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Report for the Houston South Environmental Assessment

Effects to Visuals and Recreation

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Resource Impacts or Issue(s) Addressed

This section discloses the effects to visual quality and recreational use within the Hickory Ridge and Fork Ridge trail systems, and associated roadways in reference to the proposed Houston South Vegetation and Restoration Project (USDA, 2018).

Scope of the Analysis

The spatial boundary used to evaluate direct, indirect, and cumulative impacts is the Houston South Vegetation and Restoration Project boundary. The timeframe of consideration for effects to visuals is twenty years, to allow for substantial rejuvenation of grasses, brush, and other vegetation. The timeframe of consideration for effects to recreation is 12-15 years because silvicultural treatments would be complete by this period, with a considerable amount of the impacts subsiding (with the exception of shelterwood removal cuts) (Combs, 2019). Prescribed burning would occur beyond a 10 year time period (up to 20 years), however burn units typically impact recreation for only a day or two, with trail closures occurring up to 5 days depending on unit conditions following the burn (Kolaks, 2019).

Methodology

Units of measure discussed in this report are sections of trails and associated roads within the cutting units that are adjacent to cutting units, or where roads and trails are located within the cutting unit (USDA, 2014).

Environmental Consequences

Visuals

The proposed Houston South Vegetation and Restoration Project would have both positive and negative effects on the visual quality of the viewing area along trails and roads within the project boundary; depending on the perspective of the observer, and time of use. Silvicultural treatments would change the visual character of the area, particularly within the first several years. Forest visitors utilizing the trails within the project boundary and travelers along associated roads bordering the project, would see a landscape with a more open appearance in areas, rather than stands of trees throughout. The changes would be considered negative to some viewers and positive to others, as visuals are largely subjective depending on the observers' perspective. Treatments would vary, thus the level of visible impact would also vary. A mosaic of forest conditions would be visible in the treated areas, providing diverse forest age classes and habitat types, thus increase the diversity of viewable wildlife and perspectives of the forest from a visuals standpoint. In several years, the stands would appear more natural as regeneration proceeds. The visual evidence of woody debris and stumps would diminish as the stands grow in new vegetation. Portions of the treatment areas would appear as heavily disturbed landscape at first, but would eventually blend in during later growing seasons (Appendix A., Figures 1, 2, 3, & 4) (USDA 2014). Although the current landscape would be altered in treatment areas, the proposed activity would promote a landscape dominated by hardwoods, create early successional habitat, and restore dry hardwood forest ecosystems that have not experienced periodic disturbance due to fire or other naturally occurring events (USDA, 2018). Forest visitors would experience a variety of age classes, and native plant and animal habitat conducive to the Forest Plan (USDA, 2006). Approximately 11.5 miles of the identified trail systems within the project area would be affected by silvicultural treatments (Appendix B.), (Amick, 2019). An additional 3 miles of trails could be affected by the removal of timber.

In addition to silvicultural treatments, prescribed burning would take place within the Houston South Vegetation and Restoration Project boundary, having short term negative effects on visual quality. Techniques applied are generally considered “light”, or low to moderate intensity burning. In most instances burned areas are relatively indistinguishable from adjacent unburned areas unless the burned area is part of a restoration effort (USDA, 2011). Prescribed burning would occur within control lines and smoke would be visible during the burns and within a short window of time following the burn. Any burn scars on trees within site distance of the Hickory Ridge and Fork Ridge trail systems and associated roadways would have a short term negative effect on visual quality (USDA, 2014). Soon, the positive visual effects of burning would dominate by enhancing aesthetics by maintaining open stands, increasing numbers of flowering annuals and biennials, increasing herbaceous cover and maintaining open spaces such as vistas. In terms of silviculture, fire promotes the accumulation of oak reproduction, thus supporting the purpose and need of the proposed project (USDA, 2011).

The visual impact of silvicultural treatments and prescribed burning would not be occurring all at once for the entire identified project area. Silvicultural treatments and burns would be scheduled in “units”. Silvicultural treatment and associated sales within an identified unit typically occur for 1 to 3 years. Prescribed burns typically take a day or two per unit, with trail closures occurring up to five days depending on conditions (Kolaks). All debris resulting from vegetative management and prescribed fire use would be treated to maintain the visual foreground along frequently traveled roads, trails, and streams to meet visual quality objectives defined in the Forest Plan (USDA, 2006).

Recreation

The proposed Houston South Vegetation Management and Restoration Project would have both positive and negative impacts to recreation trail users, and other modes of recreation; depending on the perspective of the observer, and time of use. Approximately 26 miles of trails within the Hickory Ridge trail system and the Fork Ridge trail are within the project area. Trail users would be affected by approximately 14.5 miles of temporary trail closures during the time period of timber sales, intermittently, over a 12-15 year span of time (Combs, 2019).

All trails within the project boundary would not be impacted at once, and some trails segments and sections may not be impacted at all. Silvicultural treatments affecting trail corridors would include approximately 1.7 miles of clearcutting, 0.9 miles of shelterwood cutting, 0.5 miles of selection cutting, 4.1 miles of hardwood thinning, 1.5 miles of midstory removal, 0.7 mile of crop tree release, within the affected Hickory Ridge trail system. Additionally, the Fork Ridge trail corridor would be affected by approximately 0.6 mile of shelterwood cutting, and 1.3 miles of hardwood thinning (Appendix B.), (Amick, 2019). Trails that would be affected would be signed “closed”, during active timber removal. Timber sales typically last 1 to 3 years, and trail segments affected would only be closed during active removal within the timeframe.

Some trail segments would be developed into temporary roads, to effectively cut and remove timber (USDA, 2018). Approximately 4.7 miles of existing trail within the proposed project boundary would either be reconstructed or constructed into a road. Any road reconstruction or construction that occurs on an existing designated trail would be rehabilitated per design measures and returned to its original condition (or

improved condition) upon road use expiration. Additionally, It may be determined that the location of the temporary road that is not a designated trail, is a more sustainable location than the nearby existing trail location, thus trails may be relocated to where the road would be constructed. If a trail segment is relocated to a more sustainable location, the pre-existing trail would be obliterated and closed. Any newly located trail would meet Forest Service trail standards, after utilization as a road expires. Long term trail condition would improve in these cases, thus improving the recreation experience, long term. Because the location may change slightly for the existing designated trail, overall trail mileage may increase or decrease up to 2 miles within the project area boundary.

Trails within the project boundary may also be utilized for skidding timber. Trails impacted by skid use would be returned to their pre-existing state by the contractor, if determined that the trail is in the best location from a sustainability standpoint. Trails would follow Forest Service design criteria (Table 1.) for rehabilitation after use for silvicultural treatments and extraction.

Trail re-routes may occur on trails that are in riparian areas or in poor locations including trail #15, #20, and the conjoining system area of #11, #12, #3, and #13, regardless of project impacts. Additionally, a short spur trail (approximately 0.2 mile) with limited parking, would be added as a connector trail to Trail #15. A permanent trail closure would occur on trail #20 starting at county road 925N to the junction of trail #18, due to poor trail condition and low use. Total mileage of the proposed trail closure segment is approximately 1/2 mile. Trail mileage would not greatly change but may increase or decrease up to two miles overall, depending on the best sustainable locations of trails affected. Because Contractor work would vary, additional mitigation measures may be determined after treatments to restore the trail corridor, including determining if a re-route is needed.

Existing trails within the project boundary may also be used for prescribed burning fire lines and access. Trails within a burn unit would be signed "closed" during the burn. Trail closures would be temporary in nature (up to five days), and would only be needed during the active time of the burn. Burns would be scheduled by "units", and the entire project area would not be impacted at the same time, but instead spread out over several years (Kolaks, 2019).

Although vegetation treatments (silvicultural treatments and prescribed burns) would negatively affect trail use and other recreational activities in the project area, the long term benefit of restoring early successional habitat and the regeneration of oak and hickory trees substantiates the need for short term impacts to visual quality and recreation. Furthermore, similar recreation opportunities are offered nearby on other Hickory Ridge trails outside of the project area (approximately 25 miles of trails), the Nebo Ridge and D trail (approximately 7 miles of trails), as well as further south on the Forest at the Shirley Creek trail system (nearly 20 miles of trails). Additional recreation trails are also available nearby in the Charles C. Deam Wilderness (hike, horse) (Appendix C, Figures 6, 7, 8, 9). Overall, the Hoosier National Forest has approximately 260 miles of recreation trails (USDA, 2006).

Signage of educational and interpretive value may be installed along affected trails to better inform the public and trail users of forest management techniques (Appendix A, Figure 5).

Beginning in 2020, silvicultural treatments would commence based on sale units identified. Recreation impacts would be considered in the scheduling of sale units. Treatment units would be staggered and approximately 11 miles of trail would be impacted by treatments. Approximately 3 miles of additional trail would be impacted by skidding and hauling timber. A unit adjacent to another unit would not be impacted at the same time (Combs, 2019). Treatments may occur in one area, and then followed by another area within the project boundary but not directly next to the previously treated unit. Staggering of units would alleviate some impacts to recreation. Trails would be impacted, however, the least amount of trail closure needed to ensure safety and project success would be implemented, and only during active sales and active prescribed burning. Typically, silvicultural treatment occur prior to prescribed burning (Combs, 2019, Kolaks, 2019).

Environmental Consequences (Effects) by Alternative

Alternative A – Proposed Action

Effects to visuals and recreation are described in the above section entitled Environmental Consequences (Effects).

Alternative B – No Action

Under Alternative B, the No Action Alternative, no vegetation treatments would be implemented, no road work would occur, and there would be no effect to users of the Hickory Ridge and Fork Ridge trail systems and associated roadways in the short or long term. Trail maintenance and trail use would continue uninterrupted except for strong wind events resulting in down trees. In those cases, the trail would be temporarily closed for safety concerns while it is cut out. Vegetation would continue to grow and die naturally, thus visuals would be affected by natural conditions. Conversely, the non-native pine trees, particularly along the trail, would continue to be susceptible to disease and die off and be prone to blow down during wind events. Trail users would be at risk of injury or death as trees blew down or fell down naturally. Habitat diversity would not be increased and oak and hickory species would continue to decline, which may impact the visual enjoyment of some, especially for users who are seeking a diversity of wildlife. An increase of hazard trees would be likely as trees continue to age and mature along trail and road corridors.

Cumulative Effects

The geographic boundary for cumulative effects to visuals and recreation is the proposed Houston South Vegetation and Restoration Project boundary. No additional cumulative effects to recreation resources are anticipated as there are no other past, present, or future actions predicted to contribute aggregated effects. The time period is from the beginning of the proposed project, 2020 through 2040 when the Houston South project treatments would be complete, bearing in mind most silvicultural treatments would be complete within 10 years, and prescribed burning effects are short-term and intermittent, within the 20 year window.

Alternative A – Proposed Action

No foreseeable proposed actions, therefore, no cumulative effects are predicted.

Alternative B – No Action

There would be no cumulative effects of the No Action alternative because the project would not take place, and recreation use and scenery in the area would continue as is.

Consistency with the Forest Plan

Proposed vegetation treatments and prescribed burns are consistent with Forest Plan visual quality objectives (VQOs). This project is consistent with the Forest Plan desired condition of Management Area 2.8, which the majority of the proposed project area resides. The Hickory Ridge and Fork Ridge Trail systems are located within Management Area 2.8. The desired condition includes a variety of forest types, reflecting different ecological sites and management activities; in addition to maintaining 4 to 12 percent of the area in young forest habitat and up to an additional 3 percent as openings. The Forest manages the area primarily for plant and animal habitat diversity and timber harvest is an appropriate tool for use in this area (USDA, 2006). Woody debris resulting from vegetative management and prescribed burning would receive special treatment along the visual foreground of frequently traveled roads and trails to meet the visual quality objective of modification (USDA, 2006). The VQO of modification is described as "...management activities may visually dominate the original characteristic landscape but at the same time must borrow from naturally established form, line, color, or texture (USDA, 2006).

Consistency with Laws, Regulations, and Handbooks

This project is consistent with Laws, Regulations, and Handbooks, land use plans, and policies for recreation and visuals.

Recommended Design Measures to Address Visuals and Recreation Concerns

Table 1

TEAM'S RECOMMENDED DESIGN FEATURES

	REASON RECOMMENDED	EFFECTIVENESS REFERENCE
DESIGN MEASURE		
1. Restore trail tread to its original condition as much as possible after treatment and in a timely manner. Operations including: Repair to waterbars, removal of slash and debris, smoothing of ruts in trails, removal of overhead hazards, and brushing in widened trail corridors.	Sections of the Hickory Ridge and Fork Ridge Trails would be used for hauling and skidding.	Uniontown North timber sales.
2. Lop and scatter slash adjacent to the Hickory Ridge and Fork Ridge Trails for 25 feet.	To maintain the visual quality objectives of modification	Uniontown North timber sales.

Appendix A.



Figure 1. Two Camps Sale 2014, photo taken in 2019



Figure 2. Two Camps Sale 2014, photo taken in 2019

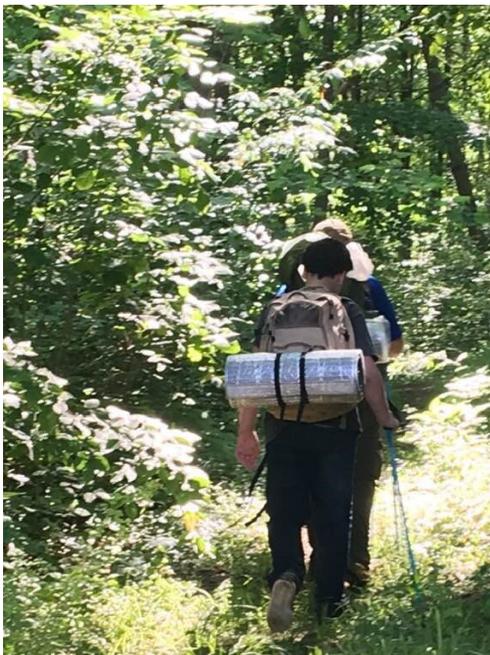


Figure 3. Hikers utilizing trail through Two Camps Sale area, 2019



Figure 4. Plock Sale 2010 German Ridge Trail, photo taken in 2019



Figure 5. Interpretive signage in Teke Sale 2017, photo taken in 2019

Appendix B. Total Affected Trails by Silvicultural Treatments

Hickory Ridge

Clearcut	
Trail 3	0.33
Trail 11	0.09
Trail 14	0.20
Trail 15	0.02
Trail 16	1.01
Trail 21	0.09
Total	1.74
Shelterwood	
Trail 3	0.48
Trail 17	0.44
Total	0.92
Selection	
Trail 3	0.10
Trail 11	0.03
Trail 12	0.10
Trail 15	0.24
Total	0.47
Hardwood Thinning	
Trail 3	1.31
Trail 11	0.39
Trail 12	0.26
Trail 14	0.63
Trail 15	0.27
Trail 16	0.52
Trail 17	0.43
Trail 22	0.25
Total	4.06
Midstory Removal	
Trail 3	0.08
Trail 16	1.02
Trail 17	0.36
Total	1.46
Crop Tree Release	
Trail 12	0.13
Trail 16	0.49
Trail 22	0.08
Total	0.70
Total Hickory Ridge	9.35

Fork Ridge

Shelterwood	
Fork Ridge 1	0.62
Hardwood Thinning	
Fork Ridge 1	1.31
Total Fork Ridge	1.93

Total Affected Trails (from Silv. Activities): 11.28 miles

Appendix C.

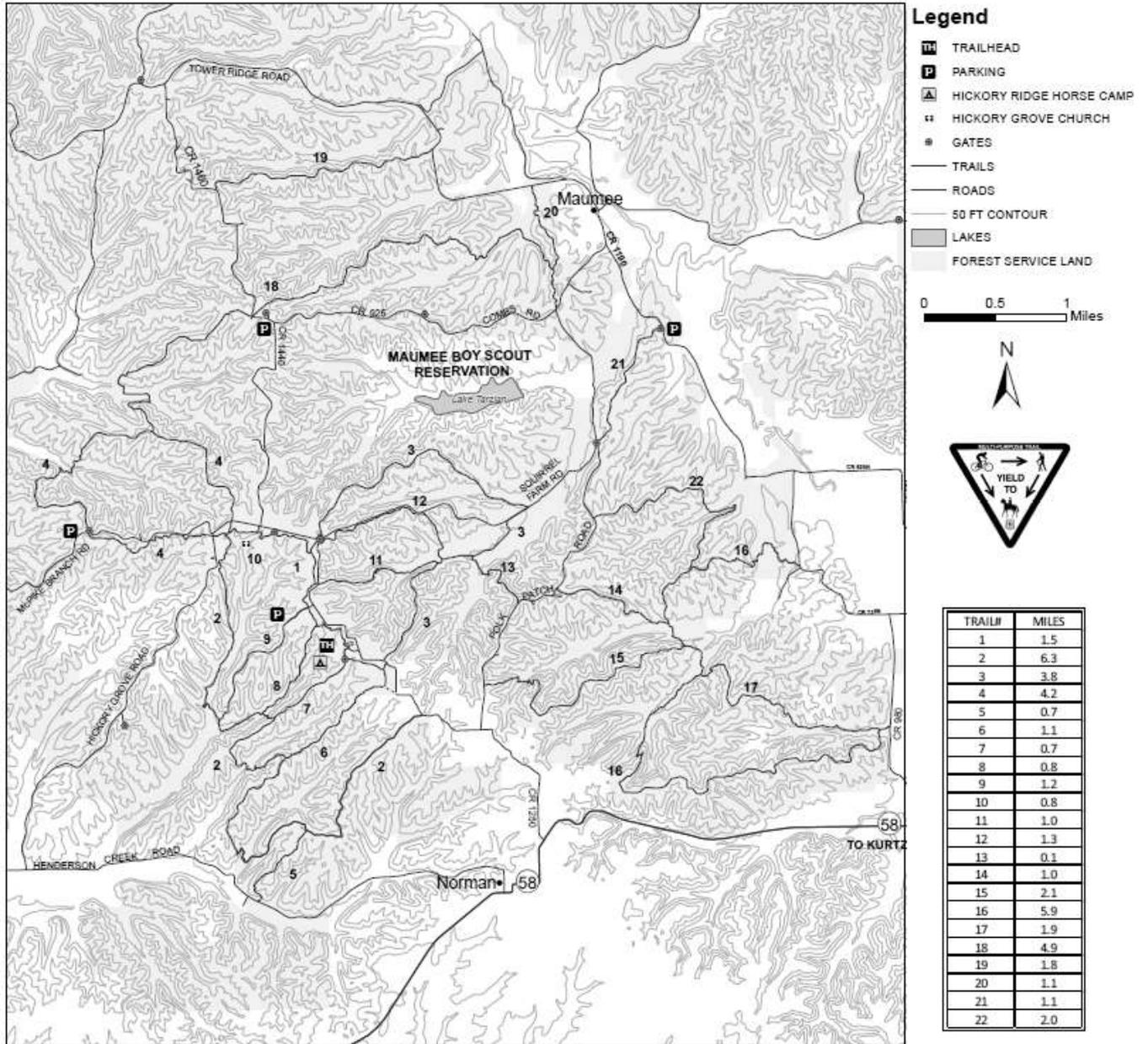


Figure 6. Hickory Ridge Trail System

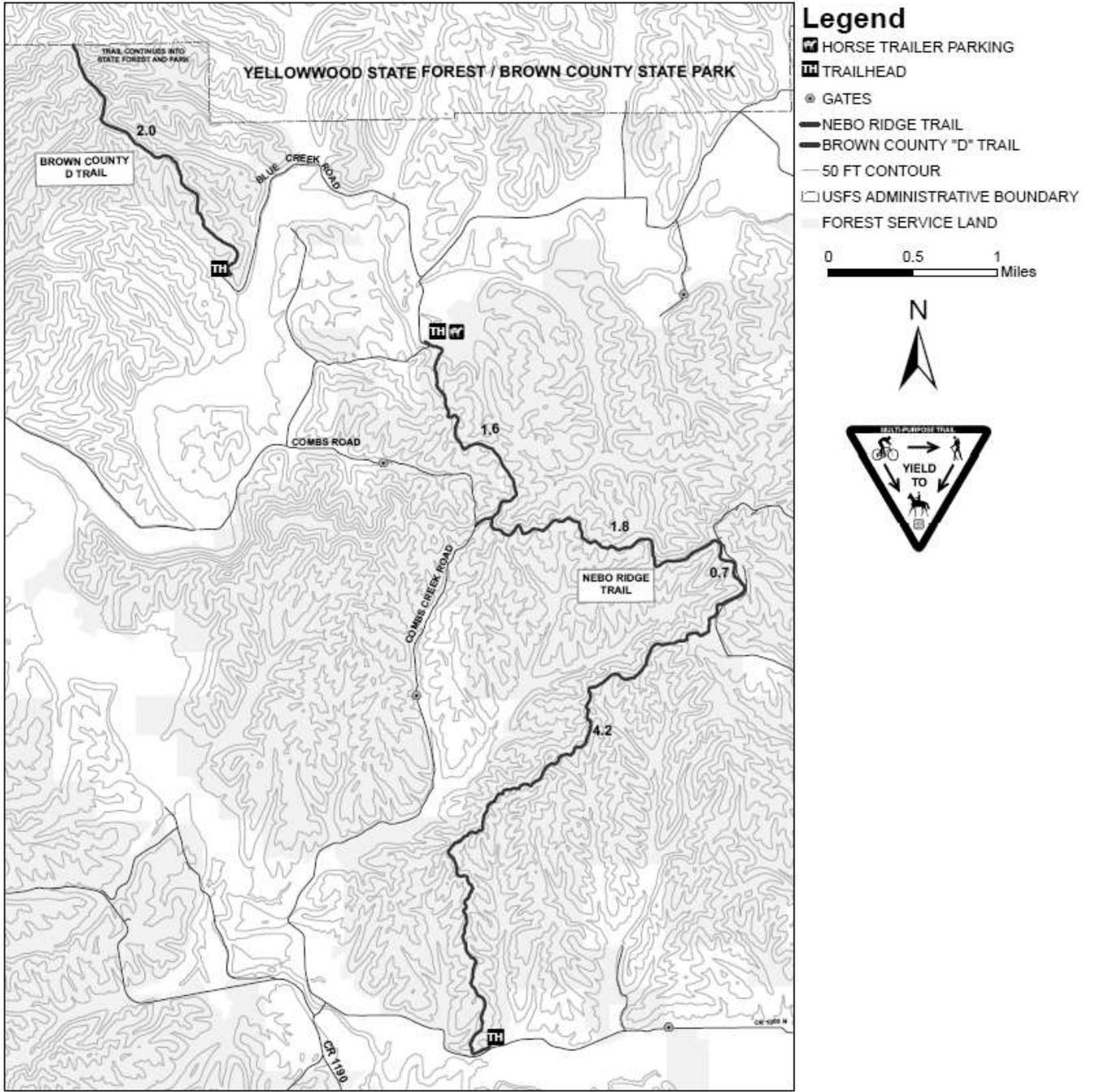


Figure 7. Brown County D and Nebo Ridge Trails

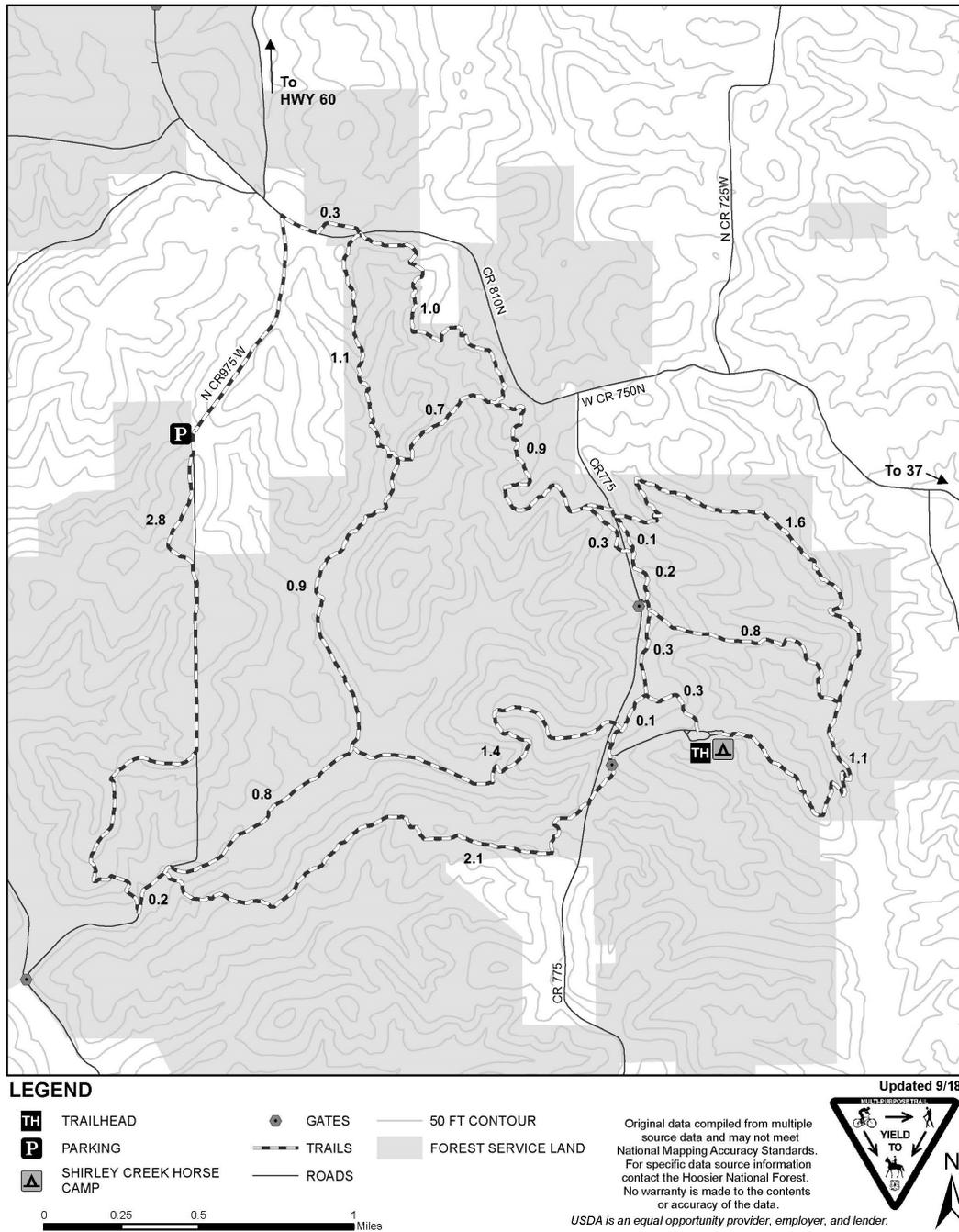


Figure 8. Shirley Creek Trail System

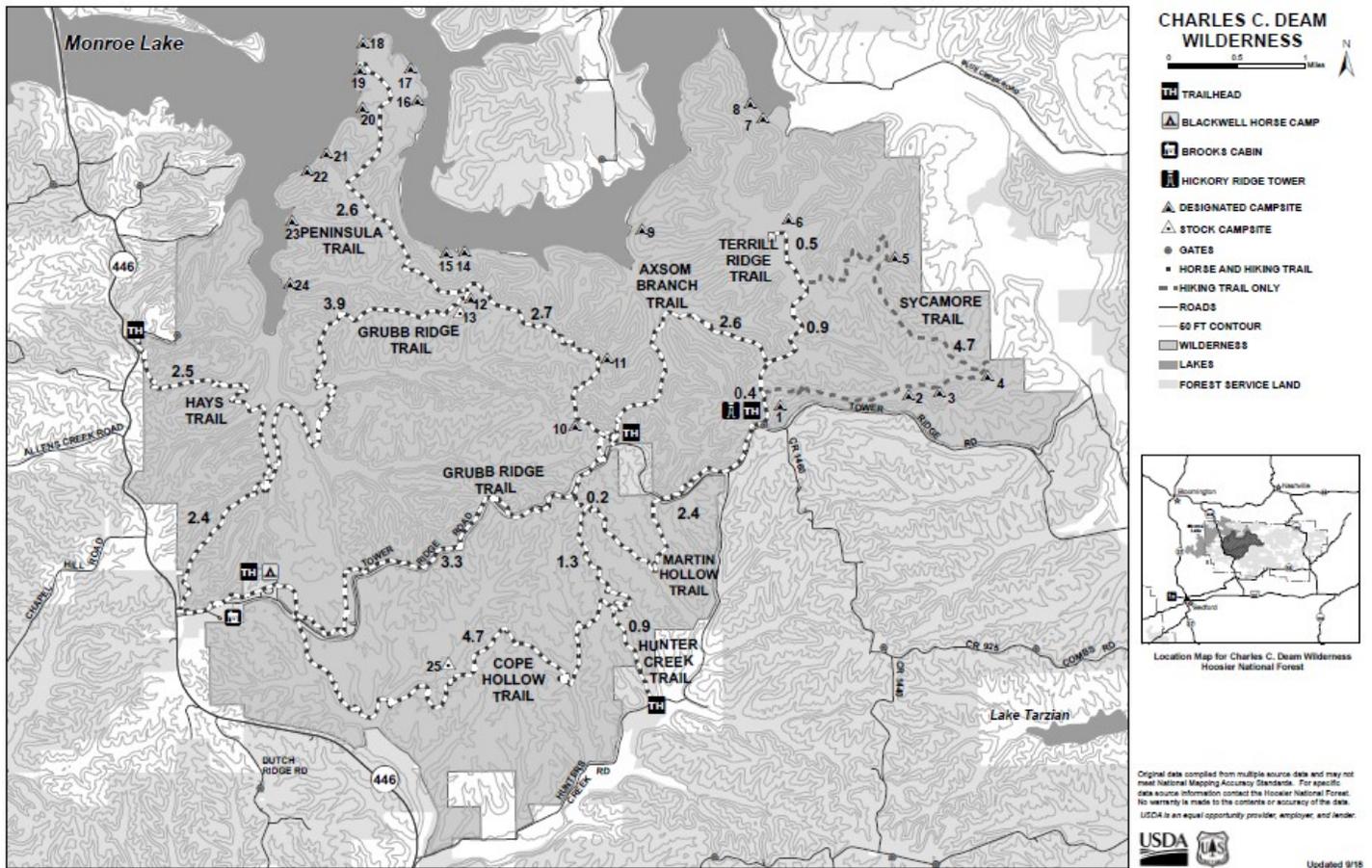


Figure 9. Charles C. Deam Wilderness Trail System

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Amick, Kevin. 2019. Total affected trails by silvicultural treatments. Appendix B. 1 pg.

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