

**BOSWELL CREEK WATERSHED PROJECT
SAM HOUSTON NATIONAL FOREST
SPECIALIST REPORT – SCENERY MANAGEMENT
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This report addresses scenery management direction and visual quality objectives in the Boswell Creek Watershed.

AFFECTED AREA

The general forest area of MA-2 in Boswell Creek Watershed has a visual quality objective (VQO) of maximum modification. In maximum modification, the management activities may be dominant, but appear as natural when viewed as background. They can also be out of character when viewed as foreground and middleground. The more sensitive area of MA-4 and the predominantly used travelways: Four Notch Road, Three Notch Road, FS 200 and FS 206, and the Lone Star Hiking Trail, have a VQO of modification. Management activities in modification may also be dominant features, but are of an appropriate scale and form so as to appear as a natural occurrence within the surrounding area.

Currently, there is some variation in the views along roads with a VQO of modification. They range from a highly scenic view of Forest Service and privately owned bottomland hardwoods with large overhanging branches to privately owned large open fields; however, the majority of the views are short distance foreground views of pine forested land. In these forested lands, the vegetation is very dense at eye level from either the thick understory or the high volume of trees in young pine plantations, planted after the mid-1980's Southern Pine Beetle outbreak. Several sections of Forest Service and private land have a utility corridor next to the roadway. Along a section of Four Notch Road, a very unnatural straight line of trees has developed due to the necessary maintenance of the corridor. In other locations, the utility corridor weaves back and forth across the road due to curves in the road and positioning of the poles. These sections are more natural appearing.

Once on Forest Service land inside the limits of the watershed, nine miles of the Lone Star Hiking Trail (the trail) are almost entirely surrounded by Forest Service ownership. (Exception: a one-quarter mile section of trail in Compartment 76, Stands 2 and 3 is next to private property. The Forest Service has no control of this watershed. However, this section of trail is in bottomland with few pines on the private property line). The trail divides into two sections in Compartment 73. The loop to the north continues through Compartments 72 and 70. This section of trail is 3.5 miles long and joins the main trail west of the watershed boundary. The trail winds through a variety of different pine and hardwood mixes and the views vary with the composition of the stand. They range from tight foreground

only in the young pine plantations to foreground, middleground and background in the open understory in the bottomlands. There are situations where the trail is located in a portion of a stand that is not characteristic of the rest of the stand. In several instances, the trail has been moved to an old fire line or to the edge of a bug kill area. Often in these situations, pine was not replanted to the edge of the trail, which has created a corridor with a plant composition that is different from the materials on either side.

The National Forests and Grasslands in Texas 1996 Revised Land and Resource Management Plan (the Plan) describes the desired future condition of MA-2 generally as open pine forest mixed with some hardwoods with the primary management goal of improving the habitat for the red-cockaded woodpecker (RCW). To achieve this goal, the management activities require frequent fire to create an open grass like understory. Timber management activities are evident throughout due to the focus on management and restoration of upland pine forest with large older pine trees to provide the best opportunity of habitat for the RCW. MA-4 is generally described as streamside management zones with bottomland hardwoods. It is not managed for timber, but fire may be used for enhancement.

EFFECTS OF IMPLEMENTATION

PROPOSED ACTION

The proposed management activities of thinning and burning and burning only will have a positive effect on the scenery by opening views and creating more depth into the forested land. Along the roads identified, approximately 60 percent of the management activities proposed are thinning and burning while the remaining 40 percent is burn only. Thinning the young pine plantations will begin the process of opening the stands and will help to release the trees allowing them to become larger and healthier with better shaped canopy. Thinning in the mature pine stands will create a more majestic canopy as the pine fills in. The majority of the “burn only” stands along the roads are mature pine with a heavy understory. Over time, burning the pine stands will control the understory and create an open pine forest with increased visibility into the stands.

Approximately two thirds of the Lone Star Hiking Trail is located in “burn only” stands and fire line corridors. As a general rule, the fire line corridors do not have enough pine in them to harvest. Most of the “burn only” stands are hardwood and hardwood – pine mix with many portions of the trail in and around MA-4. The predominantly hardwood stands are not likely to be affected by fire due to the lack of pine needle fuels and generally higher moisture content, particularly along MA-4. The mixed stands with a larger component of pine will begin to change to more pine with the increase of fire, as anticipated in the Plan. The remaining one third of the trail is in stands to be thinned and burned. The greatest visual changes will occur in the stands that are young pine plantations.

Thinning and burning will begin to create openings in the tight foreground views and eventually provide foreground and middleground views. Thinning and burning will also change the predominantly mature pine stands by reducing the number of pines allowing for larger canopy and longer distance views by removing the understory.

Management activities will have short-term effects on the use of the trail. The trail will need to be closed during the timber sales and prescribed burning. To reduce the impact on the public, it is best to schedule these activities during periods of minimum use. Activities may also be scheduled to keep either the north or the south loop open to minimize closure.

Initially, there will be locations where the difference between existing views and the views after thinning and burning will be very dramatic. To develop a more natural appearing landscape where thinning occurs, logging slash within 100 feet of the trail and the identified roads will be lopped to lie within two feet of the ground, pulled away and scattered. In the general forest area, the slash will be visible until the stands are burned. Current logging techniques will create some openings along the roads and trail in the thinned stands, but the longer middleground views will be created when the stands are regularly burned. When burned, scorch and bark char will be visible for sometime; however, this is a natural part of fire. After several rotations of fire have reduced the fuels, fire will be less intense and scorch and bark char will be reduced. To maintain a greater diversity in the thinned stands along the trail, keep existing hardwoods – oaks, hickory, magnolias and other flowering trees, 5 inches and over, within 50 feet of the trail.

The proposed management activities provide the opportunity to improve the views along the straight utility corridor on Four Notch Road. Recommended is the development of seven openings of varying shape and size (up to 100 feet deep and 100 feet wide) with feathered edges. This will soften the straight edge of the pine plantation along the utility corridor. In addition, it is recommended that several of the large older pines and hardwoods remaining in a single line “beauty strip” at the edge of Four Notch Road be removed. Due to utility corridor maintenance, the line of trees is very unnatural and several of these trees are unsightly and hazardous. (Obtain assistance from the Landscape Architect and/or PAT Silviculturist when laying out the openings and selecting the large trees in the “beauty strip” for removal).

NO ACTION ALTERNATIVE

Under the “no action alternative”, the views along the roads would remain as they are for some time. As pine stands within the watershed decline with age, the understory will become denser and views along the roads will continue to remain primarily foreground. With a lack of management activities, the possibility of rapid change is increased due to natural events such as wildfire, straight-line

winds and insects (such as the SPB outbreak in the 1980's). These events can have devastating effects on the quality of the scenery. The young pine plantations will have difficulty developing into quality trees and will be more susceptible to insects.

Views along the trail will remain fairly intact in the hardwood stands, especially in the bottomlands. The quality of the views will decline in the pine stands as the understory becomes denser due to lack of fire and eventual decline of the overstory.

The opportunity to improve the views of the utility corridor along Four Notch Road will not be possible.

SUMMARY

The overall visual effect of the desired future condition for MA-2 in Boswell Creek Watershed (the watershed) is open pine forest. The process of achieving this condition improves the visual quality of the pine stands by increasing the visibility into the forest. Approximately 3 miles of the Lone Star Hiking Trail (the trail) and 5.4 miles of road on Four Notch, Three Notch, FS 200 and FS206 (identified roads) will be directly affected by thinning. Mitigation of logging activities along the travelways will reduce the impact.

Prescribed burning will keep the understory controlled and the views into the pine stands open. Nine miles of the trail and 7.6 miles of identified road will potentially be affected by burning. The effects will be temporary and will not impact all sections of the travelways at the same time.

Management activities will be scheduled to minimize the amount of trail closure.

REFERENCES

USDA Forest Service. 1996. Final Revised Land and Resource Management Plan. National Forest and Grasslands in Texas. Lufkin, Texas

USDA Forest Service. 1974. National Forest Landscape Management, Volume 2. Agriculture Handbook Number 462. Washington D.C.