

Louisiana Forest Legacy Program

Assessment of Need



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I. STATEMENT OF PURPOSE

The State of Louisiana contains 14 million acres of forestland. Fifty-nine of the state's 64 parishes contain land capable of producing sufficient timber to support forest-industry activities. Forests cover about 50% of Louisiana's land area, making forestland the state's greatest single land use. Timber is Louisiana's most valuable agricultural commodity, creating more than 18,000 jobs and adding \$5.3 billion to the state's economy. In addition, forests in Louisiana provide non-timber benefits such as clean water, habitats for diverse wildlife, eco-tourism, historical preservation, and carbon sequestration abilities. For these reasons, it is vitally important to protect forestland in Louisiana.

There are 148,000 forestland owners in Louisiana. Private non-industrial landowners own 62% of the state's forestland, forest-products industries own 29%, and the public owns 9%. These landowners face increasing incentives to consider conversion of their land for non-forest purposes due to population growth and expansion of the urban/suburban landscape. Because of these pressures, forestland in Louisiana is becoming increasingly fragmented and the public benefits of forests are being diminished.

Because of this pressure to convert working forests to non-forest uses, there is a demonstrated need for a program that fosters a long-term commitment to sustainable forest management in Louisiana. The United States Department of Agriculture Forest Service (USFS) provides just such a program, known as the Forest Legacy Program (FLP). Established in the 1990 Farm Bill, the FLP strives to protect environmentally important forest lands through the acquisition of conservation easements (referred to as conservation servitudes in Louisiana), which are legally binding agreements transferring a negotiated set of property rights from one party to another without removing the property from private ownership. The process of acquiring conservation easements through the FLP is accomplished through a partnership of federal, state, and local agencies as well as non-governmental organizations. Landowner participation in the program is entirely voluntary, and no land or interest in land will be acquired from other than willing sellers.

In 2005, Governor Mike Foster designated the Louisiana Department of Agriculture and Forestry (LDAF) as the lead state agency to coordinate the FLP in Louisiana, and authorized LDAF to prepare this Assessment of Need (AON) document. The following information summarizes the history, inventory, benefits, threats, and trends of Louisiana forests. Based on this information, the AON establishes the overall program goals for the FLP in Louisiana, the Forest Legacy Area (FLA) in the state, and project evaluation criteria.

II. EXECUTIVE SUMMARY

The Forest Legacy Program (FLP) strives to protect environmentally important private forest lands threatened by conversion to non-forest use. Administered by the United States Department of Agriculture Forest Service, the FLP protects forests through the acquisition of conservation easements (referred to as conservation servitudes in Louisiana). The process of acquiring conservation easements through the FLP is accomplished through a partnership of federal, state, and local agencies as well as non-governmental organizations. Landowner participation in the program is entirely voluntary, and no land or interest in land will be acquired from other than willing sellers.

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Louisiana forests provide a number of benefits including:

- *Economic Benefits* – Timber is Louisiana’s number one crop, and represents 38% of the total value of all agricultural commodities produced in the state. Forestry and forest products manufacturing directly provide over 18,000 jobs, and together with indirect effects add over \$5 billion annually to the Louisiana economy.
- *Water/Air Quality* – Forests enhance the quality of two vital resources: water and air. Louisiana forests absorb rain, refill underground aquifers, cool and cleanse water, slow storm runoff, reduce flooding, and sustain watershed stability and resilience. In addition, forests provide one avenue of carbon sequestration, which helps to mitigate the potential impacts of climate change.
- *Biodiversity* – Louisiana forests provide habitats to a wide range of plant and animal species, including 140 animal species considered rare, threatened or endangered.
- *Public Benefits* – Louisiana forests hold a meaningful place in the state’s culture and history. The forests provide a myriad of outdoor recreation opportunities including nature-based tourism, hunting, and fishing.

Louisiana forests are currently facing many serious threats including:

- *Population Growth/Fragmentation* – Louisiana’s population currently numbers over 4.5 million. By the year 2030, Louisiana’s population could reach 4.8 million with much of the growth in forested regions of the state. Between 1997 and 2002, an average of nearly 28,000 acres of rural land was developed each year in Louisiana. Increased parcelization is a strong predictor of future forest conversion, causing a reduction in commercial timberland acreage and in the local forest products-dependent economy.

- *Water Resource Demand* – Demand for water in Louisiana is growing. Since 1960 the total demand for surface- and ground-water in Louisiana has increased by 180 percent while the population only increased by 34 percent. Three of Louisiana’s four primary aquifers are currently supporting unsustainable water demands. As a result, increased demand for surface water has encouraged the creation of new reservoirs, an additional source of forest loss.
- *Changes in Ownership and Markets* – Over 4.25 million acres of timberland were sold in Louisiana between 1996 and 2006, which equates to nearly 40 percent of all privately held timberland in the state. These recent large-scale land divestitures and acquisitions have accelerated fragmentation both in terms of ownership and landscape cover. Changes in timberland ownership, reallocation of industry assets, foreign competition, increased mechanization and emerging markets for US-based forest products companies have forced consolidation within the industry and have fueled a long-term decline in employment.

Considering these benefits and threats, the **four overall goals** of the FLP in Louisiana are to:

1. Protect Louisiana’s forests for *future generations* by
 - Protecting privately owned forest land threatened by conversion to non-forest uses
 - Protecting large contiguous and productive forest blocks
 - Reducing forest fragmentation and parceling of ownerships
2. Maintain and enhance Louisiana’s *forest productivity* by
 - Protecting forest land for future wood production and wildlife habitat
 - Encouraging active and sustainable forest management
 - Promoting sound forest stewardship and best management practices
3. Maintain and restore *natural ecosystem functions* of Louisiana’s forests by
 - Providing riparian zone, wetland, and watershed protection
 - Protecting habitat diversity
 - Protecting rare, threatened and endangered species
4. Preserve the *economic and cultural vitality* of Louisiana’s rural communities by
 - Maintaining opportunities for continuing traditional forest uses
 - Providing fair compensation for foregone property rights
 - Promoting diversity of markets for forest landowners

The Louisiana FLA is located in the southeastern portion of the state and comprises an area known as the “Florida Parishes”, specifically Ascension, East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, Washington, and West Feliciana Parishes. Based on this area’s existing forest resources, its high ecological value, and the high level of threat to its forests, the FLA is considered the prime area for application of Forest Legacy funds in Louisiana.

The state lead agency will prioritize FLP projects using the following criteria:

- *Degree of Threat* – Priority will be given to projects on properties that have proof of a high degree of threat of development or parcelization.
- *Forest Resource Economic Benefits* – Priority will be given to properties that are likely to have significant forest resource economic benefits.
- *Public Benefits* – Priority will be given to properties that are likely to have direct and indirect scenic and/or outdoor recreation benefits.
- *Water Quality and Watershed Protection* – Priority will be given to properties that are likely to have significant water quality and watershed protection benefits.
- *Ecological/Cultural benefits* – Priority will be given to properties that are likely to have significant ecological, cultural, and environmental education benefits.
- *Proof of Readiness* – Priority will be given to projects that have community support, identified matching funds and partnership involvement.
- *Strategic Initiative* – Priority will be given to projects that fit within a larger conservation plan, strategy, or initiative, connect to or lead to additional conservation investments in the region.

III. ENABLING LEGISLATION

The Cooperative Forestry Assistance Act of 1978, as amended, (16 U.S.C. 2101) provides authority for the U.S. Secretary of Agriculture (Secretary) to provide financial, technical, educational, and related assistance to states, communities, and private forest landowners. Section 1217 of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624, 104 stat. 3528), also referred to as the 1990 Farm Bill, amended the Cooperative Forestry Assistance Act and allows the Secretary to establish the FLP to protect environmentally important forest areas that are threatened by conversion to non-forest uses. This authority continues indefinitely. If the authority is revoked or the program ceases to be funded, existing Forest Legacy (FL) projects are not affected but no new projects will be solicited. Appropriations are provided on an annual basis at Congressional discretion. The FY 2006 program funding was \$56 million for 40 projects nationwide. Because of significant pressures on the federal budget, the Administration request for FL funding has fallen since FY 2006; only \$29 million has been requested for FY 2008.

Through the 1996 Farm Bill (Federal Agricultural Improvement and Reform Act of 1996; Public Law 104-127); Title III - Conservation; Subtitle G - Forestry; Section 374, Optional State Grants for Forest Legacy Program), the Secretary is authorized, at the request of a participating state, to make a grant to the state to carry out the FLP in the state. FLP funds may be used to acquire real property interest, up to and including full fee title ownership.

In a letter issued in 2005, Louisiana Governor Mike Foster designated LDAF as the lead agency for the FLP in Louisiana. Louisiana has requested the option to acquire and hold conservation easements rather than acquisition of fee title.

The Cooperative Forestry Assistance Act directs the Secretary to establish eligibility criteria for the designation of FLAs, in consultation with the State Forest Stewardship Coordinating Committee (SFSCC). Development of eligibility criteria is based upon the priorities outlined in the AON for establishing a state FLP.

Conservation easements (“conservation servitudes” in Louisiana) are recognized for legal and tax purposes by the State of Louisiana (Louisiana Revised Statutes 9:1271 et seq.) and the Internal Revenue Service (Internal Revenue Code, Section 170(h)). In addition, the qualifications of conservation easement holders and the public benefit requirements necessary for easement donations to be eligible for income tax deductions are defined in Section 501(c)(3) of the Internal Revenue Code of 1985 (Public Law 99-514, 26 U.S.C. Section 501(c)(3)).

IV. NATURAL HISTORY AND CULTURE OF LOUISIANA FORESTS

A. Setting

Louisiana lies within the Gulf Coastal Plain. The northern half of Louisiana is characterized by rolling hills that slope gently toward the coast and is dissected by the major alluvial valleys of the Red and Mississippi rivers. The coastal-delta section, in the southernmost portion of the state, consists of the Mississippi Delta and the coastal lowlands. The highest elevation in the state is Driskill Mountain at 535 ft (163 m), in Bienville Parish; the lowest, 8 ft (2 m) below sea level, in New Orleans.

Louisiana supports more wetland habitat than any other state, including about 11,000 sq mi (28,000 sq km) of floodplains and 7,800 sq mi (20,200 sq km) of coastal swamps, marshes, and estuarine waters. The largest lake, actually a coastal lagoon, is Lake Pontchartrain, with an area of more than 620 sq mi (1,600 sq km). Toledo Bend Reservoir, an artificial lake along the Louisiana-Texas border, has an area of 284 sq mi (736 sq km). The most important rivers are the Mississippi, Red, Pearl, Atchafalaya, and Sabine. Louisiana has nearly 2,500 coastal islands covering 2,000 sq mi (5,000 sq km).

Although there is a long history of levee construction to reduce flooding, most river systems still retain some connection with their adjacent floodplain. During high water stages, significant sheetflow and backwater flooding is common in bottomland hardwood forests and cypress swamps. Maintenance of that connectivity with the floodplain is important for groundwater recharge, flood water storage, nutrient uptake, and maintenance of natural composition and structure of floodplain forests.

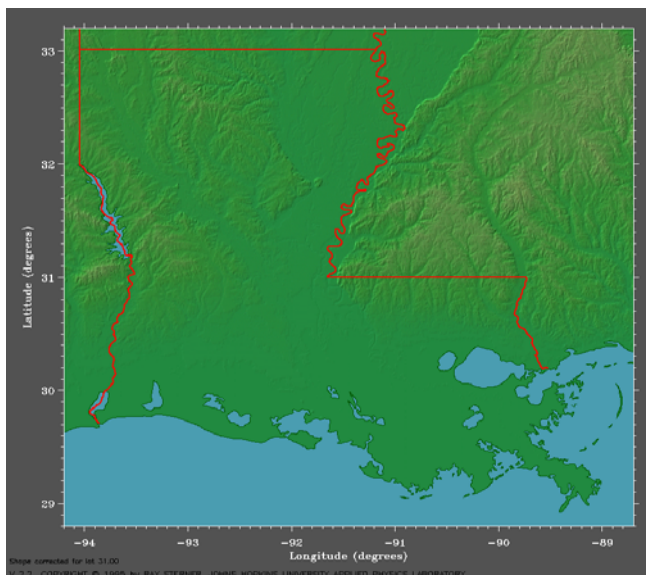


Figure 1: Louisiana Topography (Stern et al. 1995).

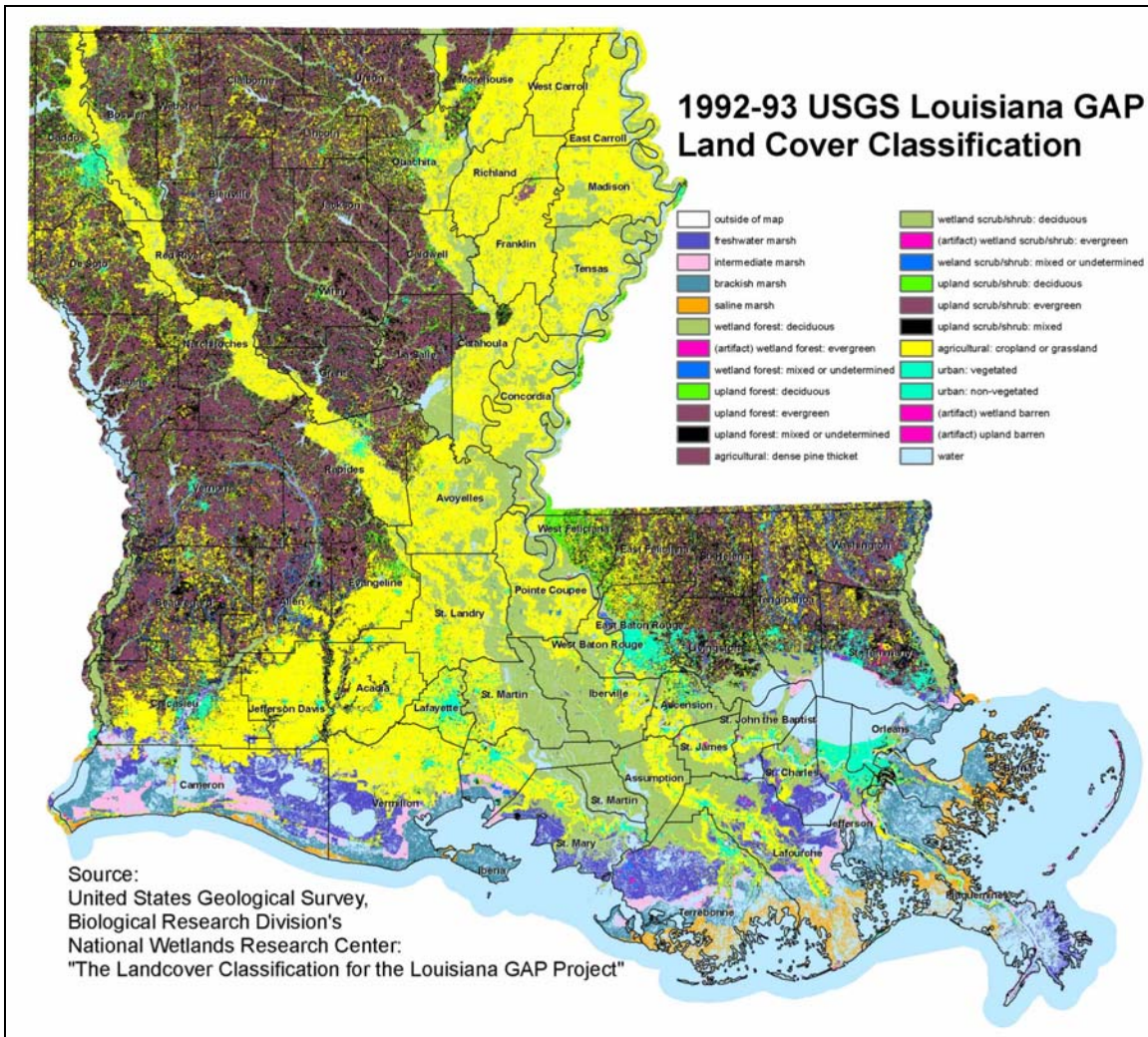


Figure 2: Louisiana Land Cover Types

The vegetation of Louisiana reflects a total of 23 cover types that can be broadly categorized as belonging to one of four groups. The marsh types include the full variation from fresh to saline marshes. The wetland types include wet deciduous and evergreen forests as well as wetland barrens. Upland types range from upland deciduous and evergreen forests to upland barrens. Other types include urban landscapes, cropland, and water.

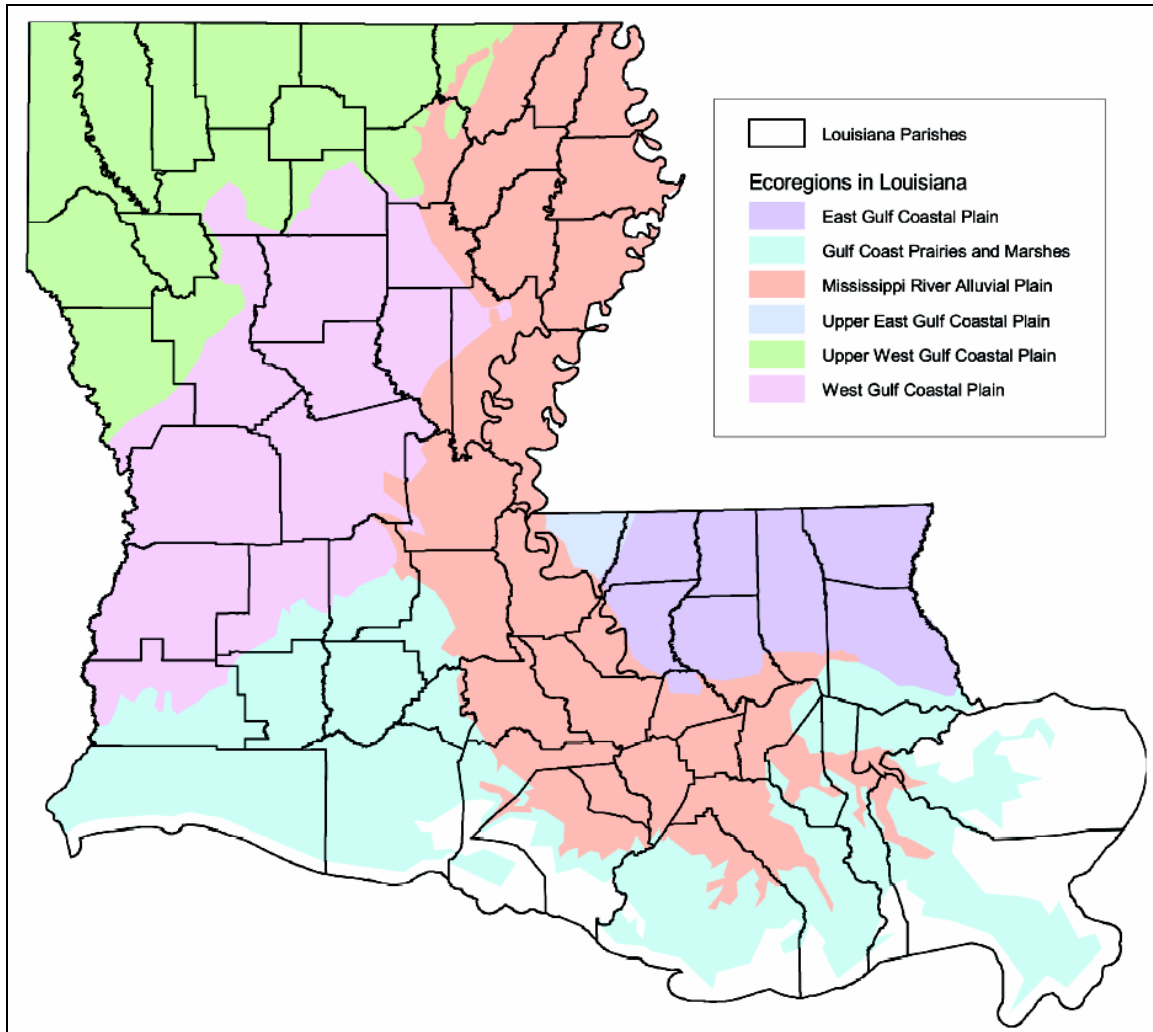


Figure 3: Ecoregions in Louisiana (The Nature Conservancy)

Natural resource professionals recognize 6 broad natural regions that are differentiated on the basis of physiography, rainfall, and other climatic factors, as well as vegetation and fauna (see figure above). A brief description of each follows:

1. Upper West Gulf Coastal Plain

The Louisiana Natural Heritage program estimates that less than 10% of original shortleaf pine-hardwood forests remain today. Shortleaf pine habitats were greatly influenced by periodic fire, which is estimated to have occurred at a frequency of about once every 5 to 15 years in the uplands of this region. Due to fragmentation of landscape, changes in land use and active fire suppression, many sites that were formerly open woodlands with a rich understory and ground layer have undergone significant changes in plant species composition and have often become closed-canopy forests lacking many of the plant species that require a high degree of exposure to sunlight.

Four distinct prairie types are known in this region, including morse clay calcareous prairie, which is considered globally endangered. Unusual upland forests include calcareous forest and western xeric sandhill woodland, the latter considered globally threatened. Thirty species of plants found in this region are considered globally rare, threatened or endangered; ten are found nowhere else in Louisiana. Some of the rare plants include slender blazing star, Texas trillium, Louisiana bluestar, yellow ladies slipper orchid, Arkansas oak, and scarlet catchfly.

Twenty-four species of animals found in this region are considered globally rare, threatened or endangered; six are found nowhere else in Louisiana. Some of the rare animals include the pink mucket mussel, several Schoolhouse Springs insects, bluehead shiner, western sand darter, interior least tern, red-cockaded woodpecker, and Bachman's sparrow.

2. West Gulf Coastal Plain

Some of the best remaining longleaf pine habitats in the Southeast are to be found in the Louisiana portion of the West Gulf Coastal Plain. This ecoregion supports many rare species of plants and animals, only a few found nowhere else. Perhaps the most distinctive rare animal in this ecoregion is the state endemic Louisiana Pearlshell mussel, a threatened species found only in a few small sandy streams in central Louisiana. The best known rare animal in the region is the endangered Red-cockaded Woodpecker, which reaches its greatest abundance in longleaf pine regions through-out the southeast. Additional globally-rare animals associated with longleaf pine, include Bachman's Sparrow, Louisiana pine snake, and Kisatchie salamander.

The longleaf pine ecosystem is of conservation concern due to excessive habitat loss and the fact that an abundance of species occur exclusively or predominantly in these habitats. Long separated from their eastern counterparts by the Mississippi River Alluvial Plain, longleaf pine habitats of west Louisiana and east Texas are significantly different in species composition from eastern example of longleaf pine habitats.

3. Gulf Coast Prairies and Marshes

This area, which includes the Deltaic and Chenier Plain ecosystems and adjacent prairies, covers approximately 10,700 square miles of Louisiana. This region is part of the larger Gulf Coast Prairies and Marshes Ecoregion, which also includes coastal Texas and northern Tamulipas, Mexico. In Louisiana, this region covers the entire coastline and borders the pinewoods regions of southwestern and southeastern Louisiana and the expansive forested wetlands in central Louisiana.

Although Louisiana supports about 12% of the nations coastal wetlands, Louisiana marsh loss accounts for over 80% of the nations total coastal marsh loss. Current data indicate that Louisiana loses an average of 25-30 square miles of coastal marsh each year. Since 1956, nearly 1 million acres of coastal marsh has been lost in Louisiana, most of which has been converted to open water, and an additional 800,000 acres have been converted

to other uses such as agriculture or urban development. Coastal Prairie is one of the rarest habitat types in Louisiana with less than one percent, or about 1,000 acres, of the original 2.5 million acres remaining in a relatively natural condition. Settled in the mid-1800's, the rich productive soils of the coastal prairie proved very suitable for rice production, as well as cattle grazing and other uses. Although the prairies provided a rich resource for many cultures, only small remnants remain of the once vast landscape, mostly in areas that were never plowed, such as railroad rights-of-way or isolated ridges surrounded by marsh.

Species such as prairie chickens, whooping cranes, ornate box turtles and red wolves are no longer found in Louisiana due to the loss of native prairie. In addition, many species of grassland-dependent birds, which as a group are declining in abundance faster than any other bird guild, have experienced significant population declines in Louisiana.

4. Mississippi River Alluvial Plain

The largest ecoregion in Louisiana is the Mississippi River Alluvial Plain, which covers some 12,350 square miles in the state. This ecoregion occupies parts of seven states from southern Louisiana to southern Illinois. Within Louisiana, this region encompasses all lands in the historic Mississippi River floodplain. Bottomland hardwood forests and cypress swamps, also referred to as forested wetlands, are the dominant natural plant communities in this region. A key factor in the development and maintenance of these communities is their ability to survive extended periods of flooding.

Over the past two centuries the extent of bottomland hardwood forests in the region has decreased from 24 million acres to only 4.9 million acres. Of equal importance to the actual absolute loss of habitat is the change from an essentially unbroken forest in pre-settlement times to a landscape of some 40,000 distinct patches scattered throughout the floodplain. This high degree of fragmentation has had dramatic effects on many species including Louisiana black bear and migratory songbirds. The Louisiana black bear, interior least tern, and pallid sturgeon are now listed as threatened or endangered and over 70 species of Neotropical migrant songbirds (which are declining significantly as a group) are found in this ecoregion. The future of such well-known animals as Louisiana black bear depends upon successful conservation of the forested wetland ecosystem. Other species not widely recognized, such as freshwater mussels also depend upon protection and restoration of high-quality natural habitats.

5. Upper East Gulf Coastal Plain

This ecoregion ranges from southern Illinois, through much of Mississippi, east to Georgia, and west to Louisiana. This is the smallest ecoregion in Louisiana, and is restricted to the hills north of Baton Rouge, locally called the Tunica Hills. Although the Upper East Gulf Coastal Plain ecoregion only covers about 120 square miles in Louisiana, it is one of the most diverse regions in our state.

Although the Tunicas only support a few species considered at risk from a global perspective, at least 25 state-rare plant species occur in the Tunica Hills of Louisiana and Mississippi. At least 10 species of plants are known in Louisiana only from the Tunica Hills, including the only known Louisiana locations of wild ginseng and Canada wild ginger. Thirteen state-rare animals are known to occur in the area, including Louisiana black bear, Webster's salamander, long-tailed weasel, Coopers Hawk, and Louisiana Waterthrush. This region also supports significant populations of uncommon animals like timber rattlesnakes, and many species of migratory birds, including the Yellow-billed Cuckoo, Wood Thrush and Great-crested Flycatcher, which are apparently declining throughout their range.

6. East Gulf Coastal Plain

In the past 30 years, many of the remaining natural longleaf pine and pine-hardwood forests have been converted to pine plantations to maximize timber production. Urban expansion in Livingston and St. Tammany Parishes-among the fastest growing parishes in Louisiana-has been the final straw for much of the remaining longleaf forests. The loss has been so great that the Louisiana Natural Heritage Program contends that the natural habitats in this ecoregion are among the most threatened in Louisiana and the Southeast. For example, the Heritage Program estimates that less than 5% of the original wet longleaf pine forest in this ecoregion remains.

Habitat loss, combined with the fact that many eastern species reach the western limit of their range in the Florida Parishes, finds this region supporting more rare, threatened or endangered species of animals and plants than any other Louisiana region. Approximately 35 species of animals and 75 species of plants require conservation attention in this region. Some of the animals considered imperiled include the inflated heelspitter mussel, Gulf of Mexico sturgeon, ringed sawback turtle, gopher tortoise, Red-cockaded Woodpecker and Louisiana black bear, all of which are listed as threatened or endangered in Louisiana.

Some of the globally imperiled plants found in this region are the Louisiana quillwort, bog spicebush and Correll's false dragonhead. State rare plants in this region include showy flowers such as the pinewoods lily, pink coreopsis, yellow fringeless orchid and bog flame flower.

B. Geology

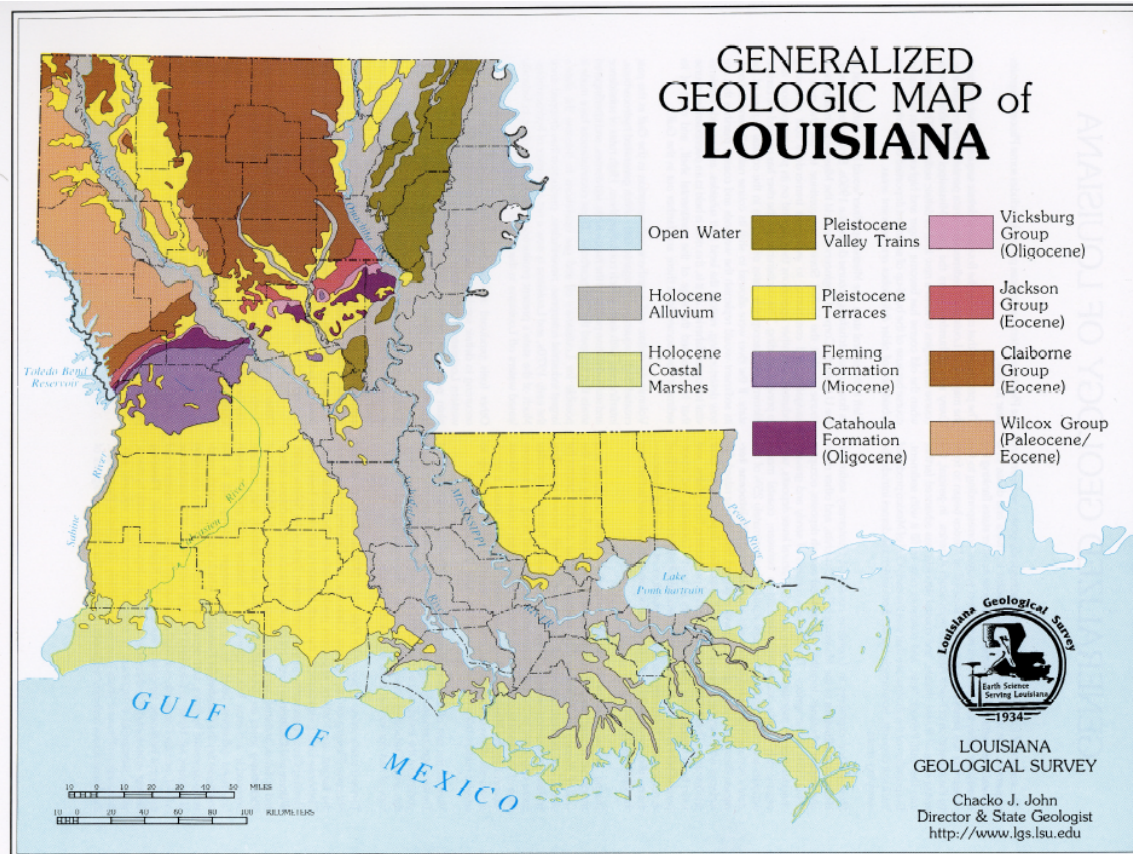


Figure 4: Geology of Louisiana.

The surface of Louisiana is underlain by geologically young sedimentary sequences that were deposited in or adjacent to rivers and deltas in a coastal plain setting. Most surface exposures in Louisiana consist of Quaternary sediment. Holocene alluvium of the Mississippi, Red, Ouachita, and other rivers and smaller tributaries, together with coastal marsh deposits, occupies about 55% of the surface. Approximately 25% of the state's surface is occupied by deposits associated with Pleistocene terraces; these also consist of sand, gravel, and mud, but underlie raised, flat surfaces with varying degrees of tilt and dissection depending on their relative ages.

Most of the rest of the state's surface (about 20%) comprises strata of Tertiary age, principally on the Sabine uplift (which lies in the northwest portion of the state), and in the north Louisiana salt-dome basin. Within this area, Cretaceous rocks are present in a few small exposures on the tops of salt domes that have surface expression.

Historically, the Mississippi River frequently abandoned its course and would form new lobes of deltaic sediment. If left in its natural state, the Mississippi River would have shifted most of its flow to the Atchafalaya course during the 1950s. Since then, however, the U.S. Army Corps of Engineers has held the Mississippi in its present course. This containment of the river has created the current dilemma of unacceptable rates of erosion in the coastal regions of the state. If the river were allowed to shift its course naturally, and to flood, its sediments and freshwater would replenish the wetlands and coastal marshes that are now deteriorating and allow sedimentation and organic deposition to keep pace with sea level rise and storm damage.

Voluminous deltaic and nearshore sedimentation in the Gulf in the past created thick sequences of organic clay, which generated hydrocarbons, interfingering with sand, which contained them. High rates of subsidence and sedimentation produces the faults, folds, salt domes, and interfingering strata that trapped the hydrocarbons. These circumstances have made it possible for Louisiana's oil and gas operations to become the state's largest industrial enterprise; nevertheless, production has dropped since the early 1970s, and Louisiana is now a net consumer of hydrocarbons. Much of the state's present production actually takes place in federally leased waters off Louisiana in the Gulf of Mexico.

C. Climate

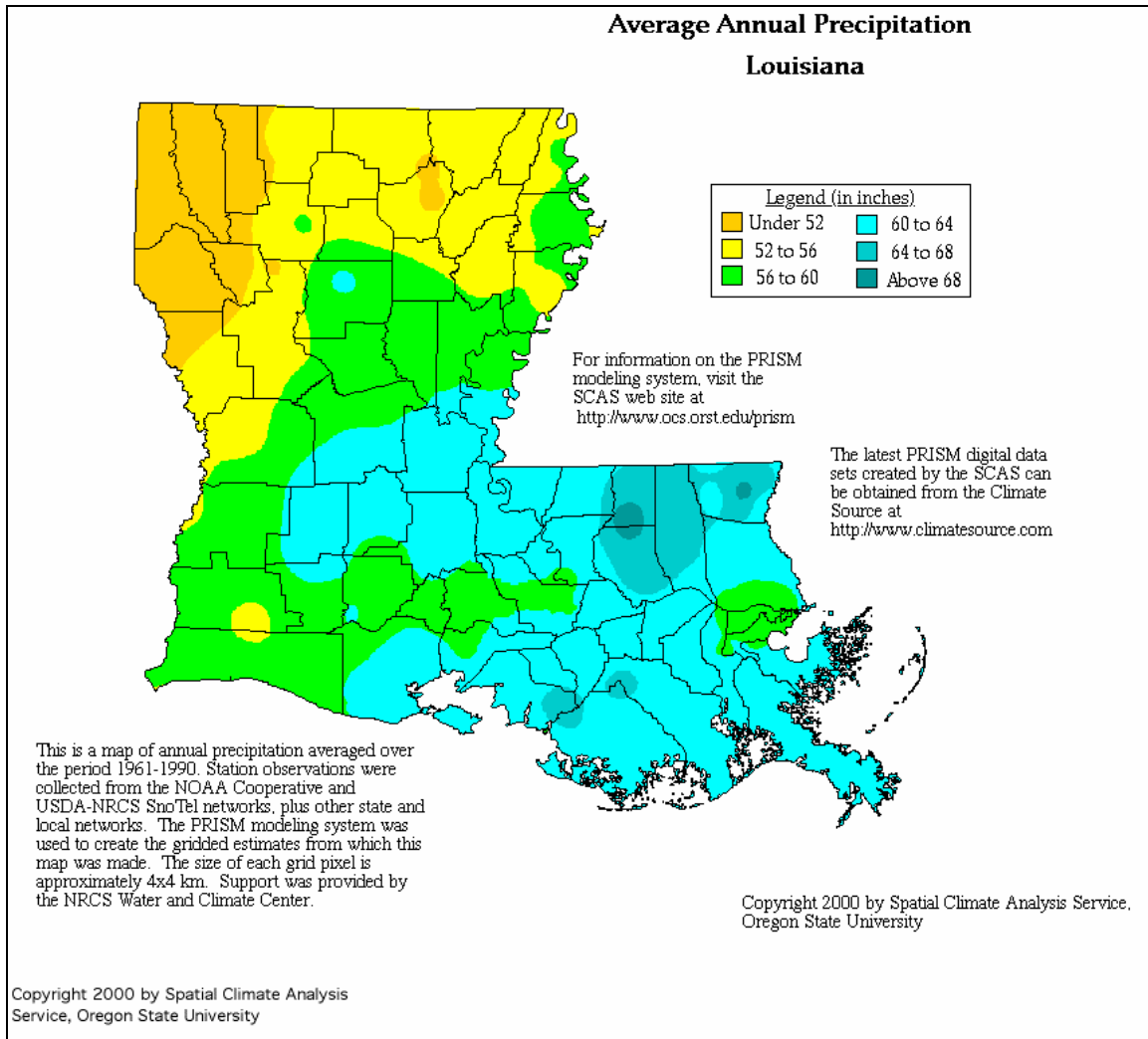


Figure 5: Louisiana Precipitation.

Louisiana has subtropical climate, characterized by cool, moist winters and warm, moist summers. North Louisiana experiences more variable changes in temperature and precipitation, while ocean currents keep conditions in southern Louisiana relatively constant.

Winds are a dominant force in Louisiana’s climate and are responsible for the mobility of the three dominant air masses: Maritime Tropical, Maritime Polar, and Continental Polar. Louisiana is situated between the easterly and westerly wind belts. This leads to westerly vectored winds during the winter and easterly vectored winds during the summer;

passages of cold fronts followed by high pressure systems from late fall through spring creates periods of northerly winds and low humidity.

The average January temperature in North Louisiana is about 49 degrees Fahrenheit, and the average July temperature is about 82 degrees Fahrenheit. North Louisiana, with its temperature extremes, holds the records for the highest and lowest recorded temperatures in the state. The lowest recorded temperature ever was -16 degrees Fahrenheit in Minden, Louisiana. The highest recorded temperature ever was 114 degrees Fahrenheit in Plain Dealing, Louisiana. Both of these locations are in the northwestern corner of the state.

North Louisiana averages about 48 inches of precipitation per year, with the overwhelming majority falling as rain. Most of the precipitation in this region falls from late fall through spring and extended summer droughts are not uncommon.

The biggest effect on southern Louisiana's climate is the Gulf of Mexico. The ocean currents keep southern Louisiana from heating up and cooling off as quickly as does the northern interior. The average annual temperature in January, the coldest month of the year, is about 54 degrees Fahrenheit. In contrast, July's average temperature is about 82 degrees Fahrenheit.

Precipitation in southern Louisiana is rather constant throughout the year. The area's total average rainfall amount is about 64 inches a year. The disparity in precipitation between northern and southern Louisiana is due to frequent summer thunderstorms fueled by warm, moist Gulf air. The wettest region in the state is the Florida Parishes, which receives over 70 inches of rainfall each year (see figure above).

D. Watershed

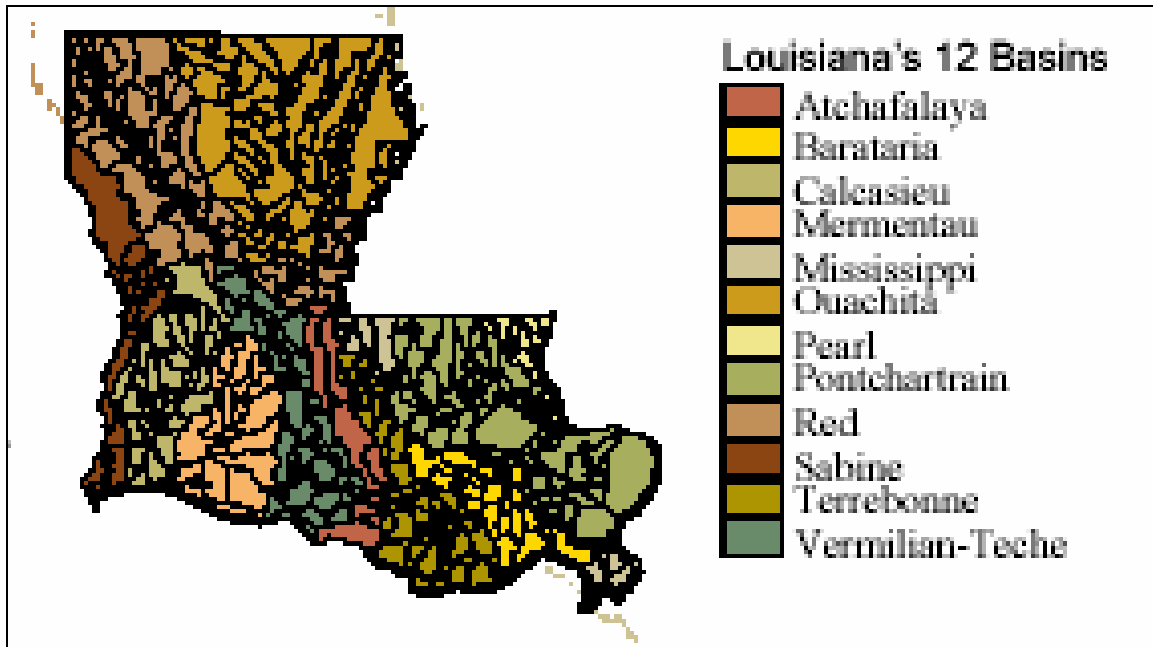


Figure 6: River Basin of Louisiana (LA Dept. of Natural Resources).

Watersheds are increasingly becoming the primary planning unit for natural resource management. Currently, Louisiana is subdivided into 12 river basins (see figure above). Each river basin is further subdivided into sub-watersheds to facilitate water quality assessment and management. Currently, 475 sub-watersheds are recognized in Louisiana. Louisiana shares some of watersheds with neighboring states and, as is the case for larger rivers, with numerous distant states.

Although the Mississippi River watershed drains part or all of 31 states and a portion of Canada by the time it reaches Louisiana it is primarily a conduit and distributary for water. Only two watersheds in Louisiana directly contribute to flow within the Mississippi. Decades of flood control have severely constrained flow within the main channel of the Mississippi River and most tributaries and distributaries have been cut off from the river. Other than controlled releases into the Atchafalaya River at the Old River Control Structure, virtually the entire flow of the Mississippi is directed to the mouth of the river. Most watersheds in Louisiana and the majority of the surface area in the state flow into smaller rivers then directly into the Gulf of Mexico.

E. Soils

Nearly one-third of the total land area in Louisiana is covered by rich alluvium, which has been deposited by overflowing rivers and bayous. Muck and peat soils, very high in organic matter, are found within the coastal marshes. Within the uplands, or hills, there are more mature soils that are less fertile and many areas are capped by loess, or wind-deposited soils. Those loess soils reach their greatest depths in the Tunica Hills, where up to 50 feet or more of loess has been deposited. Loess soils are highly erodible and have resulted in steeply dissected topography in places like the Tunica Hills and Sicily Island Hills.

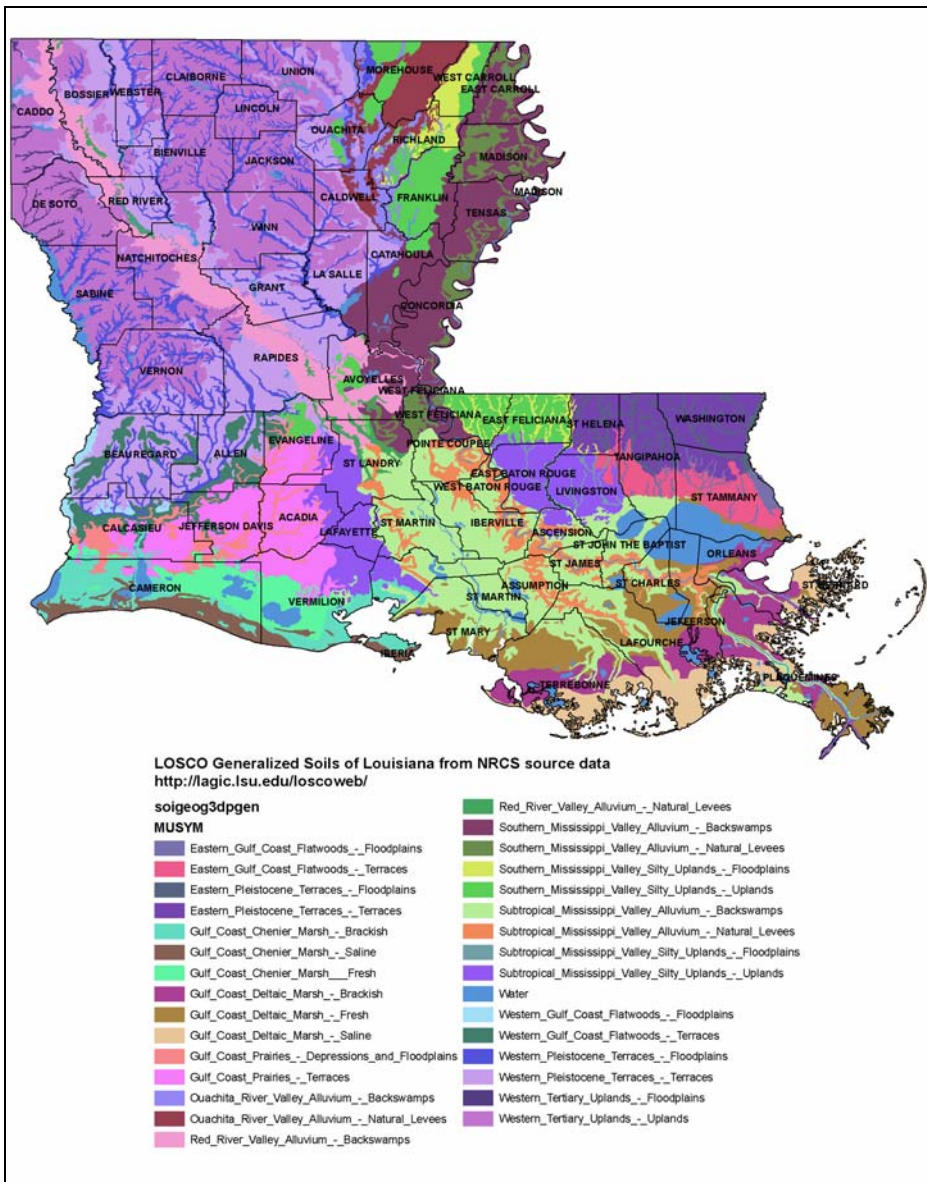


Figure 7: Soils of Louisiana.

F. Culture

European visitors to the state in the early 1800s reported that Native Americans were engaged in limited farming as well as hunting and gathering. Although lightning-started fires have always been a part of the Atlantic and Gulf Coastal Plain landscape, Native Americans augmented the natural fire process in the ecoregion to clear areas, enhance crops, and flush game.

Though there was a European presence in the area as early as the 17th century, the 1820s are considered the real beginning of settlement. Railroad construction in the early 1800s facilitated traffic and development into the ecoregion, expanding timber and agriculture markets. Lumber mills followed rail lines into the area, leading the timber industry to reach its peak in the 1880s. By the 1920s, most of the state had been logged and cut over at least once.

Through much of its early history Louisiana was a trading and financial center, and the fertility of its land made it one of the richest regions in America as first indigo then sugar and cotton rose to prominence in world markets. Many Louisiana planters were among the wealthiest men in America. Following the first round of timber extraction, many cleared areas were converted to pasture or cotton fields, especially within the alluvial valleys of the Red and Mississippi rivers. Cleared areas that failed to grow cotton may have been abandoned to return to a wooded state, and areas that were clear-cut for the first time in the 1920s or 1930s are now showing older-growth forest. Similarly, areas that have proven unsuccessful at supporting commercial forest are being restored to their natural state.

The plantation economy was shattered by the Civil War although the state continued to be a powerful agricultural region. The discovery of sulphur in 1869 and oil in 1901, coupled with the rise of forestry sent the state on a new wave of economic growth. Eventually, Louisiana became a major American producer of oil and natural gas and a center of petroleum refining and petrochemicals manufacturing, which it remains to this day.

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<http://www.wlf.louisiana.gov/experience/naturalheritage>

V. MODERN BENEFITS OF LOUISIANA FORESTS

Louisiana forests provide many benefits to the state, including economic revenue, water quality and quantity, habitat diversity, recreation, eco-tourism, historical preservation, and carbon sequestration capabilities. This section will examine and describe the important economic, cultural, and environmental roles forests play in the state.

A. Timberland Ownership

Forests cover 14 million acres, or about 50% of Louisiana’s land area, making it the state’s greatest single land use. Fifty-nine of the state’s 64 parishes contain land capable of producing sufficient timber to support forest-industry activities as well as provide habitat for wildlife, recreational opportunity, scenic beauty, and all the other environmental benefits timberlands provide. There are 148,000 owners of Louisiana forestland. Private non-industrial landowners own 62% of the state’s forestland, forest-products industries own 29%, and the public owns 9% (see figure below).

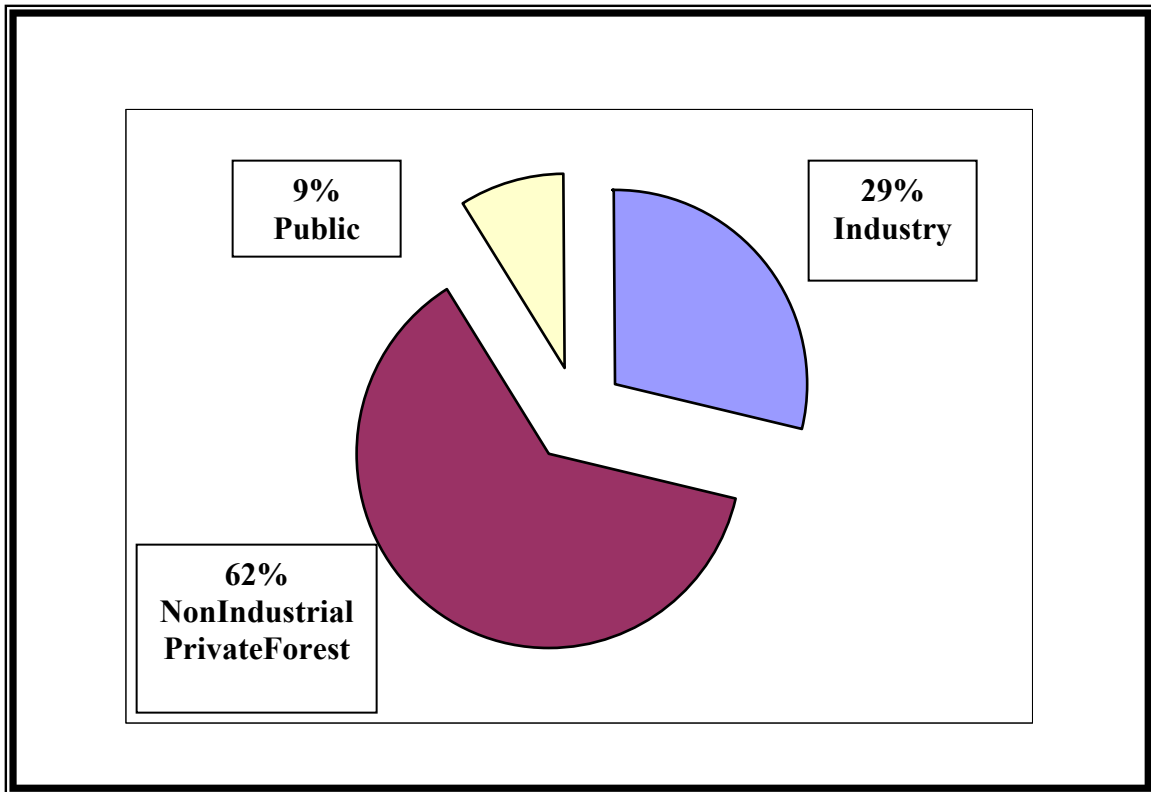


Figure 8: Timberland Ownership in Louisiana (LA Department of Agriculture and Forestry).

Trees are Louisiana’s most valuable crop. In 2004, forestry accounted for 50% of the total value of all plant commodities grown in Louisiana, including cotton, feed grain crops, fruit, soybeans, sugarcane, and others. When you look at total value of Louisiana plant and animal commodities—beef, milk, poultry plus farm wildlife and fisheries—forestry contributes 38% of the value of Louisiana’s agricultural commodities. In addition to producing raw forest products, harvested timber is manufactured by local mills throughout Louisiana into building materials, a variety of paper products and numerous other products used in daily life.

The major forest types in Louisiana are shown below.

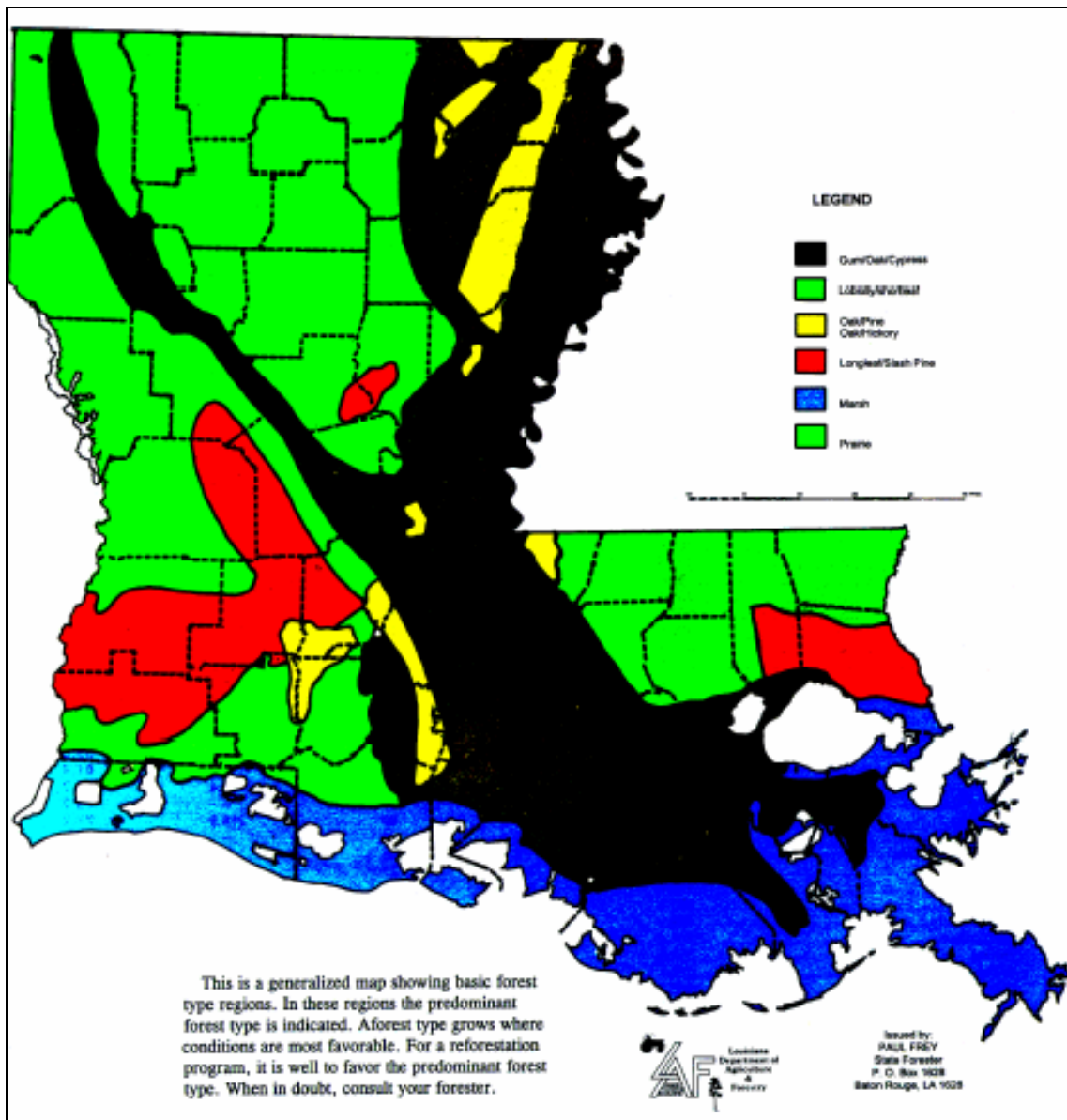


Figure 9: Major Forest Types of Louisiana.

In the 2004 planting season, Louisiana landowners (industrial and non-industrial) reforested the land with over 128 million seedlings. This includes about 55,000 acres of afforestation on prior converted forest land (usually marginal farm land). Another 10,345 acres were regenerated naturally.

Forest cover in Louisiana is nearly equally comprised of pine, hardwood and mixed pine-hardwood forest types. Pine-dominated forest (both planted and natural) accounts for more than a third of the timberland in the state (see figure below). Mixed hardwood forest, which is primarily restricted to alluvial floodplains, also comprises more than a third of all forest land in Louisiana. Mixed pine-hardwood forests, historically characterized by shortleaf pine, oak and hickory, comprise nearly a third of all forest land. The dominant timber type is Oak-Gum-Cypress, characteristic of the lowlands.

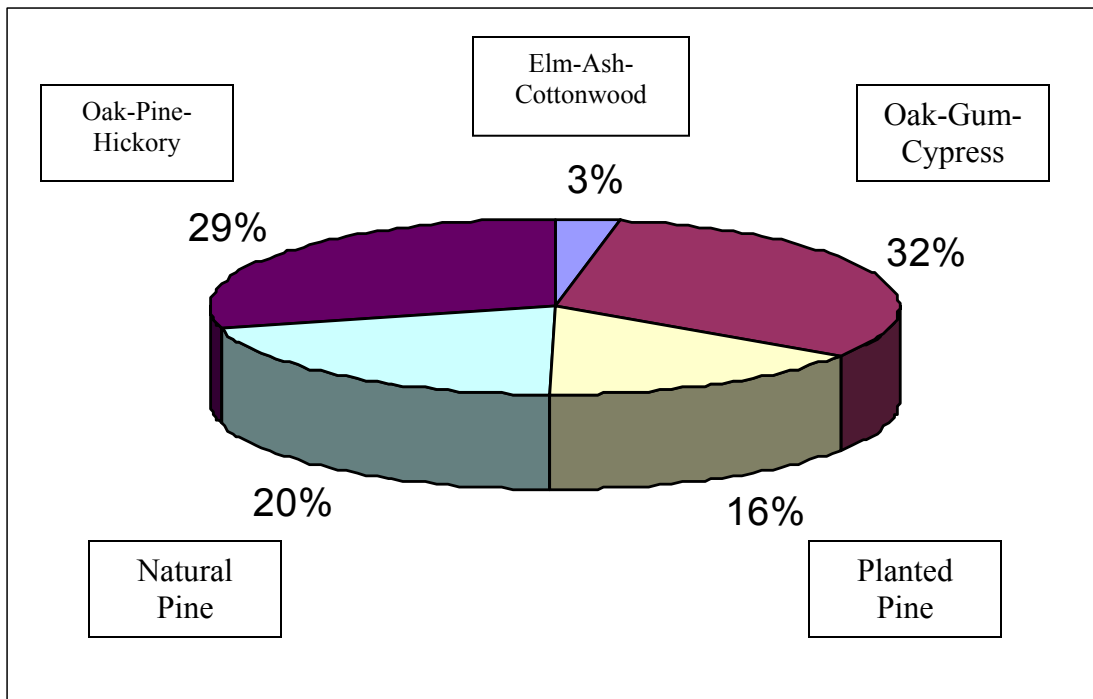


Figure 10: Timberland Area by Forest Type (LA Department of Agriculture and Forestry).

B. Economic Impact

The combination of weather, which governs access to many forested regions, and fluctuations in commodity prices alter the impact of forestry and forest-products industries on the state's economy. Total output from forest-related industries in Louisiana was \$5.3 billion in 2004. The economic contribution of forest products in recent years has fluctuated from a high of \$5.4 billion in 1998 to a low of \$3.3 billion in 2001.

Although annual production of sawtimber has remained relatively constant in recent years, significant fluctuations in pulpwood prices have affected harvest of pulpwood. In 2004, 1.2 billion board feet of sawtimber and 6.3 million cords of wood were harvested. In 2001, 1.2 billion board feet of sawtimber and 5.8 million cords of wood were harvested. This was the lowest harvest level for sawtimber since 1982.

Louisiana forest landowners received \$593 million in 2004 from the sale of timber. Since 1999, landowner income has ranged from a low of \$519 million in 2001 to a high of \$680 million in 1999. Logging contractors and their employees earned \$442 million in 2004 (a high in recent years) for harvesting timber and hauling the wood to mills. It is estimated that each loaded log truck pays the equivalent of \$835 in local, state and federal taxes.

Louisiana's forests support some 180 primary wood-using industries (such as sawmills and paper mills) located throughout the state and 750 secondary wood-using industries (including furniture manufacturers, cabinet makers, millwork plants and others that use the products produced by primary wood-using industries).

Forest industries are the second largest manufacturing employer in Louisiana, providing about 18,215 manufacturing jobs. This overall employment figure has declined from 25,802 in 2000 due to the closure of several mills. In addition, an estimated 8,000 people are employed in the harvesting and transportation of timber. Workers employed in forest products manufacturing earned \$854 million in wages in 2004, an increase over the \$800 million in wages in 2003.

State and local governments benefit directly from timber revenues. Severance taxes from timber sales totaled \$15.1 million in 2004, a low in recent years. Parishes where the timber was grown received 75% of the monies; the state's general fund received the remaining 25% with a portion of the funds allotted to landowner cost share help for replanting.

Table 1 presents a summary of selected forestry-related economic statistics for Louisiana in 2004.

Table 1: Economic Impact of Forestry in Louisiana, 2004 (LA Department of Agriculture and Forestry).

Economic Statistics	Value in 2004
Total forest industry output	\$5.3 billion
Sawtimber production	1.2 billion board feet
Pulpwood production	6.3 million cords
Landowner income from sale of timber	\$593 million
Logging and trucking contractor income	\$442 million
Primary wood-using facilities	180
Secondary wood-using facilities	750
Forest industry employment	18,215 jobs
Logging and trucking contractor employment	8,000 jobs
Forest industry wages	\$854 million
Timber severance taxes	\$15.1 million

C. Water Quality and Quantity

In addition to forestry, another important function of Louisiana forests is their role in the production of clean water. Forested land absorbs rain, facilitates recharge of underground aquifers, cools and cleanses water, slows storm runoff, reduces flooding, reduces sediment and nutrient run-off, and sustains watershed stability and resilience. There are more than 6,294 miles of rivers and streams, 1.7 million acres of fresh and tidal wetlands, and 4.9 million acres of estuarine basins; maintenance of intact forested watersheds is critical to ensuring the health and viability of those aquatic systems.

About 84 percent of the 10.4 billion gallons of water used in Louisiana each day is surface water. The remaining 16 percent is groundwater. Regardless of the abundance of water statewide, three major aquifers in the state are declining at rates greater than one foot per year. In 2000, these aquifers combined provided 93 percent of all groundwater used in the state.

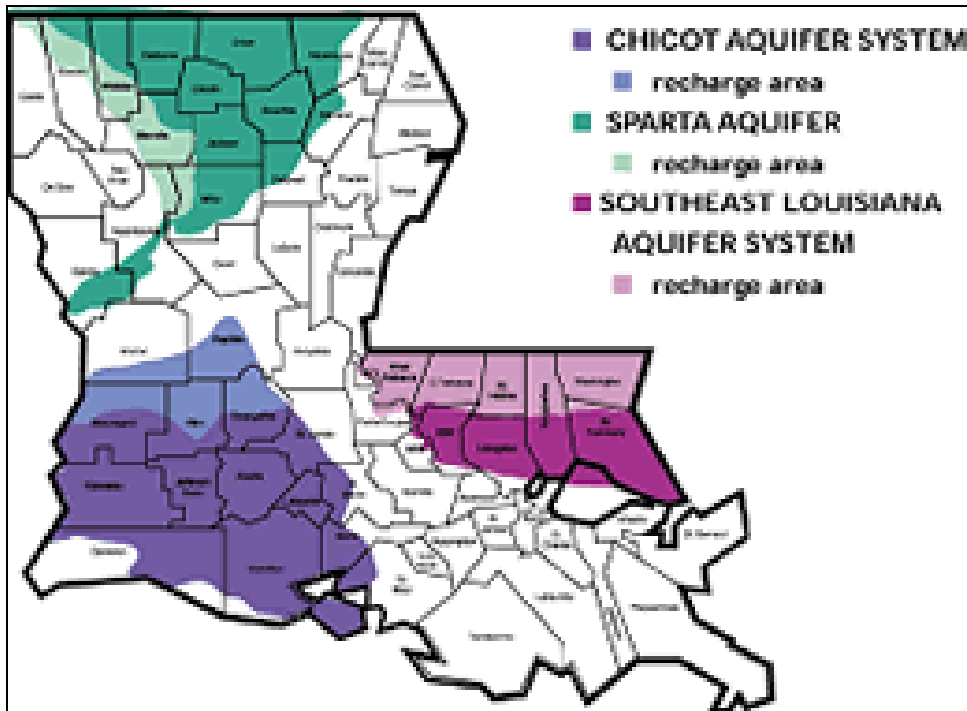


Figure 11: Louisiana Aquifers (LA Department of Natural Resources).

D. Habitat Diversity

There are over 3,250 species of plants documented in Louisiana; 1,595 or 73% are considered native and the remainder are introduced and have become naturalized. Approximately 380 native plant species are considered rare, threatened or endangered in Louisiana. Three plant species found in Louisiana are protected under the federal Endangered Species Act: American chaffseed (*Schwalbea Americana*), earthfruit (*Geocarpon minimum*), and Louisiana quillwort (*Isoetes louisianensis*). All three federally listed species are found within forested landscapes and appear to be sensitive to high levels of disturbance.

Because of local differences in climate, geology, topography, soils and land-use, those species co-occur in one of 39 recognizable terrestrial plant communities. The Louisiana Comprehensive Wildlife Conservation Strategy identified a number of forest habitats considered to be the highest conservation priorities including eastern longleaf pine savanna, eastern upland longleaf pine forest, slash pine-pondcypress hardwood forest, live oak-pine-magnolia forest, spruce pine-hardwood flatwoods, mixed hardwood-loblolly pine slope forest, shortleaf pine-oak-hickory forest, barrier island live oak forest, natural levee live oak forest.

Louisiana forests contain a vast number of animal species. Not surprisingly, areas of highest vertebrate species richness correspond with regions of highest forest cover (see figure below). There are over 820 vertebrate taxa recorded from Louisiana. In addition, a myriad of invertebrates have been documented including 68 species of freshwater mussels, 36 species of crayfish, 47 species of tiger beetles and over 200 species of “large” moths and butterflies. Over 160 animal taxa are currently monitored by the Louisiana Natural Heritage Program as species of conservation concern. Twenty-six species that are still extant in Louisiana are listed as threatened or endangered under the U.S. Endangered Species Act and an additional 4 species are officially candidates for federal listing (see table below). Of those, 14 species are known to occur, or potentially could occur within the Louisiana FLA.

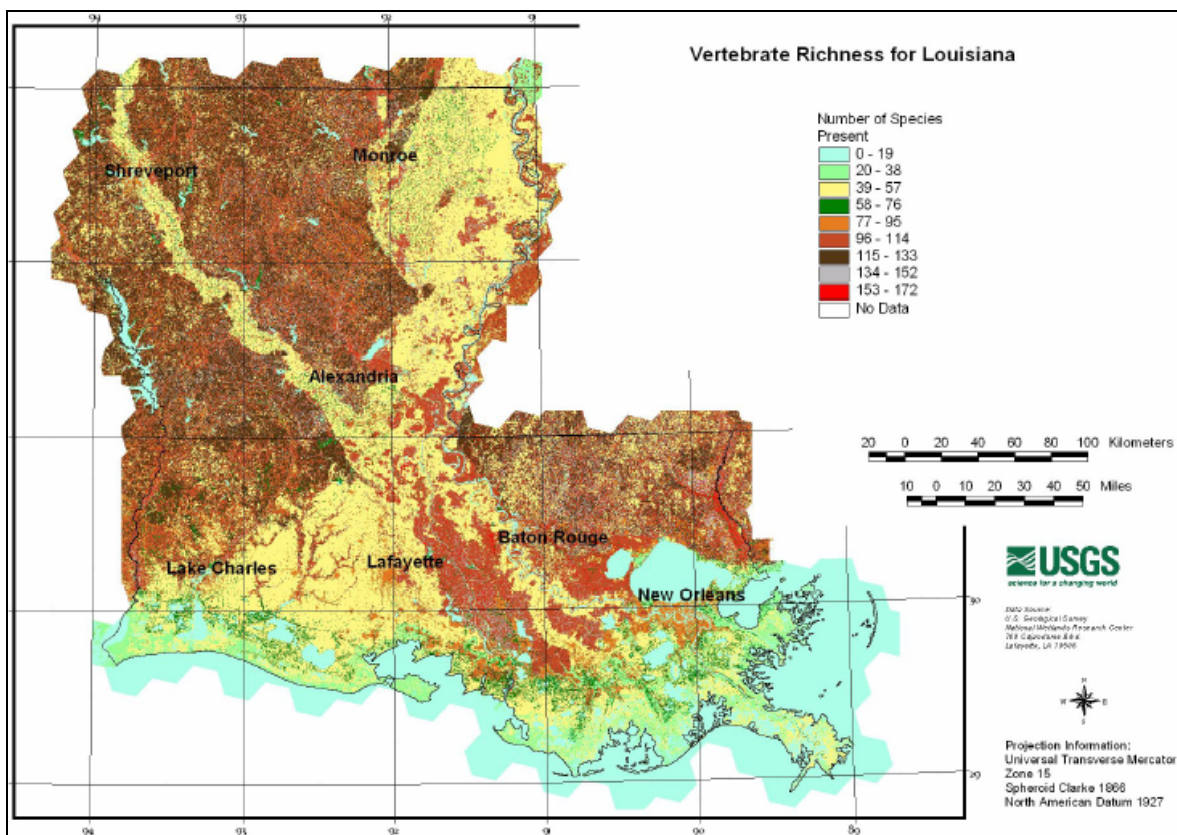


Figure 12: Vertebrate Diversity in Louisiana.

Table 2: Threatened or Endangered Species in Louisiana (NatureServe 2007).

Common Name	Scientific Name	ESA Listing Status	Within LA FLA
Pink Mucket	<i>Lampsilis abrupta</i>	E	No
Louisiana Pearlshell	<i>Margaritifera hembeli</i>	T	No
Fat Pocketbook	<i>Potamilus capax</i>	E	No
Inflated Heelsplitter	<i>Potamilus inflatus</i>	T	Yes
American Burying Beetle	<i>Nicrophorus americanus</i>	E	?
Gulf Sturgeon	<i>Acipenser Oxyrinchus desotoi</i>	T	Yes
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E	No
Alabama Shad	<i>Alosa alabamae</i>	C	Yes
Pearl Darter	<i>Percina aurora</i>	C	?
Mississippi Gopher Frog	<i>Rana sevosa</i>	E	?
Green Sea Turtle	<i>Chelonia mydas</i>	T/E	No
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	E	No
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	E	No
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	E	No
Loggerhead Sea Turtle	<i>Caretta caretta</i>	T	No
Ringed Map Turtle	<i>Graptemys oculifera</i>	T	Yes
Gopher Tortoise	<i>Gopherus polyphemus</i>	T	yes
Black Pine Snake	<i>Pituophis melanoleucus lodingi</i>	C	?
Louisiana Pine Snake	<i>Pituophis ruthveni</i>	C	No
Brown Pelican	<i>Pelecanus occidentalis</i>	E	No
Bald Eagle	<i>Haliaeetus leucocephalus</i>	E	Yes
Peregrine Falcon	<i>Falco peregrinus</i>	T/E	Yes
Interior Least Tern	<i>Sterna antillarum athalassos</i>	E	No
Red-cockaded Woodpecker	<i>Picoides borealis</i>	E	Yes
Louisiana Black Bear	<i>Ursus americanus luteolus</i>	T	Yes
Manatee	<i>Trichechus manatus</i>	E	Yes
Sperm Whale	<i>Physeter macrocephalus</i>	E	No
Sei Whale	<i>Balaenoptera borealis</i>	E	No
Blue Whale	<i>Balaenoptera musculus</i>	E	No
Finback Whale	<i>Balaenoptera physalus</i>	E	No

E. Eco-Tourism

Studies have shown that parks and open space, including forests, increase the value of neighboring residential property. Growing evidence points to a similar benefit on commercial property value. Additionally, the availability of parks, open space, and recreation facilities is an important quality-of-life factor for corporations choosing where to locate facilities and for well-educated individuals choosing a place to live.

Louisiana's long-standing nickname of "Sportsman's Paradise" is legendary and refers to the excellent hunting and fishing (consumptive) opportunities that have appealed to residents and visitors alike. Louisiana's marshes, swamps, the Gulf of Mexico, Atchafalaya Basin, Toledo Bend, and the forests of north Louisiana have been the focal point of nature based tourism (NBT) for many decades. However, interest in non-consumptive forms of recreation—birding, walking, hiking, photography, etc. — is a relatively recent phenomenon in the state and has exhibited significant potential for growth. The tourism industry has responded for this demand for diverse NBT is evident in the large numbers of commercial swamp tours, heavy public use of state parks and the recent development of the Birding Trail of Louisiana.

In 2001, nearly 1.1 million residents and non-residents pursued hunting and fishing opportunities in Louisiana and those sportsmen spent approximately \$1.4 billion in Louisiana in pursuit of fish and game. Surprisingly, a similar number (nearly 1 million individuals) spent time in Louisiana watching wildlife. Although wildlife watching does not contribute as much to the Louisiana economy as does hunting and fishing, photographers, birdwatchers, hikers, etc. spent nearly \$170 million in 2001.

F. Carbon Sequestration and Air Quality

Carbon sequestration refers to the provision of long-term storage of carbon in the terrestrial biosphere, underground, or the oceans so that the buildup of carbon dioxide (the principal greenhouse gas) concentration in the atmosphere will reduce or slow. In some cases, this is accomplished by maintaining or enhancing natural processes; in other cases, novel techniques are developed to dispose of carbon.

Forests already serve as a substantial warehouse for carbon. It is estimated that approximately 1146 Petagrams (a Petagram is equivalent to one billion metric tons) of carbon are stored in the world's forested ecosystems. Increasing this sink by even modest amounts could provide additional protection from future climate change.

As of 2003, Louisiana's forests stored 268 million metric tons of carbon in all biomass components. Pine forests and oak-gum-cypress bottomland forests are two communities that present the largest stock of biomass carbon in Louisiana. During the period from 1991 to 2003, carbon stock of Louisiana's forests underwent considerable change.

Biomass carbon stocks in all forestry types, except for the longleaf-slash pines, have decreased by 2.7 percent to 18.4 percent. In total, the state lost 9.3 percent (or 27 million tons) of the carbon stored in the forests since 1991 in spite of an overall 1.7 percent increase in forest cover. The largest percentage loss was observed in the elm-ash-cottonwood (18.4 percent) and oak-hickory forest types (13.8 percent). The largest mass change in biomass carbon, however, occurred in the oak-gum-cypress forests (9.4 million tons), whereby a 5 percent decrease of the land area by this forest type was also evidenced. This is a further alarming sign for the rapid loss of Louisiana's bottomland hardwoods. Biomass carbon stock in the loblolly-shortleaf pine forests – the state's major commercial timber source – also decreased by 9.6 percent from 1991 to 2003. However, the land area of this forest type increased by 17.5 percent. This is probably a reflection of conversion of natural forests with longer rotation/harvesting cycles to pine plantations with relatively short rotation periods.

According to the Louisiana Department of Agriculture and Forestry, the state's landowners (industrial and non-industrial) reforested the land with more than 128 million seedlings in 2004. This includes about 55,000 acres of land (usually marginal farm land) converted to forestry. Another 10,345 acres were regenerated naturally. This increase of forested land areas with seedling trees indicates that the growth of the Louisiana's forests will sequester a large amount of carbon in the coming 20-30 years, if managed properly.

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VI. CULTURAL CHANGES AFFECTING LOUISIANA FORESTS

A. Population Growth and Urban Sprawl

The total Louisiana population in 2005, prior to hurricanes Katrina and Rita, was estimated to be approximately 4.5 million, which represented a greater than 300% increase in population from 1900 when the population was only 1.4 million (see figure below). In 1900, Louisiana’s population was approximately 1.8% of the U.S. total. However, the rate of population increase in Louisiana was less than many of fastest growing “sunbelt” states, such as California, Texas, Georgia and Florida. Thus, in 2005, the Louisiana population only equated to 1.5% of the U.S. total.

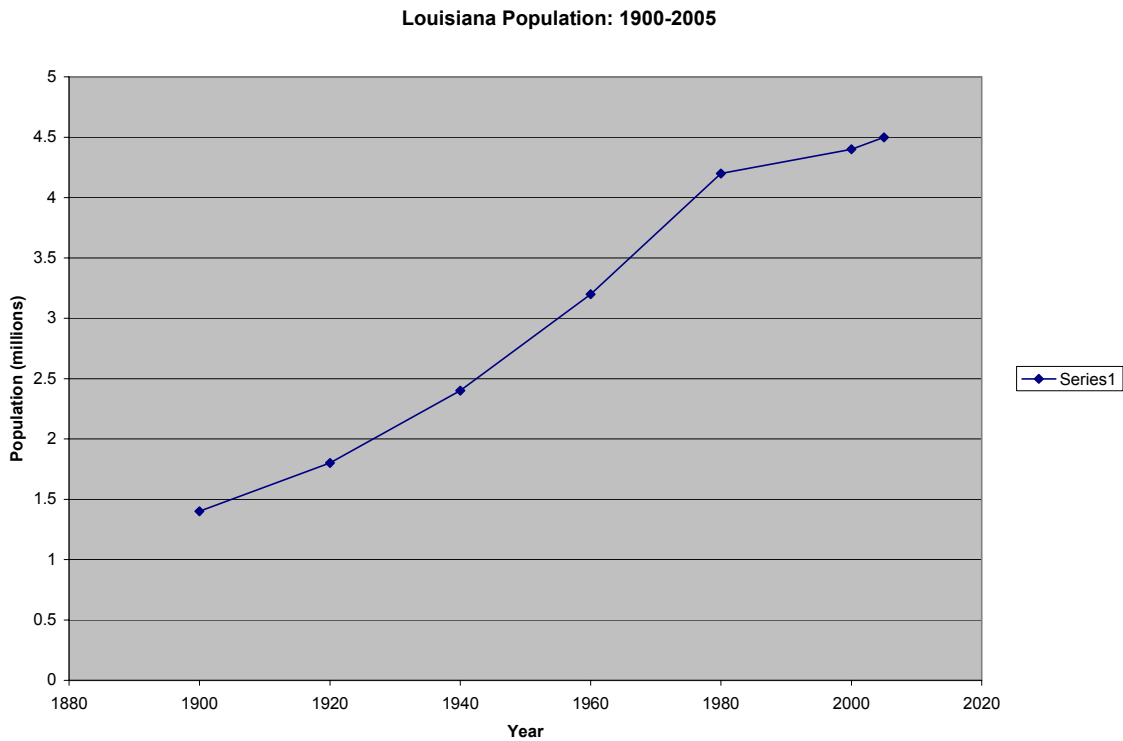


Figure 13: Louisiana Population Growth (Louisiana Population Data Center).

Louisiana is a decidedly rural or small-town state. In 2000, only 30% of the total Louisiana population lived in one of the ten largest cities. In contrast, over 57% of the total population lived in one of the ten largest parishes, which indicates that although people tended to live in smaller cities and towns, those municipalities were typically clustered close together. In 2000, the ten largest parishes in Louisiana, in decreasing order of population, were: Orleans, Jefferson, East Baton Rouge, Caddo, St. Tammany, Lafayette, Calcasieu, Ouachita, Rapides, and Terrebonne.

Although most of Louisiana’s population was not located in the largest cities, the overall population density was still quite high. In 2000, Louisiana had a population density of approximately 103 people per square mile, compared to a national average of only 80 people per square mile. Concomitantly, approximately 4.5% of the landscape nationwide was considered developed in 1997 whereas an estimated 5.4% of the Louisiana landscape was developed. In 2000, Caddo, Ouachita, Calcasieu, Lafayette, East Baton Rouge, Ascension, St. James, St. Charles, Jefferson, Orleans and St. Tammany parishes all supported a population density of 169 people per square mile, or greater (see figure below).

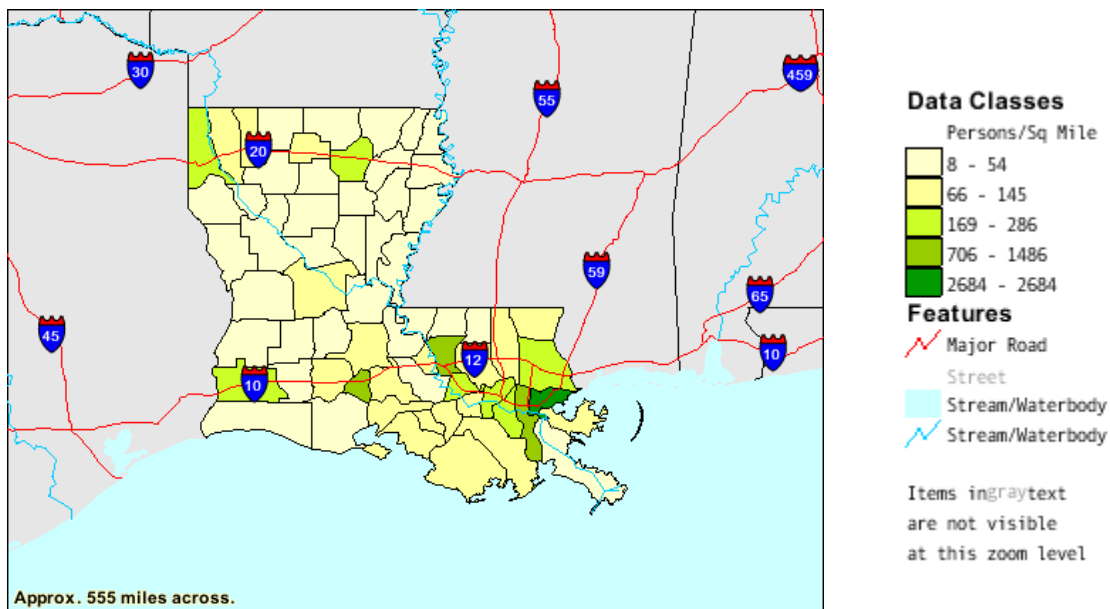


Figure 14: Louisiana population density based upon the 2000 census. (U.S. Census Bureau, Census 2000 Summary File 1, Matrix P1).

Between 2000 and 2005, Louisiana added approximately 55,000 new residents, which was an increase of 1.2%. In contrast, the estimated total U.S. population grew by 5.3% during the same time period. Although the total Louisiana population was relatively stable between 2000 and 2005, the recent trend for concentrated growth within several suburban regions has continued. A number of parishes experienced population increases in excess of 10% over the 5-year period, with Ascension, Livingston and St. Tammany parishes all growing in population by more than 15%.

Hurricanes Katrina (August 2005) and Rita (September 2005) caused extensive damage to coastal communities and caused long-term displacement for hundreds of thousands of residents. One year after the hurricanes, over 200,000 Louisiana residents were continuing to live in other states and some coastal parishes had still not returned to 50% of their pre-hurricane population levels (e.g., St. Bernard and Orleans parishes). Although many displaced residents have moved out-of-state, at least temporarily, many relocated to urban/suburban areas closest to the areas of greatest impact; parishes such as Calcasieu, Lafayette, East Baton Rouge and St. Tammany have added significant population since the storms. All of these metropolitan areas are experiencing elevated rates of residential and commercial development driven by the hurricane-induced population shifts, and much of this development is within regions that supported active forest products economies.

This displacement has created significant uncertainty about future population growth and distribution within Louisiana. Prior to the hurricanes, Louisiana was projected to add 7% to its total population between 2005 and 2030; that estimate is decidedly less reliable today.

Nationwide, the growth in population as well as the shift in population centers has led to significant conversion of forest and farmland to suburban developments. Nationally, approximately 11 million acres of forest, farmland and rural open space were converted to urban and other developed uses between 1992 and 1997, which was a significant increase from the 10-year period between 1982 and 1992.

Between 1963 and 2002 total US forest land decreased by 13 million acres with most of that loss concentrated in the South and the Pacific coast. It has been estimated that net loss of forestland in the US will approach 23 million acres by 2050 when compared with 1997 levels. Depending upon the relative value of agricultural land to forest land, estimated loss of forest land in the South by 2020 ranges from a low of 3 million acres (1.5 percent) to a high of 31 million acres (15 percent) with the most likely scenario indicating a net loss of 12 million acres (8 percent). An additional 19 million forest acres are forecast to be converted to non-forest uses between 2020 and 2040.

Louisiana was one of only three Southern states to experience a loss of forest acreage between 1945 and 1992; the other two states were Arkansas and Florida. Between 1945 and 1992, the amount of urban/suburban land in Louisiana increased by approximately 750,000 acres while the amount of forestland decreased by approximately 2,000,000 acres during that same time period. While much of the loss of forestland between 1945 and 1992 can be attributed to conversion to agriculture, especially within the Mississippi Alluvial Valley, at least a third of the loss is attributable to expansion of urban/suburban areas. In 1997, the amount of developed land in Louisiana had increased to 2,537 square miles. Considering that much of Louisiana is undesirable from a development perspective due to floodplain position, development pressure on uplands has been exacerbated.

The rate of forestland and farmland conversion has not abated in recent years. Between 1997 and 2002, an average of nearly 28,000 acres of rural land was developed each year in Louisiana. Based upon historic development patterns and projections of future urban/suburban expansion, forested regions north of Lake Pontchartrain, in East Baton Rouge and adjacent parishes, and in Calcasieu and adjacent parishes are anticipated to be hardest hit by future development. The loss of forested land directly affects the nearly 20,000 Louisiana residents employed in the forest industry but has numerous, significant effects on a wide range of natural resources.

B. Water Resource Demand

Louisiana is relatively rich in freshwater resources with abundant supplies of both surface and ground water. Water is used for drinking, irrigation of crops and industrial purposes, but also provides significant value to globally significant fish and wildlife resources. In 2000, surface water contributed approximately 84 percent of the state's water supply while groundwater withdrawal was the source for approximately 16 percent of the water used in Louisiana. Forty-nine percent of all ground water was withdrawn from the Chico aquifer and 22 percent was withdrawn from the Mississippi River alluvial aquifer. About 78 percent of all surface water withdrawals were from the Mississippi River and the Mississippi River Gulf Outlet. Although most of the state's water supply is provided by streams, lakes and reservoirs, increased demand for groundwater has created significant stresses on that water source in recent years. Three of Louisiana's four primary aquifers are currently supporting unsustainable water demands. Those aquifers are the Chico, Chico Equivalent and Sparta (Figure 15).

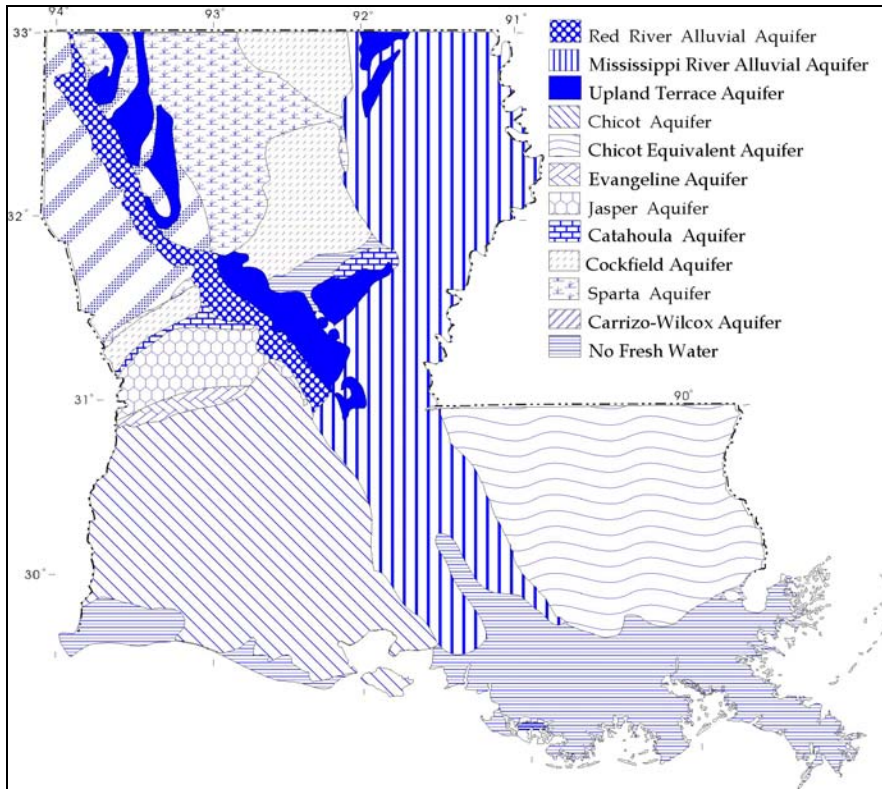


Figure 15: Principal aquifer systems of Louisiana (LA Dept. of Environmental Quality 2006).

In 2000, approximately 11.1 billion gallons per day of water was withdrawn from water sources in Louisiana. Total ground-water withdrawals were approximately 1.9 billion gallons and total surface water-water withdrawals were approximately 9.2 billion gallons per day (see figure below). From 1995 to 2000, ground-water withdrawals increased by nearly 30 percent in Louisiana, while withdrawals from surface-water sources remained relatively stable and only increased by three percent. Because ground-water withdrawals only comprised 16 percent of the water used in Louisiana, total water withdrawals only increased by 6 percent between 1995 and 2000.

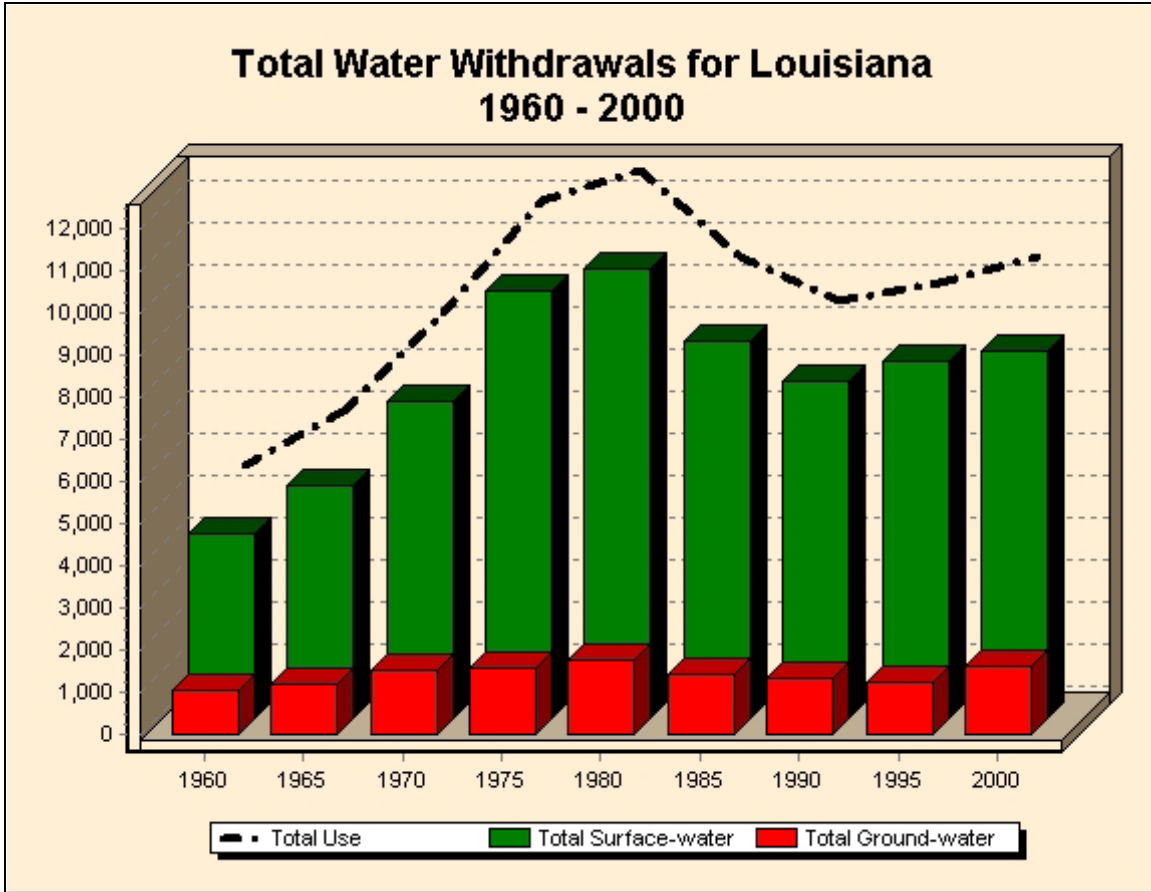


Figure 16: Total Water Withdrawals for Louisiana: 1960-2000 (USGS 2004).

In decreasing order of water demand, the following categories were the primary users of surface- and ground-water in Louisiana in 2000: power generation, industry, rice irrigation and public drinking supplies. Each of the four biggest water users consumed over 760 million gallons of water per day (Tables 3 and 4).

Table 3: Ground-water use (million gallons per day) in Louisiana between 1960 and 2000 (USGS 2006).

	1960	1970	1980	1990	2000
Aquaculture	0	0	51	219	128
General Irrigation	9	24	29	54	109
Industry	381	496	413	292	285
Livestock	12	11	10	4	6
Power Generation	0	36	47	40	28
Public Supply	93	141	266	285	354
Rice Irrigation	494	750	907	398	682
Rural Domestic	41	67	54	50	41
Total¹	1029	1524	1780	1341	1634

¹ Numbers may not add up due to rounding.

Table 4: Surface-water use (million gallons per day) in Louisiana between 1960 and 2000 (USGS 2006)

	1960	1970	1980	1990	2000
Aquaculture	0	0	101	323	115
General Irrigation	18	7	15	8	26
Industry	3705	3658	3280	2174	2398
Livestock	14	11	5	5	13
Power Generation	0	2848	5802	4910	5582
Public Supply	174	243	337	344	404
Rice Irrigation	473	777	1124	248	206
Rural Domestic	0	0	0	0	0
Total1	4385	7542	1780	8012	8743

¹ Numbers may not add up due to rounding.

Since 1960 the total demand for surface- and ground-water in Louisiana has increased by 180 percent while the population only increased by 34 percent. Similarly, withdrawals of ground-water and surface-water for public water supplies increased by approximately 17 percent between 1995 and 2000 although the state population only increased by 1.3 percent. The non-linear relationship between population growth and water consumption is expected to continue and a number of government-sponsored efforts are focused on protecting ground-water resources and ensuring sustainable use of water within each of the major aquifers. Unfortunately, protection of ground-water, which is the preferred source for drinking water, often requires increased demand on surface water. Incompatible surface water management has led to significant declines in many aquatic resources and the proliferation of reservoirs has been a source of forest loss.

In 2004, the State of Louisiana authorized spending on planning, engineering, land acquisition and/or construction of 14 new reservoirs. The proposed reservoirs range in size from 1,100 acres (Bayou Dechene) to over 34,000 acres (Castor Creek). Because many of reservoir plans are not completed, final acreage totals are not available. However, a conservative average of 5,000 surface acres per reservoir would result in the loss of at least 70,000 acres of mostly natural landscape, the majority of which will be forest. Additionally, because mitigation of lost wetland functions and values as well as lost wildlife habitat will be required for each of these projects, and the areas designated for mitigation will have little, if any, commercial timber production, upwards of 150,000 acres of managed forestland will be lost if those reservoirs are constructed.

C. Forest Fragmentation

Fragmentation of forested landscapes is caused by conversion of forest lands to other uses, such as expanding urban/suburban areas, or significant changes in forest management that creates strong differences in species composition and structure among adjacent tracts. The effects of forest fragmentation on natural landscapes are well-documented and include loss of native biodiversity, increased influence from invasive plants and animals, decreased quality of aquatic systems. Forest systems are particularly susceptible to deleterious effects of fragmentation.

Increased fragmentation of forest ownership (“parcelization”) results in disparate management of smaller and smaller blocks of forest and encourages conversion to non-forest uses. As forest block ownership size decreases, per acre management costs increase and other uses for the acreage become economically viable alternatives to forest management. Since 1952, the acreage of forestland held by individuals increased by nearly 50 percent. The 5 million private owners now control approximately 85 million acres of forestland in the South. Approximately 92 percent of the private forest landowners manage parcels less than 100 acres in size.

In 2005, there were an estimated 148,000 owners of Louisiana forestland. Private non-industrial landowners owned 62 percent of the state’s forestland, forest-products industries owned 29 percent and public agencies owned 9 percent. The average size of a Louisiana private forest ownership was 85 acres. With increased fragmentation, forest management expertise becomes a luxury, growing stock often decreases and annual harvest potential declines. Increased parcelization is a strong predictor of future forest conversion. Where increased fragmentation is the dominant pattern, gradual reduction in commercial timberland acreage is expected as is a parallel reduction in the local forest products-dependent economy.

D. Changing Timberland Ownership

Approximately 179 million acres of the forestland in the South was privately owned in 1999. Among the private owners, corporate non-industrial companies owned 16 million acres, farmers owned 39 million acres, forest industry owned 39 million acres and individuals owned 85 million acres. Approximately 21 million acres of forestland, or ten percent of the total Southern forest acreage, was owned by public resource agencies, a 15 percent increase since 1952.

Timberland ownership in the US has undergone dramatic changes over the past 5 to 10 years. Recently, timberland ownership has migrated from fully taxed, vertically integrated, industrial forest products companies to tax efficient ownership structures such as Real Estate Investment Trusts (REITs), Timber Investment Management Organizations (TIMOs), and S-Corporations. Companies without one of the advantageous taxing structures become uncompetitive for timberland acquisitions and generate relatively low returns on investment (see table below). Failure to address the reduced investment return has made many companies vulnerable to takeover proposals and growing discontent by stockholders. Many of the large industrial timber companies have opted to divest themselves of their timber base to free up capital for investment in other business units within the company or to invest in emerging timber producing regions outside of the US.

Table 5: Forest product industry performance relative to key benchmarks (Clutter et al. 2005).

	2004 Returns	Five-year Returns	Ten-year Returns
Dow Jones Industrial	+5.3%	+0.7%	+13.1%
S&P 500	+10.9%	-2.3%	+12.1%
Forest and Paper Group	+5.1%	-0.9%	+6.2%

Since 2000, over 23 million acres of industrial timberland has changed ownership in the US. Between 2000 and 2005, over 18.3 million acres of timberland transactions were consummated in the southern US alone. Over 75 percent of the forest acreage that changed hands between 1996 and 2004 originally started with a traditional vertically integrated forest products company. In 2005, only 3 of the top 10 owners of timberland in the US were traditional forest products companies: International Paper (2nd), Weyerhaeuser (3rd) and Temple-Inland (8th). Of those three, IP sold much of their land base in 2006 to a combination of TIMOs and conservation organizations, while TI recently (February 2007) announced the decision to sell their forestlands. It has been postulated that by 2008, no more than a single, publicly traded, vertically integrated, forest products company will own more than 1 million acres in the U.S.

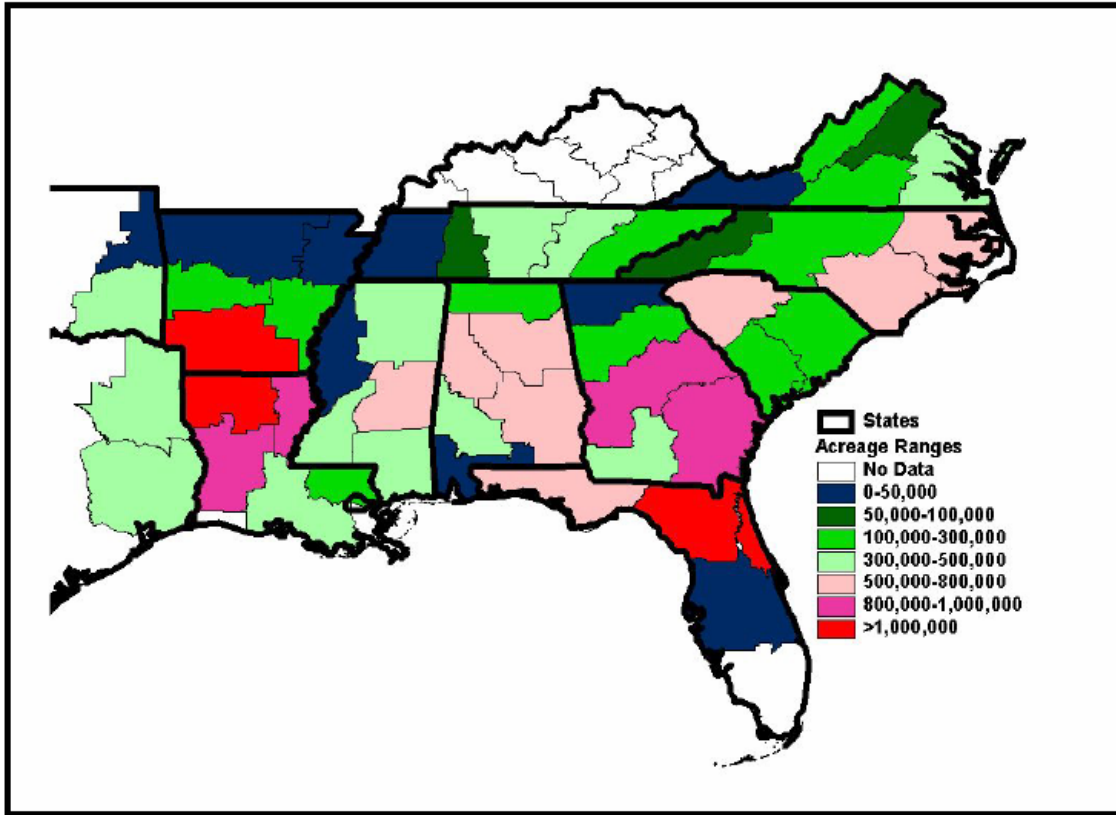


Figure 17: Thematic map depicting acres of timberland sales by state and survey unit across the south (Clutter et al. 2005).

Northern Florida, southern and central Georgia, southern Alabama, southwestern Arkansas and much of Louisiana were the focal regions for most recent forestland transactions (Figure 17). Over 4.25 million acres of timberland were sold in Louisiana between 1996 and 2006, which equates to nearly 40 percent of all privately held timberland in the state. These recent large-scale land divestitures and acquisitions have accelerated fragmentation both in terms of ownership and landscape cover.

E. Future Markets For Forest Products

Changes in timberland ownership, reallocation of industry assets, foreign competition, increased mechanization and emerging markets for US-based forest products companies have forced consolidation within the industry and have fueled a long-term decline in employment. In Louisiana, the forest industry is the state's second largest manufacturing employer and provided over 18,200 manufacturing jobs in 2004. However, that job total was down significantly from the 25,800 positions supported in 2000 due, principally, to a number of mill closures. An additional 8,000 Louisianans are employed in the harvesting and transportation sectors of the forest products industry. Maintenance of a significant working forest landscape is critical to supporting this important segment of the Louisiana economy.

The forest products industry is projected to remain strong in Louisiana as evidenced by over \$1 billion in new investment in plants and equipment between 1995 and 2005. In late 2006, Roy O Martin Lumber Company completed construction of the nation's newest OSB facility, near Oakdale, Louisiana, which is expected to produce 850 million square feet of OSB annually.

Demand for domestically produced forest products has declined in recent years due to the downturn in the domestic housing market and a general slowing of the economy as well as reduced demand for exports of US forest products. At the same time, domestic production of timber products has grown over the past decade. The combination of reduced domestic demand, reduced exports and increased production are working in concert to depress prices for forest products. Paper production in the South has declined since the late 1990's and is likely to dampen demand for pulpwood for the foreseeable future. Similarly, 2006 witnessed a decline in OSB prices of approximately 50%, which has further depressed pulpwood prices and has resulted in temporary shut-downs of several older, less efficient, Louisiana manufacturing facilities. In contrast, long-term demand for solid wood is expected to remain strong. As the forest products sector weakens, alternative uses for productive timberlands become appealing to landowners.

Globalization has been one of the most important challenges for the domestic forest products industry. Decreased barriers to free trade and development of new markets and sources of timber products have encouraged movement from "mature" markets in North America and Europe to emerging forest products markets in South America, the Pacific, Africa and elsewhere. Over the past 25 years, global forest products exports have increased by 30 percent in volume and 75 percent in value. Global population is expected to expand by an average of 1.3 percent per year for at least the next few decades and the amount of forest worldwide is expected to decline by about 0.2 percent per year (20 million acres annually). These factors would typically be expected to place upward pressure on forest product prices but are countered by an increasing trend toward plantation forestry for roundwood production worldwide.

Within the US, the South is well positioned to compete globally for a significant share of the forest products market. Access to major markets, proximity to production resources, moderate terrain, relatively high site indices, well-developed transportation infrastructure (domestic and export), generally supportive regulatory and taxing structure and strong forest management expertise all bode well for a strong future for the timber industry in the South.

Although the strong demand for Southern forest products will be incentive to maintain a significant landscape of working forests, landowners are looking for additional options to generate income from forestlands. There is growing interest in capturing the value of ecological services from forestlands that will further ensure protection and restoration of forestlands in the US. Emerging issues such as carbon sequestration, biomass energy production, biofuels, wildlife viewing and watershed protection all await development of markets to allow landowners to realize the value of some of those services currently provided to the public “free of charge.”

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VII. CURRENT FORESTLAND CONSERVATION IN LOUISIANA

A. Federal and State Forestlands

There are currently over 3 million acres of publicly owned land in Louisiana (see table below). That ownership equates to approximately 11 percent of the total state land base. In 1995, Louisiana ranked 28th in terms of percentage of land in public ownership; more recent data are not readily available. Although the primary missions of the various state and federal agencies vary, which is reflected in significant differences in primary management objectives, all agencies that manage forested tracts are committed to enhancing forest productivity and protecting biodiversity.

Table 6: Approximate acreage of land in Louisiana (includes both fee title and easements) that is managed, at least partially, to protect and enhance natural values.

AGENCY	ACREAGE
<i>Federal</i>	
Corps of Engineers	811,355
Forest Service	604,000
Fish and Wildlife Service	559,572
National Park Service	21,128
<i>State</i>	
Department of Wildlife and Fisheries	952,943
State Land Office	92,396
Louisiana National Guard	29,000
Office of State Parks	19,218
Office of Forestry	7,955
<i>Private</i>	
Land Trusts and Other Conservation Groups	49,900
Other ¹	1,190,064
Total	4,296,531

¹ Mostly private lands jointly managed by LDWF as part of the wildlife management area system

1. Federal Lands in Louisiana

The US Army Corps of Engineers (COE) owns fee title or holds conservation easements covering about 811,000 acres in Louisiana (Table 6). COE property interest is primarily focused on those lands necessary to advance water management priorities, such as lands within the Atchafalaya River guide levees and the footprint of Bayou Bodcau Reservoir. COE forest management decisions are guided by the need to a) provide forest products to the local and national economy, b) ensure sustainable forest systems, and c) to advance the mission of the local facility, and d) to protect multiple natural resource uses.

Kisatchie National Forest is committed to multiple use and the agency’s mission is to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations; recent forest management plans emphasizes restoration of natural ecosystems and endangered species but also include economic and recreation considerations. Kisatchie National Forest (KNF) is the only unit of the National Forest system in Louisiana. KNF is comprised of five ranger districts in seven parishes in central and northern Louisiana (Figure 18). KNF is administered through the Alexandria Forestry Center.

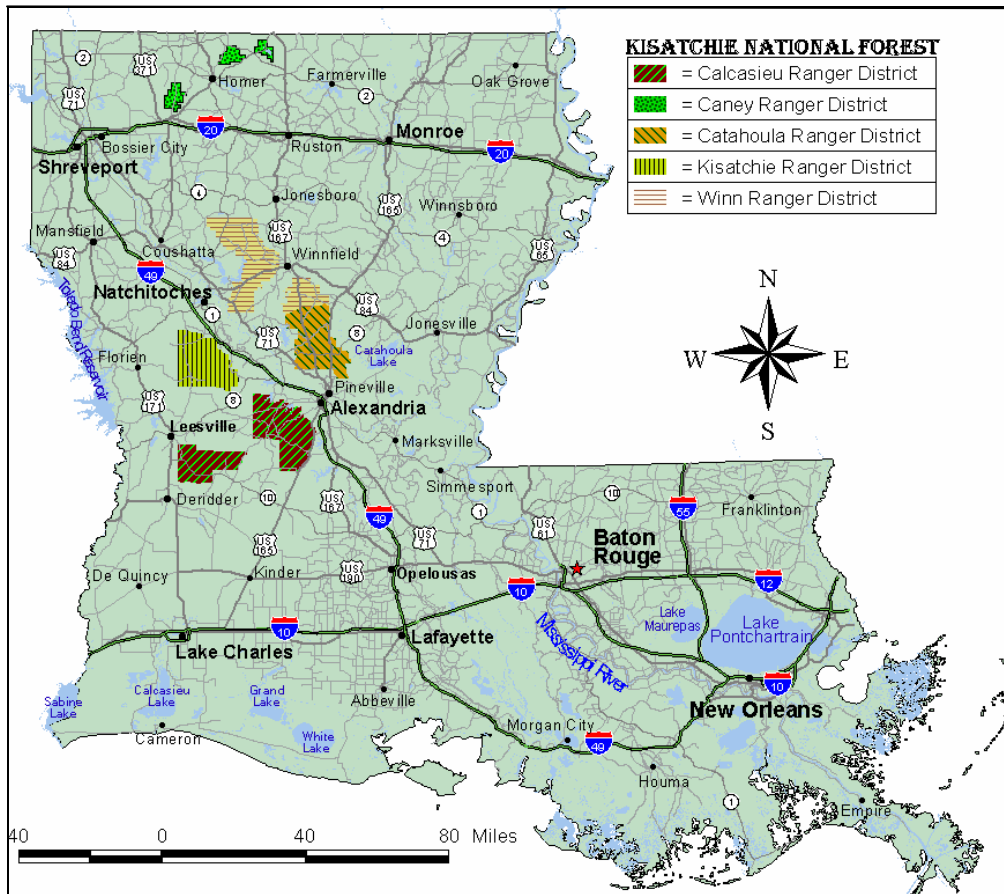


Figure 18: Location of Kisatchie National Forest districts (USDA Forest Service 2007).

The U.S. Fish and Wildlife Service owns and manages a system of 24 refuges in Louisiana that encompasses nearly 560,000 acres (Figure 19). Refuges are managed to maintain and, where appropriate, restore biological integrity, diversity, and environmental health but to also advance the mission of the Service, which includes providing recreational opportunities. Approximately 53 percent (299,360 acres) of the refuge acreage in Louisiana is within refuges that are dominated by forest cover; the remainder is mostly comprised of coastal marsh. Production of forest products is limited to those actions necessary to achieve the desired future conditions of a particular refuge unit.

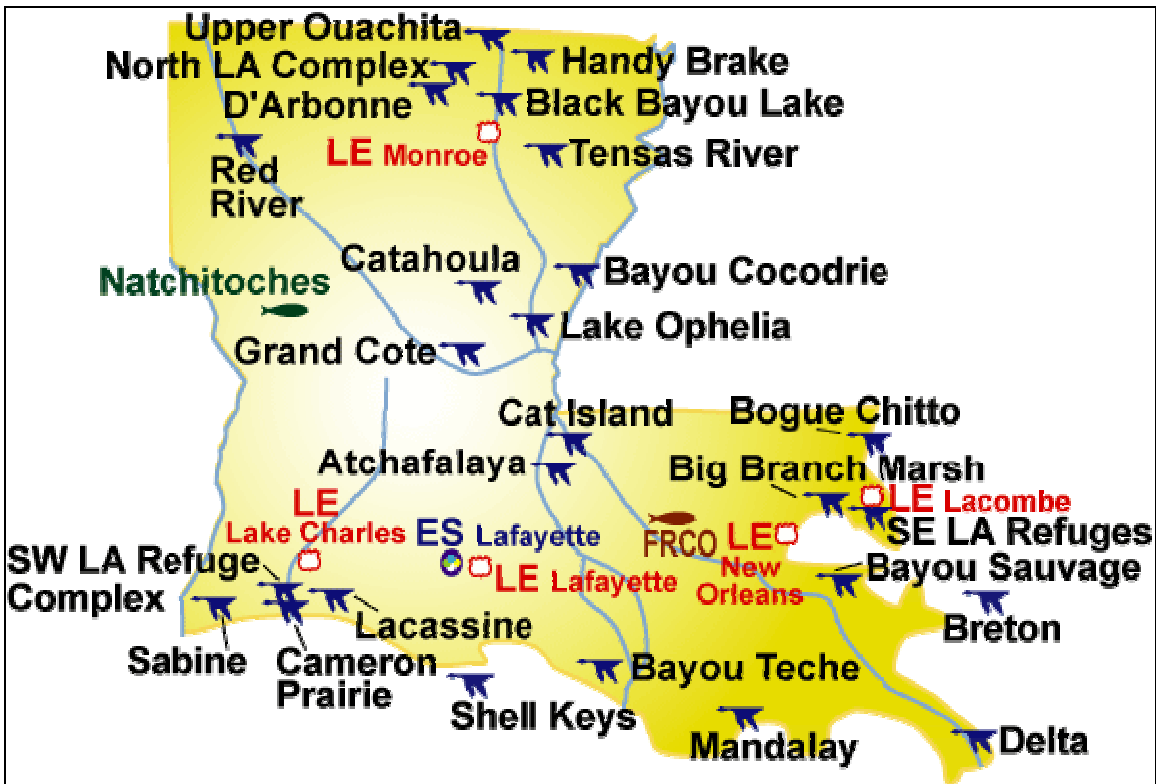


Figure 19: General location of national wildlife refuges (black), national fish hatcheries (brown/green) and law enforcement offices (red) in Louisiana (USFWS 2007).

The National Park Service operates four facilities in Louisiana and is responsible for managing a total of 21,128 acres (Table 6). At over 20,000 acres in size, Jean Lafitte National Historical Park and Preserve, in Jefferson Parish, is the single largest NPS unit in the state. The basic mission of the NPS is to preserve natural resources in an unimpaired condition for current and future generations. While forest management is a part of the overall natural resource management program of many NPS units, commodity production is only a byproduct of efforts to restore areas to desired future conditions.

2. State Lands in Louisiana

The Louisiana Department of Wildlife and Fisheries owns the largest system of conservation lands in the state. LDWF manages nearly 953,000 acres of fee title land within 61 wildlife management areas and five refuges (Table 6). An additional 1.2 million acres are owned by partners but cooperatively managed by LDWF as part of the wildlife management area system. There is at least one LDWF management unit in 49 of the state's 64 parishes (Figure 20). Of the nearly 2.2 million acres of conservation/recreation land managed by LDWF, approximately 1.7 million acres, or nearly 80%, are forested and under varying levels of forest management intensity. The goals of the LDWF forestry program are to a) conserve native flora and fauna, b) re-establish native plant communities on converted lands, c) provide recreational opportunities, d) provide forest products for local economies and e) promote education and research opportunities.

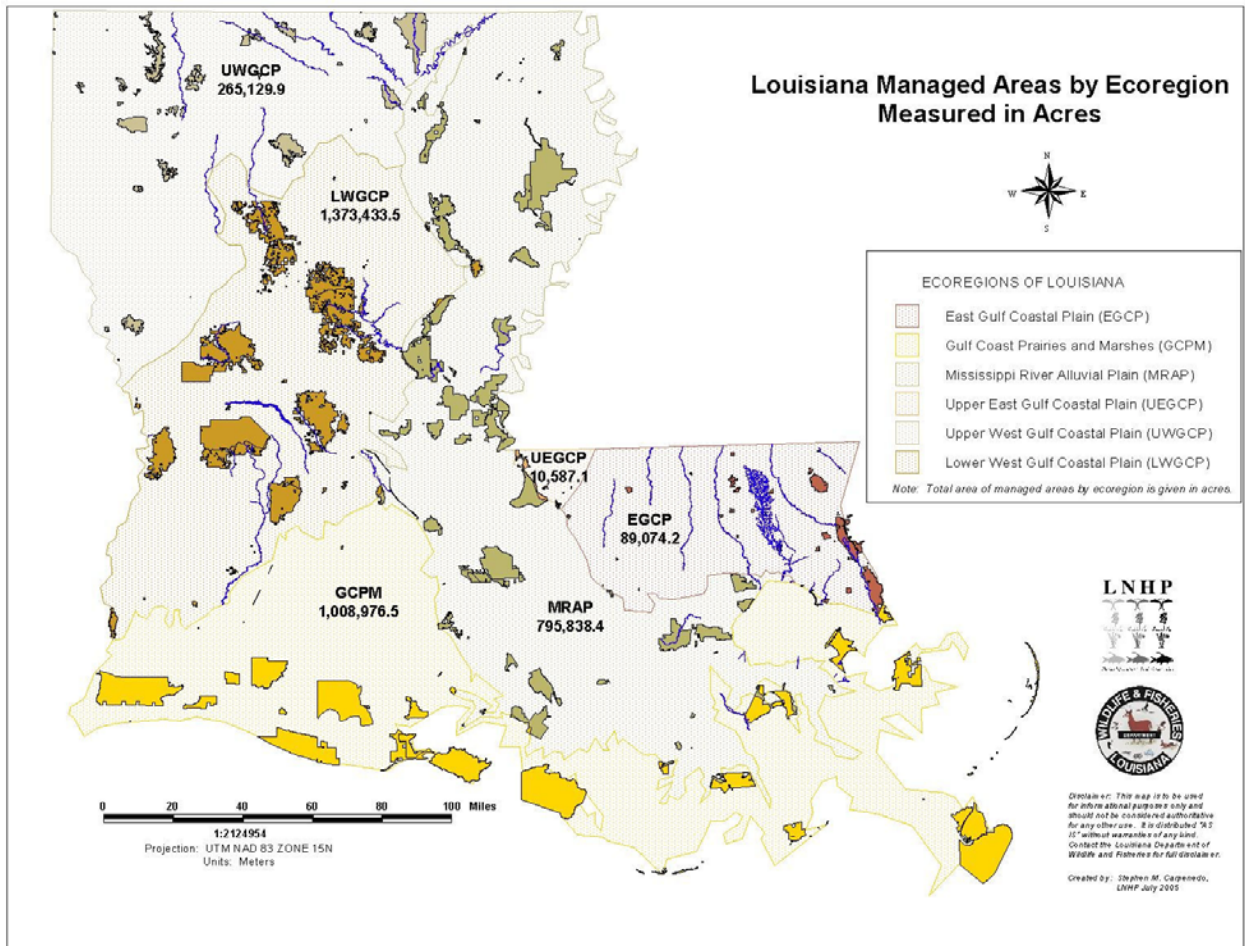


Figure 20: Location of wildlife management areas, refuges and scenic streams managed by the Louisiana Department of Wildlife and Fisheries (LDWF 2005).

Louisiana State Land Office (SLO) is responsible for managing more acreage than any public or private landowner in the state. However, of the nearly 7.5 million acres under the jurisdiction of SLO, approximately 5.5 million acres are public waters and 1.9 million acres are managed directly by one of the state’s natural resource agencies (C. Carter, pers. com. 2 April 2007). Thus, just over 92,000 acres of land are the primary responsibility of SLO (Table 6) and most of that land occurs as widely dispersed, relatively small parcels. Forest management on SLO fee lands is guided by the objective of maximizing return on timber production while considering the ecological effects of forest management and the opportunities for enhanced recreational opportunities.

Louisiana National Guard (LNG) owns and operates three principle training units: Camp Minden in Bossier Parish, Camp Beauregard in Grant and Rapides Parishes and Camp Villere in St. Tammany Parish. Combined, the three units comprise approximately 29,000 acres (Table 6). Each training unit is managed under an Integrated Natural Resource Management Plan that ensures long-term sustainability of forest resources while providing for enhanced military training. Commercial production of forest products is an important component of the forest management plans of all LNG units.

The mission of the Office of State Parks (OSP) is to protect important examples of the state’s cultural and natural heritage. Land management is oriented toward enhancing recreational and interpretive potential while protecting important natural areas. OSP operates a system of 18 parks and preservation areas and 16 historic sites (Figure 21). Approximately 20,000 acres are managed by OSP (Table 6), with only four units (Chicot, Fontainebleau, Lake Fausse Point and Sam Houston Jones) exceeding 1,000 acres in size. Commercial timber production is not a normal component of park management.

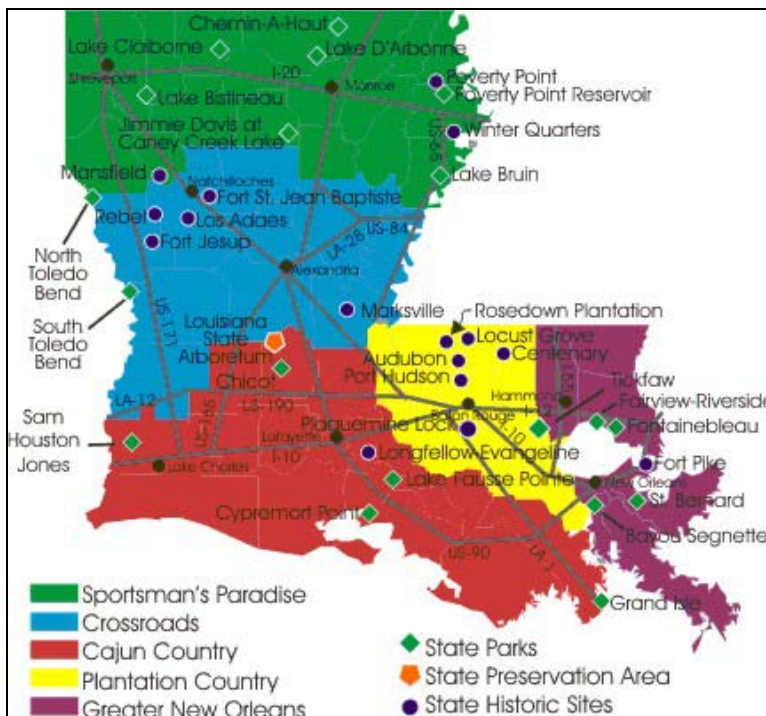


Figure 21: State Parks in Louisiana (LA Office of State Parks).

Although the Office of Forestry primarily works with private and industrial forest landowners, the agency owns and manages Alexander State Forest, which was established as a forest management demonstration area. Alexander State Forest encompasses nearly 8,000 acres (Table 6); however, approximately 2,250 acres is occupied by Indian Creek Reservoir. Alexander State Forest is managed for timber production, improved wildlife habitat, hunting and other recreational opportunities, water and soil conservation, forest management research, and habitat for endangered species.

B. Private Conservation Lands

Although there are more than 1,600 land trusts in the United States, there are only eight active in Louisiana: three national land trusts and five with local or state focus. In addition to land trusts, which focus most of their resources on conserving biologically important lands, a number of other non-profit conservation organizations, such as Ducks Unlimited, National Audubon Society and local Audubon Society chapters, own both fee title and conservation servitudes on important conservation areas statewide. Combined, land trusts and other non-profit conservation organizations own nearly 50,000 acres of fee title and conservation servitudes in Louisiana. Thus far, timber production is generally only a byproduct of management aimed at restoring natural species composition and structure. However, several land trusts are exploring options for significant conservation servitudes on large areas of working forest to serve as examples of conservation forestry and as a tool to discourage conversion of forest lands to other uses.

It is anticipated that land trusts will work closely with public agencies and private landowners to ensure successful implementation of the Louisiana Forest Legacy Program. Land trusts can provide a number of services including:

- Identifying priority tracts for consideration within the FLP.
- Negotiating conservation servitude cost and language with private landowners.
- Providing conservation capital to acquire conservation servitudes (held by the land trust or for ultimate transfer to a public agency) as part of the requisite FLP cost-share.
- Monitoring adherence to conservation servitude restrictions.
- Ensuring maximal leverage of FLP funds by identifying opportunities to partner with other funding sources.
- Participating in FLP reviews.
- Communicating FLP accomplishments to the general public and media.

C. Government Programs for Private Land Owners

The ability to leverage FLP funds by developing projects that combine resources from a number of federal, state and private sources will be critical if significant acreage of working forest landscape is to be conserved. There are many sources of matching funds for forest conservation projects and the following list is not intended to be exhaustive. However, it is presented as an example of the variety of programs available and the range of funding agencies.

1. Federal Programs

(1) Department of Agriculture, Natural Resources Conservation Service

Conservation Reserve Program (CRP): It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filterstrips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. <http://www.nrcs.usda.gov/programs/crp/>

Wetland Reserve Program (WRP): The program goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This program offers landowners an opportunity to establish long-term conservation through term or perpetual conservation servitudes. Landowners receive payments for the value of the servitude as well as for the cost of restoration. <http://www.nrcs.usda.gov/programs/wrp/>

Wildlife Habitat Incentives Program (WHIP): This program assists private landowners who want to develop and improve wildlife habitat. NRCS provides both technical assistance and up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat. WHIP agreements between NRCS and the participant generally last from 5 to 10 years from the date the agreement is signed. <http://www.nrcs.usda.gov/programs/whip/>

(2) Department of Agriculture, Forest Service

Forest Stewardship Program (FSP): The primary focus of this program is to develop comprehensive, multi-resource management plans for private landowners. This is not a cost share program. <http://www.fs.fed.us/spf/coop/programs/loa/fsp.shtml>

Forest Land Enhancement Program (FLEP): This program provides technical, educational and cost-share assistance to non-industrial private forest landowners to promote forest sustainability. Allocation of FLEP funds is determined by individual State Forest Stewardship Coordinating Committees. <http://www.fs.fed.us/spf/coop/programs/loa/flep.shtml>

Healthy Forests Reserve Program (HFRP): Restoration and enhancement of forested ecosystems to a) promote recovery of threatened and endangered species, b) improve biodiversity and c) enhance carbon sequestration are the primary focal areas of this program. Landowners may enroll in 10-year cost share agreements or term conservation servitudes of up to 99 years. <http://www.nrcs.usda.gov/programs/HFRP/ProgInfo/Index.html>

(3) Department of the Interior, Fish and Wildlife Service

Landowner Incentive Program (LIP): This program provides technical and financial assistance to private landowners interested in enhancement of their lands for the benefit of at-risk species. Funding is passed through the appropriate state agency and the non-federal partners must contribute at least 25% of the cost for restoration activities and the value of a conservation servitude. <http://federalasst.fws.gov/lip/lip.html>

Partners for Fish and Wildlife Program (Partners Program): Provides private landowners with technical and financial assistance to conserve or restore native habitats that benefit rare, declining or protected species. <http://ecos.fws.gov/partners/viewContent.do?viewPage=home>

2. State Programs

(1) Office of Forestry

Woodland Assistance Program: Provides technical support and planning for all facets of forest management on private land. <http://www.ldaf.state.la.us/divisions/forestry>

Forestry Productivity Program: Provides a 50% cost share, up to a maximum of \$10,000 per year, to private landowners to assist with costs for site preparation, planting, and control of competing vegetation. <http://www.ldaf.state.la.us/divisions/forestry>

Forest Stewardship Program: The goal of this program is to assist private forest landowners to more actively manage forest resources to maintain forest productivity and health, and to increase social, economic and environmental benefits of forest lands. This program encourages increased coordination on the part of federal, state and private

agencies to assist private, non-industrial forest landowners. <http://www.ldaf.state.la.us/divisions/forestry>

(2) *Department of Wildlife and Fisheries*

Public Assistance for Landowners: LDWF staff provide technical assistance to landowners through a variety of programs such as the Deer Management Assistance Program, Forestry Stewardship Program, Scenic Rivers Program and Natural Areas Registry Program. LDWF has limited state and federal funds to provide cost-share assistance to landowners and may also accept conservation servitudes on lands that provide significant biodiversity benefits. <http://www.wlf.louisiana.gov/publicservices/landownerassistance/>

Wildlife Management Areas: The Wildlife and Fisheries Commission offers property tax benefits to landowners who sign contracts with the state to use land as a wildlife management area. If lands are dedicated to the establishment of a wildlife management area for at least 25 years, the landowner may be relieved of all state, parish, and district taxes. <http://www.wlf.louisiana.gov>

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VIII. FOREST LEGACY PROGRAM GOALS FOR LOUISIANA

The preceding sections have shown the significant contributions forests make to the state of Louisiana as well as the current cultural trends that are threatening the vitality of the forests in the state. The benefits provided by Louisiana forests include:

- The economic importance of the Louisiana forest industry
- Enhanced water quality and quantity
- Habitat Diversity
- Recreation
- Eco-tourism and economic development
- Carbon sequestration and air quality

Current cultural changes affecting forest sustainability in Louisiana include:

- Population growth
- Water resource demand
- Forest fragmentation
- Changing timberland ownership
- Global markets

Based on the benefits Louisiana forests provide as well as the threats they currently face, the SFSCC has identified **four overall goals** of the FLP in Louisiana. They are to:

1. Protect Louisiana's forests for *future generations* by
 - Protecting privately owned forest land threatened by conversion to non-forest uses
 - Protecting large contiguous and productive forest blocks
 - Reducing forest fragmentation and parceling of ownerships
2. Maintain and enhance Louisiana's *forest productivity* by
 - Protecting forest land for future wood production and wildlife habitat
 - Encouraging active and sustainable forest management
 - Promoting sound forest stewardship and best management practices
3. Maintain and restore *natural ecosystem functions* of Louisiana's forests by
 - Providing riparian zone, wetland, and watershed protection
 - Protecting habitat diversity
 - Protecting rare, threatened and endangered species
4. Preserve the *economic and cultural vitality* of Louisiana's rural communities by
 - Maintaining opportunities for continuing traditional forest uses
 - Providing fair compensation for foregone property rights
 - Promoting diversity of markets for forest landowners

The state lead agency will prioritize FLP projects using the following criteria:

- *Degree of Threat* – Priority will be given to projects on properties that have proof of a high degree of threat of development or parcelization.
- *Forest Resource Economic Benefits* – Priority will be given to properties that are likely to have significant forest resource economic benefits.
- *Public Benefits* – Priority will be given to properties that are likely to have direct and indirect scenic and/or outdoor recreation benefits.
- *Water Quality and Watershed Protection* – Priority will be given to properties that are likely to have significant water quality and watershed protection benefits.
- *Ecological/Cultural benefits* – Priority will be given to properties that are likely to have significant ecological, cultural, and environmental education benefits.
- *Proof of Readiness* – Priority will be given to projects that have community support, identified matching funds and partnership involvement.
- *Strategic Initiative* – Priority will be given to projects that fit within a larger conservation plan, strategy, or initiative, connect to or lead to additional conservation investments in the region.

IX. FOREST LEGACY AREA

A. Legacy Area Selection Process

Under National FLP Guidelines, criteria for FLAs should be based upon the FLP purpose to protect environmentally important forest areas that are threatened by conversion to nonforest uses and be further developed through the AON. FLA boundaries must encompass forestlands with significant environmental and other resource based values.

To identify eligibility criteria for defining Louisiana's FLA, input from the SFSCC was solicited via a meeting in February 2006 and a subsequent input survey. In the survey, respondents were asked to identify important factors in determining Louisiana's FLA and to delineate suggested areas on a map. These results indicated that the following criteria are considered most important in Louisiana for defining the state's FLA:

- Large and contiguous blocks of productive forest land
- Water quality / watershed protection
- Unique ecological areas
- Wildlife habitat and diversity
- Degree of threat from development
- Potential to reduce urban sprawl

Selection of the Louisiana FLA was based on the above criteria, taking into account the SFSCC suggestions received as well as the information presented in previous chapters. The Louisiana FLA is located in the southeastern portion of the state and comprises an area known as the "Florida Parishes", specifically Ascension, East Baton Rouge, East Feliciana, Livingston, St. Helena, St. Tammany, Tangipahoa, Washington, and West Feliciana Parishes (Figure 22).

This area has traditionally been forested, with a number of forest products manufacturing facilities and rural forest-dependent economies. These nine parishes encompass approximately 3,444,000 acres, including 2,048,000 acres of timberland. Of this timberland, approximately 1,947,000 acres or 95% is privately owned. The area contains over 3 billion cubic feet of timber growing stock, with softwoods and hardwoods representing 45% and 55% of the total, respectively.

Geologically speaking, this area roughly comprises the Pleistocene Terraces in Louisiana east of the Mississippi River. It contains portions of two ecoregions, East Gulf Coastal Plain and Upper East Gulf Coastal Plain, and is an area of high ecological value and scenic beauty. The Louisiana Natural Heritage Program contends that the natural habitats in this area are among the most threatened in Louisiana and the Southeast, and estimates that less than 5% of the original wet longleaf pine forests remain. Because of habitat loss and the fact that many eastern species reach the western limit of their range in the Florida Parishes, this region supports more rare, threatened or endangered species of animals and

plants than any other Louisiana region. Approximately 35 species of animals and 75 species of plants require conservation attention in this region.

The Florida Parishes contain 19 of the state's 62 designated Scenic Rivers. The freshwater aquatic systems of the East Gulf Coastal Plain, including the Pearl River, are among the most significant and at-risk aquatic biodiversity resources in North America, particularly for fish and mussel species.

However, the Florida Parishes are well known to have been experiencing the most rapid population growth in the state for a number of years. In particular, between 2000 and 2005, the parishes of Ascension, Livingston, and St. Tammany all experienced population increases of over 15%. An additional population influx was absorbed into this area since 2005 due to residents displaced by Hurricanes Katrina and Rita. The resulting urban sprawl and forest parcelization have placed ever-increasing pressure on the working forest landscape in this area.

Additional threats to working forests in this area include water resource demands, changes in timberland ownership, and globalization of forest markets.

Based on this area's existing forest resources, its high ecological value, and the high level of threat to its forests, the FLA is considered the prime area for application of Forest Legacy funds in Louisiana.

B. Forest Legacy Area Boundary

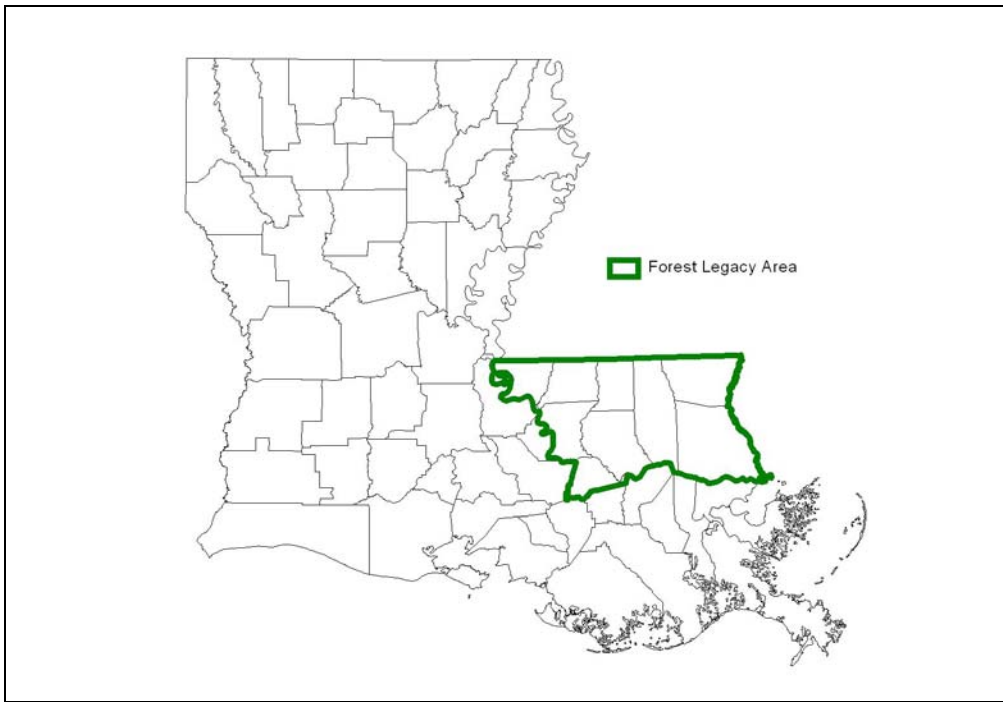


Figure 22: Forest Legacy Area for Louisiana.

C. References

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X. IMPLEMENTATION OF THE FOREST LEGACY PROGRAM IN LOUISIANA

A. National Forest Legacy Program Administration

The FLP is administered by the United States Department of Agriculture – Forest Service (USFS). Louisiana is located in USFS Region 8, headquartered in Atlanta, GA. Louisiana is one of three states currently in the FLP planning process (Figure 24).

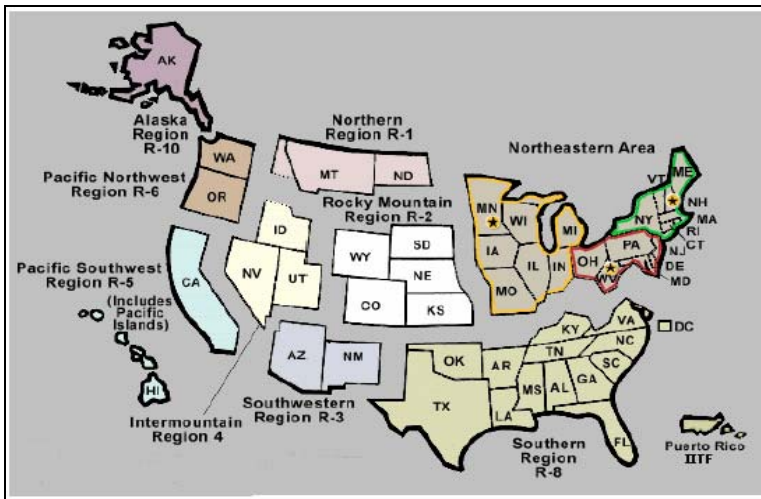


Figure 23: USDA Forest Service Regions (USDA Forest Service).

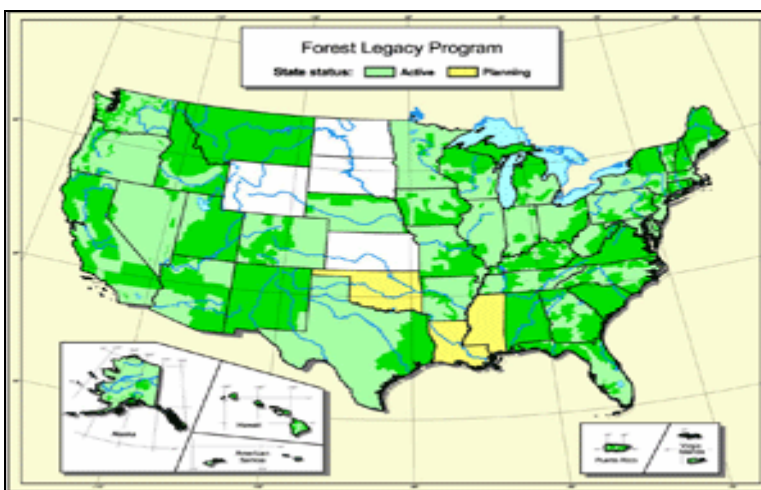


Figure 24: States participating in Forest Legacy Program as of 2006 (USDA Forest Service)

A complete version of the FLP process can be found in the “Forest Legacy Program National Implementation Guidelines”, available on the USFS website at http://www.fs.fed.us/spf/coop/library/2003_fpl_guidelines.pdf . Following is a summary of how the FLP program guidelines will be implemented in Louisiana.

B. LOUISIANA FOREST LEGACY PROGRAM PROCESS

Governor Mike Foster signed a letter to USFS in 2005 requesting that Louisiana join the FLP and that LDAF serve as the state lead agency for the FLP in Louisiana. Louisiana will enter into the FLP under the State Grant Program Option. With the State Grant Program option, a state elects to obtain ownership of lands or ownership of interests in lands and those interests are vested in a State or subdivision of a State.

1. State Forest Stewardship Coordinating Committee (SFSCC)

The Cooperative Forestry Assistance Act, as amended by the 1990 & 1996 Farm Bills states that after a governor has requested entrance into the FLP, the SFSCC must convene in order to guide the FLP in that state.

The SFSCC is chaired and administered by the State Forester with membership composed of representatives from the following agencies, organizations, or individuals: USFS; Natural Resources Conservation Service; Farm Services Agency; Cooperative State Research, Education, and Extension Service; local government; consulting foresters; environmental organizations; forest products industry; forest land owners; land trusts; conservation organizations; the State fish and wildlife agency; and others determined appropriate.

The SFSCC makes recommendations to the State lead agency regarding FLP implementation. This committee establishes eligibility criteria for the designation of forest areas from which lands may be entered into the FLP and subsequently selects such appropriate areas.

The SFSCC will cooperatively review applications with LDAF and establish the state’s easement acquisition priorities as well as continue with landowner consultation. LDAF, with involvement from the SFSCC and USFS will review property owner applications, prioritize tracts, obtain state approval, and submit properties to USFS Region 8 for approval. Upon request from the state lead agency, the SFSCC can undertake additional responsibilities if agreed to by the committee.

2. Development of the AON

The AON is a document produced by a state or a federally recognized Indian Tribe in consultation with the SFSCC. The AON process is intended to:

- Describe the current condition of the forest land in the state
- Describe the forest land use changes and threats
- Document the need for the program in the state
- Determine overall goals and priorities for the program in the state
- Determine eligibility criteria for Legacy Areas in the state
- Delineate boundaries around areas with the most need for the program
- Describe how the program will be implemented in the state within those areas
- Describe evaluation criteria and process that will be used in project selection
- Seek and document public input regarding the above determinations

This AON was prepared by The Nature Conservancy per a contract with LDAF, in consultation with the SFSCC for submission to USFS. The AON must be approved by USFS prior to release of the project funds. The AON may only be amended upon approval by LDAF, SFSCC, and USFS.

To initiate the AON process, the FLP was introduced to the SFSCC during the Committee's February 2006 meeting. This meeting provided an opportunity for SFSCC members to become familiar with the FLP, learn about the AON process, and understand the Committee's responsibilities for FLP program implementation.

Subsequently a survey was sent to the 26 members of the SFSCC, representing a broad cross-section of stakeholders and diverse interests in forestry. Respondents were asked to rank overall goals and criteria for project selection, select public input venue styles and locations, and delineate on a Louisiana map the areas they would like to consider for inclusion in a FLA. Survey choices were derived by combining all goals, priorities, and eligibility criteria of all the other states that have participated in the FLP. Of the 26 surveys mailed, eight responses were received. A copy of this initial survey can be found in "Appendix A – Public Input Surveys". Original copies of survey responses are on file at LDAF Office of Forestry, 5825 Florida Blvd, Baton Rouge, LA 70806.

A draft AON outline and initial list of references was submitted to LDAF in January 2007. The draft AON was developed on the basis of existing published data, SFSCC surveys, conservation organization documentation, and considerable local knowledge. All relevant sources are documented but will not appear as citations for readability considerations. The draft AON was submitted to LDAF in April 2007.

Following the public input process (described in more detail in the next section), the draft AON was revised to incorporate comments received, public meeting activities, and program promotion efforts. The final AON was submitted to LDAF in August 2007.

3. Public Input Process

Public acceptance and input is crucial to the development of the AON and establishment of the FLP in Louisiana. Efforts were made to inform as broad a base of interested stakeholders as possible about the program and the AON. A web page link about the FLP was posted to LDAF website at <http://www.ldaf.state.la.us>. This site included general information about the FLP and a downloadable copy of the Draft AON. The site encouraged interested parties to submit comments by mail, email, fax or phone.

Public Input Meetings were conducted to introduce the FLP, share information and conclusions from the Draft AON, assess the public's opinion about the criteria for selection of the FLA, obtain reactions to the FLA chosen to be included in the program, and to give the public some background on how the program would be implemented in Louisiana.

The meetings were advertised in several ways:

- The LDAF website
- LDAF Press Release to media outlets; ten newspapers in the FLA and major metropolitan areas around the state were contacted, two of which accepted the press release for publication
- Inclusion in the Society of American Foresters and Louisiana Forestry Association newsletters
- Individual letters to members of the SFSCC
- Email contacts to key representatives of the conservation community in the FLA
- LSU AgCenter landowner mailings in the FLA
- Word of mouth to interested parties by the SFSCC, LDAF, The Nature Conservancy, and others.

The meetings were held in Hammond, LA on July 18, 2007 and in Alexandria, LA on July 25, 2007. The two meeting locations were chosen to include one within the FLA (Hammond) and another centrally located within the timber-producing region outside the FLA (Alexandria). The meetings were held on weekday evenings to achieve best attendance. Comment forms were distributed, and attendees were encouraged to submit comments both at the meeting and later by mail, email, phone, or fax. See "Appendix B – Public Comment Form" for an example of the form distributed.

Twenty individuals attended the Hammond meeting, and ten attended the Alexandria meeting. Public input received at these meetings and via other means was universally supportive of the FLP in Louisiana. There was general agreement that the draft AON adequately describes the state's forest condition and trends, that the proposed FLA and project evaluation criteria are reasonable, that the proposed implementation plan meets the needs of Louisiana stakeholders.

Additional input received outside the meetings included a letter of support from Louisiana Forestry Association, email responses from conservation interests, and

numerous phone calls from landowners inquiring about the program. This information, along with lists of public meeting attendees and questions raised at the meetings, are on file at LDAF Office of Forestry, 5825 Florida Blvd, Baton Rouge, LA 70806.

4. Program Promotion

Promotion of Louisiana's FLP will be critical to inform landowners of the opportunity provided by the program. Promotion of the FLP may include:

- Information regarding the FLP posted on the state lead agency's website, <http://www.ldaf.state.la.us>, including general information, the project application and submission process, and a downloadable copy of the AON
- Articles and press releases in local papers throughout the FLA
- Dissemination of information by county agents and foresters in the FLA

An effort will also be made to inform interested groups and organizations through presentations at regularly scheduled meetings, and by available media outlets such as:

- Society of American Foresters local, state, and national meetings
- Parish Landowner Association meetings
- Forester Training Workshops
- Local community association meetings
- Chamber of Commerce meetings

Additionally, other state agencies and nongovernmental organizations will assist in the promotion of the FLP in Louisiana.

Please see "Appendix C – Media" for copies of press releases and other program promotional efforts conducted during the AON process.

5. Project Submission Process

The FLP offers private forest land owners the option of voluntarily utilizing conservation easements as a tool to help keep working forest lands as a part of Louisiana's future environment and economy. Through conservation easements that require forest stewardship management plans, landowners can be assured of retaining the right to earn income from their forests, control access, and help maintain local forest economies while protecting forestland from conversion to non-forest uses.

All FLP acquisitions of lands or interests in land shall be made in accordance with Federal appraisal and acquisition standards and procedures. The acquired interests in lands entered into the FLP shall be adequate for FLP purposes and be perpetual. These interests in lands will be managed and administered for goals consistent with FLP conservation purposes declared in the AON by the state lead agency. Except for special situations requiring written agreements with partnering state agencies, LDAF will be

responsible for all monitoring and management of conservation easements on land that has entered into the FLP to which the agency holds title. Interests in land located within a FLA and simultaneously within other Federal boundaries (e.g. national forest, national park, or national wildlife refuge) are eligible for the FLP provided that the responsible Federal agency concurs with the FLP state acquisition. If Louisiana passes legislation that extinguishes claims to or restrictions on real property, the state shall use all available authorities, including that of acting as an agent of the U.S., to achieve the purposes of the Cooperative Forestry Assistance Act.

It is preferred by LDAF that the state lead agency, LDAF, only hold interests in lands in the form of title to conservation easements rather than ownership of land. In special situations, it will be at the discretion of the State Forester as to whether or not the state will utilize FLP funding to make fee simple purchases with FLP funding through this State Grant Option.

It is also preferred by LDAF that the state lead agency, LDAF, act as the sole titleholder of lands or interests in lands that enter into the FLP. However, at the discretion of the State Forester, other state government entities may either hold title to conservation easements or be allowed to own land that has entered into the FLP. Should this occur, it would be expected that the partnering entity will be responsible for monitoring and enforcement of the easement and language in the easement title will define and reflect these agreements. Again, at the discretion of the State Forester, should the partnering state government entity be allowed to make a fee purchase acquisition of land through the FLP, the partnering entity will be responsible for following the guidelines set forth by the FLP as well as the State's AON.

If the AON is approved by USFS and Louisiana becomes enrolled in the FLP, projects would be selected and funded on a voluntary and competitive basis. Interested landowners would submit a non-binding application that gives pertinent information on the property's resources and expected value. An example project application can be found in "Appendix D – Project Application".

A State approved Forest Stewardship Management Plan must be in place at the time of the closing. Language in the easement will refer to the plan and will require that the plan be reviewed every 5 years. Sample Content for a Forest Stewardship Management Plan can be found in "Appendix E – Stewardship Plans."

If the landowner intends to reserve rights to forestry uses or other resource management activities, it is not a requirement of the FLP at this time for the landowner to seek third party Forest Management Certification. However, projects meeting third party certification will more likely rank higher in the project selection process at both the state and national levels as this certification shows the landowner's commitment to sustainable forest management. It also publicly demonstrates dedication for management practices that meet standards considered to be environmentally appropriate, socially beneficial, and economically viable. For more information on Forest Certification, please also refer to

the Pinchot Institute for Conservation's August 2003 Guidebook for Forest Management Certification on Private Forestlands in the U.S. by Naureen Rana et al.

Under Federal land acquisition requirements, an independent appraisal of the real property or interests in real property in the form of conservation easement must be completed and reviewed. The landowner must be informed of the outcome of that process. Minimum requirements for a qualified Appraiser can be found in "Appendix F – Appraisal Requirements."

The FLP requires 25% non-federal matching funds for all projects. This requirement can be satisfied in a number of ways, including matching acquisition funds from state, local or private sources or landowner donation of a portion of the value. Alternatively complementary activities may also qualify, such as the acquisition or donation of property or interests in property nearby.

When requesting cost share funding for projects, the Cooperative Forestry Assistance Act directs that the maximum federal contribution for total program costs may not exceed 75 percent. To assure program-wide cost share goals are met, each project budget must include a minimum non-federal contribution of 25 percent.

Equation for Calculating Cost Share Requirement:

(Federal FLP Share) X (0.333) = the minimum Non-Federal Contribution

OR

(Total Project Costs) X (0.75) = the maximum Federal Contribution

The following principles should be used to guide calculating the cost-share requirements:

- To calculate the cost share requirement, the Program Manager should use the federal FLP contribution, and not the total project costs.
- The cost share requirement should be at least 33.3% of the total federal FLP contribution towards the project, which will equal at least 25% of the total FLP project (federal FLP contribution plus cost share).
- The federal contribution (USFS's FLP plus all other federal contributions) cannot exceed 75% of the total project costs (all cost requirements to complete the project, including federal and non-federal contributions).
- The non-federal cost share portion cannot be used as cost share for another federal program that also requires a cost share.

This non-federal cost share must meet FLP purposes. It may consist of:

- The value of land, or interest in land, dedicated to the FLP that is not paid for by the federal government.
- Non-federal costs associated with program implementation.
- Other non-federal costs associated with a grant or other agreement that meets FLP purpose.

The nonfederal cost share must be documented, and in the case of a grant, must meet the timing, terms, and conditions of the grant. The cost share can occur at any phase of the FLP including planning, developing future projects, acquisition, capital improvement, management, or administrative activities. When a grant is involved, the cost share must occur within the life of a grant and meet all grant requirements. Federal requirements identify the grant period as beginning when the grant is formally awarded and ends after two years to ensure that the federal funds are spent promptly.

Donations of land or interests in land must be documented to count as part of the non-federal cost share. The title does not need to be transferred to the state or federal government in order for the donation to qualify as cost share.

Project funds are those used to directly purchase lands or interests in land joining the FLP. Project funds may be expended by the state lead agency or USFS, as applicable, to cover transaction costs, including but not limited to: appraisals and appraisal review, land surveys, closing costs, establishing baseline information, title work, purchase of title insurance, conservation easement drafting, and other real estate transaction expenses for those tracts. Project funds may also be expended to facilitate donations of land or interests in lands to a qualified and willing donor for FLP purposes, by paying for expenses directly related to the donation, including but not limited to, land surveys, conservation easement drafting, title work, and establishing baseline information. For an outright donation of a conservation easement or land, FLP program funds may not be used to pay for an appraisal.

USFS will conduct a project selection process to arrive at a prioritized national project list for consideration in the President's budget for the upcoming fiscal year. The project selection process and calendar of due date milestones are developed in consultation with the USFS Washington Office, USFS Region 8, and LDAF.

For the initial year of Louisiana FLP implementation only (2007), project proposals will be accepted until September 1, 2007. In subsequent years, project proposals will be accepted from January 1 to June 1. Once a year during August and September the SFSCC will review applications and rank projects based on their ability to satisfy the objectives of the program. Louisiana's proposed projects would then be evaluated against other projects in the USFS Southern Region and then nationally. Should the national process timeline change, the lead agency will adjust the timeline for submission accordingly.

The FLP has been funded at \$50-90 million for the past three years, with 30 to 55 projects funded annually. It is usually at least a year between submittal of a project and funding becoming available. For example, a project submitted in September 2007 would be part of a national ranking process completed in January 2008 for inclusion in the FY2009 President's budget proposal, which would typically be reviewed by the House and Senate Appropriations Committees for a final budget approval in September 2008, with actual funds available shortly thereafter. USFS may have minimal program

administration funds available for costs of surveys and appraisals. See below for a sample timeline for project selection.

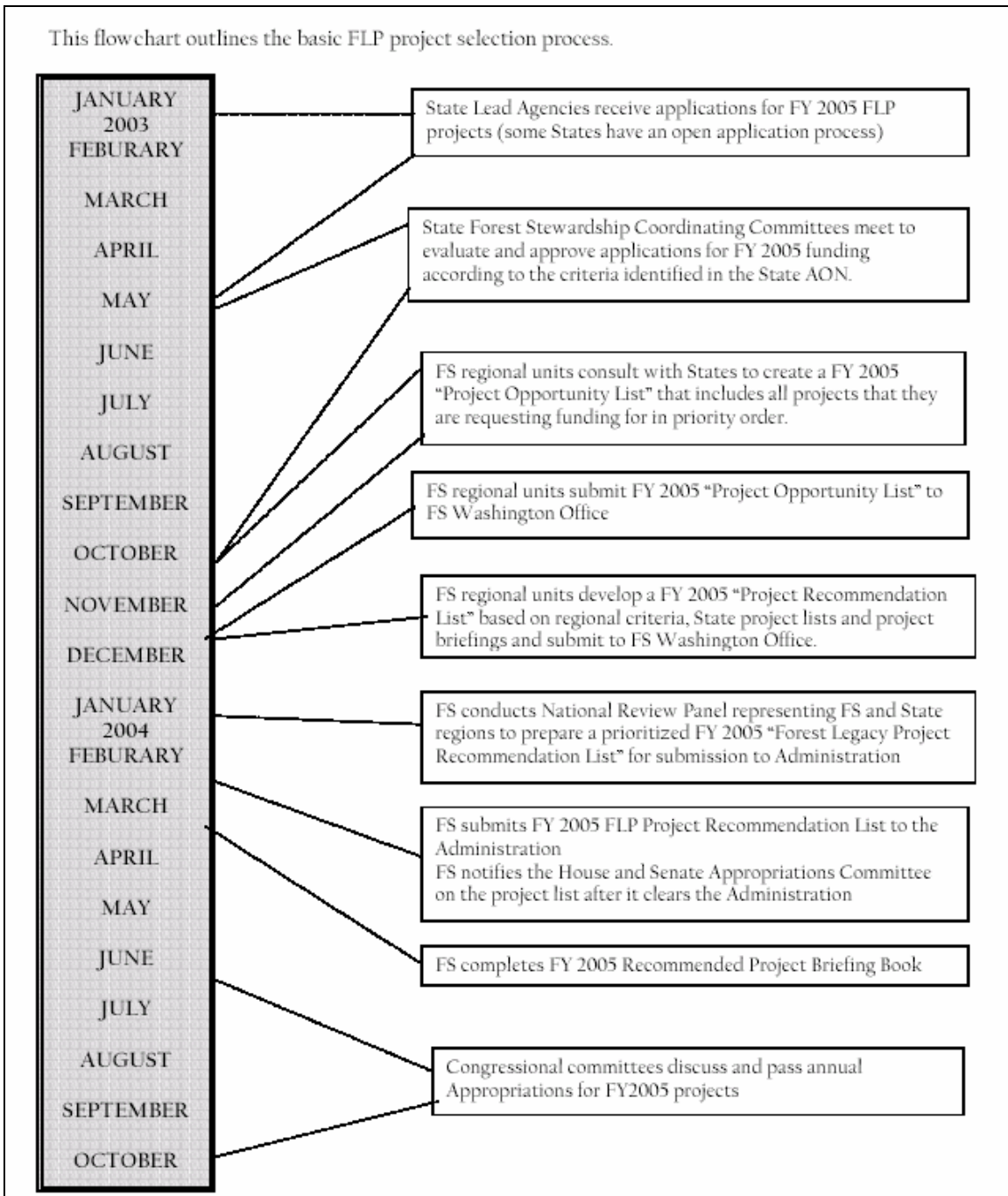


Figure 25: Sample timeline for FLP project selection (USDA Forest Service)

6. Project Selection Process

Projects can be submitted to LDAF by September 1, 2007, and from January 1 to June 1 thereafter, through a periodic request process. During August and September, the SFSCC will meet and review the projects. Projects will be selected competitively in September using an evaluation process on the basis of meeting the five requirements outlined below and the seven criteria derived from the four overall priority goals for the FLP in Louisiana.

Following the outcome of a matrix model evaluation process and a possible on-site visit and interview with the landowner, approval from the State Forester will be required. Selected projects will then be submitted by LDAF to USFS Region 8 in Atlanta, Georgia. Contact individuals for those projects that are not submitted to the USFS region will be notified by the end of December and may resubmit the project proposal the following year. Once the projects are submitted to USFS Region 8, they will again be competitively evaluated using a similar matrix model evaluation process at both USFS regional and national levels.

There will be a review of all projects by USFS and submittal of recommended projects to Congress as part of the President's budget request. After congressional appropriations are decided, there will be a preparation of the transaction (agreeing on conservation easement terms and purchase price) and then completion of the transaction (recording of deeds, payment to landowner).

A LDAF staff person or SFSCC member will be responsible for communicating with interested landowners and assisting them in understanding the program, the likelihood of their project being funded, deciding whether or not to apply, and completing the necessary application materials (although it is recommended that landowners seek legal counsel while reviewing conservation easement language, surveys, appraisals, and negotiations, etc). Projects that meet federal requirements for pass-through projects (e.g., projects where a non-profit land trust purchases and holds properties or easements on a temporary basis prior to state acquisition) may be considered under the Louisiana FLP.

7. Project Evaluation Criteria

As reflected on the Louisiana FLP Application Form, National FLP Guidelines require that a project meets each of the following five requirements:

1. Willing Landowner: Written expression of interest must be received from the landowner.
2. Financial Leverage: At least 25% of the project costs must be secured from nonfederal cash or in-kind sources and project development including the preferred time line for transaction completion is clearly stated.

3. Proof of Clear Title: Proof of a clear title and any description of outstanding rights. Landowners must either own subsurface rights or have formal assurance that major surface disruption is not possible.
4. Forest Legacy Area Inclusion: The proposed property boundary must lie, at least in part, within the defined FLA.
5. Assessment of Need Guidelines Met: Conservation easement terms must be clearly consistent with FLP guidelines including the landowner's commitment to comply with a Forest Stewardship Management Plan.

8. Project Priority Criteria

LDAF and the SFSCC will evaluate potential projects on the basis of the following evaluation criteria. Based on the four overall priority goals for the FLP in Louisiana and in alignment with the Louisiana FLP Application, each criterion will be assigned a point value.

1. Degree of threat: Priority will be given to properties that have a high degree of threat of development or parcelization. This will be assessed through desirability of location, site suitability for development, road frontage, access to utilities, and growth dynamics of the area.
2. Forest resource economic benefits: Priority will be given to properties that are likely to have significant forest resource economic benefits. This will be assessed through forest and soil productivity, size of parcel, site index, history and objectives of forest management, forest conditions (stocking, maturity, etc.), condition of road system, BMP compliance, access to markets, and likelihood of future forestry in landscape.
3. Public benefits: Priority will be given to properties that are likely to have direct and indirect scenic and/or outdoor recreation benefits. This will be assessed through access rights conveyed (if any), important scenic resources, viewshed benefits, proximity or adjacency to public land, trails or waters, and other community economic benefits.
4. Water quality and watershed protection: Priority will be given to properties that are likely to have significant water quality and watershed protection benefits. This will be assessed through importance of watershed for aquatic biodiversity, presence of high quality streams, wetland and riparian resources, benefits to municipal water recharge areas, and nearness to municipal water sources.
5. Ecological/Cultural benefits: Priority will be given to properties that are likely to have significant ecological benefits. This will be assessed through presence of rare or important forest types (e.g., old growth, unique, or restorative forests), important wildlife habitats or benefits, and proximity to ecologically important areas. Priority will be given to properties or projects that have historical or cultural resources that provide for forestry and/or environmental educational opportunities and/or provide for important values not adequately represented in the other criteria.

6. Proof of Readiness: Priority will be given to projects that have community support, identified matching funds, partnerships involved, donations that exceed the 25% cost-share match, forest stewardship plans written, and monitoring enforcement plans in place.

7. Strategic Initiative: Priority will be given to projects that fit within a larger conservation plan, strategy, or initiative, that are connective to previously protected lands or water corridors, and that will lead to additional conservation action or investment in the region.

9. Means for Protection

In order to maintain the resource values and goals of the FLP in Louisiana, the terms of each acquisition, whether a conservation easement or in special circumstances full-fee interest, will be subject to negotiation and can vary by project and property. The framework below is intended as a guide—all acquisitions are subject to approval by the State Forester, LDAF, SFSCC, USFS, and the landowner.

A. Acquisition of conservation easements is preferred and is appropriate for tracts within the FLA. At the discretion of the State Forester, some full-fee interests in properties may occur in special situations and may be more appropriate on tracts that have specific features or significant recreational and/or ecological value.

B. Acquisition of development rights on all tracts, especially the rights to subdivide, construct buildings, and utilize the property for non-compatible commercial uses or uses that would be inconsistent with the purpose of the acquisition.

C. Timber harvesting rights should be conditioned with the following provisions:

1. Compliance with a Forest Stewardship Plan approved by LDAF.
2. Compliance with all applicable Best Management Practices.
3. Compliance with all applicable laws and regulations.

D. Mining, drilling of minerals, sand and gravel pits will be restricted to a minimum reasonable size and use. FLP requirements limit non-forest uses (e.g., borrow pits and roads) to no more than 10% of the area encumbered by a conservation easement. Allowed operations will only be considered if they are recoverable in a reasonable amount of time such that they are not inconsistent with the conservation purposes of the easement or fee-purchase acquisition. Upon the completion of operations, the land shall be reclaimed as much as practical to its original contour and re-vegetated.

E. No disposal of waste or hazardous material will be allowed on properties.

F. Prohibit the use of signs and billboards on all properties, except to state the name and address of the property owner, safety concerns, sale or management notifications (e.g., herbicide applications) or forest products from the property, access restrictions, and/or provide FL information.

G. Existing dams or water impoundments or similar structures may be allowed to remain and be maintained.

H. Industrial, commercial and residential activities, except forestry and limited mining uses (see above), are prohibited unless otherwise stated in the terms of the easement or fee purchase agreement.

I. The FLP will not give the public any additional standing to bring suit against private landowners.

C. References

Block, A., K. Hartigan, R. Heiser, G. Horner, L. Lewandowski, J. Mulvihill-Kuntz, and S. Thorn. 2004. Trends in Easement Language and the Status of Current Monitoring on Working Forest Conservation Easements. M.S. diss. The University of Michigan.

Kueter, Lawrence R. 2002. Accounting for Mineral Rights in Conservation Easements. Exchange: The Journal of the Land Trust Alliance. Fall 2002, pp. 24-25.

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Russell, D. Ramsey, Jr., and Susan Stein. 2002. Planning for Forest Stewardship: A Desk Guide. <http://www.fs.fed.us/spf/coop/library/Forest%20Stewardship%20deskguide.pdf>

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XI. CONSERVATION EASEMENTS

A. Conservation Easements in General

A conservation easement is a permanent deed restriction through which a landowner voluntarily gives up certain development rights on his/her property. Easements are held by non-profits or government agencies, and can keep forests as working forests or protect open space, wildlife, wilderness values, or other conservation values. Conservation easements can be customized to meet the needs of the landowner, including providing for the continued use of the land for agriculture or forestry.

Conservation easements are known as “conservation servitudes” in Louisiana, and are codified in the Louisiana Conservation Servitude Act, RS 9:1271-1276. The complete text of this act can be found in “Appendix H – Louisiana Conservation Servitude Act.”

For decades, the federal tax code has recognized the donation of a permanent conservation easement on land as generating a charitable deduction from income tax (Internal Revenue Code Section 170(h)). The code also recognizes that the value of an easement a landowner has donated or sold should be excluded from their taxable estate (IRC Section 2055(f)). These provisions provide a means for many forest landowners to realize tax benefits from the development values of their lands while still keeping their forestlands intact.

To qualify as a charitable contribution, conservation easement donations must:

- be perpetual;
- be donated to a qualified organization (a nonprofit land trust or public agency); and,
- meet one of the “conservation purposes” tests outlined in the Internal Revenue Code.

The Internal Revenue Service Code Section 170(h) requires that conservation easement donations meet one or more of the following conservation purposes: protects relatively natural habitats of fish, wildlife or plants; preserves open space - including farms, ranches or forests - either for scenic enjoyment or in keeping with an adopted public policy; preserves land for public outdoor recreation or education; or preserves historically important land or certified historic structures. Each conservation easement must meet one, but not all, of these recognized purposes.

The forest conservation easement’s value for tax purposes is proportionate to the forgone development and timber values restricted by the easement. That is, the greater the dollar value of the standing timber and development values, the greater the short term fiscal return to the landowner via lower taxes should they elect to place an easement on their property. Landowners interested in keeping their land in forests can use easements to

protect their forestland base while receiving both income and estate tax benefits. Landowners can utilize easements to gain up-front liquidity on forestlands that otherwise might not return timber revenues for many years.

Donation of fee title or a conservation easement may be applied toward the non-federal match required by the FLP. In August 2006 President Bush signed a bill significantly expanding the federal conservation tax incentive for conservation easement donations and other donations of less than full fee title (e.g., donations with mineral reservations). The new changes include:

- Raising the maximum deduction a donor can take for donating a conservation easement from 30% of adjusted gross income (AGI) in any year to 50%;
- Allows farmers and ranchers (includes forests managed for timber production) to deduct up to 100% of AGI; and
- Extends the carry-forward period for a donor to take tax deductions for a voluntary conservation agreement from 5 to 15 years.

Efforts are now under way to make these changes a permanent part of the tax code.

In summary, a conservation easement may provide both initial financial benefits as well as important estate planning options. Future landowners, including family members, must abide by the terms of the conservation easement agreement and continue the relationship with the organization that “holds” the easement.

Louisiana’s landscape and its people are diverse. Because every landowner and every property is unique, a conservation easement agreement must be designed to meet those specific, individual needs. Landowners interested in conservation generally have two principal concerns. First is the desire to protect the natural or productive qualities of their property. The landowner is interested in conserving special features such as fertile soil, mature trees, wildlife habitat or a piece of history – even after his or her ownership comes to an end.

Along with conservation, landowners are also concerned about maintaining their property's productivity in the face of a complex economic landscape. The economics associated with land ownership are changing and fewer family-owned properties are the primary source of a family's income. Along with maintaining productivity, Louisiana landowners must also contend with the increasing tax burden associated with property ownership. Estate taxes, property taxes and the financial incentive to sell or develop are all factors that affect land use decisions.

Conservation easements enable landowners to protect resources they value for their children and future generations while maintaining private ownership and, in many cases, traditional uses of the land. In Louisiana, conservation easements are generally donated to nonprofit conservation organizations, commonly known as land trusts.

Through conservation easements, landowners retain control of access to their property. They may choose to allow access to specific groups or the general public in their conservation easement agreement, but are not required to do so. Property with a

conservation easement can be bought, sold and inherited. However, the conservation easement is tied to the land and binds all present and future owners to its terms and restrictions.

Like a deed or other types of easements, conservation easement documents are recorded with other land records in the county in which the property exists. Because conservation easements qualifying under IRS regulations are designed to be permanent, landowners should assume that it will not be possible to revoke or substantially alter an easement. However, conservation easements can be amended if both the easement holder and the landowner agree to the terms of the change and the IRS recognized “conservation purpose” of the conservation easement is not affected.

A conservation easement can be donated by will. The landowner must contact the intended easement holder before conveying the easement by will to ensure that the organization will accept the donation. If the easement qualifies under federal tax law, its value is subtracted from the landowner's taxable estate, reducing estate taxes for heirs.

Conservationists, landowners, and the timber industry all view conservation easements as a useful tool for fighting the fragmentation of land, particularly in those areas most threatened by encroaching development.

B. Working Forest Conservation Easements

A “Working Forest Conservation Easement” (WFCE) does more than remove specified development rights from a property. Traditional conservation easements, sometimes called “open space” or “no build” easements remove a landowner’s right to engage in certain activities such as mining, subdivision, or commercial development and may not specifically mention forestry or allow timber harvesting. A WFCE is a more proactive document, which adds language to guide forest management focused on protecting specified forest values. A WFCE targets forestlands that are actively managed for goods or services that have a monetary value in the current marketplace such as timber, recreation, or water supply protection. Future WFCEs may someday also address carbon credits and ecological restoration.

WFCEs can protect property-specific forest values by prohibiting damaging forest practices and encouraging management practices that promote a desired forest type. WFCEs can also protect landscape values by encouraging management of forests in relation to their surroundings. By protecting a productive forest base, they can be used to address broader goals such as sustaining a forest economy for a local community. WFCEs enable landowners to derive economic value from the land to support the ongoing costs for ownership and stewardship.

All WFCEs are different from one another and unique to the property, the landowners' interests, and purposes of the easement. In general, a WFCE should include the following items:

- Names and addresses, size and location of property
- Purpose Statement: purpose of easement and reference to public policies
- Affirmative Rights: things grantee (state lead agency) is allowed to do on or with the property. Inspection, enforcement, emergency access, scientific study, educational uses, wildlife management, recreation access (as negotiated), prior notice to access property, signs, etc.
- Restrictions: things grantor is prohibited from doing on, to, or with the property such as development, sub-division, mining, dumping, billboards, etc. Neither the state lead agency nor the landowner has the power to ensure rights that are otherwise prohibited by law, zoning or other regulations (T&E species, wetlands, forest practices acts, etc.). Reserved rights must be consistent with the purpose of the easement. Here is where the landowner retains the right to practice forestry (harvest timber, build temporary or permanent logging roads and trails, reforest, harvest pine straw, burn, apply herbicides, lease for hunting and fishing, etc.). The Forest Stewardship Plan (or multiple resource management plan) needs to be consistent with these reserved rights. Allowing parts of property to be sold off increases monitoring costs.
- Reserved Rights: uses of property retained.
- Terms & conditions: anything else such as provisions related to taxes (spell out that landowner is still responsible for paying taxes), provisions to amend, how access works, notification methods, subordination of mortgages and liens, liability issues (warrant title, no pending litigation, property free of hazardous materials, etc.) and indemnifications (disasters).

When drafting an easement specific to property that may become, or has been granted entrance into the FLP in Louisiana, the following items should also be considered:

- Easement language will require a Forest Management or Forest Stewardship Plan -The plan must be prepared by a knowledgeable professional and include baseline documentation. It is advised that the easement terms require a specified periodic update of the plan but that the plan is prepared separately from the easement so that forest management can adapt to changing conditions over time so long as practices are within the bounds of the easement terms. The plan will be kept on file by the landowner and by the easement holder. Consider that this document not only expresses the conservation goals, rights sold, and objectives of the present owner and the state; it also expresses the land management objectives for future landowners and will be interpreted by the next generation whether the property is sold or inherited.
- The easement should include reversionary clauses.
- The easement should be designed such that it is “purpose or outcome-based” rather than “prescriptive or specific” to practices allowed or disallowed in order to take advantage of potential income sources that are not yet valued or recognized.
- Easement restrictions should be appraisable, measurable, monitorable, and enforceable by the state lead agency.

- As the FLP requires, the title to the easement may only be held by a recognized governmental entity. In Louisiana, the preferred governmental entity will be the state lead agency; however, in special situations the State Forester will have the discretion to determine if another state agency would be more appropriate.
- Conservation easement language should meet Louisiana's AON and Louisiana's FLP objectives.

In some situations, language in the conservation easement may need to address drilling for oil and gas on a property in a manner that does not interfere with the conservation purposes of that property. This language should require the landowner to provide prior written notice of any contemplated extraction that is permitted in order for the state lead agency to determine whether it will impact the conservation values.

Example language for a FLP WFCE and minimum baseline documentation requirements can be found in "Appendix G – Sample Easement Language".

C. Monitoring and Enforcement

FLP conservation easements in Louisiana will be monitored at least once per year. They will also be monitored in the event of a change of ownership when deemed appropriate by the state lead agency. The specific monitoring techniques used will be determined by the size and conservation purposes of the easement.

The following monitoring directives are provided by the FLP Implementation Guidelines.

- The governmental entity holding title to interests in land acquired under the FLP shall monitor and manage those interests in perpetuity. The holder may delegate or assign monitoring, management, and enforcement responsibilities over lands and interests in lands acquired under the FLP only to other federal agencies or state or local government entities. Such delegation or assignment of responsibility shall be documented by a written agreement.
- The governmental entity responsible for monitoring, management and enforcement of the conservation easement may in turn delegate or assign management and monitoring authority to other parties, to include land trusts, conservation groups, and other governmental entities. Such delegation or assignment of authority shall be adequately documented and USFS shall be notified. USFS shall approve agreements involving any interests in lands held by the federal government prior to such delegation or assignment. Once interests in lands are acquired, the state lead agency, USFS, and others as appropriate, may negotiate tract-specific Memorandums of Understanding (MOU) as necessary to specify management and monitoring responsibilities for the interests in lands.

- Optimal management and monitoring of tracts in FLAs is based upon partnerships between landowners, private non-profit organizations owning or managing lands, and state and federal officials. Land trusts and other private organizations will continue to manage and monitor their own easements and lands within designated FLAs, and while they may not manage government-owned interests in lands under the FLP, they may cooperate with or contract for monitoring and implement specific management activities. Management of federally owned interests in lands is reserved to USFS, but may be assigned to state or local governments, or another federal agency through mutual agreement. Although delegable, enforcement actions for easements will generally be conducted by the easement holder (i.e., state or federal government).
- Monitoring FLP conservation easements shall occur periodically, but not less than annually. Monitoring consists of visual inspection of the property, documented by a written report to explain the condition of the property at time of inspection. Any material departure from the baseline documentation report or Forest Stewardship Plan should be noted. The easement holder should immediately address any violation of the conservation easement with the landowner. The landowner should have the opportunity to correct the breach. After a reasonable time period (e.g., 30 days), if the breach is not corrected, enforcement action may be taken, including but not limited to, legal means. The unit of government holding the conservation easement has the initial responsibility to enforce the conservation easement.
- The state or easement holder shall promptly notify any future FLP tract owner of the FLP and the origin and requirements of the conservation easement. The Forest Stewardship Plans covering the tract shall be reviewed periodically and updated as needed. If there is a change in land ownership, then the Forest Stewardship Plan needs to be reviewed, and updated as needed.

LDAF will ensure that operating budgets include sufficient funds to conduct annual FLP easement monitoring and is committed to dedicating any legal resources necessary to uphold the terms of FLP easements. LDAF will encourage partnerships with other agencies and NGOs to perform annual monitoring, landowner contact, management plan upgrading, etc.

As stated in the FLP Implementation Guidelines, in the event it is determined by the state lead agency that it is no longer desirable to hold lands or interests in lands acquired with federal funding and those lands are conveyed, exchanged, or otherwise disposed of, after providing notice to USFS, the State shall:

1. Reimburse USFS for the current market value in proportion to the original Federal investment; (said reimbursements to be used to further the purposes of the FLP); or
2. Exchange for other FLP eligible lands or interests in lands of at least equal market value and of reasonably equivalent location, with public purposes that equal or exceed those of the disposed tract, with USFS approval.

Items 1 and 2 identified above must be included in deeds or conservation easements of all FLP tracts as well as in the USFS grant to the state.

The following Monitoring Cost Worksheet was published in “Trends in Easement Language and the Status of Current Monitoring on Working Forest Conservation Easements.”

MONITORING COST WORKSHEET¹		<u>Rates/hr/mi</u>	<u>Total</u>
<u>Requirements & Activities</u>			
TRAINING	Field Skills		
	Data Documentation		
	Technical Equipment		
	Negotiation		
TIME/STAFF COMMITMENT	Data Collection		
	Report Writing		
	Follow-up		
	Travel		
TRAVEL	To & From the Property		
	At the Property		
	Type of Transportation		
MAPS & PHOTOS	Aerial Photos		
	Archival Photos		
ADMINISTRATION	Phone		
	Mailing		
	Photocopying		
	Archival Storage		
	Associated Overhead Costs		
SPECIAL MONITORING	Specialists		
	Inspectors		
EQUIPMENT	Vehicles		
	Cameras & Photo Equipment		
	Computers		
	Measuring Equipment		
ENFORCEMENT COSTS	Legal Fees		
TOTAL COST=			
		3% x	
TOTAL ENDOWMENT CONTRIBUTION REQUESTED =			

¹ Adapted from Ratley-Beach, 2003.

D. References

Block, A., K. Hartigan, R. Heiser, G. Horner, L. Lewandowski, J. Mulvihill-Kuntz, and S. Thorn. 2004. Trends in Easement Language and the Status of Current Monitoring on Working Forest Conservation Easements. M.S. diss. The University of Michigan.

Lind, Brenda. 2001. Working Forest Conservation Easements: A Process Guide for Land Trusts, Landowners and Public Agencies. Washington, DC: Land Trust Alliance.

USDA Forest Service. 2003a. Forest Legacy Program Implementation Guidelines. http://www.fs.fed.us/spf/coop/library/2003_fpl_guidelines.pdf.

APPENDICES

APPENDIX A – PUBLIC INPUT SURVEYS

Louisiana Forest Legacy Program SFSCC Initial Input Survey January 2007

Overall Goal(s) for Legacy Program in Louisiana

What do you see as the overall goals of the Forest Legacy Program in Louisiana? The following list is taken from the 2001 National Report on the FLP that highlighted each state and listed each state's priorities and goals. Some of these examples can be combined and some overlap each other. Please rank your top 10 and please feel free to edit, combine, or change the wording in order for you to give it the ranking you would like to see. Please feel free to add any overall goal ideas as well. Ideally, we would like to see Louisiana narrow the overall goals to 5 brief but thorough statements.

Overall Goals Examples listed by other states: rank 1-10 with 1 being the highest score

- Protect large blocks of forest land
- Protect large contiguous and productive forest blocks
- Reduce forest fragmentation
- Reduce forest fragmentation caused by development
- Work with existing open space initiatives to achieve maximum resource conservation
- Protect privately owned forest land threatened by conversion to nonforest uses
- Protect privately owned forest land threatened by conversion to nonforest uses within the next decade
- Provide buffers and linkages between public and protected properties
- Prevent future zoning reclassification due to economic pressure or government policy
- Provide a landowner-driven rather than administrator-driven regulatory approach
- Provide fair compensation for foregone property rights
- Protect specific tracts from development
- Prevent parcelization of ownerships
- Expand existing protected forests
- Protect Louisiana's forests for future generations
- Use conservation easements as the prime tool
- Maintain opportunities for continuing traditional forest uses

- Provide employment opportunities
- Provide economic stability
- Maintain cultural and economic vitality of rural communities
- Promote forest stewardship
- Promote best management practices for forestry
- Encourage active forest management
- Encourage sustainable timber management
- Protect forest land for future wood production
- Maintain productive forests
- Protect water quality
- Protect public water supply
- Provide watershed protection
- Protect habitat diversity
- Protect rare and endangered species
- Protect/restore riparian zones and wetlands
- Provide public recreational opportunities
- Maintain scenic resources
- Provide for carbon sequestration storage
- Protect rare, threatened and /or endangered species
- Provide educational and research opportunities
- Maintain and restore natural ecosystem functions
- Prevent development along pristine bodies of water
- Protect important historical and cultural sites
- Protect critical migration routes
- Other goals _____

Priorities for Legacy Area boundary selection and Legacy Project criteria

As with developing overall goals, SFSCC will also be required to set priorities that will lead to criteria for which projects will be judged. Listed below are some examples of criteria that other states have used as well as the criteria that the USFS uses to competitively rank projects. These should be consistent with the overall goals and again, feel free to lump or split and keep them very clear and brief.

Priorities Examples from other states: rank 1-10 with 1 being the highest score

- Productive forest land
- Recreational opportunity
- Critical wildlife habitat
- Wildlife habitat diversity
- Wetland/Riparian protection
- Water quality/watershed protection
- Scenic landscape
- Unique ecological area
- Large and contiguous forest
- Hunting and fishing areas
- Growth/sprawl control
- Degree of threat
- Forest resource economic benefit
- Ecological benefits
- Community support for project
- Carbon sequestration benefits/storage capacity
- Historical or cultural resources
- Educational/research opportunities
- Other important values _____

Public Input Process

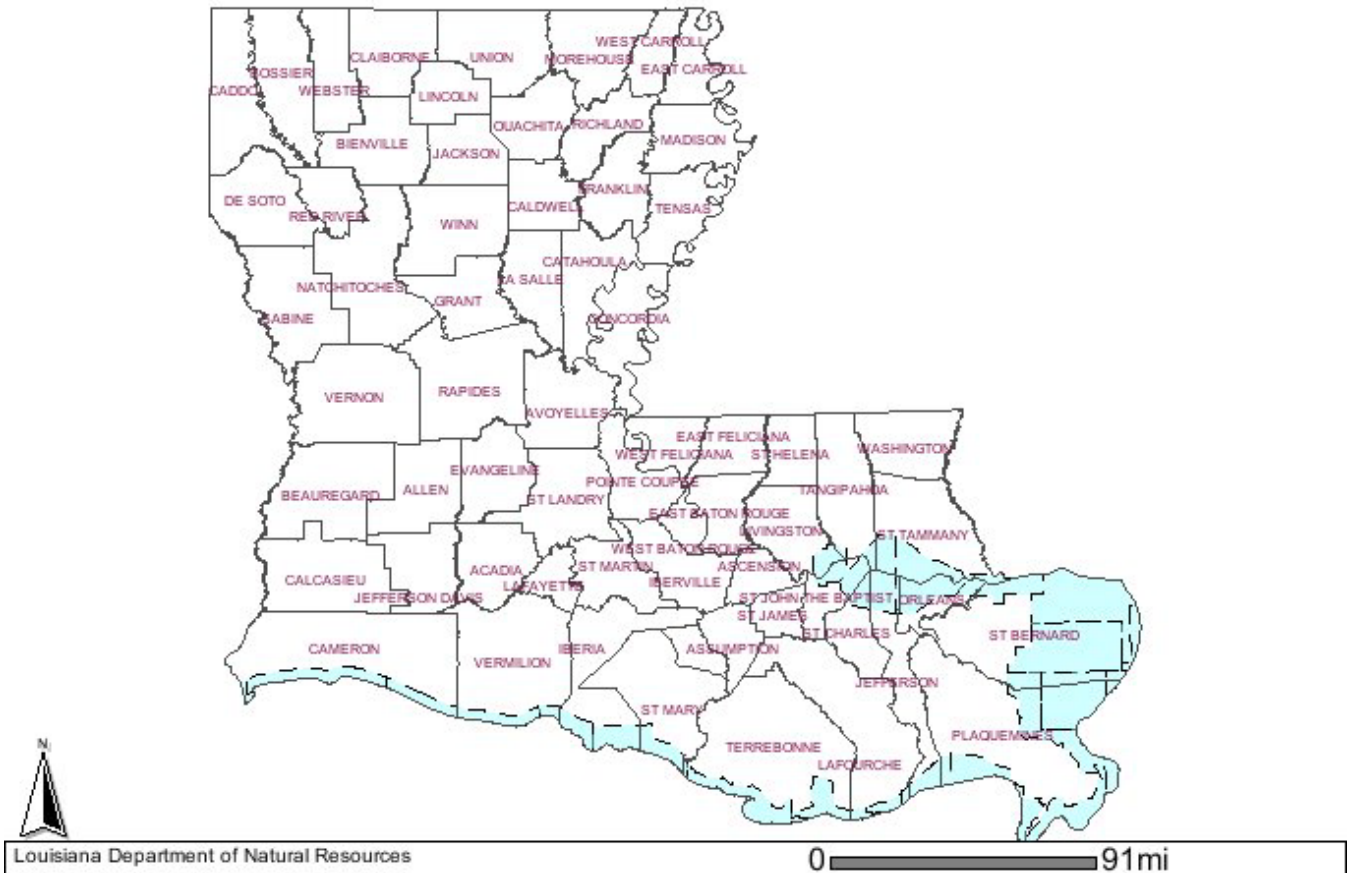
There are several approved ways of gathering and documenting public input after the AON draft is completed. Please indicate your choice, and feel free to comment or add a process. It is also possible that a mix of these styles can be used.

- Evening public hearing with formal presentation and comment period afterward
- Come-and-go day-long hearing with program kiosk and informal public input dialog
- Press release and internet/mail/fax based public input
- Other _____

What would be your location/time/date choices and reasoning for up to 4 public hearings of either of the first two styles? Or, media markets for the third style? Feel free to suggest a particular facility that you know may have served as an effective conduit during previous projects.

Forest Legacy Boundaries

What areas of Louisiana do you believe should be designated as Forest Legacy Areas? Please sketch the area on the map below. Describe boundaries by parish lines, rivers, or highways and provide a brief justification if you feel it would be helpful.



Data Sources for AON

Finally, we would appreciate your help in collecting the published documents and reports that may be valuable in creating portions of the AON. If you know of any transcripts or internet sites with published research data that may be worth consideration for inclusion into this AON process, please forward them to us or the information necessary to locate these studies.

APPENDIX B – PUBLIC COMMENT FORM



Louisiana Forest Legacy Program Comment Form

Thank you for your interest in the Louisiana Forest Legacy Program. Please include your comments and return to the address below. You may also submit your comments by phone, fax, or email as indicated below.

Rick Jacob, Director of Conservation Forestry
The Nature Conservancy
122 Williamsburg St., Lake Charles, LA 70605
Phone/fax (337) 480-9393, email rjacob@tnc.org



APPENDIX C – MEDIA

Public hearings on Forest Legacy program

Forest Legacy, a federal program in partnership with states, will hold public hearings soon as it seeks to protect productive and environmentally important private forest lands threatened by conversion to non-forest uses.

This is a voluntary program offering a landowner compensation for transferring to the state a conservation servitude which ensures that the land is maintained in working forest condition.

The Louisiana Dept. of Agriculture and Forestry is in the process of implementing the Forest Legacy Program in Louisiana. A draft implementation plan is available for review at www.ldaf.state.la.us/divisions/forestry/forestmanagement/forest-legacy-program.asp. Public meetings will be held at the SELU University Center in Hammond July 18 at 7 p.m. and at Best Western Conference Center in Alexandria July 25 at 7 p.m. For more information, call Rick Jacob at The Nature Conservancy, (337) 480-9393.

LFA News, May-June 2007. (Louisiana Forestry Association Newsletter)

• FOREST LEGACY PROGRAM SOON AVAILABLE IN LOUISIANA •

Population growth and urban expansion are placing increasing pressure on working forests in Louisiana. The Forest Legacy Program, a federal program in partnership with states, seeks to protect productive and environmentally important private forest lands threatened by conversion to non-forest uses. This is an entirely voluntary program through which a landowner can receive compensation for transferring to the state a conservation servitude which ensures that the land is maintained in working forest condition.

The Louisiana Department of Agriculture and Forestry is in the process of implementing the Forest Legacy Program in Louisiana, and would like your input on developing a program that best meets the needs of Louisiana landowners. A draft implementation plan, called an Assessment of Need, is available for review on the Office of Forestry website at <http://www.ldaf.state.la.us/divisions/forestry/forestmanagement/forest-legacy-program.asp>. In addition, public meetings will be held at the SELU University Center in Hammond at 7 PM on July 18, 2007, and at Best Western Conference Center in Alexandria at 7 PM on July 25, 2007. For more information, call Rick Jacob at The Nature Conservancy, (337) 480-9393.

The Bayou Forester, June 2007. (Louisiana Society of American Foresters Newsletter)

Forest Legacy hearings in July

Landowners urged to submit projects for environmental sites

By RICK JACOB
The Nature Conservancy

(Special to The Journal)

Population growth and urban expansion are placing increasing pressure on working forests in Louisiana. Intact forest lands supply timber products, wildlife habitat, soil and watershed protection, aesthetics, and recreational opportunities. However, as these areas are fragmented and disappear, so do the benefits they provide.

The Forest Legacy Program (FLP), a federal program in partnership with states, seeks to protect productive and environmentally important private forest lands threatened by conversion to non-forest uses. This is an entirely voluntary program through which a landowner can receive compensation for transferring to the state a conservation servitude which ensures that

the land is maintained in working forest condition. Most FLP conservation servitudes restrict development, require sustainable forestry practices, and protect other values while allowing the land to remain in private ownership.

To participate in the Forest Legacy Program, each state must complete an Assessment of Need (AON) and submit it to the USDA Forest Service for approval. As the lead state agency, the Louisiana Department of Agriculture and Forestry has contracted with The Nature Conservancy to prepare the AON. A Draft AON is available for review on the LDAF website at <http://www.ldaf.state.la.us>, or by calling the Office of Forestry at (225) 925-4500. The AON describes the need for the Forest Legacy program in Louisiana, serves as the implementation plan for the program, and identifies the areas within the state that will be eligible for FLP funding.

The Louisiana Department of Agriculture and Forestry would like your input to develop a program that best meets the needs of Louisiana landowners. Public meetings will be held at the SELU University Center Room 127 in Hammond at 7 PM on July 18, 2007, and at the Best Western Conference Center in Alexandria at 7 PM on July 25, 2007. For more information, call Rick Jacob at The Nature Conservancy, (337) 480-9393.

After public comments are incorporated into the document, the AON will be submitted to the USDA Forest Service for approval. Louisiana program implementation is anticipated for October 2007.

Landowners within the proposed Forest Legacy Area (currently the Florida Parishes) are encouraged to consider submitting a project in October for potential funding in federal fiscal year 2009.

The Piney Woods Journal, Dodson, LA, July 2007.



THURSDAY AUGUST 9, 2007 Last modified: Monday, July 9, 2007 11:07 AM CDT

Public hearing about forestry will be held at university

The state forestry office has scheduled a local public hearing on its assessment of need plan that will be submitted to the USDA Forest Service so that landowners can get pay for transferring a conservation servitude to the state.

The meeting will be July 18 starting at 7 p.m. in the University Center Room 127, the forestry office announced.

Rick Jacob of The Nature Conservancy related that population growth and urban expansion are placing increasing pressure on working forests in Louisiana.

Intact forest lands supply timber products, wildlife habitat, soil and watershed protection, aesthetics, and recreational opportunities. However, Jacob said, as these areas are fragmented and disappear, so do the benefits they provide.

The Forest Legacy Program, a federal program in partnership with states, seeks to protect productive and environmentally important private forest lands threatened by conversion to non-forest uses. This is an

entirely voluntary program through which a landowner can receive compensation for transferring to the state a conservation servitude which ensures that the land is maintained in working forest condition, Jacob said.

To participate in the Forest Legacy Program, each state must complete an Assessment of Need plan and submit it to the USDA Forest Service for approval. The plan describes the need for the Forest Legacy program in

Louisiana, serves as the implementation plan for the program, and identifies the areas within the state that will be eligible for FLP funding.

A draft is available for download at <http://www.ldaf.state.la.us>, or by calling

the Louisiana Office of Forestry at (225) 925-4500.

Jacob can be reached at (337) 480-9393.

After public comments are incorporated into the document, the AON will be submitted to the USDA Forest Service for approval.

Louisiana program implementation is anticipated for October 2007. Landowners within the proposed Forest Legacy Area (currently the Florida Parishes, pending public comment) are encouraged to consider submitting a project in October for potential funding in federal fiscal year 2009.

The Hammond Star, Hammond, LA, August 9, 2007.

Project Name: _____ LDAF Application # _____

Basic Requirements: (No to any of the first 5 questions disqualifies the project)

- | | | |
|---|---|---|
| 1) Is the seller willing to voluntarily participate? | Y | N |
| 2) Are there 25% matching funds available?
Description/source(s): _____
_____ | Y | N |
| 3) Is there clear title from the willing seller/donor?
Description of any outstanding rights: _____
_____ | Y | N |
| 4) Is the project located within an established Forest Legacy Area? | Y | N |
| 5) Does the project meet the criteria as established in the state's FLP Assessment of Need? | Y | N |
| 6) Is the project area at least 75% forested? | Y | N |
| 7) Will the project enter into the FLP as a conservation easement? (preferred method)
Or fee purchase acquisition? | Y | N |
| 8) Forest management plan in place or commitment to prepare one before closing?
State approved forest stewardship plan in place? | Y | N |
| 9) Anticipated price: \$ _____/acre \$ _____ total | Y | N |
| 10) Is there a donation beyond the 25% cost-share match or a less than 75% request?
Value/amount, explain: _____
_____ | Y | N |

EVALUATION CRITERIA

A. Threat: (Desirability of property and location)

- | | | |
|---|---|---|
| 1) Is the property currently for sale on the open market? | Y | N |
| 2) Is the acreage suitable for building? | Y | N |
| 3) Is there major road frontage or expected road frontage? | Y | N |
| 4) Is there access to utilities? | Y | N |
| 5) Is there data that is proof of % increase in population for the area? | Y | N |
| 6) Is there conversion likely within the next 2 years? | Y | N |
| 7) Is there conversion likely within the next 10 years? | Y | N |
| 8) Will protecting this project affect non-conversion on this property? | Y | N |
| 9) Will protecting this project affect non-conversion on adjacent property? | Y | N |
| 10) Is the project within 5 miles of new development that has occurred within the last 2 years? | Y | N |
| 11) Does the surrounding 5 miles attract development? (Ex. Large lake shoreline) | Y | N |
| 12) Is the region recognized as having a landscape level threat of conversion to non-forest uses by the USFS Southern Forest Resource Assessment or Forest Inventory Analysis Survey? | Y | N |
| 13) Is the threat of conversion measurable?
Explain: _____ | Y | N |
| 14) Are there other factors that would place this tract in jeopardy?
Explain: _____ | Y | N |
| 15) Is trespassing a current concern? | Y | N |

Comments:

Project Name: _____ LDAF Application # _____

- B. Forest resource economic benefits:** (Forest and soil productivity)
- | | | |
|--|---|---|
| 1) Has forest management occurred on the project site?
If so, what is the site index? _____ | Y | N |
| 2) Will forest product management continue to occur on the project site? | Y | N |
| 3) Does the tract help maintain economic vitality to the local region? | Y | N |
| 4) What is the acreage of the forested portion of the project under forest product management? _____ | | |
| 5) Are the roads in good conditions? | Y | N |
| 6) Is forest management BMP compliant? | Y | N |
| 7) Is there anticipated access to markets in the next 20 years? | Y | N |
| 8) Is the forest managed under a third party certification system? | Y | N |
| 9) Are landowner objectives consistent with FLP objectives? | Y | N |
| 10) Is there proof that soil productivity will produce quality timber products? | Y | N |
| 11) Can timber products be easily transported to users? | Y | N |
| 12) Is the timber accessible for cost effective management? | Y | N |
| 13) Is there an infrastructure for supporting forest product production? | Y | N |
| 14) Are there steep slopes or highly erodible soil within the project perimeters? | Y | N |
| 15) What is the stocking capacity? _____ | | |

Comments:

- C. Public benefit:** (the public benefits gained from the protection and management of the property reflects the ecological assets and the economic and social values conserved by the project)
- | | | |
|--|---|---|
| 1) Is the project in a viewshed of a designated scenic area? | Y | N |
| 2) Is the project in an airshed in or adjacent to a non-containment area? | Y | N |
| 3) Will there be public access?
Describe terms and conditions: _____
_____ | Y | N |
| 4) Is the project connective or adjacent to public outdoor recreational areas? | Y | N |
| 5) Are there any local economic benefits currently associated with the project?
Explain: _____
_____ | Y | N |
| 6) Are there any anticipated economic benefits in the future associated with the project should protection occur?
Explain: _____
_____ | Y | N |
| 7) Can the project be effectively managed as a part of the FLP? | Y | N |
| 8) Are the public benefits measurable?
Explain: _____ | Y | N |
| 9) Are there direct or immediate public benefits?
Explain: _____ | Y | N |
| 10) Are there indirect benefits?
Explain: _____ | Y | N |

Comments:

Project Name: _____ LDAF Application # _____

D. Water quality and watershed protection: (Importance of watershed for aquatic biodiversity and/or resource quality and quantity)

- | | | |
|---|---|---|
| 1) Name of watershed system(s) where project is located: _____ | | |
| 2) Is there river or stream frontage?
Names of: _____ | Y | N |
| 3) Are there lakes, ponds, or wetlands?
Surface size, depths? _____ | Y | N |
| 4) Is there a presence of high quality streams? | Y | N |
| 5) Is the riparian habitat unique and/or endangered? | Y | N |
| 6) Is the uniqueness or importance to water supply measurable? | Y | N |
| 7) Are there benefits to municipal water source or recharge areas? | Y | N |
| 8) Is the project within one mile of a public water supply? | Y | N |
| 9) Does the project drain into a public water supply? | Y | N |
| 10) What is the # of total acres of bottomland/wetland forest in the project?
_____ Surrounding the project? _____ | | |

Comments:

E. Ecological/Cultural benefits: (rare or important cover types, importance to habitat diversity)

- | | | |
|--|---|---|
| 1) Is the forest cover type or age class rare, unique, or declining? | Y | N |
| 2) Is the project connective or adjacent to other ecologically important areas? | Y | N |
| 3) Does the project contain habitat for declining or endangered species? | Y | N |
| 4) Is the region recognized as ecologically significant by a government study or equivalently published and widely accepted private study? | Y | N |
| 5) Are there currently any endangered or threatened species located within or adjacent property to the project? | Y | N |
| 6) Are there species of concern currently located within or on property adjacent to the project? | Y | N |
| 7) Is the habitat currently suitable for reoccupation or harboring threatened or endangered species? | Y | N |
| 8) Are there culturally significant, historical, or archaeological sites located on the project site? | Y | N |
| 9) Has a state approved cultural resource survey been documented? | Y | N |
| 10) Would the project include sites eligible for national or state historical registration? | Y | N |
| 10) Are there educational opportunities within the project?
Explain: _____ | Y | N |
| 11) Are there educational opportunities adjacent to or in conjunction with the project?
Explain: _____ | Y | N |
| 12) Is there currently active management to enhance wildlife habitat? | Y | N |
| 13) Are there any exotic or invasive species found on the property within or adjacent to the project area? | Y | N |
| 14) Are the ecological/cultural benefits measurable? | Y | N |
| 15) _____ | | |

Comments:

Project Name: _____ LDAF Application # _____

F. Readiness: (the level of commitment and likelihood that a project will be complete in a predictable timeline)

- | | | |
|---|---|---|
| 1) Is there a signed option or purchase and sales agreement? | Y | N |
| 2) Is the appraisal completed? | Y | N |
| 3) Is the survey completed? | Y | N |
| 4) Is the easement title drafted? | Y | N |
| 5) Is the title research complete and approved? | Y | N |
| 6) Is the cost-share match committed? | Y | N |
| 7) Has the landowner committed a donation of \$X or %X? | Y | N |
| 8) Has a member of the SFSCC approved the project? | Y | N |
| 9) Are early negotiations underway? | Y | N |
| 10) Is it a phased project? | Y | N |
| If so, What are timeframes for closing subsequent phases? _____ | Y | N |
| 11) Is this project a top priority proven by a letter of support in a multi-partnership situation? | Y | N |
| If so, who are the partners and what are their performance records with regards to completing land conservation projects? _____ | | |
| 12) Will the partners be conducting negotiations with landowners? | Y | N |
| 13) Will the partners be assisting with baseline documentation? | Y | N |
| 14) Will the partners be signing MOUs for monitoring and enforcement? | Y | N |
| 15) Is there a monitoring and enforcement plan in place? | Y | N |
| 16) Is there a monitoring and enforcement fund in place? | Y | N |
| 18) Is there local community support? | Y | N |
| 19) Is there national support? | Y | N |

Comments:

G. Strategic: (the project fits within a larger conservation plan, strategy, or initiative)

- | | | |
|---|---|---|
| 1) Is the property adjacent to or does the project enhance previous conservation investments on private lands such as certified tree farms or certified stewardship forest? | Y | N |
| 2) Is the project key in a regional plan? | Y | N |
| 3) Is the project key in a focused protection strategy? | Y | N |
| 4) Will the project lead to additional conservation action or investment in its region? | Y | N |
| 5) Is the property adjacent to or does the project enhance previous conservation investments such as state, tribal, or federally owned lands? | Y | N |
| 6) Is the project connective to a water corridor or other protected lands? | Y | N |
| 7) Will the project provide recreational access to the extent practical? | Y | N |
| Explain: | | |

Comments:

APPENDIX E – STEWARDSHIP PLANS

Basic Components of a Stewardship Plan

The following is information from the Forest Stewardship Program's *National Standards and Guidelines* and the *Forest Legacy Program Implementation Guidelines*. Please also refer to the Forest Stewardship Program's, *Planning for Forest Stewardship: A Desk Guide*, as well as States' Statewide Forest Stewardship Plan for additional information regarding Forest Stewardship Plans.

Landowner Forest Stewardship Plans must:

- be prepared or verified as meeting the minimum standards of a forest stewardship plan by a professional resource manager
- identify and describe actions to protect, manage, maintain and enhance relevant resources listed in the law (soil, water, range aesthetic quality, recreation, timber, water, and fish and wildlife) in a manner compatible with landowner objectives
- be approved by the State Forester or a representative of the State Forester
- involve the landowner in the plan development by setting clear objectives and be clearly understood by the landowner
- a well prepared plan will: clearly state landowner objectives, have a cover page, and provide for authorship and/or signature lines within the document.

Basic components of the plan include:

1. General Property Description - A paragraph describing the location, topography, current management situation, major timber types, and other notable features that are unique, sensitive and/or special.
2. Resource Objectives - obtained from the landowner for the resources present on the property. These resources should be protected, managed, maintained and enhanced.
 - (a) fish and wildlife; (b) timber; (c) aesthetics & recreation; (d) soil; (e) water; (f) range; (g) forest health; (h) archeological, cultural, and historical sites; (i) wetlands
3. Resource Evaluation - for each of the resources present
 - (a) Timber - include species, age, density/stocking, site index or productivity potential
 - (b) Fish and Wildlife - describe existing populations and note potential for other populations
 - (c) Soils - include soil series, interpretation, productivity potential, and limitations

- (d) Water - identify category, condition and protection needs
 - (e) Aesthetics & Recreation - current uses, potential for other uses
 - (f) Range
 - (g) Archeological, Cultural and Historical Sites
 - (h) Wetlands
4. Management Recommendations/Prescriptions for Each Area - based on owner's objectives
- (a) What specific practice/treatment is needed
 - (b) How practice/treatment is to be carried out, including details of implementation
 - (c) Who will be or who is available to carry out this practice/treatment
 - (d) When is the best time frame to implement this practice/treatment
 - (e) Why is this practice/treatment needed (How will it meet the owner's objectives)
5. Schedule of Management Activities - This may not be needed on properties with few recommendations. On larger, more complex properties with multiple recommendations over several years this schedule will help the owner summarize the recommendations for the entire property and install the practices in a logical sequence over the next ten-year period.
6. Map and/or Photograph of the Stewardship Forest - (complete with scale, north arrow, legend) to identify and delineate:
- (a) Forest types/timber stands
 - (b) Streams, water bodies and other important water features
 - (c) Nonforested areas (fields, pastures, orchards, home sites, etc.)
 - (d) Key wildlife areas and features
 - (e) Recreational and/or aesthetic areas
 - (f) Unique and sensitive features (wetlands, T&E species, cultural resource sites, etc.)
 - (g) Other important features as needed; forest roads and trails, gates, fences, landmarks, etc.
7. Soils Map and Legend - This is optional on small tracts with one or two soil types, but should be included on properties with three or more soil types and on tracts where there are significant limitations due to soil and/or site factors. Include an aerial photo or other map that shows the location and boundaries of the various soil types identified in #3 above.
8. Record of Activities - include a blank form for the owner to record the practices and treatments that were installed.
9. Optional Items - include a cover sheet when appropriate and supporting reference materials. Landowners' understanding may be improved by including activity summaries and appendices. Appendices might include:

- Description of assistance available and incentive programs
- Educational materials
- A glossary of terms
- An explanation of applicable federal, state, and/or county regulatory programs, especially as they apply to:
 - a) Archeological, cultural and historical sites
 - b) Wetlands
 - c) Threatened and endangered species

**These last three items are covered by legislation other than the Cooperative Forestry Assistance Act of 1978, as amended by title XII of the Food, Agriculture, Conservation, and Trade Act of 1990 (16 U.S.C. 2101, et seq.), but must be considered for federally funded programs. The professional resource manager should discuss the Forest Stewardship Plan with the landowner, following completion, to assure understanding.

APPENDIX F – APPRAISAL REQUIREMENTS

Minimum requirements for a qualified Appraiser or Review Appraiser:

A. Appraiser - In order to be a qualified appraiser for purposes of FLP appraisals, an individual must be:

1. a federal land acquisition agency staff appraiser who
 - a. is certified as a general appraiser in compliance with OMB Bulletin 92-06, and
 - b. has completed training in application of the December 2000 edition of *Uniform Appraisal Standards for Federal Land Acquisitions (UASFLA)** approved for appraiser continuing education credit in the State where the appraiser is certified, or
2. a non-federal staff or fee appraiser who
 - a. is certified as a general appraiser in the state where the appraised property is located, or can obtain reciprocity or a temporary practice permit in the state where the appraised property is located, and
 - b. has, within the past 10 years, completed at least the minimum classroom hours of non-duplicative education prescribed for the certified general real property appraiser classification by the Appraisal Standards Board of The Appraisal Foundation, and
 - c. has completed at least 12 self-contained or summary appraisal reports of properties similar in scope and complexity to the appraised property in the preceding three years, and
 - d. has completed training in application of the December 2000 edition of *UASFLA* approved for appraiser continuing education credit in the state where the appraiser is certified.

The qualified appraiser shall prepare an appraisal report in compliance with the *UASFLA* and supplemental written appraisal instructions issued by the client. Federal land acquisition agencies are the member agencies of the Interagency Land Acquisition Conference.

B. Review Appraiser- In order to be a qualified review appraiser for purposes of FLP appraisals, an individual must be:

1. a federal land acquisition agency staff appraiser who
 - a. is certified as a general appraiser in compliance with OMB Bulletin 92-06, and
 - b. holds specific delegated authority to review and approve or recommend appraisals for agency use, and
 - c. has completed training in application of the December 2000 edition of *UASFLA** approved for appraiser continuing education credit in the state where the reviewer is certified, or
2. a non-federal staff or fee appraiser who
 - a. is certified as a general appraiser in the state where the appraised property is located, or can obtain reciprocity or a temporary practice permit in the state where the appraised property is located, and
 - b. has, within the past 10 years, completed at least the minimum classroom hours of non-duplicative education prescribed for the certified general real property appraiser classification by the Appraisal Standards Board of The Appraisal Foundation and at least 32 classroom hours of approved training in appraisal review, or otherwise demonstrates competency in appraisal review in compliance with the Competency Rule of the *Uniform Standards of Professional Appraisal Practice (USPAP)*, and
 - c. has completed at least 12 self-contained or summary appraisal reports of properties similar to the appraised property in the preceding three years or at least 12 technical appraisal review reports for appraisal reports of properties similar in scope and complexity to the appraised property in the preceding three years, and

d. has completed training in application of the December 2000 edition of *UASFLA* approved for appraiser continuing education credit in the state where the reviewer is certified.

The qualified review appraiser shall prepare a technical appraisal review report that includes a determination of whether the appraisal report under review complies with the *UASFLA*. Federal land acquisition agencies are the member agencies of the Interagency Land Acquisition Conference.

*The seminar, *Federal Land Exchanges and Acquisitions: Appraisal Issues and Applications*, offered by the American Society of Farm Managers and Rural Appraisers and the Appraisal Institute is the only acceptable substitute for *UASFLA* training.

FOREST LEGACY PROGRAM APPRAISAL CHECKLIST

Forest Legacy Project Name _____
Appraiser _____

Tract Appraisal Required Elements
Appraisal Summary (extract from appraisal)

Reason for appraisal _____

Intended use _____

Intended user _____

Total acreage _____ Conservation easement acreage _____

Date of value _____

There is no specific “federal standard” for a timeframe within which the transaction must close before a value is “too old.” As the state is acquiring title, a reasonable shelf life of an appraisal is their call. The reviewer will not form an opinion of this, the reviewer is only reporting if the appraisal report meets standards.

Property Information Query:

Is the legal description of the appraised property the same as the proposed acquisition? _____

Is the estate being appraised the same as the estate proposed for acquisition? _____

Does the proposed acquisition describe the estate being appraised? _____

Is the conservation easement language the same as the conservation easement that was appraised? _____

Is this Part of a Phased Acquisition Project from the same landowner? _____

Is the definition of Market Value Included _____

The following definition of market value must be used: “Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of the appraisal, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or sell, giving due consideration to all available economic uses of the property at the time of the appraisal.” (Source: Uniform Appraisal Standards for Federal Land Acquisitions, 2000)

The following items are required:

- Quality map of subject- topographical map with property lines depicted
- Quality maps of sales
- Quality photos

Please provide any additional comments on a separate sheet of paper.

APPENDIX G – SAMPLE EASEMENT LANGUAGE

Two documents are required prior to executing a conservation easement. The baseline documentation report establishes the property conditions at the time of enacting the easement and the actual easement document, which describes the restrictions placed on the property. Although a sample easement is presented in this chapter, it should be emphasized that all easements are different and restrictions are negotiable based upon the needs of the landowner and the conservation intent of the easement holder.

Baseline Documentation

Baseline documentation is a snapshot of property in words as well as pictures. It is critical information needed to effectively monitor and enforce the agreements established between the landowner and the easement title owner relative to the future uses and management of the property in perpetuity.

The Internal Revenue Code requires baseline documentation whenever a landowner wishes to secure any federal tax benefits for the donation or bargain sale of a conservation easement on his or her property.

The State of Louisiana requires baseline documentation because the state is acquiring a legal obligation to protect the resource described in the conservation easement once it accepts and easement on the property through the Forest Legacy Program. It also gives the state the ability to assess positive or negative changes on the property relative to the easement purposes and helps provide a foundation for decisions regarding long-term protection and legal enforcement of the easement.

It should be prepared as of the date of the conservation easement transaction and should be updated when change occurs. As with every conservation easement, baseline documentation is also unique in its terms but generally the following materials should be included in the documentation process:

- Legal description of property
- Map of property location, map of easement location, map of surrounding area, map of areas of reserved rights, special features, and locations of photo points on the property
- Survey
- Contact information for project personnel, land managers, landowners, easement preparers, appraisal preparers, and adjoining property owners
- A copy of the executed conservation easement
- Photographs and physical and scientific value descriptions of the condition and management status of the conservation values needing protection such as natural, biological, and ecological resources, wildlife habitat, productive agricultural or timber lands, wetlands, riparian areas, and historical structures

- *Note: physical photographs are preferred over digitally stored images because future technological changes could render them unavailable*
- Photographs and descriptions of the areas of development on the property such as roads, fences, barns, and other improvements situated on the property in relation to or within the easement area
- An acknowledgement statement signed by the state and the owner confirming that the property condition described in the baseline inventory accurately depicts the property.

Properties for consideration as Forest Legacy projects in Louisiana will require that the landowner arrange for the state or a third party to conduct the baseline documentation but that the landowner will be financially responsible for this process. The state will have the right to review and approve the documentation if it is prepared by either the landowner or a third party. The original version of the baseline documentation should be stored with the LDAF Office of Forestry in a safe storage facility. Copies should be on file with the landowner and any third party entity that assisted in the documentation process.

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT, made this ___ day of _____, 20__, by and between _____, herein referred to as the Grantor and the [State] Forestry Division, herein referred to as Grantee. The Grantor and the Grantee are jointly referred to as the “Parties”.

WITNESSETH:

PURPOSES. The purpose of this easement is to effect the Forest Legacy Program in accordance with the provisions of Title XII of the Food, Agriculture, Conservation and Trade Act of 1990 (16 U.S.C.-210c) as amended, on the herein described land, which purposes include protecting environmentally important forest areas that are threatened by conversion to non-forest uses and for promoting forest land protection and other conservation opportunities. The purposes also include the protection and preservation of important scenic, cultural, fish, wildlife and recreational resources, riparian areas, and other ecological values, and to ensure that the Property is available for the sustainable and cost effective harvesting of forest products in a silviculturally sound manner, all of which meet the objectives of the Forest Legacy Program. The purposes also include encouragement of management for and the production of economically sustainable and commercially viable forest products consistent with the other purposes of this easement and also include the long-term protection of the Conservation Property’s capacity to produce economically valuable forestry products, and the encouragement of management of the property for industrial or commercial forestry only if consistent with the other purposes of this Conservation Easement.

The Parties agree that the purpose of this easement is also to assure that the Property herein described as Schedule “A” and hereby encumbered as set forth in Schedule “B” will be retained forever in its existing natural, scenic and forested condition and to prevent any use of the Property. The Grantor intends that this easement will confine the use of the Property to such activities specifically enumerated herein which are consistent with the overall purposes of the easement by protecting the following particular values of the easement area: specifically the scenic, cultural, fish, wildlife and recreational resources, riparian areas and similar ecological values.

The GRANTOR specifically reserves the right to use the Property herein encumbered by the easement for forest management and non-commercial recreation as herein defined and restricted.

Now, therefore, in consideration of _____, the Grantor, and its assigns, grants, conveys and assigns a PERPETUAL CONSERVATION EASEMENT, in over and upon the herein described Property. This easement shall constitute a servitude upon and shall run with the land in perpetuity. The GRANTOR covenants to abide by the restrictions and conditions stated herein.

The Property, which is subject to this easement, is more fully described by SCHEDULE A which is appended to and made a part of this easement agreement.

The easement terms, conditions, provisions and restrictions affecting the use and maintenance of the Property described in SCHEDULE A are set forth in SCHEDULE B which is also attached hereto and made a part hereof.

Any conveyance of the Property shall contain the following deed provisions:

The parties acknowledge that the Property is subject to an Easement Agreement granted by _____ by Easement Agreement dated _____, and recorded in the Registers office of [county, state]. That portion of the easement agreement encumbering the Property is to be assigned herein to the [state] Forestry Division, and in consideration for such assignment, is taking third party rights of enforcement in the Warranty Deed.

The Property is depicted on the tract map shown as SCHEDULE C, which is appended to and made a part of this deed.

TO HAVE AND TO HOLD, this easement agreement is granted to the [state] Forestry Division and is assigned forever. The GRANTOR covenants that it is vested with good title to the Property in fee simple and has good right and title to convey this easement agreement. The GRANTOR further covenants for itself, its successors, and assigns that it will warrant and defend title to the herein conveyed easement agreement on behalf of the [state] Forestry Division against all claims and demands whatsoever. The GRANTOR also covenants to comply with or to abide by the terms and conditions of this easement agreement.

IN WITNESS WHEREOF, the Grantor has cased these presents to be executed the day and year first above written.

WITNESS

WITNESS-

SCHEDULE "B"

EASEMENT AGREEMENT TERMS

PART I.

RESTRICTIONS ON THE USE OF THE PROPERTY

The Grantor covenants to abide by the following restrictions on the use of the Property.

- A. Subdivision. The Property as described in Schedule A cannot be subdivided.
- B. Structures and Improvements. Except as expressly provided in Part II herein, there shall be no building, structure, or other improvements of any kind, temporary or permanent, constructed or maintained on the Property including, but not limited to, houses, towers, satellite dishes, windmills, wind turbines, sheds, tanks, mobile homes, dams, impoundment's and communication equipment.
- C. Mineral Development. No mining or mineral development shall be permitted in, under or upon the Conservation Area including, but not limited to, the development of minerals or common varieties or mineral materials such as sand, gravel, stone and clay, or the mining of organic materials such as peat. Drilling for and development of oil and gas shall be permitted. Such disturbance shall protect the property's conservation values and occur in no more than five locations within the Conservation Easement Area, each no greater than one (1) acre in size. The [state] Forestry Division shall be consulted prior to such activity. All oil and gas extraction procedures considered standard operating procedures by the [state] must be followed.

- D. Topography Modification. Changes in the existing general topography of the landscape or land surface of the Property, excluding minor changes as a result of activities permitted by the holder of this easement or for the purpose of fighting forest fires or responding to other emergencies that threaten human life and Property, are prohibited unless such changes were caused by the forces of nature.
- E. Waste Disposal and Hazardous Materials. No portion of the Property shall be used for dumps, landfills, or the storage or deposit of waste materials of any kind. Disposal on any slash and debris generated by forest management activities permitted under the easement shall be in accordance with applicable state law. Provisions for safe disposal of human waste at campsites is permitted, as consistent with State and local laws. In no event shall any effluent be discharged into surface waters.
- F. Industrial, Commercial and Residential activities. Except for forest management and recreational activities as defined in Part II herein, the use of the Property for industrial, commercial or residential activities is prohibited.
- G. Signs and Billboards. No sign or billboard shall be placed on the Property, except to state the name and address of the Property owner and manager; to advertise on-site activities which may be permitted on the Property.; to state participation in the Forest Legacy Program or the Tree Farm Program; to advertise the sale or rental of the Property; to identify trails, campsites and other recreational facilities or to control unauthorized entry or use as may be permitted herein. Signs shall be no larger than 4 square feet in area.
- H. Utility Rights-of-way. No utility rights-of-way shall be located within the easement area after the date of this instrument unless the authorized representative of the [state] Forestry Division approves them in advance and in writing. Generally, such approval will be withheld unless permissible utilities are located underground.

PART II. SPECIFIC RESERVATION BY THE GRANTOR

Subject to the expressed limitations and prohibitions of this easement, the Grantor reserves the right to use the Property for forest management and public non-commercial recreation purposes. This right can not be further conveyed.

- A. Forest Management. Timber management is permitted on the Property for commercial, wildlife management and forest health purposes in accordance with all State forest laws and regulations, and with the following provisions:

- 1. For the purposes of this instrument, a “clearcut” has occurred when, immediately after timber harvesting on a forested site greater than five acres, the following conditions exist:

The average residual basal area of trees over 1” in diameter measured at 4.5 feet above the ground, is less than 30 square feet per acre; or,

The average residual basal area for trees over 1” in diameter, measured at 4.5 feet above the ground, is greater than or equal to 30 square feet per acre, and the average residual basal area of trees over 6 inches in diameter, measured at 4.5 feet above the ground, is less than 10 square feet per acre.

Except that, notwithstanding the existence of either of the above conditions, a clearcut does not occur, when immediately after timber harvesting, the site has a well distributed stand of seedling size trees (0.1” – 1.0”) dbh of at least 5 feet in height. A well-distributed stand of trees means that 60% of the harvest area is adequately stocked.

Within any ten (10) year period, no more than twenty (20) percent of the total easement area may be clearcut unless approved in writing by the [state] Forestry Division. The start of the initial 10-year period would begin on the date the first clearcut commences after the conveyance of this easement.

Notwithstanding this provision, the Grantor shall have the right to cut and remove, by clearcut methods, dead, dying and diseased trees which result from natural occurrences, including wildfire, disease, insect infestation and blowdown, to prevent or mitigate greater harm to the silvicultural, scenic or recreational values of the easement area.

2. Any area that has been clearcut shall be adequately restocked by natural or artificial means within five years of the date of harvesting pursuant to the then current requirement and guideline of the [state] Forestry Division for the particular species or forest type.
 3. Timber harvesting or cutting along the course of or adjacent to any natural or artificial waterway, pond, lake, stream, or river will follow the guidelines set forth in the Best Management Practices of the [state] Forestry Division.
 4. This forest management reservation includes the following activities conducted on the Property in a manner which complies with the provision of the easement and which is consistent with the standards, customs, and practices that are current and generally accepted by professional forest managers: timber cruising; timber harvesting and regeneration of forest stands as qualified herein; tree planting; pesticide spraying for forest insect and disease control; pruning; and construction and maintenance of necessary log landings, skid trails, winter haul roads and land management roads. Land management roads are defined as a route or track consisting of a bed or exposed mineral soil, gravel or other surfacing material constructed for, or created by the repeated passage of motorized vehicles and used primarily for forest management activities, including associated bridges, culverts and log yards, but not including skid trails, skid roads and winter haul roads. No trails or roads shall be paved or treated with a petroleum derivative or concrete wearing surface. The Grantor will maintain any drainage structure such as culverts, bridges, or waterbars constructed on trails and roads as long as the said trails and roads remain open for use.
 5. Should the grantor determine that the expressed purposes of the Easement could better be effectuated by the conveyance of an additional easement, the Grantor may execute an additional easement to that effect, provided that the conservation purposes of this Easement are not diminished thereby and that a public agency or qualified organization accepts and records the additional easement. Should the Grantor determine that the expressed purposes of this Easement could be better effectuated by the conveyance of an additional easement, the Grantor may execute an additional easement to that effect, provided that the conservation purposes of this Easement are not diminished thereby, as determined by the Grantee in writing, said determination not to be unreasonably withheld, and that a public agency or qualified organization accepts and records the additional easement.
- B. Non-Commercial Recreation. Non-commercial recreation is permitted on the Property in accordance with all State laws and regulations in a manner which complies with the purposes, goals and provisions of this easement agreement and which is consistent with practices that are generally accepted by professional resource managers to protect and promote the natural resources. For purposes of this easement, noncommercial recreation is defined as non-developed dispersed recreational activities, including, but not limited to; camping, hunting, trapping, fishing, hiking, skiing, biking, boat launching, and snowmobile use. Use of the Property by commercial guides and by customers of commercial sporting camps may be permitted by Grantor. The permission of the Grantor shall not be deemed a violation of this paragraph.

With respect to noncommercial recreational activities:

1. The Grantor may operate, construct, reconstruct, maintain, repair, remove, replace and relocate recreational use roads, trail systems and parking areas, provided, that culverts, waterbars and use of gravel will be utilized to prevent and control erosion. However, no new recreational use road may be constructed or otherwise located within 150' of any pond or the high water mark of any natural river or waterway.
 2. Facilities associated with noncommercial recreational use shall be allowed, such as, but not limited to, trails, outhouses/septic systems, signs, gates, railing, picnic tables and fire rings.
 3. Grantor may construct, reconstruct, maintain, repair, remove, replace and relocate trails on the Property as needed for recreational purposes.
 4. Grantor may charge fees for use of the Property for the recreational purposes of camping, hiking, hunting and fishing, and day use activities.
 5. Subject to the rights of the Grantee, the Grantor may restrict or prohibit the use of motorized vehicles within the easement area.
 6. The Grantor or the Grantee may restrict public use in certain area where sensitive or unique natural resources are threatened by public use. Public use may also be restricted to avoid safety hazards resulting from active timber management operations.
 7. The Grantor may grant temporary right of ingress and egress to facilitate forest management activities on contiguous properties.
 8. Located on this property are four naturally occurring springs. They are described on Attachment C. The Grantor retains the right to have suitable access to these springs for both personal and commercial purposes. This includes locating, maintaining, and if necessary, establishing roads to the site(s) and the utilities required to run a commercial enterprise. Any new road must be made with the knowledge of the [state] Forestry Division to ensure that there is no impact on the water quality of any streams on the property. Any utilities are to be installed in the lease impacting way following [state] standards. The road right of way can not exceed 30' in width without the permission of the [state] Forestry Division. The Grantor will be able to impact no more than one half of an acre per site.
- C. Other. The Grantor retains the right to have located on the Property one and never more than one communication tower. Location and construction of access roads must met guidelines accepted by the [state] Forestry Division. The affected tower site cannot be more than .25 acres in size. The Grantor must return the access road and tower site to its original form and vegetation within 12 months after the site is abandoned or after the communication tower, for a period of at least one year, no longer fulfills its initial intended purpose. The Grantor must remove from the Property any communication equipment and material within 12 months after the site is abandoned or after the communication tower, for a period of at least one year, no longer fulfills its initial intended purpose.

PART III. USE OF THE PROPERTY BY THE STATE OF _____

The [state] Forestry Division shall have the following rights:

- A. Entry and Inspection. To enter upon the Property to inspect for compliance with the terms of this easement, and otherwise administer use of the Property pursuant to the rights acquired hereunder. In exercising this right, the grantee may utilize motorized vehicles including, but not limited to, cars, trucks, all terrain vehicles, snowmobiles, helicopters and boats.

- B. Access. Any access to the easement area by the [state] Forestry Division shall be on reasonable advance notice to the Grantor except in cases of emergency.
- C. Change in Management.
 - 1. In the event of future reorganization of the [state] Forestry Division, resulting in the transfer of the functions and responsibilities of the Division to a comparable Department, or in event of future reorganization with the Division resulting in the transfer of the functions and responsibilities of the Division to a comparable division, the resulting division shall continue to exercise the right of the Division established hereby, and shall notify the Grantor of the transfer of function and responsibilities in the manner provided in Part V.J.4.
 - 2. In the event that the director of the Division or of any successor agency forms the opinion that the ownership of this easement agreement, or the responsibility for management or monitoring of this easement agreement, might be better held or carried out by a different governmental agency, whose role includes promoting the purposes of the easement, the director shall notify the Grantor to that effect. The transfer or assignment shall be in recordable form and shall be recorded in the [state] Registry of Deeds.

PART IV. GENERAL TERMS AND CONDITIONS

- A. Duration of Easement. The Easement shall continue in perpetuity.
- B. The Grantor and Successors in Interest. All obligations of the Grantor under this easement deed shall also bind the Grantor's heirs, successors, agents, and assigns. All the Grantor who are parties to this easement deed, and all their heirs, successors, and assigns shall be jointly and severally liable for compliance with the terms and conditions of this easement deed.
- C. Violations and Remedies – Enforcement. Grantor shall use its best efforts to comply with each and every term and provision set forth in this easement. In the event that the Division deems the Grantor to be in violation of any portion of this easement, the Division will give the authorized representative of the Grantor written notice of the violation and a reasonable opportunity to cure the violation. Except for an emergency situation where there is an imminent threat of resource damage, a period of 30 days will generally be considered a reasonable opportunity to commence a cure of a violation. If, after notice and a failure by the Grantor to comply with the provisions of this easement if there is at any time a failure to provide the Division or its authorized representative, access to the Property, the Grantor hereby consents to and agrees that the Division shall have any or all of the following remedies:
 - 1. The right to enter upon the Property to perform necessary work for prevention or a remediation of damage in the event of any failure of the Grantor to comply with the provisions of this easement deed, and to bill and collect from the Grantor the costs of such work including administrative, legal and reasonable attorney's fees.
 - 2. The Division, and its authorized representative, may enforce any term or condition of this easement deed with any legal or equitable remedy provided by law. All expenses incurred by the Division and its authorized representatives incurred shall be assessed against the Grantor, shall be owed immediately to the Division or its authorized representative, and the Grantor consents and agrees that this instrument may be introduced in any enforcement proceedings as the stipulation of the parties hereto with regard to all matters contained herein.

3. Enforcement of the terms of this easement shall be at the discretion of the Division and any forbearance by the Division to exercise its rights under this easement in the event of any breach of any term by the Grantor shall not be deemed or construed to be a waiver by the Division of such term or of any subsequent breach of the same or any other term of this easement or of any of the rights of the Division under this easement. No delay or omission by the Division in the exercise of any right or remedy upon any breach by the Grantor shall impair such right or remedy or be construed as a waiver.
 4. The Grantor waives and defense of laches, estoppel, or prescription.
 5. Nothing contained in this easement shall be construed to entitle the Division or its authorized representatives to bring any action against the Grantor for any injury to or change in the Property resulting from causes beyond the control of the Grantor including, but not limited to, fire, flood, storm, and earth movement.
- D. Grantor's obligations of ownership. The Grantor retains all responsibilities and shall bear all costs and liabilities of any kind relating to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of insurance coverage, and payment of taxes.
- E. Subsequent transfers of ownership. Except for the restrictions of the subdivision of the Property pursuant to paragraph I (A), nothing in this easement shall affect the right of the Grantor to convey the Grantor's interests in the Property at any time in the future subject to the terms, covenants and provisions of this easement grant. The Grantor agrees further to incorporate the terms of this easement as subjections and encumbrances by reference in any deed or other instrument by which they divest themselves of any interest in all or a portion of the Property.
- F. Rule of Construction. It is expressly understood and agreed that this easement is acquired pursuant to and in furtherance of both State and Federal laws, and notwithstanding any other provision of state law, that this instrument shall be construed to effect the purposes of the Federal Forest Legacy Program and the conservation purposes for which this easement was acquired.
- G. Effect on other laws. Nothing in this easement deed shall be construed to permit any activity which is otherwise prohibited by the laws, regulations or requirements of any Federal, State or local government of agency thereof having jurisdiction, regulatory or otherwise, over the easement area.
- H. State Stewardship Plan. In addition to the terms and conditions of this easement, the Grantor shall abide by the terms of a Stewardship Plan consistent with the provision of section 5(f) of the Cooperative Forestry Assistance Act of 1978, as amended, 16 U.S.C.2103a (f). The Parties agree that the Stewardship Plan shall be subject to revision in order to incorporate forest management practices that are prescribed under federal or state law. In the event of any inconsistency or conflict between the provisions of this easement and any Stewardship Plan, the easement shall prevail.
- I. Miscellaneous.
1. Nothing herein is to be construed as an authorization by the Division to expend or obligate monies of the Division in advance of appropriation thereof.
 2. Invalidity of any of these covenants and restriction or anything else contained herein or any part thereof by judgments or court orders shall in no way affect the validity of any of the other provisions hereof which shall remain in full force and effect.
 3. Not later than ten days prior to any transfer, sale, conveyance or lease of all or any portion of the easement area, the Grantor must notify the Grantee of such action.

4. Any communication, request or notice required or appropriate to be given under the Agreement shall be in writing and mailed via United States Mail certified or Registered, Return Receipt requested, or sent via a recognized commercial carrier, as, but not limited to Federal Express, which requires a return receipt delivered to the sending party. Said communications or notices shall be sent to the other party using the address on file with the State Tax assessor.

Addresses may be changed by notice as provided herein. Notice shall be deemed given when mailed as aforesaid, postage prepaid.

APPENDIX H – LOUISIANA CONSERVATION SERVITUDE ACT

LOUISIANA REVISED STATUTES: TITLE 9 CHAPTER 2. LOUISIANA CONSERVATION SERVITUDE ACT

§1271. Short title

This Chapter shall be known as and may be cited as the "Louisiana Conservation Servitude Act".

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.

§1272. Definitions

As used in this Chapter unless the context otherwise requires:

(1) "Conservation servitude" means a nonpossessory interest of a holder in immovable property imposing limitations or affirmative obligations the purposes of which include retaining or protecting natural, scenic, or open-space values of immovable property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, archaeological, or cultural aspects of unimproved immovable property.

(2) "Holder" means:

(a) A governmental body empowered to hold an interest in immovable property under the laws of this state or the United States; or

(b) A charitable corporation, charitable association, or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic, or open-space values of immovable property, assuring the availability of immovable property for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, archaeological, or cultural aspects of unimproved immovable property.

(3) "Third party right of enforcement" means a right provided in a conservation servitude to enforce any of its terms granted to a governmental body, charitable corporation, charitable association, or charitable trust, which, although eligible to be a holder, is not a holder.

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.

§1273. Creation, conveyance, acceptance and duration

A. Except as otherwise provided in this Chapter, a conservation servitude may be created, conveyed, recorded, assigned, released, modified, terminated, or otherwise altered or affected in the same manner as other servitudes created by contract.

B. No right or duty in favor of or against a holder, and no right in favor of a person having a third party right of enforcement shall arise under a conservation servitude before its acceptance by the holder and a recordation of the acceptance.

C. A conservation servitude is unlimited in duration unless the instrument creating it otherwise provides.

D. Any interest in immovable property in existence at the time a conservation servitude is created is not impaired by the conservation servitude unless the owner of the interest is a party to the conservation servitude or consents to it.

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.

§1274. Judicial actions

Any action affecting a conservation servitude may be brought by any one of the following:

- (1) An owner of an interest in the immovable property burdened by the servitude.
- (2) A holder of the servitude.
- (3) A person having a third party right of enforcement.
- (4) A person otherwise authorized by law.

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.

§1275. Applicability

A. This Chapter applies to any interest created after December 31, 1986 which complies with the provisions of this Chapter, whether designated as a conservation servitude or as a covenant, equitable servitude, restriction, or otherwise.

B. This Chapter applies to any interest created before January 1, 1987 if it would have been enforceable had it been created after December 31, 1986 unless retroactive application contravenes the constitution or laws of this state or the United States.

C. This Chapter does not invalidate any interest, whether designated as a conservation or preservation servitude or as a covenant, equitable servitude, restriction, or otherwise, that is enforceable under any other law of this state.

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.

§1276. Uniformity of application and construction

A. This Chapter shall be applied and construed to effectuate its general purpose to make uniform the law with respect to the subject of this Chapter among states enacting similar provisions of law.

B. The provisions of this Chapter shall supersede any conflicting provisions of Civil Code Article 608.

C. This Chapter shall not be applied or construed to allow or permit the holder or owner of such servitude to obstruct or in any way impede the construction, operation, or maintenance of needed public utility facilities as provided by law on the effective date of this Chapter.

Acts 1986, No. 217, §1, eff. Jan. 1, 1987.