

Lanier Environmental Consultants

Representative Project Experience

Environmental Assessments/NEPA Compliance

Lauderdale County, Alabama

Government Client:

LEC conducted an Environmental Assessment for a bridge replacement project on US 72 at Shoal Creek. Special concerns regarding the existing Parker Truss bridge, a historic structure, and an archeological site at the perimeter of the proposed right-of-way were addressed as a part of the project. In addition to the assessment of environmental impacts, LEC was awarded a supplemental contract and has performed a soil and groundwater investigation at the hazardous material sites located in the proposed right-of-way.

Marengo County, Alabama

Government Client:

LEC conducted an Environmental Assessment and Finding of No Significant Impact to construct a new bridge and realign the bridge approaches on State Route 114 at the Tombigbee River. The scope of work included the assessment and preservation of the Waddell lift drawbridge, a historic structure, an endangered species habitat assessment for the Inflated Heelsplitter mussel, and a wetland delineation report.

Montgomery County/Elmore County, Alabama

Government Client:

LEC personnel conducted an Environmental Assessment for 6 miles of a four-lane highway on new location. The project involved the delineation of two major wetlands and a habitat survey. The habitat survey was conducted for the Red-cockaded Woodpecker and the Alabama Canebrake Pitcher Plant (*Sarracenia rubra*). A Section 404 Individual Permit was processed for the road construction.

Talladega County, Alabama

Government Client:

LEC prepared a complete Environmental Assessment and Finding of No Significant Impact on an accelerated time schedule to initiate road improvements to serve the Honda Automotive site. The project included; coordination with Alabama Power Company and the U. S. Army Corps of Engineers regarding modification of a water body for a new bridge and approaches; wetland delineations; air quality modeling; noise analysis; and the identification of hazardous material sites. LEC was awarded a supplemental contract to conduct tank closures and site investigations.

Mobile County, Alabama

Government Client:

LEC prepared a complete Environmental Assessment for the relocation of a coastal evacuation route and the development of a new Interstate 10 interchange. Major components of the project included coordination with U. S. Fish and Wildlife Service and conducting a habitat survey for three threatened and endangered species; air quality modeling; noise analysis; and wetland delineation.

Blount County, Alabama

Government Client:

LEC prepared Categorical Exclusion documentation to replace a bridge on State Route 75 at Champion Creek. The area was reviewed for several environmental factors such as flood plains, wetlands, historic structures and noise receptors to determine potential project impacts.

Cherokee County, Alabama

Government Client:

LEC prepared Categorical Exclusion documentation for a bridge replacement project on State Route 68 at Mills Creek. The area was reviewed to determine that no impacts would occur to environmentally sensitive features and coordination was undertaken with appropriate federal and state agencies regarding the project.

Talladega County, Alabama

Commercial Client:

LEC performed an evaluation of an additional alternative that was partially addressed in a 1995 Finding of No Significant Impact that focused on a bypass. To complete the evaluation, new studies were performed regarding archeological sites, historic structures, air quality modeling, and noise analysis.

Cullman County, Alabama

Commercial Client:

LEC conducted a re-evaluation of a 1974 Final Environmental Impact Statement and 1988 Re-evaluation for improvements to US 278 from Interstate 65 to U. S. 31 in Cullman. Due to the age of the prior studies, the re-evaluation included a new noise analysis and air quality modeling. Coordination was also conducted with federal agencies concerning prime farmland, threatened and endangered species and wetlands. The project was also coordinated with the Alabama Historical Commission due to the potential commercial and residential districts being located adjacent to the proposed projects. A hazardous materials survey was also performed.

Marshall County, Alabama

Government Client:

LEC conducted an Environmental Assessment to improve approximately 12 miles of State Route 75. An historic structures survey was performed, and a possible 4(f) resource was located within the corridor limits. A habitat survey and noise analysis were also performed, and three wetland areas were identified and evaluated.

Morgan County, Alabama

Government Client:

LEC conducted an Environmental Assessment for additional lanes to State Route 67 in Decatur. Air quality and noise analysis were performed, and coordination with federal agencies was conducted concerning prime farmland, cultural resources and threatened and endangered species.

St. Clair County, Alabama

Government Client:

LEC prepared Categorical Exclusion documentation for a bridge replacement project on State Route 23. The project reviewed local flood hazard conditions, coordinated with Natural Resources Conservation Service regarding prime farmland and conducted field investigations to determine that no impacts would occur to environmentally sensitive features.

Franklin County, Alabama

Government Client:

LEC conducted limited environmental evaluations on three separate alternatives in Red Bay. After a public hearing, a re-evaluation of Alternative 1 was conducted. Changes in regulations and conditions necessitated wetlands delineations of ten areas, air quality modeling and analysis, noise analysis, and hazardous material site identification. A habitat survey, archeology site assessment and review of historic structures were also undertaken for this 6 mile long corridor.

Hale County, Alabama

Government Client:

LEC conducted an Environmental Assessment for two build alternatives to improve approximately 6 miles of State Route 69. Extensive work was performed to address existing historic structures, a potential rural historic district, delineation of five wetland areas, and a noise analysis. The scope of work also included flood risk assessments for bridge crossings and coordination with federal agencies such as Natural Resources Conservation Service (prime farmland) and U.S. Fish and Wildlife Service (threatened and endangered species).

Macon-Bibb County, Georgia

Commercial Client:

LEC worked with the clients to develop an Intermodal Passenger Terminal Facilities Plan. LEC performed an environmental analysis on proposed locations to narrow the site selection process. Environmental justice was also considered in addition to typical environmental concerns, such as wetlands, hazardous waste and air quality.

Maxwell Air Force Base, Alabama

Government Client:

LEC prepared a complete Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) to construct six new facilities consisting of a new small arms firing range complex, a dormitory, a dining hall/multi-purpose facility, a covered training area, an equipment issue and storage facility, and a specialized evasion training lab. The project included construction of two new training facilities within the 100-year floodplain which resulted in a Finding of No Practicable Alternative (FONPA). Resources considered were noise, water resources, hazardous materials and wastes, air quality, utilities, land use, geological resources, biological resources, transportation and circulation, cultural resources, socioeconomic, environmental justice and protection of children.

LEC prepared a complete EA/FONSI to expand and upgrade an existing field training facility on 201 acres of leased property in Elmore County, Alabama, to provide expanded training opportunities and facilities in an area isolated from other military and nonmilitary activities.

Resources considered were noise, air quality, biological resources, cultural resources, land use, geological resources, water resources, transportation and circulation, socioeconomic, environmental justice and protection of children, utilities, and hazardous materials and wastes.

LEC prepared a complete Environmental Assessment/FONSI for the construction of a 10-lane bowling center to replace an existing 6-lane bowling center, which was incompatible with future land use plans. Resources considered were air quality, noise, land use, geological resources, water resources, biological resources, transportation and circulation, cultural resources, socioeconomic, environmental justice and protection of children, hazardous materials and wastes, and utilities.

LEC prepared a complete EA/FONSI for the new build construction of a new parade field located in a highly urbanized area of MAFB. Resources considered were air quality, noise, land use, geological resources, water resources, biological resources, transportation and circulation, cultural resources, socioeconomic, environmental justice and protection of children, hazardous materials and wastes, and utilities.

Ecology and Planning

Hall County, Georgia

Government Client:

LEC conducted an Ecology Assessment, Air Quality Analysis/Model, and Noise Analysis for proposed improvements to Skelton Road in Gainesville. The scope of work included a wetland delineation, a habitat survey, and a threatened and endangered species assessment. Air quality modeling and analysis was also performed, as well as a noise impact assessment.

Gordon County, Georgia

Government Client:

LEC conducted a Noise Impact Assessment and Air Quality Assessment for the proposed realignment of State Route 225 and bridge replacements in Calhoun. Noise modeling and analysis were performed, as well as a Mobile Source Air Toxics (MSAT) assessment.

Wetland Delineation and Mitigation

Montgomery County, Alabama

Commercial Client:

LEC conducted a large area wetland delineation located on a 130-acre tract of land. The property was disturbed through various means that included a railroad, extensive beaver damming, logging, and excessive hurricane damage. The natural and man-made problems created several atypical situations that required a thorough and detailed delineation of the property. LEC successfully delineated the property, which consisted of 17 USACE approved wetlands acres.

Elmore County, Alabama

Commercial Client:

LEC conducted wetland delineation for a development that had begun construction prior to wetland permitting. LEC staff assisted the developers and the USACE in successfully identifying

all wetland areas on the property, including those that had been accidentally destroyed. After identifying these areas, LEC assisted in purchasing wetland mitigation credits, in establishing a conservation easement on the remaining wetlands, and wrote and implemented a USACE approved wetland restoration plan.

Franklin County, Alabama

Government Client:

LEC conducted wetland delineations for a four-mile roadway project that consisted of three separate alternatives. All alternatives were delineated, evaluated, and compared to determine which had the least impacts on wetland resources in that area.

Elmore County, Alabama

Government Client:

LEC developed a wetland mitigation plan for the impacts resulting from a roadway construction. It involved coordination and negotiation with the U.S. Army Corps of Engineers, USFWS and the Alabama Department of Natural Resources to secure a perpetual easement of 29 acres to be restored as bottomland hardwoods and an open water marsh. Approval of the mitigation plan was granted and the easement was obtained.

Tuscaloosa County, Alabama

Government Client:

The project involved the delineation of a wetland area and a habitat survey to look for any indication of vegetation that would support foraging areas for the Red cockaded woodpecker. A Section 404 Nationwide Permit was obtained.

Tuscaloosa County, Alabama

Government Client:

This project involved the delineation of two wetland areas for the development of an interchange and access roads. The roadway impacted less than 3 acres of wetlands and less than 500 feet of streambed.

Elmore County, Alabama

Government Client:

The project included the delineation of three wetland areas and habitat surveys for the Red-cockaded Woodpecker and the Alabama Canebrake Pitcher Plant (*Sarracenia rubra*). A Section 404 Nationwide Permit was obtained for road construction.

Elmore County, Alabama

Government Client:

The project involved the delineation of two wetland areas and conducting a habitat survey. The road project impacted less than one acre of wetlands and the construction of bridges to minimize impacts. The habitat survey was conducted to look for Red-cockaded Woodpeckers and Alabama Canebrake Pitcher Plant. A Section 404 Nationwide Permit was obtained.

Tuscaloosa County, Alabama

Government Client:

The project involved the delineation of two wetland areas and a habitat survey. The *Potalimus inflatus* (inflated heelsplitter) was found in the Black Warrior River. As a result of the negotiations with USFWS, the *Potalimus inflatus* were surveyed and removed to a new location every 30 days during construction. LEC monitored construction to assure compliance with the USFWS and success of the relocation. A Section 404 Nationwide Permit was obtained for road construction.

Tuscaloosa County, Alabama

Commercial Client:

LEC conducted habitat and ecological surveys for a proposed 8 mile road project which included identifying, classifying and delineating 11 separate wetland areas. Coordination with the U. S. Army Corps of Engineers was conducted and a Section 404 Nationwide Permit was processed for the project. LEC also coordinated with U.S. Fish and Wildlife Service to identify potential habitat for the Red-cockaded Woodpecker (*Picoides borealis*) within the project corridor.

Soil and Groundwater Investigation Experience

Immediate Response

Commercial Client:

At an operating service station, employees reported gasoline odors in the pay kiosk. LEC investigated the vapor odor and determined that the vapors were entering the kiosk around conduits for electrical cables. A vapor recovery system was designed and installed by LEC personnel to intercept the vapors before reaching the kiosk.

Regulatory Compliance

Government Client:

LEC has assisted local government agencies in assessing the environmental risk in maintaining older USTs and developed a replacement plan. LEC personnel prepared the closure assessments and supervised the tank removal of older tanks. LEC assisted the agencies in the replacement and installation of USTs and ASTs to meet their needs. Preliminary assessments were performed to delineate the lateral and vertical extent of hydrocarbon contamination that was detected at any of the locations. Secondary assessment activities were required and performed at three locations. Risk-based corrective actions have been implemented at those sites which were not closed.

Risk Based Corrective Action

Commercial Client:

Site assessment activities conducted by LEC personnel at a service station location revealed gasoline constituents in the groundwater that were above the corrective action level. Fate and transport modeling, along with an exposure assessment, indicated that the potential for off-site impacts to sensitive receptors was minimal. A risk assessment was performed that established a monitoring program as the most cost-effective remediation for this site. LEC personnel demonstrated that natural attenuation of the constituents would occur before the impacted groundwater would reach a potential receptor. The state regulatory agency approved a monitoring-only approach to remediation of this site.

Remedial Investigation/Feasibility Study

Commercial Client:

LEC staff developed a remedial investigation plan for a facility to determine the target chemicals of concern and the lateral and vertical extents of contamination. The site was regulated by the state using Superfund guidelines. A soil gas survey and a series of soil borings and monitor wells were installed to assess soil and groundwater conditions. A product recovery system was designed and installed as an interim corrective measure. An exposure assessment was conducted to analyze the exposure routes and pathways.

Groundwater Investigation/Water Quality Assessment

Commercial Client:

LEC has performed a secondary investigation and a groundwater quality assessment at a pipeline terminal for a major oil company. The work at the site has included:

- UST removal and assessment,
- preliminary and secondary assessments,
- water quality impact assessment,
- exposure assessment,
- free-product recovery, and
- pilot risk-based corrective action plan.

The secondary investigation included the installation of four shallow single-cased monitor wells and one deep multi-cased monitor well. Aquifer tests were performed on three of the new wells to determine groundwater velocity. An exposure assessment was conducted to identify sensitive receptors and potential pathways of migration. A risk-based corrective action plan was developed and implemented. LEC coordinates with two state agencies that have different compliance requirements.

Phase I and Phase II Site Assessments

Montgomery County, Alabama

Commercial Client:

LEC conducted a Phase I assessment on a 13-acre property consisting of a strip mall, which contained two large anchor store facilities and two smaller retail facilities. The entire complex was built prior to 1955, which required extensive data collection and historical review. The structures were assessed for several concerns including asbestos tiles, PCB ballasts, mold, and grease traps.

Montgomery County, Alabama

Commercial Client:

LEC conducted a Phase I assessment on a 130-acre tract of land that had historically been used for multiple residents and then later as a part of a railroad line. Extensive historical and background data was collected allowing the area to be successively cleared prior to property transaction.

Lee County, Alabama

Commercial Client:

LEC conducted a Phase I environmental assessment on a diagnostic imaging center. Being used for radiology, the center was assessed for multiple environmental concerns including, but not limited to, lead doors, copper lined rooms, x-ray chemicals and the generation of medical waste.

Stormwater

Keesler Air Force Base, Mississippi and Maxwell Air Force Base, Alabama

Government Client:

LEC developed Phase II Stormwater Programs that included public education and outreach, public involvement and participation; illicit discharge detection and elimination; and pollution prevention. In addition, LEC performed construction management for all major construction projects on both installations.

Coosa County, Alabama

Commercial Client:

LEC assisted the client by working with regulatory agencies to correct Notice of Violation deficiencies for the illegal discharge of polluted stormwater which included obtaining a NPDES permit. In addition, a CBMPP was developed and implemented to control various pollutant entry ways through the use of proper Best Management Practices (BMPs). BMPs are inspected monthly or after excessive rainfall to ensure proper working order and upkeep.

Elmore County, Alabama

Commercial Client:

LEC assisted in establishing BMPs within a residential development in order to prevent erosion and sediment transport into protected wetlands and other “waters of the U.S”. Biweekly monitoring ensured the BMPs were being redesigned to accommodate land use changes and reduce future stormwater pollution as the subdivision continued to develop.

Stream Analysis and Restoration

Elmore County, Alabama

Commercial Client:

LEC conducted an in-depth stream analysis survey of a potentially polluted stream. Both physical and chemical properties were analyzed upstream and downstream of the area believed to be the point source. Laboratory analysis of the samples taken pinpointed the cause and type of pollution occurring.

Elmore County, Alabama

Commercial Client:

LEC conducted stream analysis surveys to assist the client and the USACE in determining pollution impacts and mitigation requirements for impacted streams in the area. LEC used reference streams in the same watershed, to reconstruct the morphology of the streambed and natural flow conditions prior to impact. A USACE approved stream restoration plan was

implemented to re-establish both the aquatic properties of the stream and the terrestrial borders, which include both riparian uplands and wetland vegetation along the stream reach.

Gwinnett County, Georgia

Government Client:

LEC performed stream surveys for a 14-mile stretch of highway with over fifty stream crossings. Streams were assessed based on water quality, morphology, and overall function and the types of impacts that would occur. The impacts included perpendicular crossings, longitudinal encroachment, piping and fill. These impacts were evaluated based on USACE standard operating procedures and State of Georgia requirements.