

Area Description

Dewey Wills WMA is located in the southern portion of Catahoula and La Salle Parishes. Compartment 26 is located in all or portions of Sections 10, 11, 12, 13, 14, 15, 22, 23, and 24 of T5N, R4E and encompasses 2,105 acres of bottomland hardwoods. The compartment is bounded by F. Lease Road to the north, Muddy Bayou to the west, Muddy Bayou Road to the south, and the Hunt Road to the east. The terrain is relatively flat with the lower areas subject to seasonal floods.

Current Conditions

Portions of Compartment 26 have been affected by oak decline. Oak decline is not a disease, but a combination of many factors, natural and man-made, that weakens a tree and causes mortality. In this area, the species most impacted by oak decline has been the Nuttall oak, which is one of the most abundant species in the compartment. Many of the affected trees have already died or suffered from severe crown dieback, diminishing the forest canopy and providing an abundance of sunshine to the lower levels of the forest in some areas. Timber quality is relatively low. Stress of oak decline has given way to the red oak borer, which bores its way into the bole of the tree, compromising the integrity of the wood. Signs of red oak borers include weeping sap, exit holes, and bark discoloration. Standing water, present for much of the year, also facilitates butt rot, and many of the Nuttall, overcup, and willow oak have been adversely affected. Currently within the compartment, there are 34.2 tons per acre of pulpwood and 9.2 tons per acre of sawtimber.

Forest Types

The forest types associated with this compartment are the Nuttall oak/ overcup oak forest type, the overcup oak/ bitter pecan forest type, the willow oak forest type, and the cypress-tupelo forest type.

The Nuttall oak/ overcup oak type is the most abundant timber type within the compartment, representing 70% of the area and encompassing 1467 acres. Tree species associated with this type vary with elevation changes. Lower areas contain primarily Nuttall oak, overcup oak, bitter pecan, green ash, persimmon, and red maple. As the elevation increases, the occurrence of overcup oak and bitter pecan decreases. The higher areas of this type often contain Nuttall oak and few of the previously mentioned species with the addition of willow oak. Timber quality is generally poor. The midstory consists of deciduous holly, hawthorn, swamp privet, and advanced regeneration and pre-commercial size trees. The understory consists of *Rubus*, greenbriar, red vine, poison ivy, rattan, various forbs and grasses, as well as the seedlings of major tree species.

The overcup oak/ bitter pecan forest type is associated with sloughs and areas of lower elevation within the compartment, representing 13% of the area and consisting of 270 acres. Primary species include overcup oak and bitter pecan along with Nuttall oak and green ash. Persimmon is also present. Baldcypress and water locust will occur in the lowest sites within this type. Timber quality and stocking are fair. The midstory consists of swamp privet, deciduous holly,

and water elm. The understory consists of vines: rattan, poison ivy, and greenbriar. *Leersia*, wild carrot, and Joor sedge are also present.

The willow oak forest type is associated with ridges and areas of higher elevation within the compartment. This forest type represents 15% of the area and consists of 311 acres. The primary species for this type is willow oak, with sweetgum in some areas. Other species include red mulberry, sugarberry, and honey locust along with Nuttall oak, overcup oak, and bitter pecan on lower elevations. Timber quality is comparatively good within this type, but stocking is relatively low. In older stands where natural mortality has occurred, willow oak regeneration has become well established. Midstory includes hawthorn and advanced regeneration of willow oak. The understory consists of greenbriar, *Rubus*, dwarf palmetto, and various sedges.

The cypress-tupelo forest type is found in the lowest elevation, and represents only 2% (51 acres) of the compartment. It is dominated by baldcypress and water tupelo in the overstory, as well as some green ash, bitter pecan, and overcup oak. Midstory in these areas consists of buttonbush and water elm. The understory is generally sparse. In portions that do receive sunlight, a thick mat of smartweed can be found. Other moist soil and aquatic plants found in these areas include giant sesbania, delta duck potato, duckweed, alligator weed, water primrose, arrowhead, water hyacinth, common salvinia, giant salvinia, and coontail.

Soils

The soils found in this compartment are Bursley silt loam, occasionally flooded; Deerford silt loam, occasionally flooded; Forestdale silty clay loam, occasionally flooded; and Fausse clay, frequently flooded. Bursley silt loam and Forestdale silty clay loam are the prominent soil types within this compartment. The following descriptions are according to the NRCS Soil Survey.

Bursley silt loam, occasionally flooded (Bs), 50.8% of compartment- This level, poorly drained soil is on low stream terraces at the elevation of flood plains. It has high potential for the production of Nuttall oak, willow oak, swamp chestnut oak and green ash.

Forestdale silty clay loam, occasionally flooded (Fh), 35.8% of the compartment- This level, poorly drained soil is on broad flats and low stream terraces at the elevation of flood plains. Flooding is rare. Tree species suited to this soil type include water oak, willow oak, Nuttall oak, sugarberry, and green ash.

Deerford silt loam, occasionally flooded (Db), 9.4% of compartment- This level, somewhat poorly drained soil is on slightly convex, low ridges on low stream terraces at the elevation of flood plains. This soil is moderately well suited to the production of hardwoods and loblolly pine. Hardwoods include willow oak, water oak, Nuttall oak, and sweetgum.

Fausse clay, frequently flooded (Fc), 2.3% of the compartment- This level poorly drained soil is in old channel scars and other depressional areas at the lowest elevation on the alluvial plains. The most common trees are baldcypress, water tupelo, water locust, bitter pecan, black willow, and overcup oak.

Open water comprises 1.7% of the compartment surface area.

Wildlife

Compartment 26 currently provides habitat for a wide variety of game and non-game species of wildlife, as well as fur-bearers. Resident game species commonly found within the compartment include white-tailed deer, squirrels, and rabbits. Migrant game includes American woodcock and waterfowl during the fall and winter months. Non-game species include the Louisiana black bear, as well as migrant and resident birds. Fur-bearers include beaver, river otter, raccoon, opossum, bobcat, and gray fox. Presently, habitat is good throughout much of the compartment. Sparse canopy coverage has allowed for the growth of a variety of understory species, greenbriar being the most common. These areas of dense understory provide exceptional browse and escape cover for white-tailed deer, as well as escape cover for rabbits.

Objectives

- Complete removal of overstory in small areas of dense, advanced oak regeneration (groups)
- Increase health and vigor of residual stand through removal of stressed or dying trees
- Increase species diversity
- Reduce midstory where it inhibits stand regeneration
- Create early successional habitat for game and non-game wildlife
- Maintain large cavity/den trees (baldcypress/overcup oak) and soft mast producing trees (persimmon/red mulberry)

Methods

Individual Selection with Groups (437 acres)

- Combination of individual selection with groups encompassing 437 acres
- Boundaries will be marked with orange paint facing the interior of the cutting unit
- Trees to be cut will be marked with blue paint
- Remove stressed or dying trees
- Groups to be interspersed throughout the treatment area where they will promote advanced regeneration to the overstory

Concerns

- Road maintenance during logging activities
- Excessive skinning of residual trees
- Excess rutting in low or wet areas

Treatments

A timber harvest will be used to achieve the objectives set forth for this compartment. Treatment will consist of an individual selection with groups in one 437-acre unit in the northeastern portion of Compartment 26. The area chosen for management is one that has several ridges that are dominated by large-diameter willow oak. Advanced regeneration of willow oak is present throughout much of this area, but the majority of these stems are suppressed by the expansive canopy of the larger willow oaks. In addition to group selections, thinning from above in these areas will afford these 2-8" diameter willow oaks the sunlight and growing space they need to continue to develop and eventually become part of the overstory. Among areas of lower elevations within the sale area, removal of stressed and dying trees is important. Many of these trees are Nuttall oak that have degraded in quality due to the stress of oak decline, changing hydrology, red oak borers, or a combination of these factors. Though the condition of many of

these individuals has declined significantly, they are still competing for available nutrients and sunlight. Removal of these stems will help to increase the health and vigor of residual stems, and create a healthier forest overall. Another concern in this area is species diversity, which is lacking across Dewey Wills as a whole. However, this particular compartment does have some potential for promoting species diversity. One ridge within the sale area contains several large red mulberries, a species uncommon within the WMA. Opening the canopy within this compartment will give these important soft mast producers a chance to multiply, along with other important species such as American elm, red maple, and sweetgum. All three of these species are relatively uncommon across the WMA, but are found to a small degree within this compartment. Each is useful to wide variety of wildlife as both forage and cover. Logging disturbance will also cause an increase in the amount of early successional habitat for several years post-harvest, mainly in the form of *Rubus* and *Smilax* thickets. The boundary of this unit will be marked with orange paint facing the interior. Trees to be cut will be marked with blue paint. Snags and many large hollow trees will be retained in order to provide coarse woody debris and necessary habitat for cavity nesting birds, as well as the Louisiana black bear.

Logging Requirements

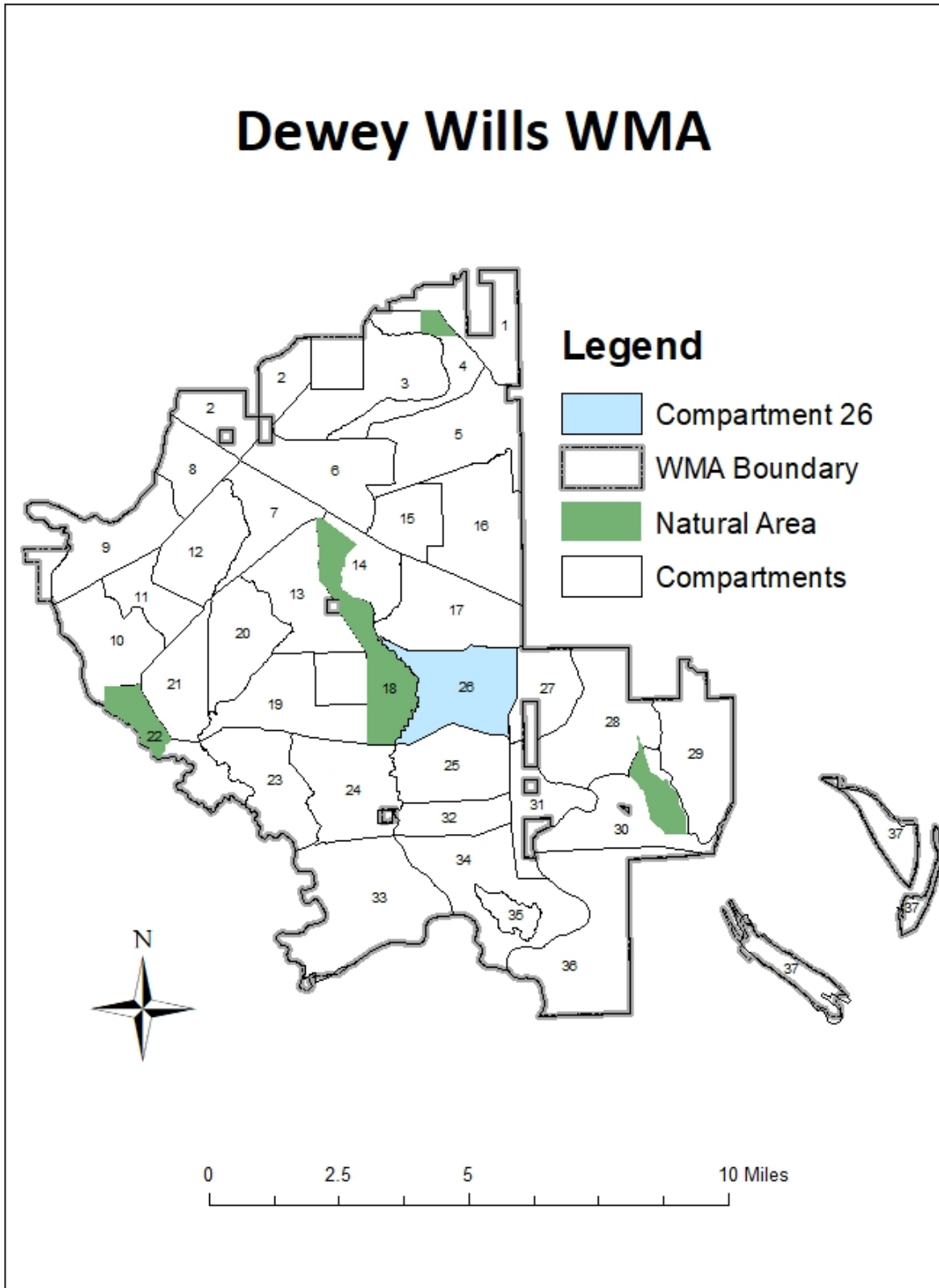
- No harvesting during wet periods
- No harvesting during the firearm seasons for white-tailed deer
- Trees to be topped at point of felling
- Logging access will be Sandy Bayou Road, Muddy Bayou Road, and Pit Lake ATV Trail
- Follow Louisiana BMP guidelines at all times
- Loggers should be informed of the presence of Louisiana black bear; if operating between January and April and if a bear is seen within treatment area, the logger should leave *immediate* vicinity and contact LDWF Forester. Harvesting may continue in *immediate* vicinity of sighting only after approval from LDWF Forester.

Additional Entry Requirements

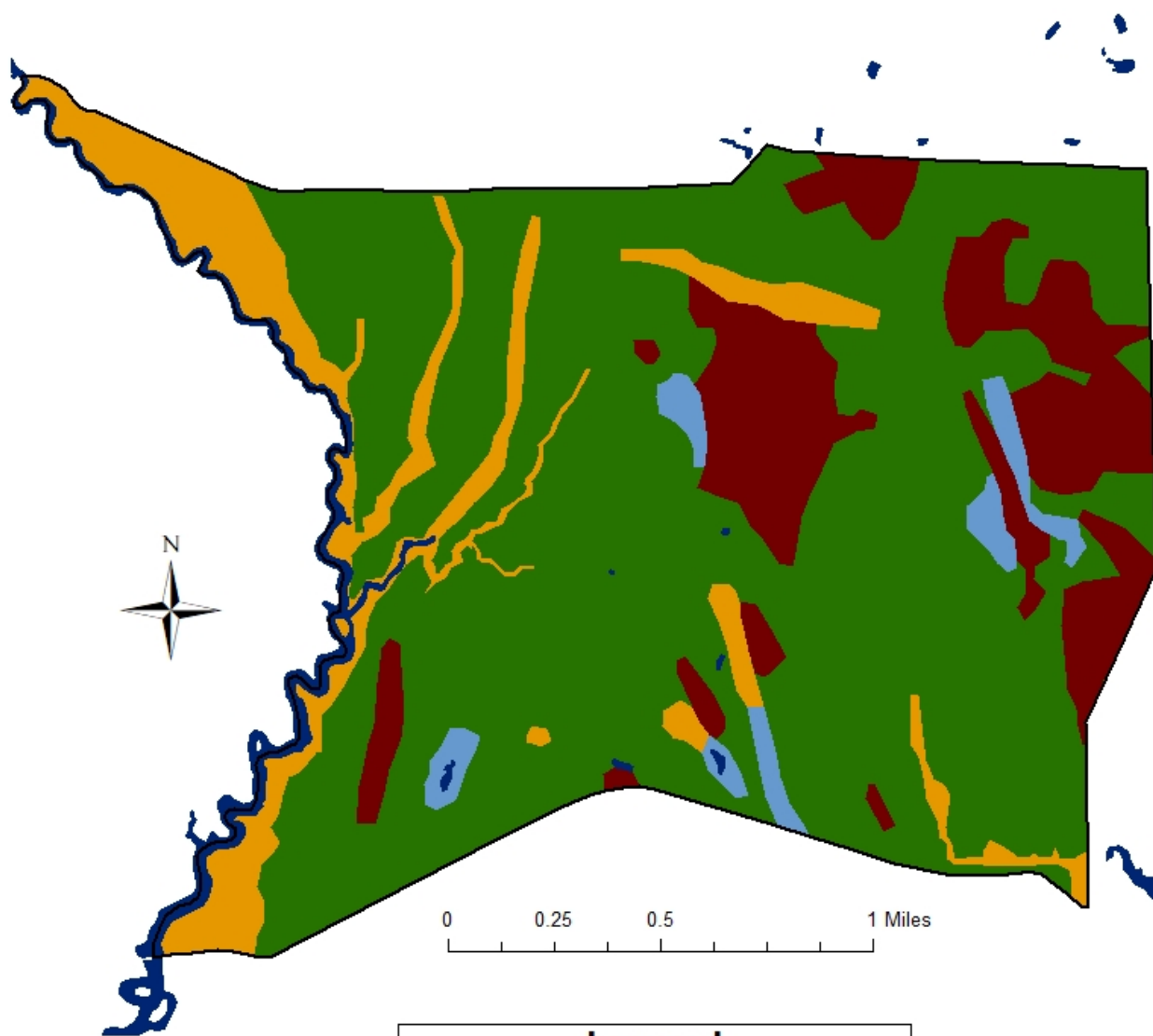
- Re-entry necessary to monitor establishment of regeneration





Attached maps (WMA, Forest Type, Treatment, and Harvest History)

Dewey Wills WMA Compartment Map

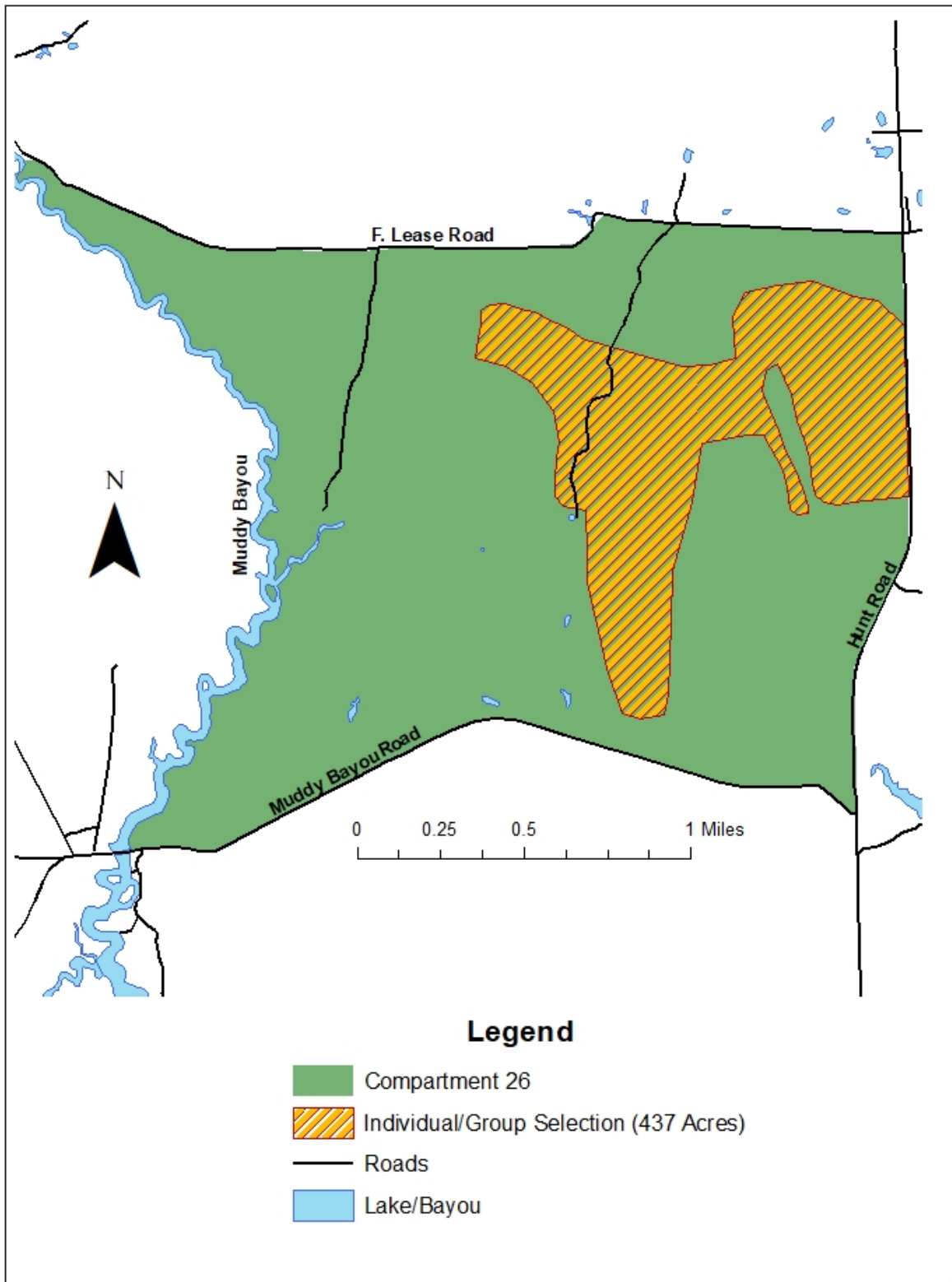


Dewey Wills WMA Compartment 26 Forest Type



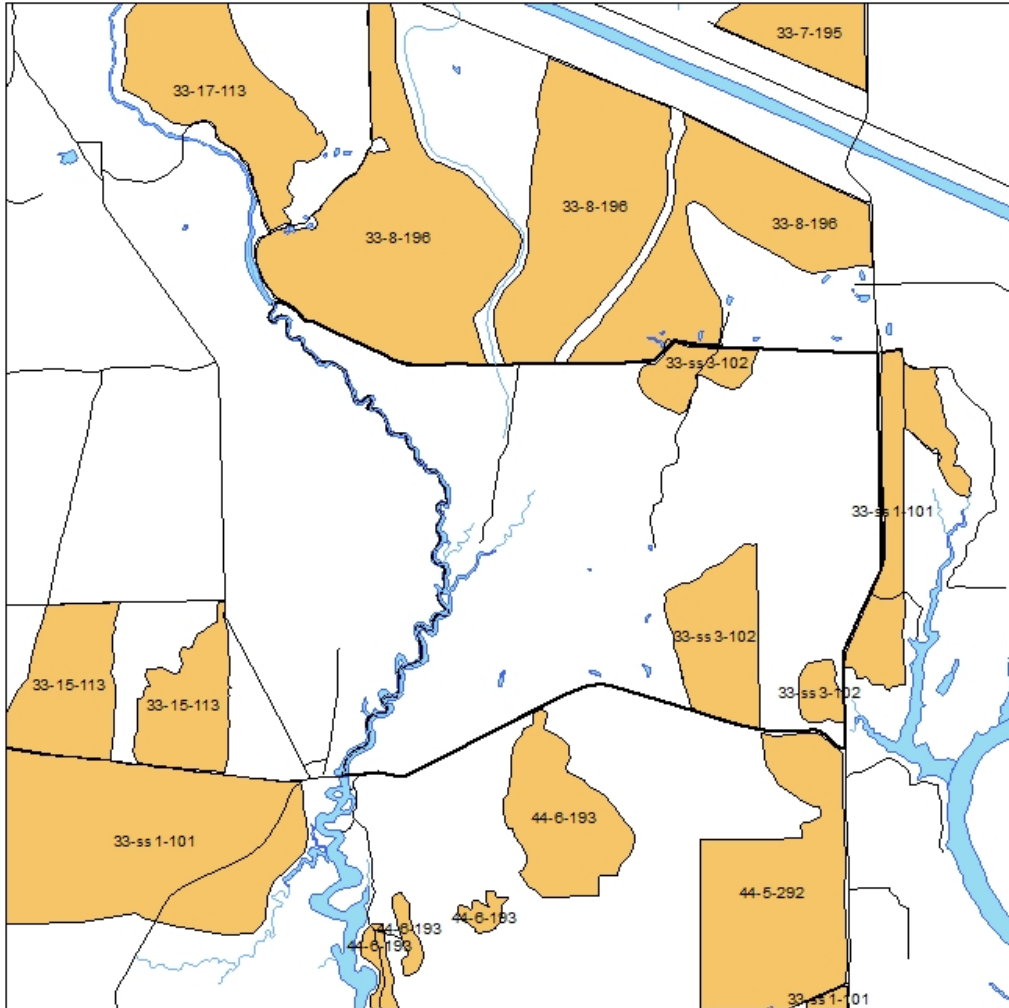
Legend	
	Compartment 26 Boundary
	Nuttall/Overcup (1467 acres)
	Willow Oak (311 acres)
	Overcup/Bitter Pecan (270 acres)
	Cypress/Tupelo (57 acres)
	Open Water

Dewey Wills WMA Compartment 26 Proposed Treatment



Dewey Wills WMA Past Treatments

Adjacent Treatments



Sale Number	Treatment	Acres	Year
33-17-113	Individual/Group Selection	327	2013
33-8-196	Individual Selection	1210	1999
33-ss3-102	Individual Selection, Shelterwood	244	2003
33-ss1-101	Individual/Group Selection	800	2002
44-6-193	Individual Selection, Clearcuts	226	1994
44-5-292	Individual Selection	354	1994
33-15-113	Individual Selection	304	2013
33-7-195	Individual/Group Selection	191	1997
33-ss1-101	Shelterwood	167	2001