

Area Description

Big Lake WMA is located approximately 20 miles east of Winnsboro, Louisiana, in portions of Franklin, Madison, and Tensas parishes. The WMA is approximately 19,231 acres in size and Compartment 17 encompasses 754 acres. Compartment 17 is located in the southern portion of the WMA and is within parts of Sections 13, 14, 23, and 24 of T13N, R9E in Franklin Parish. Boundaries of Compartment 17 are Compartment 10 to the north, Hwy 4 to the south, Big Roaring Bayou to the east, and the WMA boundary to the west. Also included in Compartment 17 is an ATV trail that runs along the west side of the compartment, and into Compartment 10. Sandy Bayou flows into the compartment from the north and will cause seasonal flooding after large rain events.

Current Conditions

Compartment 17 has a basal area of 87 ft² and a stocking of 80 trees per acre. The average tree diameter is 12.5 inches. Timber volumes for the compartment are 22.3 tons/acre of pulpwood and 4.328 DMBF/acre of sawtimber. Forest types associated with Compartment 17 include Elm/Ash/ Sugarberry/ Nuttall (357 acres), Willow Oak/ Cedar Elm (320 acres), and Overcup Oak/ Bitter Pecan (85 acres).

Forest Types

The Elm/ Ash/ Sugarberry/ Nuttall and Willow Oak/ Cedar Elm forest types make up the majority of the forest in Compartment 17 (90%). These forest types are made up of American elm, green ash, sugarberry, Nuttall oak, willow oak, and cedar elm. The midstory for both is comprised of deciduous holly, Crataegus, cedar elm, green ash, American elm, sugarberry, Nuttall oak, and willow oak. The midstory is moderately developed but of limited merchantable quality. These conditions, coupled with the closing canopy of the overstory, is leading to a reduction in desired oak regeneration and browse availability underneath. The vine component in the area is also suffering except in areas where adequate sunlight is available. The understory is low in abundance in areas of the compartment where the canopy has closed, but where the understory is present it consists of rattan, *Rubus* spp., *Smilax* spp., Virginia creeper, trumpet creeper, honeysuckle, red vine, and poison ivy. These forest types slightly differ in composition of species due to elevation differences within the compartment, with Willow oak/ Cedar Elm occurring at higher elevations. The Overcup Oak/ Bitter Pecan forest type makes up a small percentage (10%) of the compartment and is located in low lying areas next to drains. This forest type mainly consists of overcup oak and bitter pecan. Other associates include sugarberry, green ash, and to a lesser extent bald cypress. Understory species composition consists of *Rubus* spp., red vine, poison ivy, rattan, Virginia creeper, trumpet creeper, and *Smilax* spp. The conditions of the midstory and understory are poor due to sunlight availability; and as a result oak regeneration, escape cover, and browse availability is becoming a limited resource within Compartment 17.

Soils

The primary soil type present in Compartment 17 is Sharkey Clay. These soils are poorly drained and relatively level. They have a very high shrink/swell potential and fertility. The

surface layer is loamy or clayey, with a clayed subsoil that causes water movement through the soil to be slow. These conditions cause an abundance of surface water during heavy rain events and shape the forest types in this compartment.

Wildlife

White-tail deer, Wild Turkey, waterfowl, squirrels, migratory birds, and other passerine birds are just some of the species that utilize Compartment 17. With the canopy beginning to close, the understory is becoming sparse and early successional habitat is limited within the compartment. This treatment will provide much needed browse for white-tail deer, while producing nesting habitat for wild turkey. It will also provide important escape cover for many other species of wildlife utilizing Compartment 17. This treatment will also increase early successional habitat availability for species such as yellow-breasted chats, indigo buntings, and white-eyed vireos, while still maintaining mature forest within the remainder of the compartment for species which require mid to late successional habitat.

Objectives

- Increase early successional habitat within Compartment 17
- Maintain/increase species diversity
- Increase browse availability for white-tail deer
- Increase nesting habitat and escape cover
- Release advanced regeneration

Methods

Clearcut (83 acres)

- Boundaries marked in orange
- Remove all stems within boundaries with the exception of bald cypress

Concerns

- Limit soil disturbance
- Water Quality

Treatments

Habitat objectives will be accomplished by creating three regeneration cuts totaling 83 acres. By removing the poor quality overstory within the treatment areas, advanced regeneration will be released. The regeneration harvest will provide both browse and escape cover which is very limited within the compartment. As the treatment area matures, higher quality stems of desirable tree species will develop to promote species diversity and increase structural diversity within the compartment. All stems will be removed within the treatment area with the exception of bald cypress. Bald cypress abundance was low in the compartment and stems will be retained to maintain species diversity and provide large cavities within the treatment area.

Logging Requirements

- No harvesting during modern firearms season
- No harvest during wet periods
- All logging slash will be redistributed throughout the cutting units during harvest operations
- Louisiana BMPs will be followed at all times during harvesting operations

- 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.

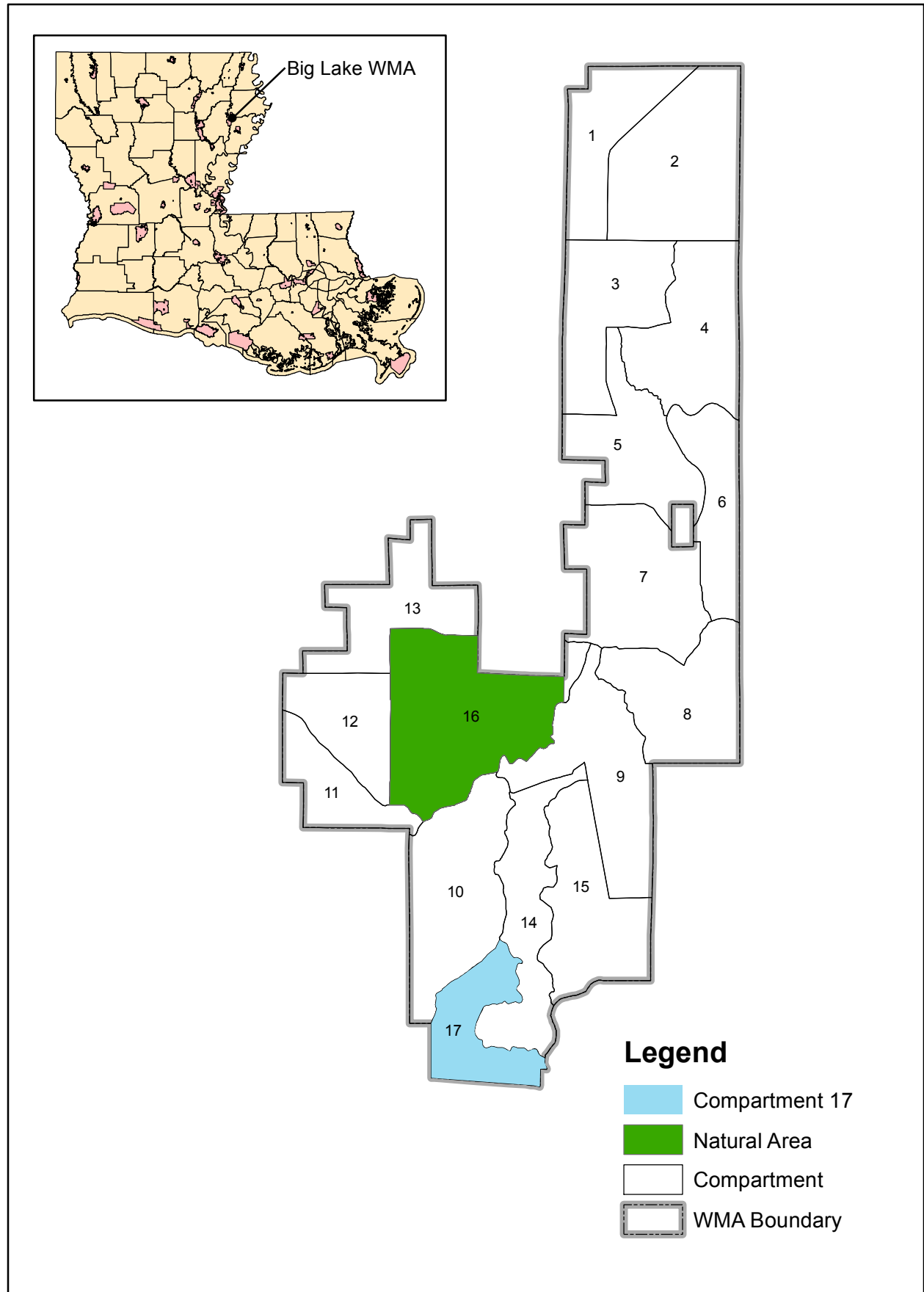
Additional Entry Requirements

- Monitor development of regeneration



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

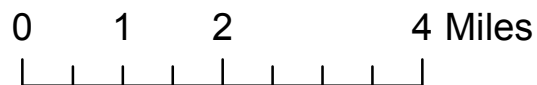
Big Lake WMA

Map 1



Legend

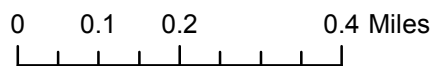
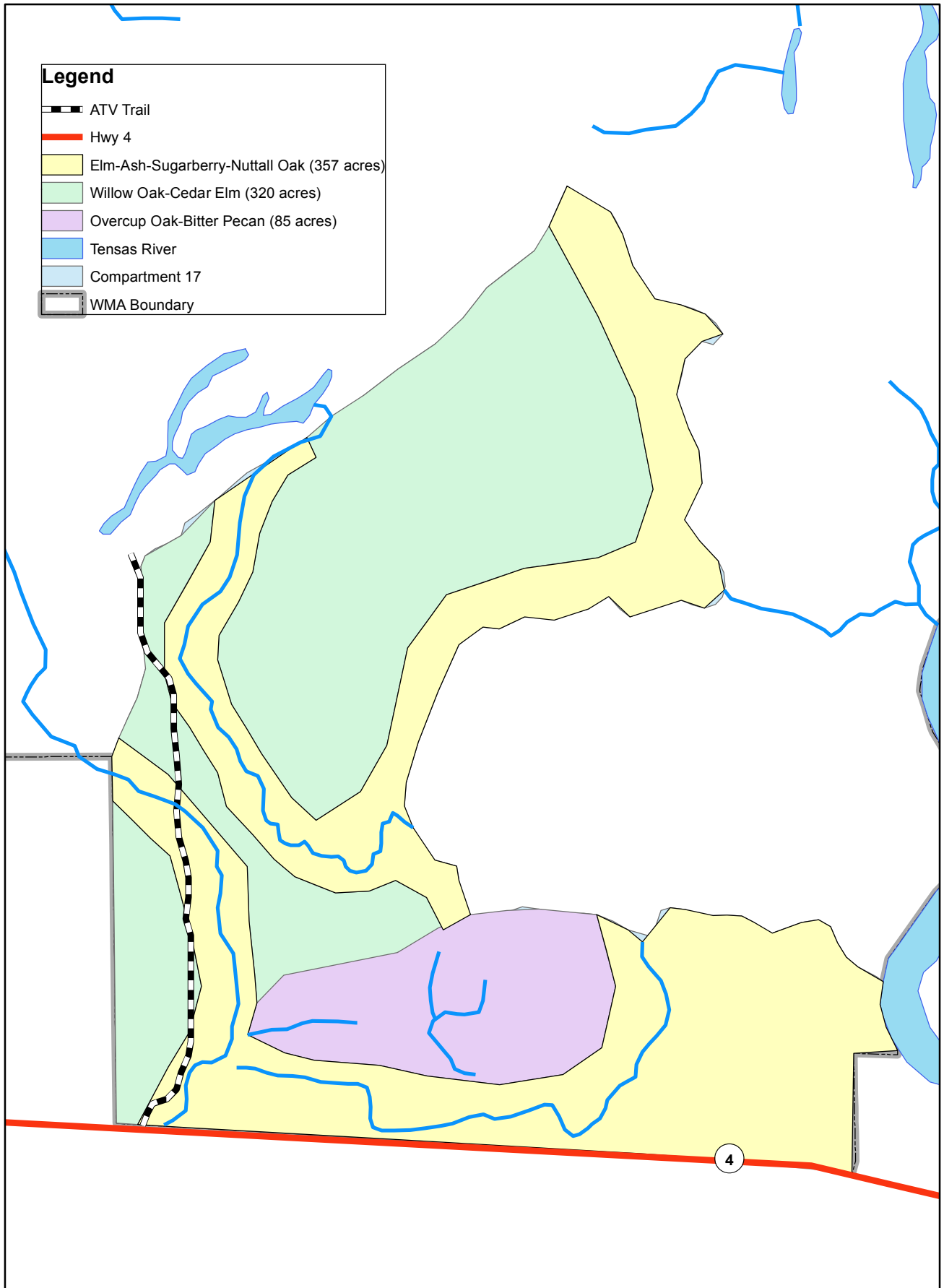
-  Compartment 17
-  Natural Area
-  Compartment
-  WMA Boundary



Forest Type

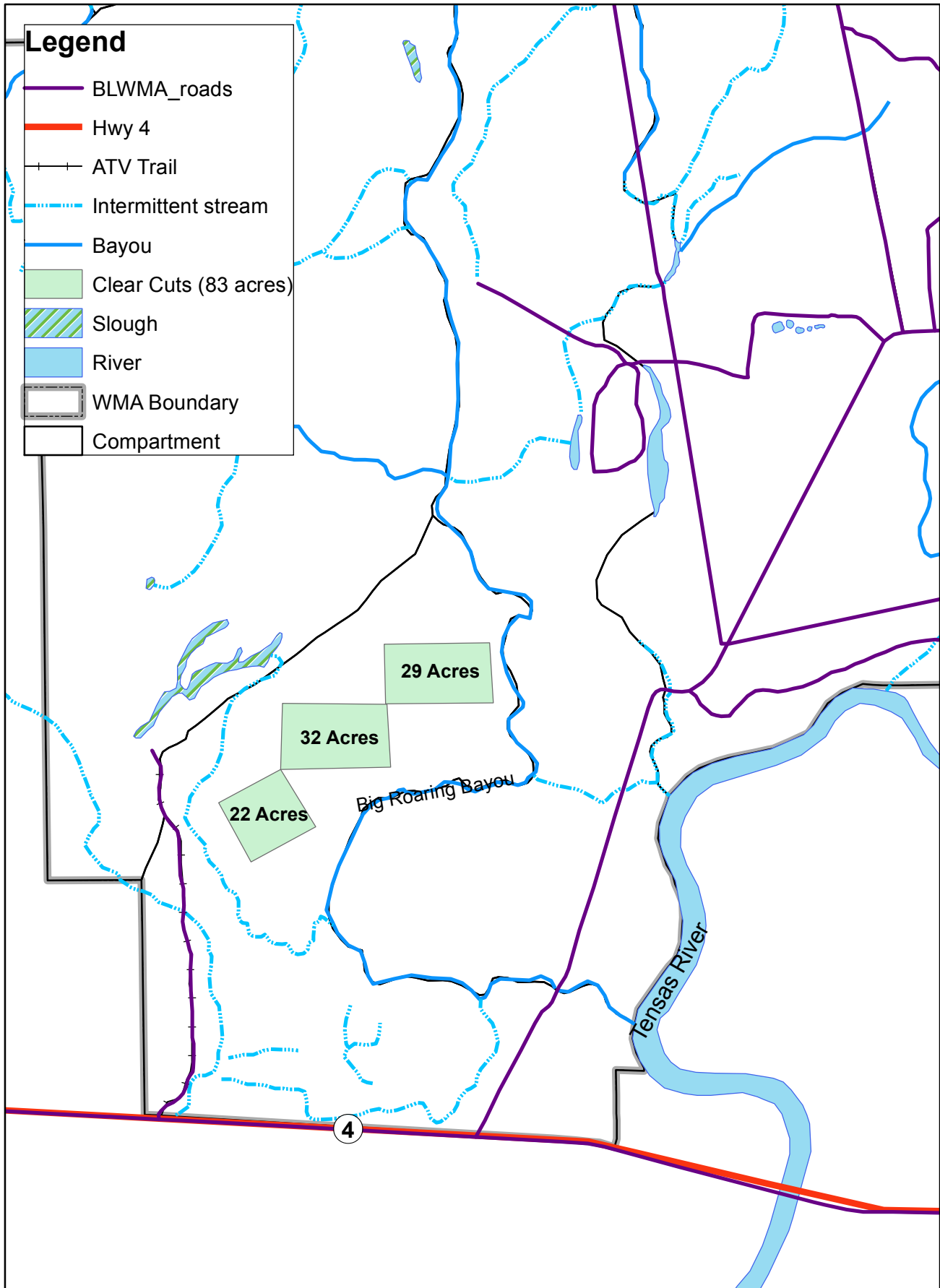
Big Lake WMA

Map 2



Proposed Treatment Big Lake WMA

Map 3



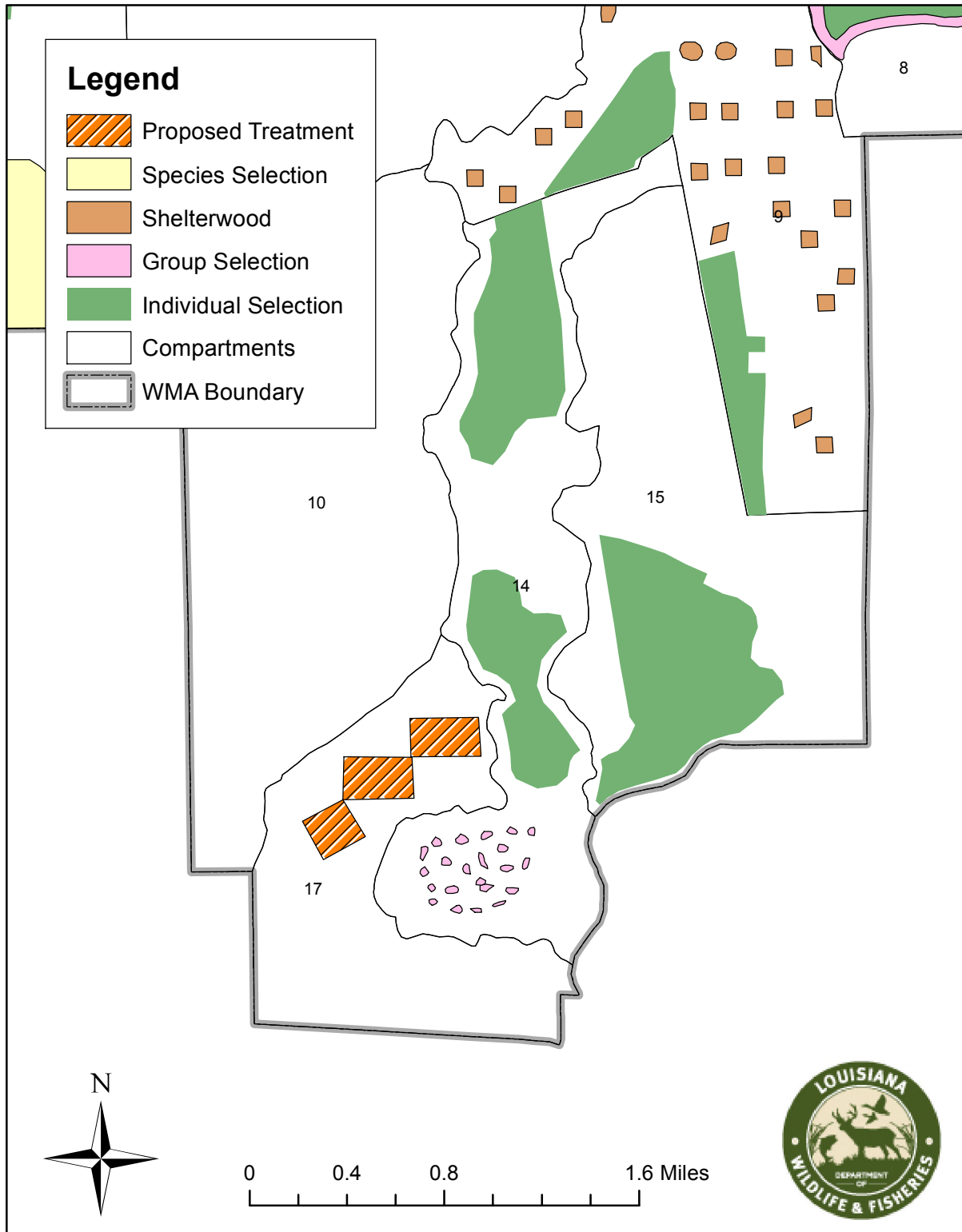
0 0.2 0.4 0.8 Miles



Adjacent Treatments

Big Lake WMA

Map 4



FID	Shape	Sale Number	Treatment	Acres	Date	Comments	ID1	Compartment
0	Polygon	180-4-40	species selection	430	1985 1986		1	5
1	Polygon	41-2-189	individual and species selection	355	1989	sweetgum harvested	2	11
2	Polygon	41-3-191	individual selection	250	1991		3	15
3	Polygon	41-5-199 (indv)	individual selection	(370 total sale)	2000	larger unit	4	8
4	Polygon	41-5-199 (grp)	group selection	(370 total sale)	2000	smaller unit around edge	5	8
5	Polygon	41-6-299 (indv)	individual selection	444 (640 total sale)	2001	SG/NO type; single-tree selection thinning	6	7
6	Polygon	41-6-299 (grp)	group selection	196 (640 total sale)	2002	WLO/CE type; patch-thinning	7	7
7	Polygon	41-4R-195 (indv)	individual selection	(268 total sale)	1996	two larger units	8	9
8	Polygon	41-4R-195 (shtwd)	shelterwood	(268 total sale)	1996	multiple small blocks	9	9
9	Polygon	41-7-104	individual selection	224	2005		10	12