

### **Area Description**

Boeuf WMA is located in Caldwell and Catahoula Parishes approximately five miles east of Columbia, LA. Compartment 13 consists of 1,244 acres of forested bottomland hardwoods. It is located within portions of Sections 31 and 32 of T13N, R5E, and Sections 5, 6, and 8 of T12N, R5E. The compartment boundaries are private land to the west and south, Compartment 12 to the east, and Compartment 10 to the north.

### **Current Conditions**

The area has distinct shifts in forest type that are directly correlated with topography. This compartment consists of three forest types, cypress/ tupelo, overcup oak/ bitter pecan, and willow oak/ cedar elm. Of these forest types, the cypress/ tupelo type is the only area in the compartment that is fully stocked. The rest of the compartment is poorly stocked with a limited overstory and an underdeveloped understory. The average number of trees per acre in the remaining two forest types is 61 with a basal area of 49.7 square feet per acre. The estimated timber volumes are 20.3 tons per acre of pulpwood and 1.325 MBF per acre of sawtimber. The midstory within the overcup oak/ bitter pecan and willow oak/ cedar elm forest types is very heavy. The amount of desirable species regeneration in the midstory of these forest types is also high. However, the heavy presence of the midstory is limiting the amount of sunlight reaching the forest floor, thus creating an open and underdeveloped understory. This coupled with frequent periods of flooding have both played a role in inhibiting understory development.

### **Forest Types**

The cypress/ tupelo forest type accounts for approximately 503 acres. Species found in association with this forest include red maple, green ash, black willow, swamp privet, and buttonbush. The stocking of desirable species is high throughout most of this forest type. Water inundation is not currently adversely affecting the forest or the timber quality at this point.

The willow oak/ cedar elm forest type makes up approximately 485 acres, consisting of the higher ridges in this compartment. Other species found within this forest type include sweet pecan, sweetgum, cherrybark oak, persimmon, delta post oak, and American elm. The midstory has a high percentage of advanced oak and elm regeneration. The understory consists mainly of grasses with a few pockets of *Rubus spp.*, American beautyberry, *Smilax spp.*, Virginia creeper, and poison ivy. This forest type has a low volume of mature timber with a high volume of advanced regeneration in the midstory, which is leading to a closed canopy scenario that is inhibiting the understory from becoming fully developed.

The overcup oak/ bitter pecan forest type represents approximately 256 acres of Compartment 13. Other species found in this forest type include Nuttall oak, sugarberry, sweetgum, American elm, bitter pecan, green ash, red maple, and locust. This forest type is found on the portion of the compartment that is between the brakes and the ridges, an area that holds water occasionally. The midstory of this forest type is not as prominent as that found within the willow oak/ cedar elm forest type, but is showing signs of regeneration that will benefit from a release. Understory

prevalence is low. Species found in the understory consist of ladies' eardrops, poison ivy, trumpet creeper, *Smilax spp.*, and rattan.

### ***Soils***

There are several soil types found within this compartment, which correlates with the distinct forest types. The brakes consist of Yorktown clay and Alligator clay soil types. The lower non-flooded areas consist of Perry clay as well as the Perry-Hebert complex. Lastly, the ridges in the area consist of the Hebert silty clay loam as well as the Perry silty clay loam. The clays of the compartment are poorly drained and fertile, whereas the silty clay loams are better drained and highly fertile.

### ***Wildlife***

This compartment is inhabited by many species of wildlife due to the three distinct forest types. The cypress brakes provide habitat for most reptile and amphibian species found on the WMA as well as waterfowl. The lack of a well-developed understory in the overcup oak/ bitter pecan and willow oak/ cedar elm forest types is not ideal for white-tailed deer nor Wild Turkey. The hard mast crop generally provides a high yield which supports a great number of squirrels and other small mammals. There is a limited amount of browse and escape cover for white-tailed deer as well as a limited amount of nesting and brooding habitat for Wild Turkey.

### **Objectives**

- Create early successional vegetation
- Release advanced regeneration
- Develop a more diverse and complex forest structure
- Create and improve habitat conditions for wildlife

### **Methods**

#### *Shelterwood (400 Acres)*

- Leave trees marked with two slashes of **orange** paint, one at eye level and one on the stump
- Boundaries marked with **blue** paint with paint facing treatment area
- Remove suppressed and low quality stems
- Leave 20-30 stems per acre
- Ensure variable retention across diameter and species classes

### **Concerns**

- Preserve any large hollow trees and trees with active cavities for Louisiana black bear and other cavity dwelling wildlife species
- Increase heterogeneity across the forest
- Improve forest health and vigor
- Maintain roads and hydrology across harvested area

### **Treatment**

The current stand conditions found in Compartment 13 does not encourage long term usage by wildlife due to the lack of browse and cover. A large scale treatment is recommended in order to promote the desired and necessary habitat needed to improve wildlife usage. The middle and southern portions of Compartment 13 can be enhanced with a shelterwood harvest. The goal for

residual timber density will be 25-30 trees per acre. This approach will allow for a release of the advanced regeneration as well as providing much needed sunlight to hit the forest floor to establish a more complex understory. A more complex understory will be beneficial for wildlife that need the complexity for browse, escape cover, nesting, and brooding habitat.

### **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**

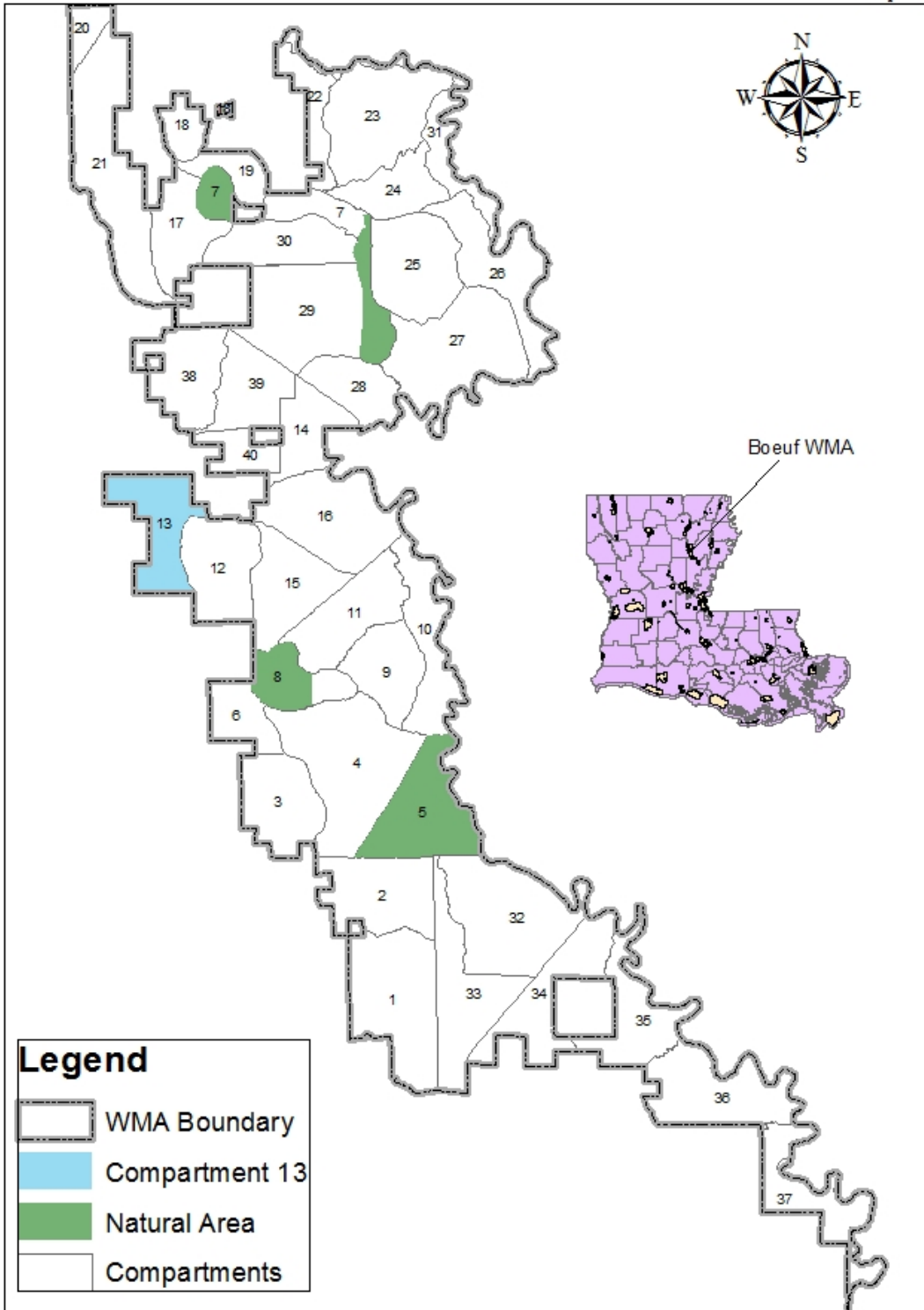
- Monitor stand for understory establishment development of released stems

**Attached maps** (WMA, Forest Type, Treatment, and Adjacent Harvests)

# Boeuf WMA

## Boeuf Forestry Compartments

Map 1



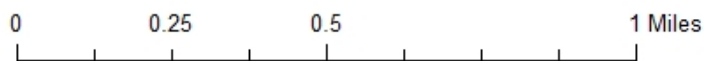
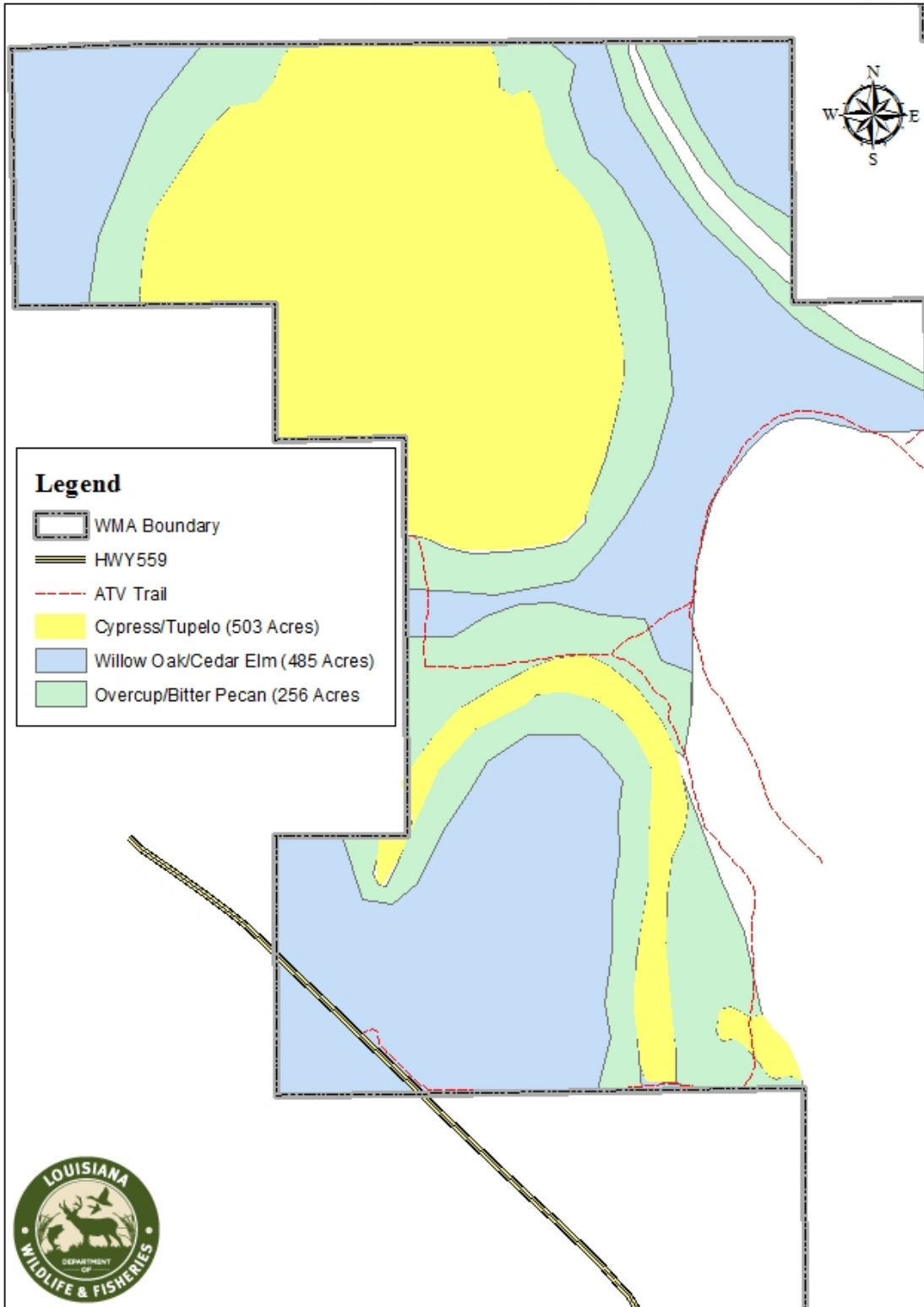
0 1.25 2.5 5 Miles



# Boeuf WMA

Compartment 13 Forest Type

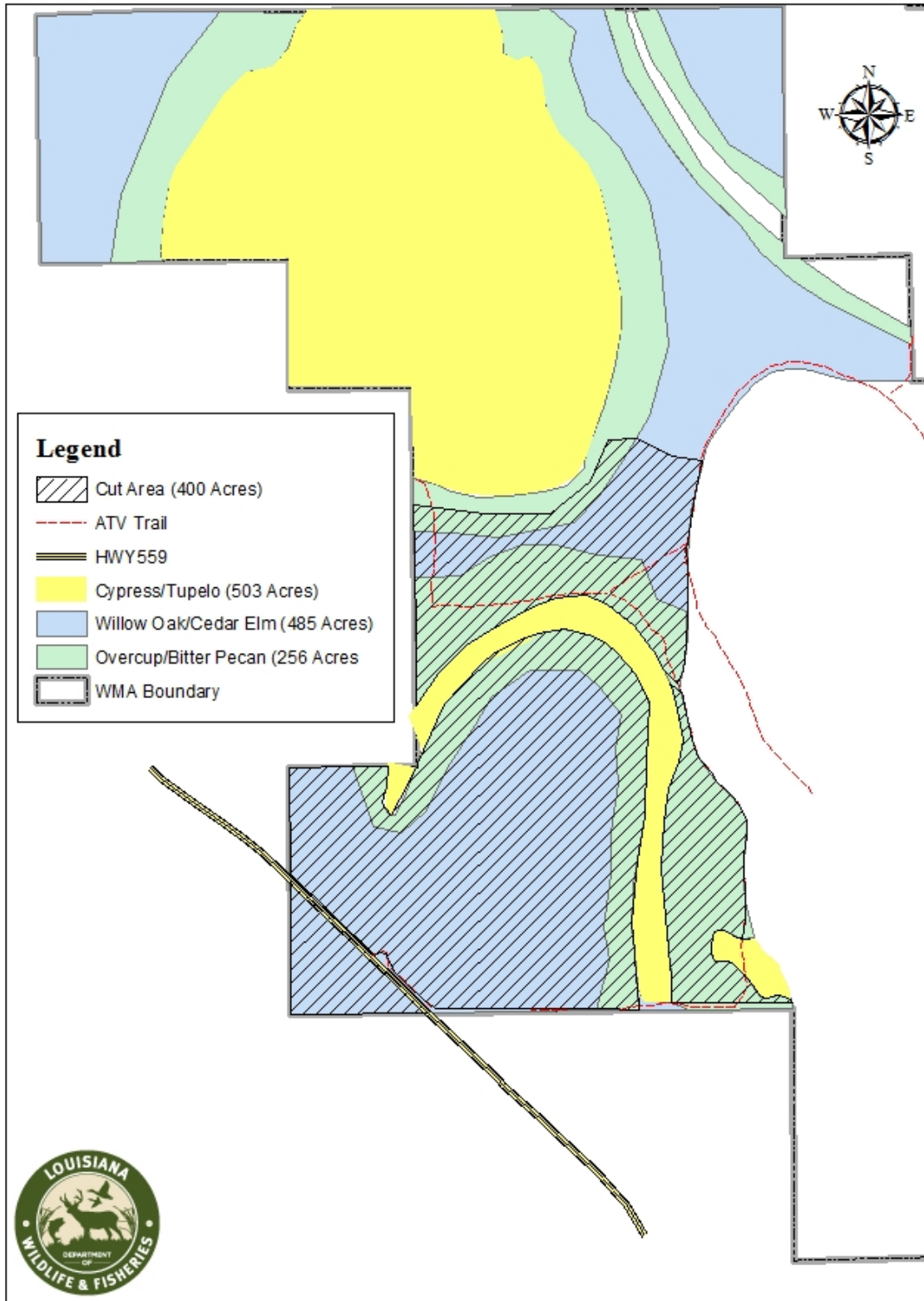
Map 2



# Boeuf WMA

Compartment 13 Proposed Treatment Area

Map 3



## Legend

- Diagonal Hatching: Cut Area (400 Acres)
- Red Dashed Line: ATV Trail
- Thick Black Line: HWY 559
- Yellow: Cypress/Tupelo (503 Acres)
- Blue: Willow Oak/Cedar Elm (485 Acres)
- Green: Overcup/Bitter Pecan (256 Acres)
- Black Outline: WMA Boundary

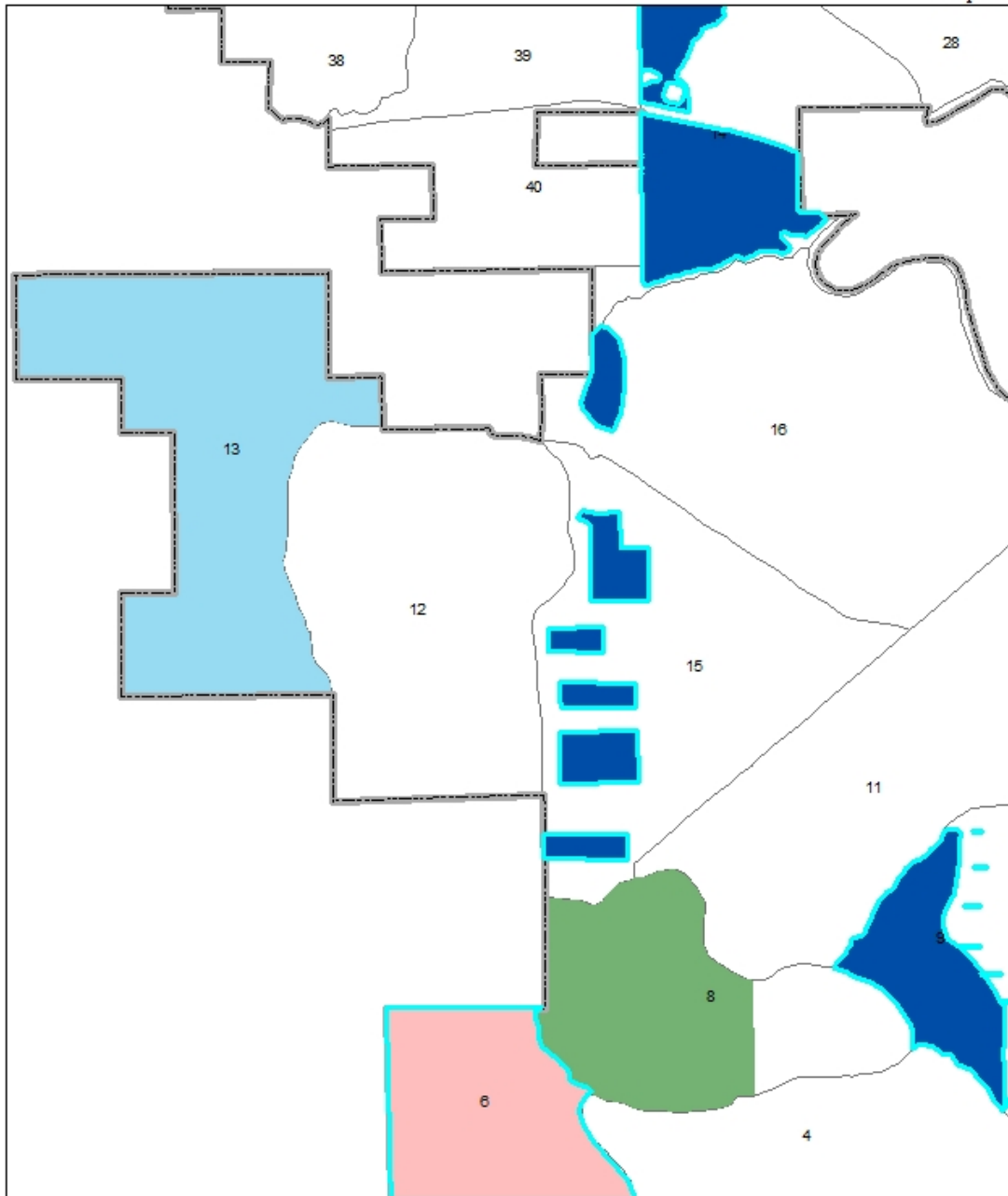


0 0.25 0.5 1 Miles







# Boeuf WMA

## Adjacent Treatments

Map 4



### Legend

-  WMA Boundary
-  Compartment 13
-  Natural Area
-  Compartments
- Harvest Methods**
-  individual / group selection
-  individual selection

Sale Number	Treatment	Acres	Date	Compartment(s)
42-1-192	individual selection	180	1994	15
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42-1-192	individual selection	180	1994	15
42-1-192	individual selection	180	1994	15
42-1-192	individual selection	180	1994	15
42-2-194	individual / group selection	697	1995	6, 3
42-3-197	individual selection	47	1999	16
42-5-201	individual selection	259	2002	9
42-4-101	individual selection	365	2002	18



0 0.375 0.75 1.5 Miles

