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Area Description

Little River Wildlife Management Area is located in eastern Grant Parish, along the west side of Little River. Compartment 12 is located in portions of sections 20, 21, 28, and 29 of T8N, R1E and bounded by Little Creek to the north, compartment 7 and 8 to the east, compartment 11 and private property to the south, and Camp Hartner Road and WMA boundary to the west. This compartment increased as a result of additional lands being acquired by LDWF. The added tract consists mostly of managed pine that was previously owned by a forest industry company. The compartment contains 548 acres of mostly planted loblolly pine in the hills and a relatively small area of bottomland hardwood forest along a major creek bottom. Most of the topography of the compartment begins in the terrace uplands with gently to strongly sloping, well-drained soil and broad ridges with small drains leading to minor tributaries of Little River. In 2015, the compartment was inventoried and a management prescription was developed. The resulting management plan included 55 acres of intermediate thinning of the existing loblolly pine. The objectives were to promote development of desired wildlife habitat and improve tree health and growth. The 2015 prescription specified that the remaining pine stands within this compartment would not receive harvest treatments, however, before the next entry cycle of 20 years, stand conditions should be monitored for additional habitat development needs.

Current Conditions

Forest Types

Four forest types are represented in compartment 12 and consist of 384 acres (70%) of planted loblolly pine, 46 acres (8%) of pine / hardwood mix, 85 acres (16%) of willow oak - overcup oak / bitter pecan, and 5 acres (<1%) of cypress / tupelo forest. The eastern side of the compartment contains a 47-acre mixed pine / upland hardwood stand that appears to have developed in a more natural succession. This area does not show evidence of artificial regeneration planting and continued to develop as a result of less intensive pine management harvests. The planted loblolly pine forest type consists of a number of individual stands which vary in age and evolving structure due to past harvest treatments of clear cuts and thinnings applied over time. Within this forest type, a 35-year-old, 52-acre plantation was established by the previous landowner and last thinned sometime between 1998 and 2004. This stand has a basal area of 160 square feet per acre with a mean diameter of 12 inches, and a density of 189 trees per acre. Approximate pine timber volumes for this stand include 11.292 MBF per acre of sawtimber, 9 cords per acre of chip-n-saw, and 6 cords of pulpwood per acre. The average merchantable heights are 44 feet for pulpwood, 58 feet for chip-n-saw, and 32 feet (2 logs) for sawtimber. Shaded woody vines, shrubs, and advanced hardwood regeneration of varying density make up most of the understory and midstory structure. Prior to LDWF ownership none of the pine stands received prescribed fire. The bottomland hardwood area consisting of the willow oak - overcup oak / bitter pecan forest type is located along Little Creek and an intermittent stream. The cypress / tupelo forest type is part of a swamp depression in a southwest corner of the WMA.

Soils

The pine areas are mostly found in the terrace uplands on Glenmora silt loam, very gently sloping, moderately well drained soils on the broad ridges and side slopes along drainage ways; Cadeville very fine sandy loam, moderately sloping to strongly sloping, moderately well drained soil on side slopes; and Caddo silt loam, level, poorly drained soil on broad flats. Most of these soils have moderately low fertility. Runoff is medium and rapid on the sloped soils where the hazard of water erosion is moderate. Runoff is slow and standing in the low areas of the level, flat soils. These soils are well suited to woodland and a high potential for pine timber. Site index for loblolly pine ranges from 80-95 feet.

Wildlife

The upland sites within Little River WMA are composed of pine that was planted by commercial methods prior to LDWF ownership. These sites are situated within the historic longleaf savannah range, but are now composed of loblolly pine. Management of these stands should consist of silvicultural practices that move the stand structure towards a more open pine system which will more closely reflect the habitat once provided by longleaf pine savannah. Such management will provide habitat for species including red-cockaded woodpecker, Bachman's sparrow, brown-headed nuthatch, and Northern bobwhite. Collectively, the habitat requirements of these species meet the needs of all priority species within open pine habitats of the West Gulf Coastal Plain ecoregion. Additional game species benefiting from open pine habitat include white-tailed deer, fox squirrels, and Eastern Wild Turkey.

The desired understory is one composed of native grasses, forbs, and legumes. They provide important nesting, escape cover, and foraging habitat for the wildlife which inhabit open pine systems. They are also instrumental in fueling prescribed fires that are integral to maintaining open pine habitat. Understory species such as big bluestem, split-beard bluestem, little bluestem, slender bluestem, blazing stars, grassleaf golden aster, Texas ironweed, piney woods dropseed, and roundhead lespedeza are expected to increase as a result of this management.

Objectives

- Promote desired wildlife habitat
- Increase understory structure and diversity by promoting growth of native grasses and forbs
- Maintain stream side management zones
- Improve tree health, vigor, and production

Methods

Intermediate Thinning (52 acres)

- Tree removal will be done using an operator selection method, cutting every fourth row of planted trees and thinning in between the cut rows
- Trees to be removed between the cut rows will be selected according to tree vigor, crown position, and form; remove trees in decline and of poor quality
- The amount of thinning removal will be based on a reduction of stocking equal to a basal area of 65 sq. ft. per acre

Concerns

- Residual tree logging damage
- Erosion control in susceptible areas
- Road condition during logging activities

Treatments

An intermediate rotation harvest using an improvement thinning will promote health, vigor and growth of the desired growing stock within the stands. Tree removals based on spacing will stimulate diameter growth and crown development of the remaining trees. Due to low live crown ratio, the stand will be thinned to no less than 65 square feet of basal area. Thinning any heavier can cause an undesirable response to the future health and growth of the stand. A second entry thinning will be needed to create a more desirable open pine forest structure. The management goal of this treatment is to progress this stand towards long-term sawtimber production and the development of open pine habitat. To improve wildlife habitat structure and diversity, thinning will provide sunlight to promote desirable vegetation under the tree canopy consisting of native grasses, forbs, and legumes. A continuous prescribed fire regime will create and maintain desirable vegetation composition for quality wildlife habitat and minimize wildfire risk by reducing fuel loads. A general prescribed fire plan for the compartment will include control burning of each stand or composite of stands on a two to three year cycle alternating between dormant and growing seasons. Dormant season burning will reduce fuel loads to minimize wildfire effects, while growing season burns will control hardwood midstory. Combined, this will create and maintain desirable vegetation and structure for wildlife.

Logging Requirements

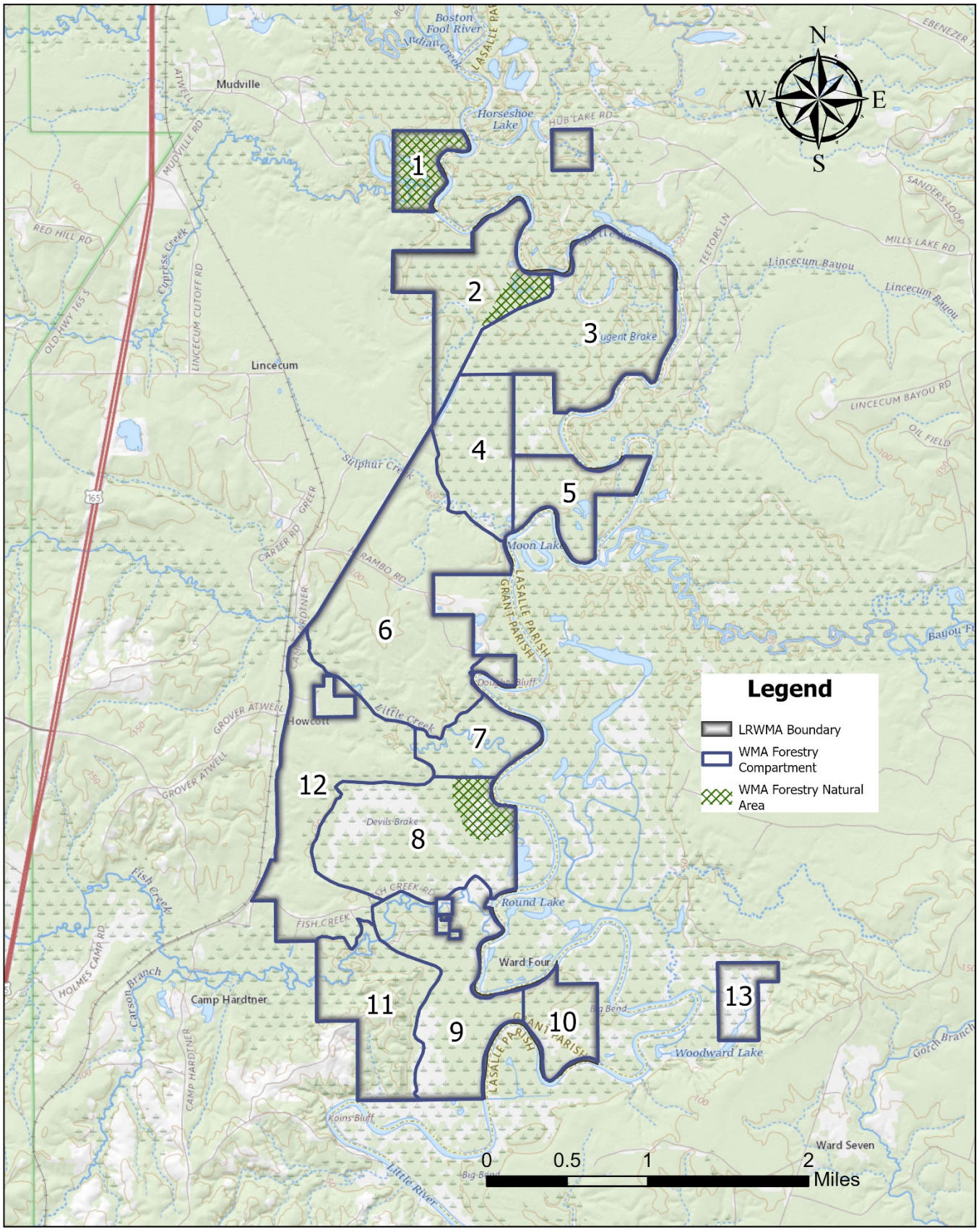
- No tops left within 6 feet of base of live trees
- Firebreaks to be kept clear of debris and widen to 30 feet
- Disperse skid trails to minimize damage to herbaceous community
- No harvesting during wet periods
- No harvesting during the spring turkey season or firearm seasons for white-tailed deer
- All logging slash should be redistributed throughout treatment area
- Follow Louisiana BMP guidelines at all times
- Limit soil disturbance

Additional Entry Requirements

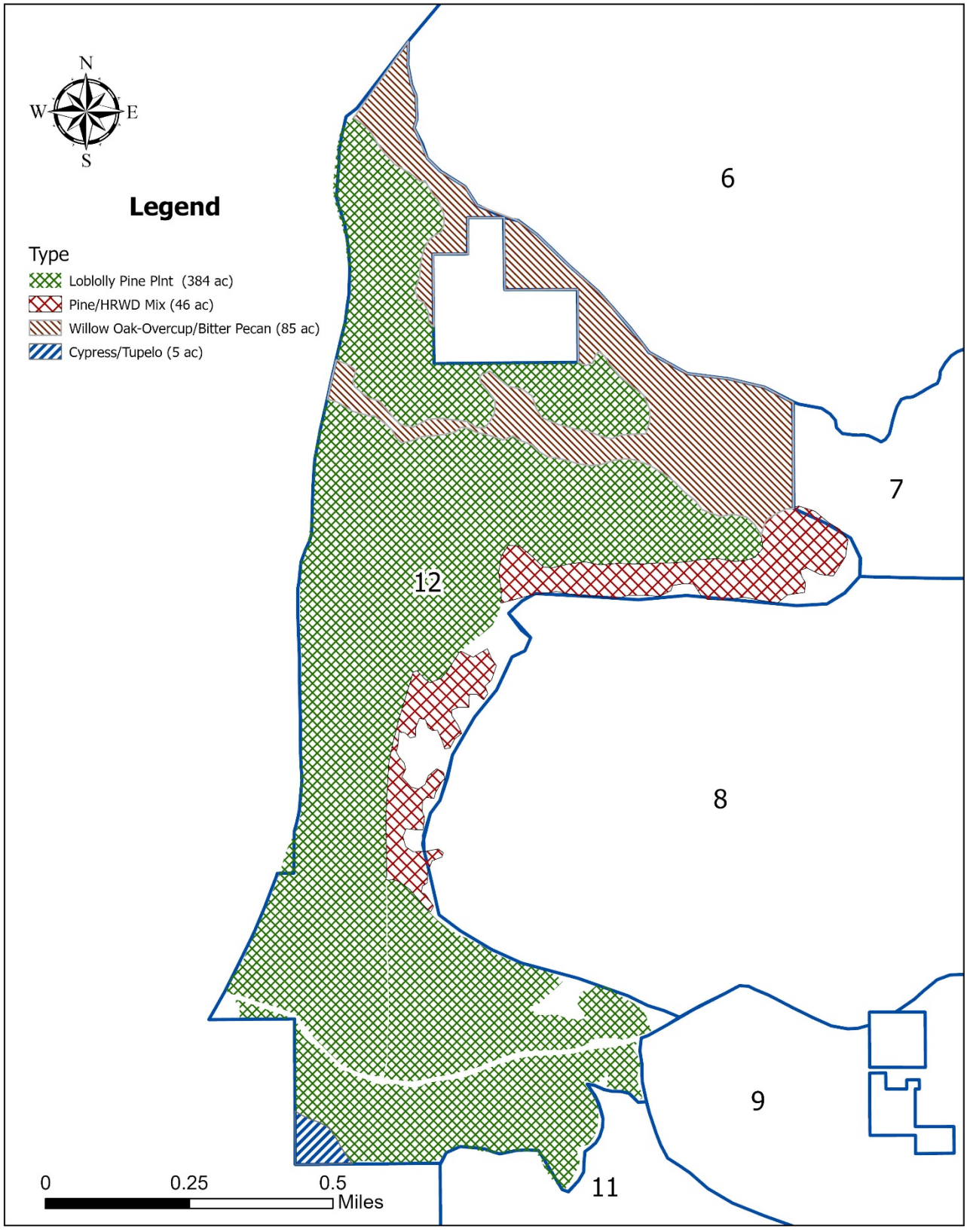
- Monitor habitat development
- Re-evaluate to determine when additional thinnings are required

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

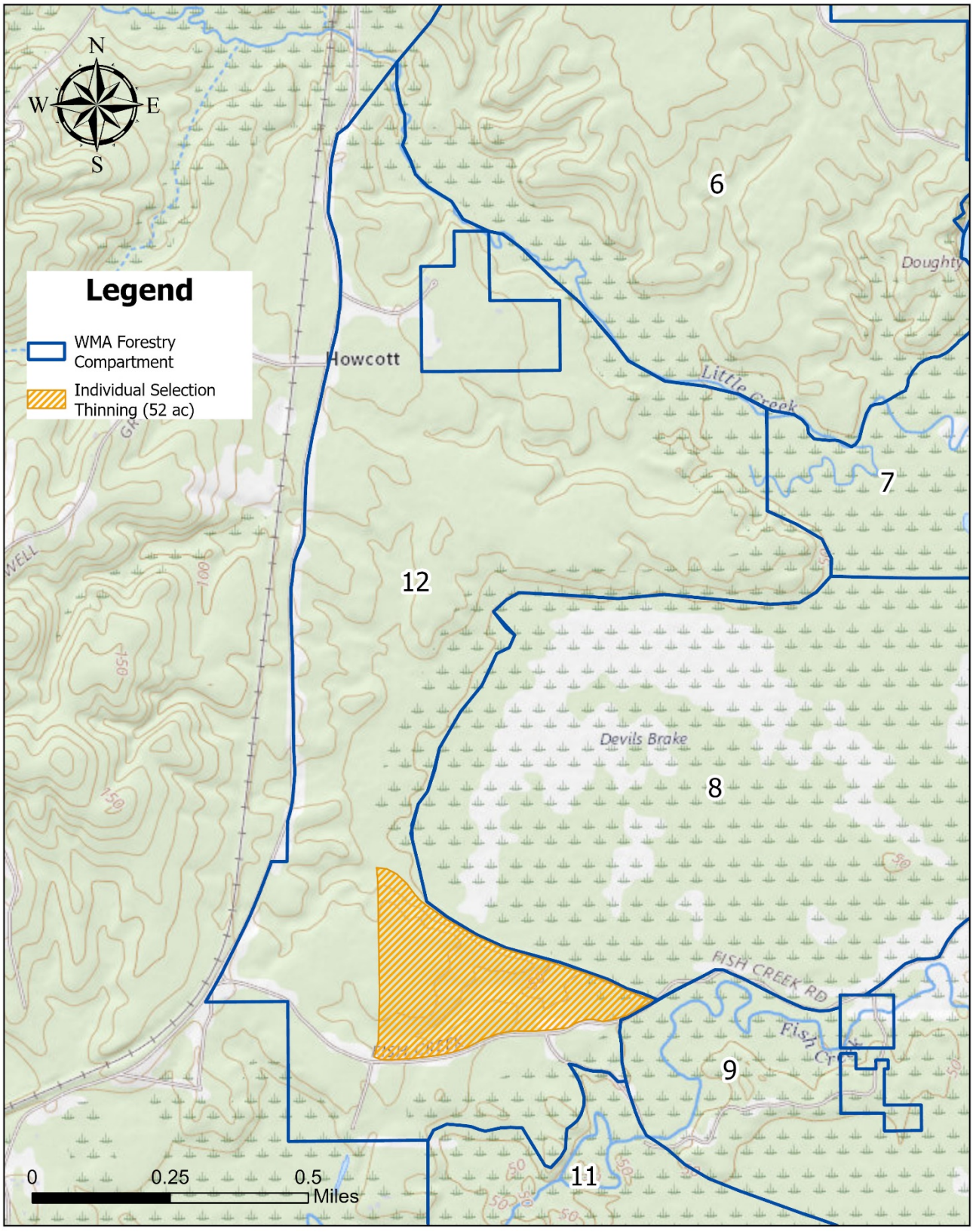
Little River WMA Forestry Compartments and Natural Area



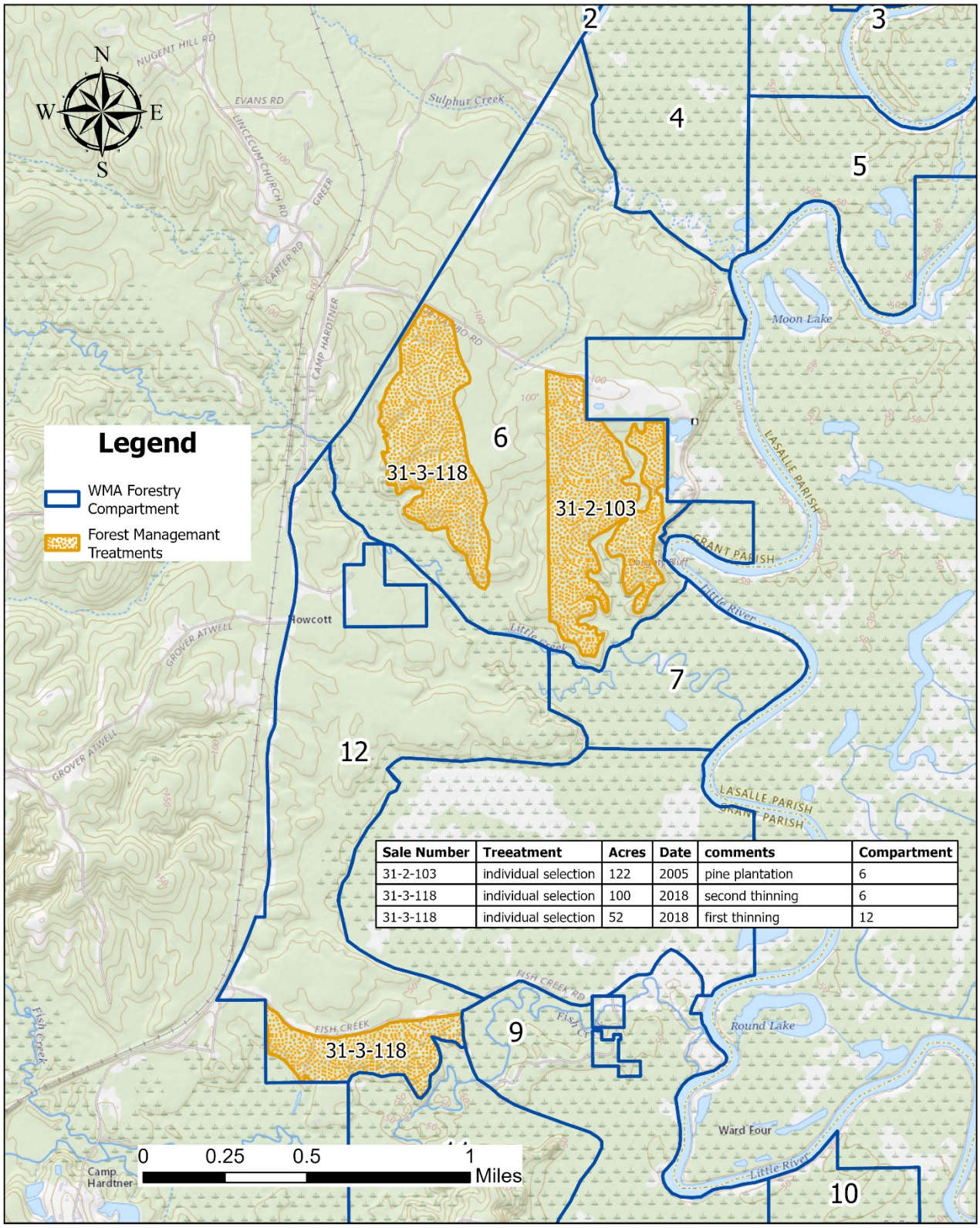
Little River WMA Compartment 12 Forest Type



Little River WMA Compartment 12 Proposed Treatment



Little River WMA Past Treatments



Sale Number	Treeatment	Acres	Date	comments	Compartment
31-2-103	individual selection	122	2005	pine plantation	6
31-3-118	individual selection	100	2018	second thinning	6
31-3-118	individual selection	52	2018	first thinning	12