

BIG LAKE WMA

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COMPARTMENT 11 Rx

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Area Description

Big Lake WMA is located in Franklin, Madison and Tensas Parishes approximately 15 miles east of Winnsboro, LA. Compartment 11 consists of 616 acres of forested bottomland hardwoods. It is located within Sections 33 and 34 of T14N, R9E, and Sections 2, 3 and 4 of T13N, R9E. The compartment boundaries are private land to the west, private land and Compartment 10 to the south, and Hog Lake slough to the east and north.

Current Conditions

This compartment consists of three forest types, Nuttall oak/ overcup oak/ bitter pecan, American elm/ green ash/ sugarberry, and willow oak/ water oak/ sweetgum. This compartment has a well-developed and mature forest especially along the northern half of the compartment. The overstory in this compartment is moderately stocked and has the potential to reach canopy closure in the near future with the exception of areas that have experienced tree fall gaps from weather events. The midstory of this compartment has very low stocking but of desired species. The understory of the compartment is in decline, partially due to the canopy closing, as well as longer water inundation periods over the past several years. The average tree density in the compartment is 60 trees per acre with a basal area of 68.7 square feet per acre. The estimated timber volumes are 19.44 tons of pulpwood per acre and 2.06 MBF of sawtimber per acre.

Forest Types

The Nuttall oak/ overcup oak/ bitter pecan forest type accounts for approximately 350 acres. Species found in association with this forest include red maple, green ash, black willow, swamp privet, boxelder, and sugarberry. The stocking of desirable species is high throughout most of this forest type. This forest type has an overstory that has not completely closed, thus, the understory and midstory are still receiving sunlight. Species found in the midstory consist of Nuttall oak, overcup oak, bitter pecan, green ash, locust, sugarberry, deciduous holly, and hawthorn. Understory species found within this forest type are poison ivy, ladies' eardrops, *Smilax spp.*, *Rubus spp.*, rattan, trumpet creeper, and palmetto.

The American elm/ green ash/ sugarberry forest type makes up approximately 145 acres. Other species found within this forest type include Nuttall oak, overcup oak, bitter pecan, sweetgum, persimmon, and locust. The midstory has a high percentage of advanced green ash and American elm regeneration. The understory consists mainly of *Rubus spp.*, *Smilax spp.*, poison ivy, rattan, trumpet creeper, palmetto, and *Vitis spp.* This forest type has a low volume of mature timber, however it boasts a high volume of regeneration that is still increasing. The mid- and understory layers of this forest type are well developed.

The willow oak/ water oak/ sweetgum forest type represents approximately 121 acres of Compartment 11. Other species found in this forest type include cedar elm, sugarberry, sweet pecan, American elm, persimmon, sycamore, cherrybark oak, delta post oak, and boxelder. This forest type is found on the portion of the compartment that is the highest and driest. This forest type has achieved a closed canopy except for areas which have experience wind related canopy

gaps. The midstory is not well developed across the stand as a whole, which can mostly be attributed to the closed canopy. The majority of the midstory consists of regeneration from the desired species in the overstory as well as deciduous holly and hawthorn. Understory prevalence is low. Species found in the understory consist of ladies' eardrops, poison ivy, trumpet creeper, *Smilax spp.*, and rattan. The closed canopy of this forest type has created a decline in available regeneration in the understory as well as wildlife habitat.

Soils

There are three prominent soils in this compartment, Tensas silty clay, Dundee-Sharkey complex, and Sharkey Clay. All of these have good fertility, however they also have poor drainage and have the tendency to retain water from floods. These soil types allow for rapid response to manipulation due to their higher fertility.

Wildlife

This compartment is populated by many species of wildlife due to the availability and variation of forest structures. This compartment is inhabited by the Louisiana black bear, migrant songbirds, and some species of waterfowl. The hard mast crop generally has a high yield which supports squirrels and other small mammals. There is a small amount of browse and escape cover for white-tailed deer as well as a small amount of nesting and brooding habitat for Wild Turkey. The proposed treatment will enhance the browse and habitat for both game and non-game species.

Objectives

- Improve early successional vegetation structure in the understory
- Enhance wildlife cover both in the midstory and understory
- Release advanced regeneration
- Develop a more diverse and complex forest structure

Methods

Individual Select with Groups (265 Acres)

- Cut trees marked with two slashes of **blue** paint, one at eye level and one on the stump
- Boundaries marked with **orange** paint with paint facing treatment area
- Remove suppressed and low quality stems
- Groups (1-3 acres) marked in poorly stocked areas

Concerns

- Improve long term forest structure and composition
- Leave active cavities and large diameter hollow trees, protected, for cavity dwellers and Louisiana black bear
- Maintain roads and hydrology across harvested area

Treatment

The current stand conditions of Compartment 11 warrant timber treatment in the northern portion of the compartment. This is due to the ongoing and eventual decline in the midstory and understory layers of this forest. A variable retention crown thinning with groups is recommended to improve habitat for wildlife, as well as release desirable advanced regeneration.

The group selection areas will both promote the establishment of desirable species germination and release advanced reproduction. This treatment will also provide an increase in early successional habitat across the compartment.

Logging Requirements

- No harvest during wet periods
- No harvesting during the firearm seasons for white-tailed deer or wild turkey
- All logging slash at each loading set will be redistributed throughout harvest area
- 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.

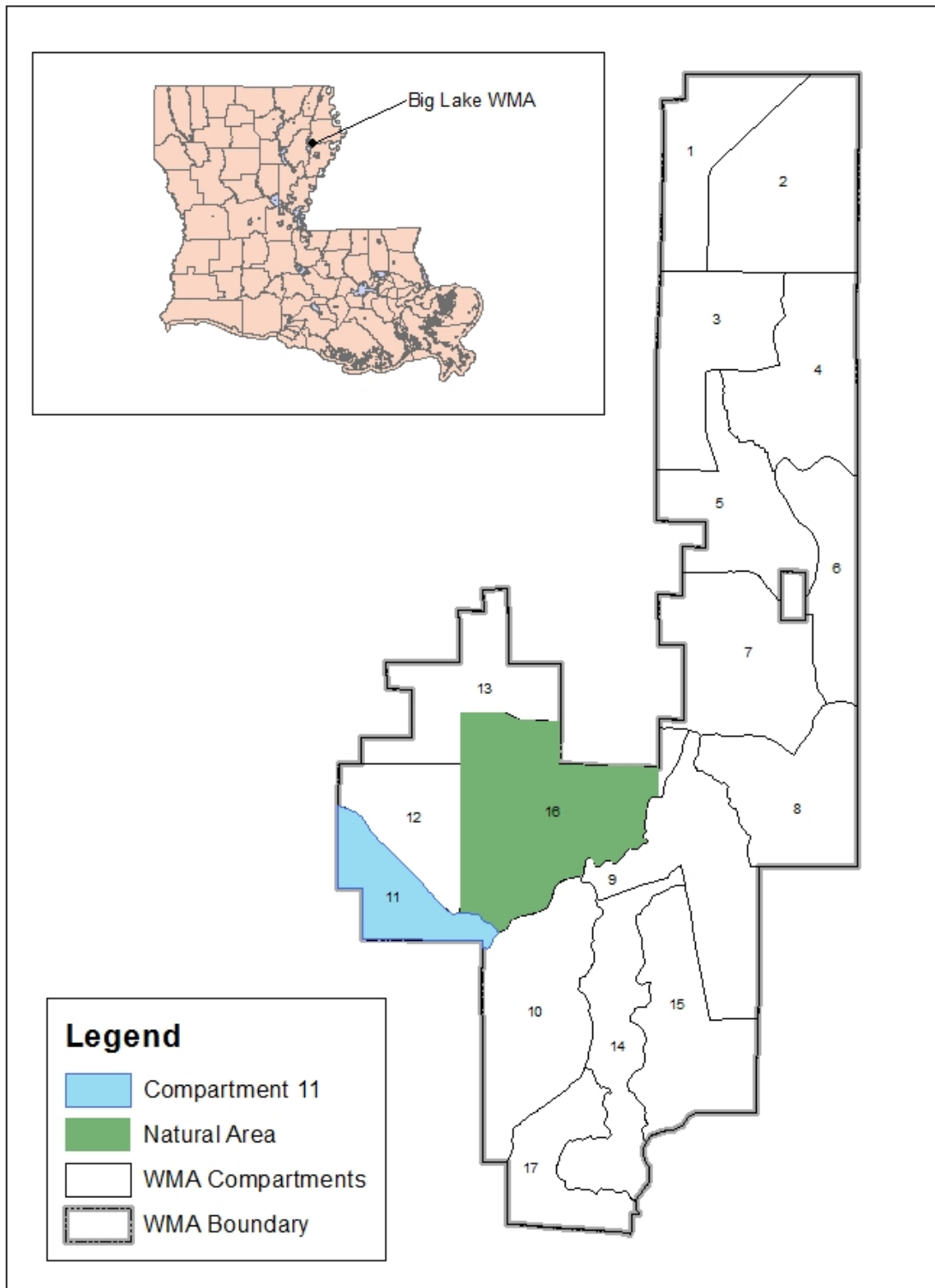
Additional Entry Requirements

- Monitor stand for understory establishment development of released stems

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

Big Lake WMA

Map 1



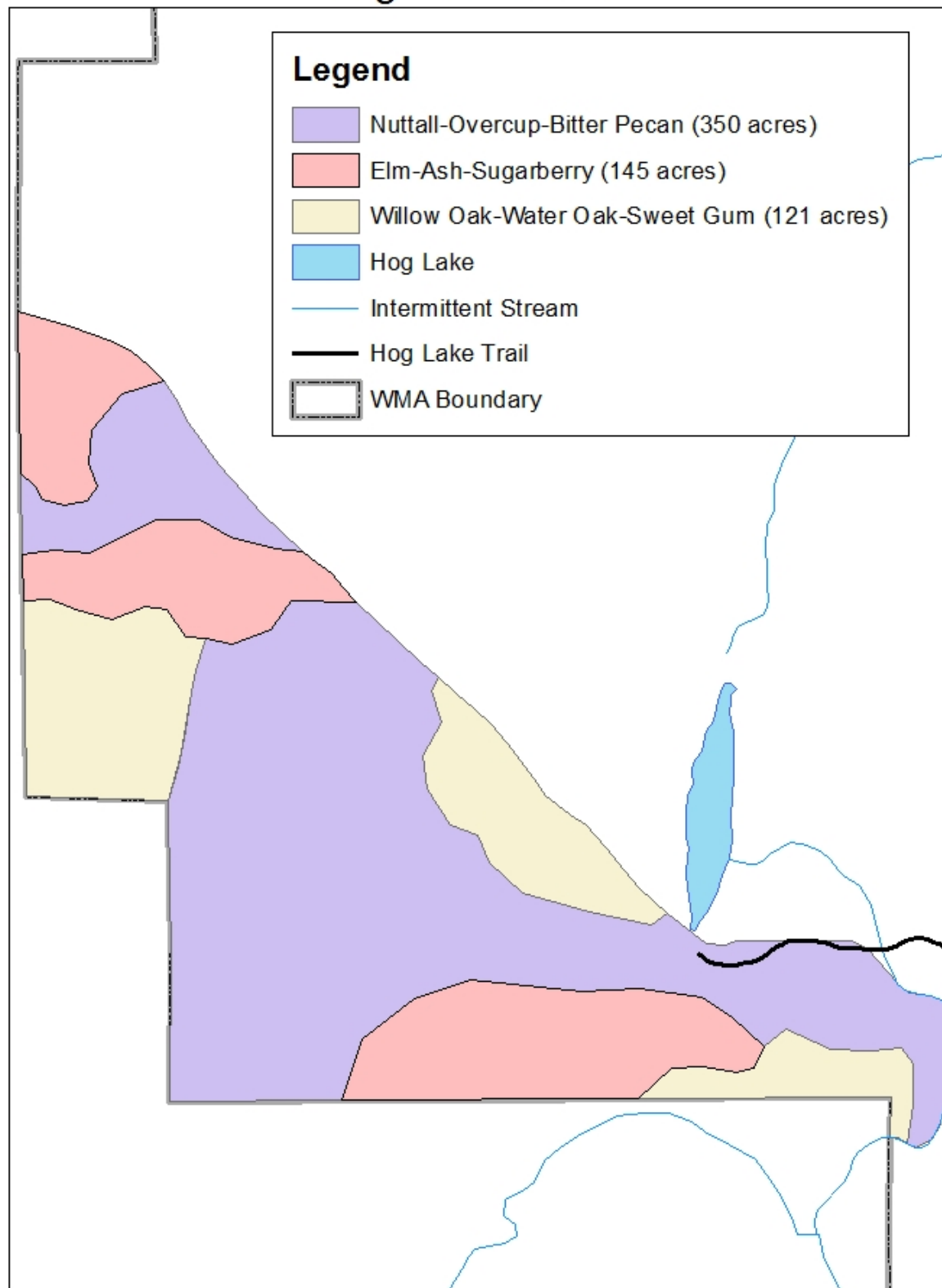
0 0.75 1.5 3 Miles



Forest Type

Big Lake WMA

Map 2



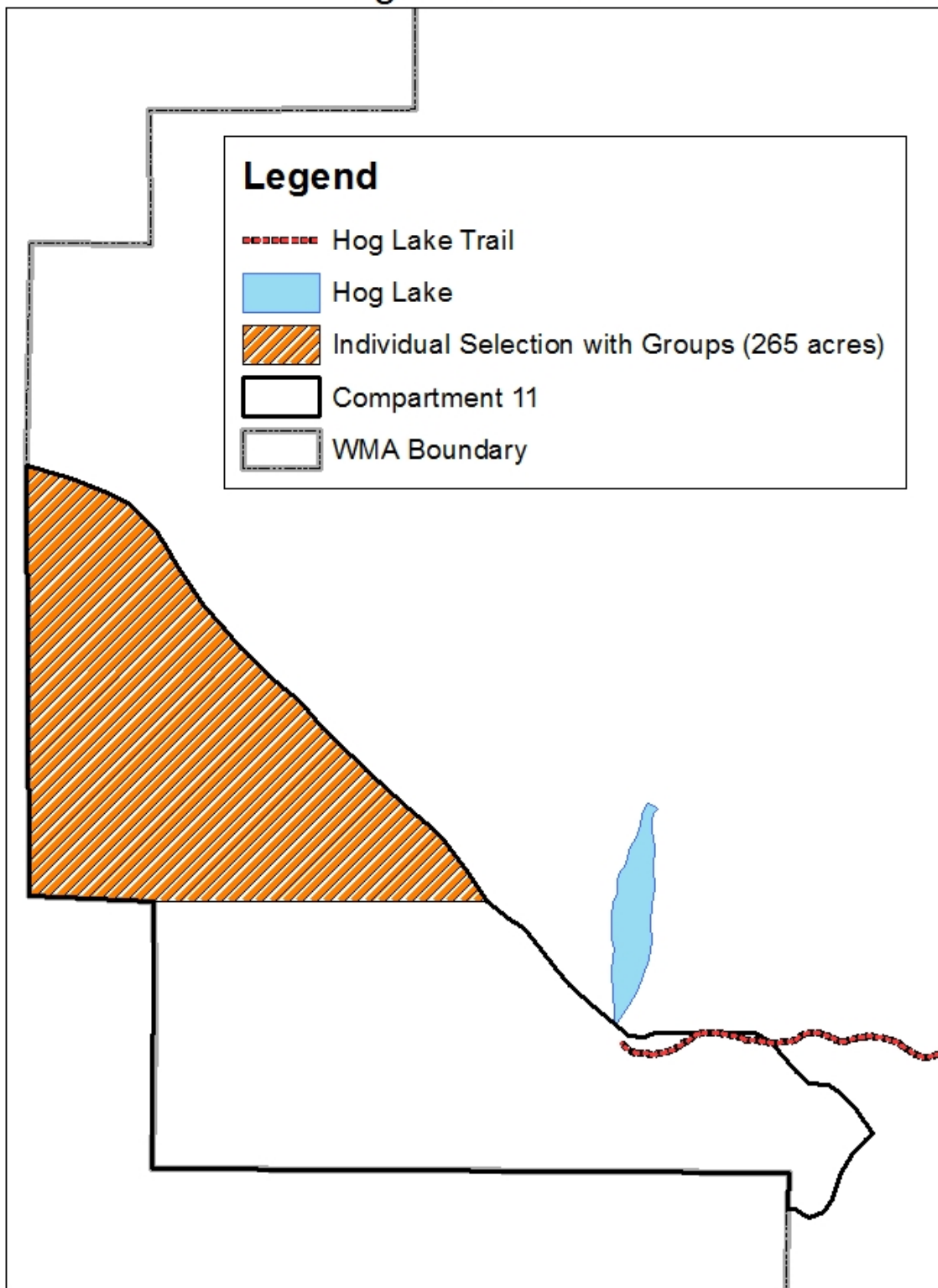
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Proposed Treatment

Big Lake WMA

Map 3



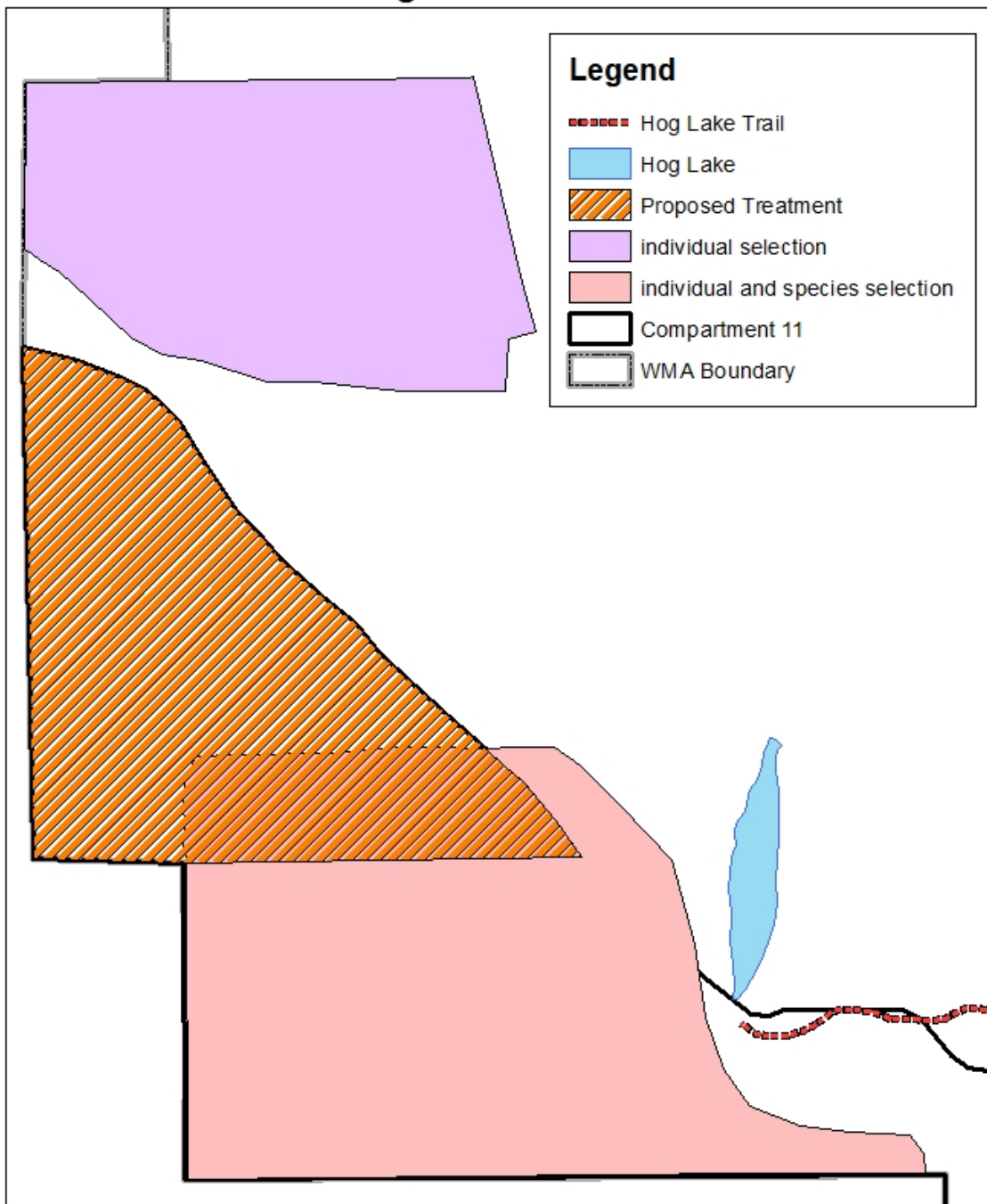
0 0.15 0.3 0.6 Miles



Adjacent Treatments

Big Lake WMA

Map 4



Sale Number	Treatment	Acres	Date	Comments	Compartment
41-2-189	individual and species selection	355	1989	sweetgum harvested	11
41-7-104	individual selection	224	2005		12



0 0.1 0.2 0.4 Miles

