3.14

Site 1

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in μg/m³)	10	9.31	81	8.57	96	8.55	90
Ozone (ppb)	37.6	38	43	38	44	42.9	18
NATA [*] Diesel PM (µg/m ³)	0.37	0.346	66	0.417	50-60th	0.478	<50th
NATA [*] Cancer Risk (lifetime risk per million)	49	43	82	36	95-100th	32	95-100th
NATA* Respiratory Hazard Index	0.8	0.65	92	0.52	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	480	220	88	350	80	750	67
Lead Paint Indicator (% Pre-1960 Housing)	0.11	0.18	48	0.15	58	0.28	40
Superfund Proximity (site count/km distance)	0.012	0.054	9	0.083	14	0.13	7
RMP Proximity (facility count/km distance)	0.36	0.41	72	0.6	60	0.74	53
Hazardous Waste Proximity (facility count/km distance)	2.5	0.82	93	0.91	91	5	71
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00029	1.2	51	0.65	69	9.4	59
Demographic Indicators							
Demographic Index	52%	36%	78	37%	75	36%	76
People of Color Population	20%	34%	40	39%	35	39%	37
Low Income Population	76%	38%	95	36%	96	33%	96
Linguistically Isolated Population	5%	1%	91	3%	77	4%	70
Population With Less Than High School Education	4%	14%	16	13%	19	13%	25
Population Under 5 years of age	1%	6%	6	6%	6	6%	5
Population over 64 years of age	2%	16%	1	17%	1	15%	2

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

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March 01, 2021

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1 mile Ring Centered at 32.583126,-85.496464, ALABAMA, EPA Region 4

Approximate Population: 5,215

Input Area (sq. miles): 3.14

Site 2

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	93	87	88
EJ Index for Ozone	93	85	85
EJ Index for NATA [*] Diesel PM	89	81	81
EJ Index for NATA* Air Toxics Cancer Risk	93	89	91
EJ Index for NATA [*] Respiratory Hazard Index	94	91	93
EJ Index for Traffic Proximity and Volume	97	91	88
EJ Index for Lead Paint Indicator	42	34	44
EJ Index for Superfund Proximity	78	71	69
EJ Index for RMP Proximity	91	85	84
EJ Index for Hazardous Waste Proximity	92	89	81
EJ Index for Wastewater Discharge Indicator	90	95	92



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

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1 mile Ring Centered at 32.583126,-85.496464, ALABAMA, EPA Region 4

Approximate Population: 5,215 Input Area (sq. miles): 3.14 Site 2



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

March 01, 2021





1 mile Ring Centered at 32.583126,-85.496464, ALABAMA, EPA Region 4

Approximate Population: 5,215

Input Area (sq. miles): 3.14

Site 2

Salacted Variables	Value	State	%ile in State	Decien	FDA	USA	%ile in	
Selected variables		Avg.		Region	EPA D	Avg. USA	USA	
Environmental Indicators				Avg.	Region			
Particulate Matter ($DM2.5 \approx m/m^3$)	10	0.31	80	8.57	07	9 E E	90	
	37.6	3.01	42	38	31	42.0	18	
NATA* Discol DM (- (3)	0.257	0.040	45	0.447	44	42.9	10	
NATA Diesei Pivi (µg/m²)	0.357	0.346	64	0.417	<50th	0.478	<50th	
NATA ⁺ Cancer Risk (lifetime risk per million)	48	43	77	36	95-100th	32	95-100th	
NATA [*] Respiratory Hazard Index	0.79	0.65	90	0.52	95-100th	0.44	95-100th	
Traffic Proximity and Volume (daily traffic count/distance to road)	620	220	92	350	85	750	73	
Lead Paint Indicator (% Pre-1960 Housing)	0.041	0.18	26	0.15	38	0.28	25	
Superfund Proximity (site count/km distance)	0.013	0.054	10	0.083	15	0.13	8	
RMP Proximity (facility count/km distance)	0.66	0.41	82	0.6	72	0.74	66	
Hazardous Waste Proximity (facility count/km distance)	1.6	0.82	82	0.91	82	5	59	
Wastewater Discharge Indicator	0.0088	1.2	77	0.65	86	9.4	79	
(toxicity-weighted concentration/m distance)								
Demographic Indicators								
Demographic Index	53%	36%	78	37%	75	36%	76	
People of Color Population	31%	34%	57	39%	49	39%	51	
Low Income Population	73%	38%	94	36%	95	33%	95	
Linguistically Isolated Population	5%	1%	91	3%	77	4%	70	
Population With Less Than High School Education	7%	14%	29	13%	34	13%	41	
Population Under 5 years of age	3%	6%	19	6%	19	6%	17	
Population over 64 years of age	3%	16%	1	17%	2	15%	3	

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

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1 mile Ring Centered at 32.502379,-85.436211, ALABAMA, EPA Region 4

Approximate Population: 108

Input Area (sq. miles): 3.14

Site 4

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	73	67	70
EJ Index for Ozone	72	66	68
EJ Index for NATA [*] Diesel PM	68	62	64
EJ Index for NATA [*] Air Toxics Cancer Risk	73	69	73
EJ Index for NATA [*] Respiratory Hazard Index	75	71	75
EJ Index for Traffic Proximity and Volume	62	57	59
EJ Index for Lead Paint Indicator	69	69	68
EJ Index for Superfund Proximity	65	60	62
EJ Index for RMP Proximity	64	58	61
EJ Index for Hazardous Waste Proximity	63	59	61
EJ Index for Wastewater Discharge Indicator	73	79	77



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

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1 mile Ring Centered at 32.502379,-85.436211, ALABAMA, EPA Region 4

Approximate Population: 108 Input Area (sq. miles): 3.14 Site 4



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

March 01, 2021





1 mile Ring Centered at 32.502379,-85.436211, ALABAMA, EPA Region 4

Approximate Population: 108

Input Area (sq. miles): 3.14

Site 4

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators				_		_	
Particulate Matter (PM 2.5 in µg/m³)	10.1	9.31	84	8.57	98	8.55	91
Ozone (ppb)	37.6	38	41	38	44	42.9	18
NATA [*] Diesel PM (µg/m ³)	0.188	0.346	21	0.417	<50th	0.478	<50th
NATA [*] Cancer Risk (lifetime risk per million)	48	43	76	36	95-100th	32	95-100th
NATA* Respiratory Hazard Index	0.82	0.65	96	0.52	95-100th	0.44	95-100th
Traffic Proximity and Volume (daily traffic count/distance to road)	0.49	220	10	350	7	750	5
Lead Paint Indicator (% Pre-1960 Housing)	0.064	0.18	34	0.15	46	0.28	31
Superfund Proximity (site count/km distance)	0.012	0.054	6	0.083	12	0.13	6
RMP Proximity (facility count/km distance)	0.11	0.41	33	0.6	23	0.74	18
Hazardous Waste Proximity (facility count/km distance)	0.12	0.82	25	0.91	21	5	16
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)		1.2	41	0.65	60	9.4	51
Demographic Indicators							
Demographic Index	46%	36%	72	37%	68	36%	70
People of Color Population	42%	34%	68	39%	60	39%	60
Low Income Population	50%	38%	72	36%	74	33%	79
Linguistically Isolated Population	0%	1%	71	3%	51	4%	45
Population With Less Than High School Education		14%	46	13%	52	13%	59
Population Under 5 years of age	4%	6%	36	6%	36	6%	34
Population over 64 years of age	16%	16%	52	17%	57	15%	61

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

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March 01, 2021

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United States Department of the Interior

FISH AND WILDLIFE SERVICE Alabaroa Ecological Services Field Office 1208 B Main Street Daphne, AL 36526-4419 Phone: (251) 441-5181 Fax: (251) 441-6222



In Reply Refer To: Consultation Code: 04EA1000-2021-SLI-0589 Event Code: 04EA1000-2021-E-02601 Project Name: USDA Auburn University Land Swap June 28, 2021

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. Please note that new information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Note that due to the volume of emails received by our office, we cannot accept project consultation requests by email.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Also note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the process and consultation under the Act is to provide a means whereby threatened and endangered species and the ecosystem's upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

(United States Fish and Wildlife Service, 2021)

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

http://www.fws.gov/migratorybirds/pdf/management/usfwscommunicationtowerguidance.pdf

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

We can be reached at:

US Fish and Wildlife Service

1208 Main Street

Daphne, AL 36526

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

3

Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Alabama Ecological Services Field Office 1208 B Main Street Daphne, AL 36526-4419 (251) 441-5181

1

Project Sumr	nary
Consultation Code:	04EA1000-2021-SLI-0589
Event Code:	04EA1000-2021-E-02601
Project Name:	USDA Auburn University Land Swap
Project Type:	LAND - ACQUISITION
Project Type: Project Description:	The purpose of the project is to exchange the ARS land in Auburn, AL with land owned by Auburn University in Auburn, AL. ARS and Auburn University have a long history of collaboration on research that solves problems related to soil-based agriculture at the ARS National Soil Dynamics Laboratory (NSDL). The ARS NSDL facilities were built in 1934 and are located on property embedded on the Auburn University campus. Funding in the 2019 agriculture appropriations bill provided ARS with the opportunity to develop new laboratory facilities for NSDL. However, since the NSDL facilities are in the center of the Auburn University campus, the University has a particularly interested in acquiring the land for the campus' long term design needs. Auburn University has land that would be more suitable for allowing the NSDL to meet its current research needs and mission priorities ion these new facilities.
	The proposed actions would occur at four sites in the area in and around Auburn, Alabama. The first site sits at 32.59693922292474 N, -85.48974600915193W and is the original USDA Soil Dynamics Lab this will be transferred from the USDA to AU. The second site is 32.583786650905196 N, -85.4950436641258 W where the new office and laboratory building will be built by the USDA this land will be transferred to the USDA by AU. The third site is located at 32.57453773907746 N, -85.50792312359148 W this will be transfer to the USDA from AU and will be the location of the new soil bin and outdoor laboratory space. The fourth site is located at 32.5029177144995 N, -85.43613088315568 W and contains the current Auburn Fisheries Field Lab, it will be transferred to the USDA.

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@32.50208225,-85.43537810904215,14z</u>



Counties: Lee County, Alabama

4

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/8477</u>	Threatened
Clams NAME	STATUS
Finelined Pocketbook Lampsilis altilis There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/1393</u>	Threatened
Ovate Clubshell <i>Pleurobema perovatum</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/5430</u>	Endangered
Southern Clubshell <i>Pleurobema decisum</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6113	Endangered

Flowering	Plants
NTA B (T)	

NAME	STATUS
Relict Trillium Trillium reliquum	Endangered
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/8489	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act^{\perp} and the Bald and Golden Eagle Protection Act^{2} .

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the <u>USFWS</u> <u>Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data</u> <u>mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

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NAME	BREEDING SEASON
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Cerulean Warbler Dendroica cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 26 to Jul 20
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (--)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

				pro	bability c	of presen	ce 📒 b	reeding s	season	survey	effort	— no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

American Kestrel BCC - BCR	XXXX + X+ X+ X+ + + + + + + + + + + + +
Bald Eagle Non-BCC Vulnerable	**** **** 1*** **** **** **** **** **** **** **11
Blue-winged Warbler BCC - BCR	+++++ +++++ ++++++++++++++++++++++++++
Cerulean Warbler BCC Rangewide (CON)	+++++ +++++ ++++++++++++++++++++++++++
Eastem Whip-poor- will BCC Rangewide (CON)	+++++ +++++ +++++ +++++ <mark>++++ </mark>
Kentucky Warbler BCC Rangewide (CON)	+++++ +++++ ++++++ <mark>+++</mark> ++++++++++++++++
Prairie Warbler BCC Rangewide (CON)	+++++ +++++ +++++ +++++ +++++ ++++++++
Prothonotary Warbler BCC Rangewide (CON)	+++++ +++++
Red-headed Woodpecker BCC Rangewide (CON)	IIII IIII IIII IIII IIII I <mark>III - I++</mark> IX+1 <mark>-I+ </mark> IIII +III +III IIII
Rusty Blackbird BCC Rangewide (CON)	***************************************
Swallow-tailed Kite BCC Rangewide (CON)	
Wood Thrush BCC Rangewide (CON)	+++++ +++++ ++++++++++++++++++++++++++

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds <u>http://www.fws.gov/birds/</u> <u>management/project-assessment-tools-and-guidance/</u> <u>conservation-measures.php</u>
- Nationwide conservation measures for birds <u>http://www.fws.gov/migratorybirds/pdf/</u> management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern</u> (<u>BCC</u>) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian</u> <u>Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey, banding, and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: <u>The Cornell Lab</u> of <u>Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds guide</u>. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS Integrative Statistical</u> <u>Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic</u> Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no

data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Wetlands

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

• <u>PEM1A</u>

FRESHWATER FORESTED/SHRUB WETLAND

• <u>PFO1A</u>

PSS1A

RIVERINE

- R4SBC
- <u>R5UBH</u>



Soil Map—Lee County, Alabama (Site 2)

MA	P LEGEND	MAP INFORMATION		
Area of Interest (AOI)	😂 Spoil Area	The soil surveys that comprise your AOI were mapped at 1-20 000		
Area of Interest (AU	¹⁾ Stony Spot	1.20,000.		
Soils Soil Map Unit Polyg	ons 🖉 Very Stony Spot	Warning: Soil Map may not be valid at this scale.		
Soil Map Unit Lines	🕎 Wet Spot	Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil		
Soil Map Unit Points	∆ Other	line placement. The maps do not show the small areas of		
Continue of the continue	Special Line Features	contrasting soils that could have been shown at a more detailed scale		
for Blowout	Water Features			
Borrow Pit	Streams and Canals	Please rely on the bar scale on each map sheet for map measurements.		
💥 Clay Spot	Rails	Source of Map: Natural Resources Conservation Service		
Closed Depression	Interstate Highways	Web Soil Survey URL: Coordinate System: Web Mercator (EPSG;3857)		
💥 Gravel Pit	US Routes	Mans from the Web Soil Survey are based on the Web Mercato		
Gravelly Spot	Major Roads	projection, which preserves direction and shape but distorts		
🔕 Landfill	Local Roads	distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more		
A Lava Flow	Background	accurate calculations of distance or area are required.		
👍 Marsh or swamp	Aerial Photography	This product is generated from the USDA-NRCS certified data a of the version date(s) listed below.		
🙊 Mine or Quarry		Soil Survey Area: Lee County, Alabama		
Miscellaneous Wate	r	Survey Area Data: Version 15, May 29, 2020		
O Perennial Water		Soil map units are labeled (as space allows) for map scales		
V Rock Outcrop		1:50,000 or larger.		
+ Saline Spot		Date(s) aerial images were photographed: Nov 6, 2019—Nov 13, 2019		
Sandy Spot		The orthophoto or other base map on which the soil lines were		
Severely Eroded Sp	ot	compiled and digitized probably differs from the background		
Sinkhole		imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.		
Slide or Slip				
j≝ Sodic Spot				

Natural Resources Conservation Service

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Web Soil Survey National Cooperative Soil Survey 7/26/2021 Page 2 of 3

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
5	Blanton loamy sand, 5 to 10 percent slopes	8.1	50.6%		
24	Marvyn loamy sand, 1 to 6 percent slopes	7.5	47.0%		
W	Water	0.4	2.4%		
Totals for Area of Interest		16.0	100.0%		

Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 7/26/2021 Page 3 of 3