

**ENVIRONMENTAL ASSESSMENT
FOR THE
PINHOTI TRAIL EXTENSION
ON THE
ARMUCHEE-COHUTTA RANGER DISTRICT**

**CHATTAHOOCHEE-OCONEE NATIONAL FORESTS
MURRAY, GILMER, FANNIN COUNTY, GEORGIA**

April, 2002

Agency: U.S.D.A. Forest Service

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CHAPTER I - PURPOSE AND NEED

A. DESCRIPTION OF PROPOSED ACTION

The District Ranger of the Armuchee-Cohutta Ranger District is proposing to develop an extension of the Pinhoti Trail on the Cohutta unit within the counties of Murray, Gilmer, and Fannin to help meet the desired condition of the current amended Chattahoochee-Oconee Land Management Plan that identifies the need for increased trail opportunities. Totalling about 33 to 35 miles, the proposed trail route would utilize existing Forest Service system roads, county roads and state highway, existing system trails, and existing old woods roads. About four miles of new construction would be needed. Connected actions that depend on the proposed trail project, for example, trailhead parking construction, are included in this analysis.

Old woods roads are defined as roads not part of the Forest Service road system. The trail route from State Highway 52 north to FDR (Forest Development Road) 90 is unknown at this time due to right-of-way issues that must be resolved before a final location can be identified. In the interim, existing state, county and Forest Service roads will be used.

A variety of trail construction methods are proposed ranging from hand tools to a walk-behind trail construction machine and small bulldozer. The selected method for construction, reconstruction or maintenance on a particular section of trail would depend on environmental factors such as soils, slope and proximity to streams as well as Forest Plan direction and the clearing limits of existing roads and trails.

The project area does contain lands identified as "roadless" under the Southern Appalachian Assessment (SAA) inventory (Pink Knob inventoried roadless area). The proposed trail also passes through land identified as Management Area 15 within the amended Chattahoochee and Oconee Land and Resource Management Plan (Forest Plan), which is suitable for semi-primitive non-motorized recreation opportunities.

The geographic scope of this analysis is lands within the proclamation boundary of the Cohutta unit of the Armuchee-Cohutta Ranger District both inside and outside the Cohutta Wildlife Management Area (WMA).

Implementation of any decision made based on this analysis is expected to begin in the spring of the year 2002 and would continue through the completion of the last proposed project. The entire, multi-year project would be implemented in phases as grant approval, funding, and availability of personnel allow.

B. PURPOSE AND NEED FOR ACTION

NEED

The concept of a spur trail that would connect Alabama to the Appalachian Trail originated in 1925 at the first Appalachian Trail Conference. In the early 1990s, the concept was finally implemented with trail construction beginning in Alabama's Talladega National Forest. Most of the Pinhoti Trail in Alabama is now in place. In 1996, the Georgia Pinhoti Trail Association (GPTA) was formed with the purpose of connecting the Alabama Pinhoti Trail with the Georgia Benton MacKaye Trail. The GPTA is responsible for locating the trail across private lands and coordinating with the Forest Service on trail development across National Forest lands. In 1999, trail development was completed on the Armuchee unit of the Chattahoochee National Forest. Much of the Pinhoti Trail is now in place from the state line near Cave Springs, GA to Rocky Face Ridge in Whitfield County. The North Georgia Regional Development Center together with the GPTA is currently working to locate the trail across the Great Valley from Rocky Face Ridge to the National Forest boundary near Dennis in Murray County. This project proposal is needed to complete the final leg of the Pinhoti Trail thereby linking the Pinhoti Trail in Alabama to the Benton MacKaye Trail in Georgia. Once trail development is complete, the spur trail envisioned at the 1925 founding meeting of the Appalachian Trail will become a reality.

PURPOSE

The purpose of this project is to help meet the desired conditions of the current amended Forest Plan. The desired condition for the project area is defined by the Forest-wide goals (Forest Plan, pages 4-1 to 4-2), combined with specific Management Area 15 and 16 goals and directions (Forest Plan, pages 4-104 to 4-106, and pages 4-107 to 4-110, respectively). These goals and directions will be met while following the Forest-wide Standards and Guidelines (Forest Plan, pages 4-12 to 4-49).

The major Forest-wide management goals and the Management Area 15 and 16 goals are shown below as “**Desired**”, followed by a brief description of the current situation under “**Existing**”, then a brief description of how the proposed action would help achieve the desired condition under “**Proposed**”.

1. **Desired** – Respond to changing conditions in the land and changing social and economic demands of the public by providing a broad spectrum of dispersed and developed recreation opportunities for the safe use and enjoyment by the public, while conserving soil and water resources and not allowing significant or permanent impairment of the productivity of the land (Forest Plan, pages 4-1 to 4-2, goal #3, #4, #12, #14).

Existing – There is an increasing demand on National Forest System lands for recreation uses beyond those envisioned by the Forest Plan when it was conceived and implemented in the early-middle 1980's. Over the last decade, the Chattahoochee and Oconee National Forests have seen a large increase in the demand for horse and mountain bike trail opportunities, particularly for longer distance trails. Demand for trail opportunities has outpaced supply.

Proposed – The development of longer distance, multi-use trails that meet Forest Service trail standards would maximize hiking and riding opportunities while protecting soil and water resources. Water bar construction and maintenance, trail turnpike construction, and other erosion controlling measures would minimize surface runoff and soil movement.

- 2. Desired** – Provide a setting characterized by a predominately natural or natural-appearing environment where a non-motorized recreational opportunity can occur (Forest Plan, page 4-104).

Existing – The Mountaintown Creek Trail, managed for hiking and mountain bike use, and the Benton MacKaye Trail, managed for hiking and horse use on selected trail segments, are the trails that currently exist within the designated Management Area 15 lands of the project area. The Bear Creek Trail, managed for hiking and mountain bike use, and the South Fork Trail, managed for hiking, mountain biking and horse use, are found just outside of the Management Area 15 boundary.

Proposed – The development of a non-motorized trail linking the Bear Creek Trail, Mountaintown Creek Trail and Benton MacKaye/South Fork Trail would provide a long distance trail opportunity that would continue to provide a predominately natural or natural-appearing environment.

- 3. Desired** – Provide a highly developed hiking trails network with accompanying trail head parking facilities and area trail maps. As the need develops, consider constructing and designing horse trails. Feature one-day loop trails and short interpretive trails (Forest Plan, page 4-106).

Existing – The aforementioned Mountaintown Creek and Benton MacKaye Trails currently exist within the Management Area 15 boundary. There are no associated trail head parking facilities. The lower Mountaintown Creek trail head parking area is not available for public use due to the closure of the Hills Lake access road by private landowners. There are neither trail opportunities for horse use nor one-day loop trails or short interpretive trails.

Proposed – The development of a connector trail between the Mountaintown Creek Trail and the Benton MacKaye Trail, with consideration given to horse riding opportunities, together with the construction of parking facilities would meet the desired future condition. While no loop trails or interpretive trails are proposed, existing Forest Service roads could be used to provide loop opportunities.

- 4. Desired** – Manage fish and wildlife habitats to maintain viable populations of all existing native vertebrate species and to maintain and improve habitat of Management Indicator Species (MIS) (Forest Plan, page 4-1).

Refer to **Table 6. Project Management Indicator Species** for the MIS species that occur within the project area (see also Appendix D. Management Indicator Species).

C. DECISION TO BE MADE

The decision to be made by the Armuchee-Cohutta District Ranger, as the Responsible Official for this proposal, is:

1. Whether to construct the proposed trail system, trailhead parking areas and associated mitigation measures that meet the purpose and need and respond to issues, OR
2. Whether to take no action on this proposal at this time.

D. PUBLIC INVOLVEMENT

Extensive public involvement has been done for this proposal. One purpose was to identify issues or concerns people have with the environmental effects of the proposed action. A second purpose was to inform the public, through local newspapers and elected officials, of the proposal. Forest Service personnel took the following steps to identify the issues and inform/involve the public:

- On July 1, 2000, the project described as "Pinhoti Trail Planning and Location" was listed in the Chattahoochee National Forest Quarterly Schedule of Proposed Actions, a widely circulated publication available to the public.
- On September 26, 2000, Acting District Ranger, Brian Beisel, sent a scoping letter describing a proposed action to individuals, agencies and groups known to be interested in the management of the Chattahoochee National Forest. The same letter was mailed to local and state public officials.
- On October 10, 2000, a press release describing a proposed action was issued to The Chatsworth Times, The Dalton Daily Citizen News, the Ellijay Times Courier and Georgia Outdoor News.
- The EA analysis was completed in February 2002 and letters were sent to 19 individuals on February 22, 2002 explaining the proposal. The letter described the three alternatives analyzed in the EA, identified the preferred alternative, explained that the EA was available upon request for a 30-day review and requested comments.
- A legal notice that described the three alternatives analyzed in the EA, identified the preferred alternative, explained that the EA was available upon request for a 30-day review and requested comments was published in the *Chatsworth Times* in Chatsworth, Georgia on February 27, 2002.

- On March 8, 2002, District Ranger Debra Whitman and ORA Larry Thomas met with Wayne Jenkins, Angela Martin and Brent Martin, members of Georgia Forest Watch, at their Ellijay Office to discuss the trail proposal.
- On March 28, 2002, District Ranger Debra Whitman and ORA Larry Thomas met with John Longino, an interested party, at his request for an on-the-ground review of a portion of the trail on Tatum Lead.
- Twenty-six comments were received during the 30-day review period from the following: Jeffrey Narvil, Jacquelyn McGehee, Coosa Valley Cycling Association, Bob's Cycle Shop, Don Thompson, Elizabeth Oetter, Philip Smith, Larry Madden, Joan Grant, Rick Moon, Rick Guhse, Jean Cook, Gregory Ray, T.G. Evans, Alison Bullock, Beth Woodward, Shepherd Howell, Richard Morrow, Rep. Gerald Willis, David Govus, John Longino, Tom Keene, Benton MacKaye Trail Association (David Blount), Walter Cook, R. Michael Leonard, Georgia Pinhoti Trail Association (Hillrie Quin). Comments from Georgia Forestwatch (Wayne Jenkins, Brent Martin, Angela Martin) were received after the deadline (by email on April 1, 2002) but they will still be addressed and incorporated into this document. Comments are addressed in Appendix H.

E. ISSUES

A letter, fax, or phone call was received from 16 individuals or organizations in response to the Armuchee-Cohutta Ranger District's request for comments. An Interdisciplinary team determined which issues were significant and needed to be studied in detail in the EA. The following were determined to be significant issues:

1. Whether the proposed trail location would adversely affect hunting opportunities and solitude on one of the few remaining major ridgelines still undeveloped in the Cohutta Mountains (Govus, Shepherd Howell)?
2. Whether development of a new multiuse trail is appropriate in an inventoried roadless area being considered in the Forest Plan revision and whether this trail development would adversely affect the area's wilderness character and its potential designation as wilderness (Bowden – Georgia Forest Watch, Govus, Shepherd Howell, McCabe –Wilderness Society, Voss – Sierra Club, John Muir Project of Earth Island Institute, Brent Martin – Georgia Forest Watch, Angela Martin – Georgia Forest Watch, Harvey Howell)?
3. Whether trail development will adversely affect Proposed, Endangered, Threatened, and Sensitive (PETS) species, Management Indicator Species (MIS), and aquatic biota (Forest Service, Brent Martin – Georgia Forest Watch, Angela Martin – Georgia Forest Watch)?
4. Whether trail development will adversely affect cultural resources (Forest Service)?

5. Whether trail development will adversely affect soil and water quality (Brent Martin – Georgia Forest Watch, Govus, McCabe – Wilderness Society, Angela Martin – Georgia Forest Watch)?

ISSUES CONSIDERED TO BE NOT SIGNIFICANT TO THE PROPOSAL

Issues which are determined to be nonsignificant may be important to the individual but are not considered significant because they are outside the scope of the proposal, are already decided in law, are not supported by scientific evidence, are irrelevant to the decision, or the effects are considered to be limited in duration, extent or intensity. Nonsignificant issues are as follows:

- Whether the mileage of the Pinhoti Trail open to mountain bike use mitigates the segment of the Mountaintown Creek Trail that will be closed to biking when the area becomes wilderness (Dominy, Quin – Georgia Pinhoti Trail Association)? This EA will not analyze a decision to be made by the revised Plan: wilderness consideration for the Mountaintown Creek area. However, the proposed mileage of the Pinhoti Trail open to mountain bike use exceeds the total mileage of the Mountaintown Creek Trail so lost trail mileage would be off-set by new trail development.
- Whether the various trailheads accommodating horse users will handle horse trailers (Dominy, Quin – Georgia Pinhoti Trail Association)? Forest Service trail design specifications and standards will be applied to accommodate horse trailers at equestrian trailheads.
- Whether horse riders and mountain bikers can be managed to prevent their use of trails and trail segments authorized only for hikers (Dominy – Benton MacKaye Trail Association, Quin – Georgia Pinhoti Trail Association, Bowden – Georgia Forest Watch, McCabe – Wilderness Society, Douglas – Benton MacKaye Trail Association, Blount – Benton MacKaye Trail Association)? Forest Service rules and regulations will manage trail use.

CHAPTER II – ALTERNATIVES CONSIDERED

Three alternatives were formulated to fulfill the purpose and need and to address the issues. They represent choices between the uses of natural resources in the project area. Alternatives are described in two sections: those not considered for detailed analysis, and those considered in detail.

A. ALTERNATIVES CONSIDERED BUT DROPPED FROM DETAILED ANALYSIS

An alternative that recommended multi-use (hiking, mountain biking, horseback riding) designation for the entire length of the proposed trail development project was considered but dropped from detailed analysis. This alternative would allow new trail user groups on existing trails where they are not currently authorized causing potential user conflicts.

B. ALTERNATIVES CONSIDERED IN DETAIL

1. ALTERNATIVE 1 – NO ACTION

This alternative, which is a requirement of NEPA, serves as a baseline for environmental analysis. The proposed activities will not be implemented. No trail development will occur and no other connected activities will be carried out as a result. The no action alternative does not meet the purpose and need, but it does address the significant issues.

Mitigation and Monitoring Measures for Alternative 1 – No mitigation and monitoring measures will be necessary.

2. ALTERNATIVE 2 – DENNIS TO FLAT TOP MOUNTAIN

About 34.7 miles of non-motorized trail are proposed for development to accommodate either a single user group or a combination of user groups. This alternative will extend the Pinhoti Trail north from Dennis across the Cohutta Unit of the Armuchee-Cohutta Ranger District and terminate at the Benton MacKaye Trail on Flat Top Mountain (See Appendix F, Vicinity Map and Appendix G, Alternative 2 Project Map)). Trail construction will utilize 16.7 miles of existing system, state and county roads, 8.6 miles of old “woods road” and 4.1 miles of new construction. About 5.3 miles of existing trail will be utilized. Refer to **Table 2. Alternative 2 Description** for the permissible user group(s) proposed by trail section, the method of construction, reconstruction or maintenance, and other identified needs.

Connected Actions for Alternative 2

- Secure a Right-of-Way, about 50 feet in length, at the southern terminus of the project area in Dennis. The Right-of-Way will serve to provide public access to National Forest land from County Road 4.
- Construct three trailhead parking areas and improve one existing trailhead parking area, as described in Table 2. Each trailhead facility will have the following amenities: drinking water (either a hydrant or a well and handpump), toilet, and an information board. Equestrian trailheads will have suitable parking for horse trailers as well as other vehicles.

Mitigation Measures for Alternative 2

Alternative 2 adheres to all Forest-wide Standards and Guidelines (S&Gs) in the current amended Forest Plan (Plan, pages 4-12 to 4-49) and the specific Management Area (MA) 15 and MA 16 S&Gs (MA 15, pages 104 to 106 and MA 16, pages 107 to 110). It also adopts the mitigation measures found in the Vegetation Management EIS for the Appalachian Mountains and State of Georgia Best Management Practices (BMPs). The mitigation measures either reduce a negative environmental effect or act to enhance a positive effect to bring the area closer to the desired condition.

Refer to **Table 3. Alternative 2 Mitigation Measures** for the mitigation measures proposed under this alternative.

3. ALTERNATIVE 3 – DENNIS TO SOUTH FORK OF THE JACKS RIVER

About 33.3 miles of non-motorized trail are proposed for development to accommodate either a single user group or a combination of user groups. This alternative will extend the Pinhoti Trail north from Dennis across the Cohutta unit of the Armuchee-Cohutta Ranger District and terminate at the Benton MacKaye Trail on the South Fork of the Jacks River (See Appendix F, Vicinity Map and Appendix G, Alternative 3 Project Map). Trail construction will utilize 17.7 miles of existing system, state and county roads, 7.0 miles of old “woods road” and 3.0 miles of new construction. About 5.6 miles of existing trail will be utilized. Refer to **Table 4. Alternative 3 Description** for the permissible user group(s) proposed by trail section, the method of construction, reconstruction or maintenance, and other identified needs.

Connected Actions for Alternative 3

- Secure a Right-of-Way, about 50 feet in length, at the southern terminus of the project area in Dennis. The Right-of-Way will serve to provide public access to National Forest land from County Road 4.
- Construct three trailhead parking areas and improve one existing trailhead parking area, as described in Table 4. Each trailhead facility will have the following amenities: drinking water (either a hydrant or a well and handpump), toilet, and an information board. Equestrian trailheads will have suitable parking for horse trailers as well as other vehicles.

Mitigation Measures for Alternative 3

Alternative 3 adheres to all Forest-wide Standards and Guidelines (S&Gs) in the current amended Forest Plan (Plan, pages 4-12 to 4-49) and the specific Management Area (MA) 15 and MA 16 S&Gs (MA 15, pages 104 to 106 and MA 16, pages 107 to 110). It also adopts the mitigation measures found in the Vegetation Management EIS for the Appalachian Mountains and State of Georgia Best Management Practices (BMPs). The mitigation measures either reduce a negative

environmental effect or act to enhance a positive effect to bring the area closer to the desired condition.

Refer to **Table 5. Alternative 3 Mitigation Measures** for the mitigation measures proposed under this alternative.

Monitoring Measures for Alternatives 2 and 3 – Monitoring serves two purposes at the project level:

- 1. Implementation** monitoring assures that the project is implemented according to the specifications found in the Decision Notice. Implementation monitoring will be accomplished through job site inspections whether Forest Service personnel, volunteers or contractors are doing the work. This will ensure that the appropriate standards and guidelines will be implemented to protect soil productivity, water quality and other resources.
- 2. Effectiveness** monitoring assures that the mitigations prescribed for the project are effective and preclude significant environmental effects on the site.

The Forest IDT will monitor the environmental effects as directed by Chapter 5 of the Forest Plan.

C. ALTERNATIVE COMPARISON

The alternatives are compared based on the issues analyzed in Chapter III, Environmental Effects. When reviewing and comparing each alternative, be aware of the trade-offs represented by each alternative by noting how well an alternative addresses the issues. The following table summarizes these tradeoffs:

Table 1 – Alternative Comparison (Addressing Issues)

ISSUE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
1. Effects on backcountry hunting and solitude	No effect. No development will occur.	Negative effect on backcountry hunting opportunities and solitude. Trail will follow an undeveloped major ridgeline for about 2.5 miles passing through 3 large mountain gaps.	Negative effect but less than Alternative 2. Compared to Alternative 2, this Alternative proposes to develop less miles of trail in backcountry and it doesn't propose trail construction on undeveloped major ridgelines.
2. Effects of multiuse trail development on wilderness character and wilderness designation	No effect. No additional development will occur.	No effect expected on wilderness designation. The trail users authorized on the new multiuse trail in the area being considered for wilderness are limited to hikers and/or equestrians. Some negative effect on wilderness character from new trail development.	No effect expected on wilderness designation, same as Alternative 2. Some negative effect on wilderness character, but less than Alternative 2 as less miles of new trail development proposed.
3. Effects on PETS species, MIS, aquatic biota	No effect. No development will occur	No expected effect with applied mitigation measures.	No expected effect with applied mitigation measures.
4. Effects on cultural resources	No effect. No development will occur	No expected effect with applied mitigation measures.	No expected effect with applied mitigation measures.
5. Effects on soil and water	No effect. No development will occur	No significant effect with applied mitigation measures.	No significant effect with applied mitigation measures.

CHAPTER III – ENVIRONMENTAL EFFECTS

The following chapter describes the environmental effects of:

Alternative 1, No Action

Alternative 2, Dennis to Flat Top Mountain

Alternative 3, Dennis to South Fork of the Jacks River

It analyzes each of the issues identified in Chapter 1.

The time and geographic bounds for analyzing environmental effects are described in Chapter 1.

ISSUE 1: EFFECTS ON BACKCOUNTRY HUNTING AND SOLITUDE

CURRENT SITUATION – The Cohutta unit of the Armuchee-Cohutta Ranger District is best known for its remote setting and its wilderness and dispersed recreation opportunities. The project area offers a wide variety of dispersed recreation activities such as fishing, hunting, backpacking, hiking, mountain biking and horseback riding. Recreational use ranges from heavy on weekends and holidays to moderate to light on weekdays during the spring to autumn season. Visitor use during the winter months is generally light to moderate.

The district encompasses the 37,000-acre Cohutta Wilderness, the largest designated wilderness managed by the Forest Service in the southeast. The Cohutta Wilderness is also one of the most heavily used wildernesses in the country with an estimated 50,000 visitors annually.

The Cohutta unit contains the Cohutta Wildlife Management Area (WMA). Hunters moderately use the WMA and the project area with most use occurring during the deer (rifle) season when approximately 2,500 hunters are present over a 2-week period. During the WMA deer season, hunters that stay overnight (except within the Cohutta Wilderness) are required to camp in designated hunt camps that are scattered across the district. The Cohutta, it is said, appeals to hunters seeking a backcountry experience.

There are approximately 170 miles of developed trails within the project area with use ranging from light to heavy. While some cross-country travel occurs, most equestrians, mountain bikers, and hikers stay on designated trails. As with most trail systems, the district's trails, including the 88 miles of wilderness trails, generally follow ridgelines and drainages.

EFFECTS OF ALTERNATIVE 1 (No Action) – There will be no effect on backcountry hunting opportunities and solitude.

EFFECTS OF ALTERNATIVE 2 (DENNIS TO FLAT TOP MOUNTAIN) – A negative effect on backcountry hunting opportunities and solitude is expected. This alternative proposes to develop 34.7 miles of trail. Of this total, about 8.6 miles of old woods road and 4.1 miles of new construction is recommended with the remaining miles utilizing existing maintained roads and trails.

The old woods roads proposed for trail development are currently unmaintained, unused roads grown up in seedlings and/or saplings. These old roads do not currently detract from a backcountry experience, but their development will reduce backcountry acreage.

The proposed new construction will open up additional backcountry acreage to development. In particular, this alternative proposes to construct the Pinhoti Trail on about 2.5 miles of an undeveloped major ridgeline passing through three prominent mountain gaps (Sassafras Gap, Pink Knob Gap, and one unnamed gap).

As trail access will be provided into this undeveloped land, more people will use these areas for a variety of dispersed recreational uses. The effect will be to reduce the remote areas available for a backcountry hunting experience and to potentially impact those forest users seeking solitude.

EFFECTS OF ALTERNATIVE 3 (DENNIS TO SOUTH FORK OF THE JACKS RIVER) – This alternative is also expected to produce a negative effect on backcountry hunting opportunities and solitude but, less impact is anticipated compared to Alternative 2 for two reasons:

One, fewer miles of trail are proposed for development in backcountry. This alternative proposes to develop 33.3 total miles of trail with about 7.0 miles of the total coming from old woods road development, 3.0 miles from new construction, and the remaining miles from existing maintained roads and trails.

Two, this Alternative recommends a trail route that avoids the undeveloped major ridgeline at Pink Knob proposing instead to locate the trail to the north following a system road (closed to public vehicle travel) and an old woods road.

ISSUE 2: EFFECTS OF MULTI-USE TRAIL DEVELOPMENT ON WILDERNESS CHARACTER AND WILDERNESS DESIGNATION

CURRENT SITUATION – To provide information needed for Forest Plan revision and the Southern Appalachian Assessment (SAA), a re-inventory and evaluation of all National Forest lands for possible inclusion in the roadless area inventory was completed, with public participation, in 1995. Areas that met the roadless area criteria were added to the inventory.

Located within the Mountaintown Creek drainage of the proposed project area, the 12,121-acre Pink Knob inventoried roadless area (ID # 03006) was analyzed and determined to have met the SSA criteria for placement on the Forest roadless area inventory for future consideration as wilderness. A majority of the Pink Knob inventoried roadless area is within the proposed project area.

Pink Knob borders the Cohutta Wilderness on its northwestern corner. However, the two areas are separated by a major Forest Service collector road, FDR 64. Pink Knob contains two developed trails, the 5.6-mile Mountaintown Creek Trail (FDT 135) and a 6.8 mile section of the Benton MacKaye Trail (FDT 2) between McKenny Gap and Dyer Gap. The Mountaintown Creek Trail is open to mountain biking and hiking while the Benton MacKaye Trail is open only to hiking. Hiking and mountain biking are both conforming recreation uses for inventoried roadless areas. If the Forest Plan revision, once approved, recommends wilderness designation for the Pink Knob area, mountain biking within the inventoried roadless area to include the Mountaintown Creek Trail will be prohibited. The decision regarding whether mountain bike use is appropriate for either the Pink Knob inventoried roadless area or the Mountaintown Creek Trail will not be analyzed in this EA.

EFFECTS OF ALTERNATIVE 1 (No Action) – This alternative proposes no trail development or related actions. Any effects on wilderness character and potential future wilderness designation would occur only from existing conditions.

EFFECTS OF ALTERNATIVE 2 (DENNIS TO FLAT TOP MOUNTAIN) – Within the Pink Knob inventoried roadless area, this alternative proposes to utilize 3.5 miles of the existing Mountaintown Creek Trail and to develop 6.7 miles of new trail (4.7 miles of old woods roads and 2.0 miles of new construction) for the Pinhoti Trail extension. The proposed construction of a trailhead parking area on FDR 64 at Crenshaw Gap is a related action. This alternative would permit the following mix of trail users on new trail development segments within the Pink Knob area: Bear Creek Trail to Mountaintown Creek Trail – hikers, Mountaintown Creek Trail to Crenshaw Gap – hikers, Crenshaw Gap to Flat Top Mountain – hikers and equestrians.

No effect on wilderness designation is expected. The trail users authorized on the new trail development section proposed within the Pink Knob inventoried roadless area are limited to hikers and/or equestrians which are both conforming recreation uses for wilderness. The new trailhead parking lot proposed at Crenshaw Gap would be located outside of the Pink Knob area boundary.

Some negative effect on wilderness character is expected. While foot trail construction is permitted in wilderness, a new 6.7-mile trail through the inventoried roadless area would constitute a permanent, albeit small, imprint of human

development. In addition, improved access into the area would attract more forest visitors and correspondingly, more sign of human use, e.g. campfire rings, litter.

EFFECTS OF ALTERNATIVE 3 (DENNIS TO SOUTH FORK OF THE JACKS RIVER) – Within the Pink Knob inventoried roadless area, this alternative proposes to utilize 3.8 miles of the existing Mountaintown Creek Trail and to develop 1.3 miles of new trail (0.7 miles of old woods roads and 0.6 miles of new construction) for the Pinhoti Trail extension. This alternative would permit only hikers on the new connector trail linking the Bear Creek Trail to the Mountaintown Creek Trail. This connector trail is the only new trail development proposed within the Pink Knob area.

No effect on wilderness designation is expected. The new trail development section within the Pink Knob inventoried roadless area is proposed for use by hikers which are conforming recreation users in wilderness.

Some negative effect on wilderness character is expected due to new trail development in the Pink Knob area, but the effect would be less than Alternative 2 because of substantially reduced trail mileage. The addition of 1.3 miles of trail through the inventoried roadless area would constitute a permanent, albeit small, imprint of human development and improved access into the area would attract more forest visitors and correspondingly, more sign of human use.

ISSUE 3: EFFECTS ON PETS SPECIES, MIS, AQUATIC BIOTA

CURRENT SITUATION

The location of the project area is in Fannin, Gilmer, and Murray Counties, Georgia, on the Cohutta Unit of the Armuchee-Cohutta Ranger District. The National Forest lands comprise approximately 108,000 acres in these counties. This will be the area considered when assessing the effects on wildlife, including PETS species (Proposed, Endangered, Threatened, or Sensitive plants or animals) and MIS (Management Indicator Species, which are indicative of major forest types and respond to changes in habitat biodiversity). Both aquatic and terrestrial species will be addressed.

In order to maintain the current level of biodiversity (the variety of life in an area, from the ecosystem down to the genetic level) in the project area, several aspects of the forest are monitored. These include: species diversity, community diversity, successional diversity, and interaction between elements. The Cohutta Unit can be described from a habitat standpoint in this manner:

Species diversity: The project area is dominated by white pine, upland oak, and cove hardwood species. The dominant understory species include dogwood, red maple, sassafras, mountain laurel, rhododendron, greenbriar, and Christmas fern.

The Chattahoochee National Forest provides a contiguous range that is host to approximately 350 species of wildlife and aquatic species and 2000 plant species.

Community diversity: There are seven major ecological communities in the project area (see Table 7 – Forest Types). Mixed mesophytic makes up the largest percentage at 27.3%.

Successional diversity: This refers to the plant and animal communities that inhabit or utilize habitats of different successional stages. Early successional habitats contain dense cover, high fruit and browse production, and vertical structure necessary for many bird species. Late successional stages produce abundant dens, hard mast, and complex structure that improves as forests mature. All successional stages, or age classes, are necessary to maintain diversity (see Table 8 – Age Class Distribution).

Early Successional Habitats: The district has 1 percent in the 0-10 year age class and 12.5 percent in the 11-20 year age class. (Table 8). This includes harvested areas, planted or grassed wildlife openings, and areas with young pines and hardwoods. These stands are characterized by grass and forbs the first 2-3 years after harvest, followed by shrubs and small trees. Canopy closure usually occurs between 10-20 years. Only small patches of ground-story plants exist in dense stands of this age class. There is essentially only one stratum of vegetation. Tree density is dependent on ample seed stocking for pines and stump spouts for hardwoods. Wildlife associated with this stage is dependent on residual trees, down logs and method type of disturbance. Several species of birds are associated with this stage including; white-eyed vireo, yellow-breasted chat, and the prairie warbler.

Mid Successional Habitats: The Cohutta Unit has 11 percent of its ecological communities between the 21 and 60 year age class (Table 8). This is a time of rapid height growth in which the shading of the forest floor continues and less and less herbaceous plants and grasses are present. Woody plants begin to appear more frequently, such as vines, shrubs, and sprouting hardwoods. Pines, oaks, and hickories begin to bear cones, acorns, and nuts during this 40 year time frame. The understory vegetation begins to diminish even more, creating a more open looking forest community. This is due to natural mortality which takes place in the dominant trees from root, shade and space competition from neighboring trees. The death of some trees then allows some smaller trees to continue to get larger. Small herbaceous plants again appear. This is due largely to less shading of the forest floor because of openings in the canopy layer or just that overall the trees are now taller, and these cast less direct shade. As some trees reach 50-60 years of age they may begin to develop diseases which mammals or birds may take advantage of and excavate for nesting cavities. During this stage many of the bird species associated with the early-successional habitat have been displaced with birds associated with later successional stages. The number of species of birds can double from the previous stage.

Late Successional Habitats: The Cohutta Unit has 76.5 percent of its ecological communities between the 61-100+ year age class (Table 8). Depending on canopy closure, there can be a very well-developed mid-story which shades the forest floor just as the young, developing forest did 40 years earlier. The herbaceous plants are not found in any great numbers except for the very rich cove sites. The dominant trees are growing larger in diameter at a slower rate and height growth has all but stopped. Branches are larger as are the canopies of the trees. There could be less trees per acre than there were 20-30 years earlier. There could be more dead trees standing and on the ground as logs, creating an array of habitat conditions for species of animals that require older forest communities.

As the forest ages past 100 years, natural mortality would increase in pines, and hardwoods and white pine would begin filling the gaps created by the dead pines or adjacent trees would fill the canopy space vacated by the dead trees. Depending on the tree species, mortality would increase and the shade intolerant trees such as Virginia pine, short leaf pine and loblolly pine, scarlet oak and yellow poplar would decrease and be replaced by more shade tolerant species such as red maple, white oak, white pine, basswood, with dogwoods in the mid-story.

The bird species associated with this stage would be much like the previous stage with some losses and gains in species composition.

Interaction between elements: Elements include all forms of life in the area, from the smallest aquatic plant to the largest mammal or tree. The wide variety of wildlife and plants on the Chattahoochee are not evenly distributed across every acre, but occur in relation to their ecological communities. The purpose of utilizing MIS in analysis is for each major ecological community to be represented by a species whose habitat needs and response to management can be understood and monitored. There are 19 MIS on the Chattahoochee National Forest; twelve species (eight terrestrial, four aquatic) were selected to represent the habitat types and associated successional stages within the project area (see Appendix D. Management Indicator Species and Table 6 - Project Management Indicator Species). The following is a description of the twelve MIS that occur on the Cohutta unit, and the condition of their existing habitat.

Yellow Lady's Slipper- This species occurs in moist, deciduous woods in ravines or north facing slopes. The Chattahoochee-Oconee National Forest has documented over 100 populations of this species, primarily in cove hardwood stands 60 years and older. This habitat type is increasing due to declining timber harvest, therefore yellow lady's slipper numbers should continue to increase.

Pileated Woodpecker- This species is dependent upon mature, extensive, primarily hardwood forests and needs large diameter (16" and above) snags for nesting and smaller snags and dead limbs and logs for foraging. They also use mature pine woodlands to a lesser degree. Surveys indicate that pileated woodpecker numbers on the Forest have remained relatively stable (point count survey data, C-O NF's,

1992-2000). Habitat capability for cavity nesters overall has remained stable. The availability of older hardwood forest habitats favored by this species has increased, and continued viability is expected.

Black Bear- Black bear population levels in north Georgia have steadily increased over the past 20 years and are nearing carrying capacity (Carlock, 1999). These gains are generally attributed to both non-habitat related factors (such as conservative harvest) and habitat changes such as increased acorn capability as the forest ages (SAMAB report, 1996). Bears occur throughout the Chattahoochee National Forest but are strongly associated with hard mast and berry producing areas.

Gray Squirrel- This species is associated with mid to late successional stage hardwood communities where hard and soft mast is available. They rely on large diameter hollow trees for cavities, or use leaf nests. Squirrel population levels on the Forest are believed to be stable (SAMAB report, 1996), but levels vary greatly from year to year and largely reflect the availability of hard mast. Squirrel habitat (hardwoods 50 years and older) is abundant on the Forest.

White-Tailed Deer- This species uses many habitat types, including all stages of successional growth. Both pine and hardwood forests are used, as well as grassy openings and recently harvested areas. Hard mast is the major winter food and availability limits reproduction potential. Population levels in the Appalachian region increased greatly during the past 30 years, due to protection and season adjustments, as well as increased acorn capability. Levels are predicted to level off in the future (SAMAB report, 1996).

Ruffed Grouse- Ruffed grouse utilize a variety of forest habitats and successional stages, but population responses are most strongly tied to the availability of early successional, particularly hardwood, habitats (Dimmick et al., 1996). Ruffed grouse population levels on the Forest have declined over the past two decades, as they have throughout the Southern Appalachians, due to the reduced availability of hardwood shrub-seedling habitat (SAMAB, 1996). This is due to reductions in timber harvest levels.

Wild Turkey – This species frequents open woods, edges and woodland openings. Habitat is most common in the forest where understory is moderate. Also occurs in extensive upland hardwood or mixed forest, less so in pure pine forests. Nests on the ground in thickets. Feeds on the ground on hardwood mast, berries, insects and vegetable matter. Turkey populations have remained stable for the last ten years at low to medium levels due to the decline of early successional habitat used for nesting and due to poor recruitment (nesting success) years.

Acadian Flycatcher- This neotropical migratory songbird species is fairly common on the Forest during the breeding season. The primary habitat for this species includes riparian corridors composed primarily of deciduous tree species.

Population levels have remained stable on the Forest over an 8 year period (point count survey data, 1992-2000).

Red-eye Bass- The red-eye or “Coosa” bass is an inhabitant of small to mid-sized upland streams, filling the niche between the cold water trout and the warmer water species such as the largemouth or spotted bass. It is a secretive fish usually found near heavy cover such as undercut banks, submerged logs, or dense aquatic vegetation. Spawning occurs in spring in shallow depressions in coarse gravel near the heads of pools. The species is common throughout the Forest, especially in the smaller cool water streams in the Coosa watershed. It is a species of lower elevation streams and rivers, and is a good indicator of water quality. It is found in Rock Creek, Jacks River and Mountaintown Creek.

Coosa Darter- This species is endemic to the Coosa River system and is widespread in its suitable habitat: gentle riffle areas of small to large streams, and clean gravel substrates in pools and along stream margins. Spawning occurs from March to May. Diet consists primarily of midge larvae and microcrustaceans. Survey results indicate that this species is relatively common in the streams where it occurs, including the upper Conasauga River watershed. It is a good indicator of water quality.

Rainbow and Brown Trout- The rainbow and brown trout species were selected as MIS to represent cold-water streams on the Chattahoochee National Forest because they (or the brook trout) are found in nearly all of the streams. While brook trout is native to north Georgia, the other trout are exotics. Their distributions are primarily a function of where they were stocked; they are occurring at the southern edge of their range and are limited by elevation and stream temperature. They occur in mid to upper elevation streams and rivers, and are associated with streams with low levels of sediment. They are good indicators of water quality. Both of these fish have strong and healthy populations on the Forest, including Rock Creek, Jacks River and Mountaintown Creek.

AQUATIC BIOTA – There are three major drainages in the project area. They are Rock Creek and the South Fork of the Jacks River, which flows into the Conasauga River, and Mountaintown Creek, a tributary of the Coosawattee River. Both rivers are in the Coosa River Basin, which is in the Mobile Basin drainage. The majority of both Rock and Mountaintown Creek is located on private land; the headwaters are on National Forest and are swift, high gradient streams. The Jacks River is located primarily on National Forest lands, but flows through private land holdings north of the project area. Some of the fish species found in these streams include trout, sunfish, creek chubs, suckers, darters, and shiners. Existing trail density on the Unit is low to moderate and these trails are not a major sediment source. Water quality is good and sediment load is low.

Aquatic habitats can be adversely impacted by sediment; it can limit fish reproduction and insect populations. Some sediment in streams is natural, but human activities such as road building, agriculture, and off-road vehicle use can accelerate sediment levels if mitigation measures are not taken. The Chattahoochee-Oconee National Forest's Land Management Plan includes standards and guidelines designed to minimize the amount of sediment entering streams. These guidelines meet or exceed State Best Management Practices (BMP's) and are used on all projects to ensure the protection of water quality and aquatic habitat.

PETS AND LOCALLY RARE SPECIES - There are numerous plants and animal species on the Forest that are species of concern. All PETS and locally rare species were considered initially in this analysis. Species addressed in this document were chosen due to known occurrences and/or presence of habitat for the species in or near the project area. This was determined by: (1) consulting 10 years of U.S. Forest Service (FS) inventory records, (2) consulting Georgia Natural Heritage Program (GNHP) records, (3) reviewing the U.S. Fish and Wildlife Service (USFWS) list for potential species in Fannin, Gilmer and Murray Counties, (4) ongoing discussions with GNHP, FS, and other agency biologists, and (5) the references at the end of this document.

There are 122 species, (33 Federally listed and 89 Forest Sensitive) on the Chattahoochee-Oconee PETS list, as well as 138 locally rare species. Of these 260 total species, 231 were dropped from further consideration and do not have potential to occur due to: (1) the range of the species not extending into the project area, (2) lack of suitable habitat in the project area, and/or (3) species not found in inventories of the project area.

The following species will be further addressed in this EA due to their occurrence in the project vicinity, or due to their potential to occur on the Districts based on occurrence records, species distribution, and habitat preferences. The table also indicates for which species project-level inventories were completed, and provides the reasons surveys were not completed for other species.

Common Name	Scientific Name	Species Status P/E/T/S/LR	Inventory Status
<u>Aquatic species</u>			
Fine-lined pocketbook	<i>Lampsilis altilis</i>	E	2
Southern pigtoe	<i>Pleurobema decisum</i>	E	2
Ridged mapleleaf	<i>Quadrula rumphiana</i>	S	2
Ala. creekmussel	<i>Strophitis connasaugaensis</i>	S	2

Alabama rainbow	<i>Villosa nebulosa</i>	S	2
Delicate spike	<i>Elliptio arctata</i>	LR	2
Blue shiner	<i>Cyprinella caerulea</i>	T	2
Lined chub	<i>Hybopsis lineapunctatus</i>	S	2
Holiday darter	<i>Etheostoma brevirostrum</i>	S	2
Bronze darter	<i>Percina palmaris</i>	LR	2
Goldline darter	<i>Percina aurolineata</i>	T	2
Burrhead shiner	<i>Notropis asperifons</i>	LR	2
Riffle minnow	<i>Phenacobius catostomus</i>	LR	2
Margarita river skimmer	<i>Macromia margarita</i>	S	2
Alleghany snaketail	<i>Ophiogomphus incurvatus alleghaniensis</i>	S	2
Edmund's snaketail	<i>Ophiogomphus edundo</i>	S	2
Cherokee clubtail dragonfly	<i>Gomphus conasanguis</i>	S	2
<u>Terrestrial species</u>			
Diana fritillary	<i>Speyeria diana</i>	S	3
Rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	LR	3
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>	S	2
New England cottontail	<i>Syvilagus transitionalis</i>	LR	3
S. Appalachian woodrat	<i>Neotoma floridana haematoreia</i>	LR	3
Red squirrel	<i>Tamiasciurus hudsonicus</i>	LR	3
4-toed salamander	<i>Hemidactylium scutatum</i>	LR	3
Northern pine snake	<i>Pituophis m.melanoleucus</i>	LR	3
Broadleaf tickseed	<i>Coreopsis latifolia</i>	S	X
Horse gentian	<i>Triosteum aurantiacum</i>	LR	X
Broadleaf bunchflower	<i>Melanthium latifolium</i>	LR	X
Sweet white trillium	<i>Trillium simile</i>	S	X

Inventory Status:

X = inventories were conducted

1. = presence of the sp. is presumed; surveys would have low likelihood of detecting the species

2. = presence of the sp. is presumed; protection measures already in place and part of the proposed action

3.= presence of the sp. is presumed; proposed actions would have beneficial or no effects to the sp. or any expected adverse effects would not likely cause a trend to federal listing or a loss of viability

Mollusks, Fish, and Aquatic Insects- Six species of mussels, seven fish species, and four aquatic insect species have the potential to occur in the vicinity of the project area. Of the **mussels**, all inhabit high quality streams and rivers. Adult mussels live with most of their shells buried in the substrate, which may be firm sand, gravel or rubble. They often are found on the edge of stream pools in slow water with a small amount of silt on top of the sands and gravels. Freshwater mussels feed on micro-organisms and organic material found in the water column. Their reproductive cycle requires that specific fish species be found in the same stream to act as hosts for the larval stage mussel. Larval mussels attach to host fish gills and remain there for 2-4 weeks before developing into juvenile mussels and leaving the fish to live in the substrate. They are good indicators of water quality and require clean habitat (Brick, 1983). No PETS or LR mussels are located in Rock Creek, but several of them have been documented downstream in Holly Creek and/or the Conasauga River. Surveys indicate that no PETS or LR mussels occur in Mountaintown Creek. The seven **fish** species are known to occur in various locations in the two drainages. The blue shiner is federally listed as Threatened and does not occur in the tributary creeks but is found in the Conasauga. The lined chub occurs in lower Rock Creek (below National Forest lands) and lower in the Conasauga River drainage, as does the Coosa darter, burrhead minnow, and riffle minnow. The holiday darter, bronze, and goldline darter do not occur in Rock Creek, but are found in lower Mountaintown Creek (several miles below National Forest boundary). The four **S aquatic insects** are dragonflies, which utilize low- gradient, shallow riffles and pools. These insects are very sensitive to silt levels and variations in temperature, and occur in the Conasauga River and its low elevation tributaries.

Diana fritillary- The Diana fritillary butterfly occurs throughout the Southern Appalachians. For the past 7 years, the Diana fritillary has been observed in numerous locations in a variety of habitats throughout the Forest and on private land (Wentworth, personnel communication). Opler (1992) states that males may use a variety of habitats, but primary habitat consists of openings and fields in wet, rich woods. Roads and other openings in moist woods provide nectar plants for this butterfly (Broadwell 1993). Many of the nectar plants are associated with early successional habitats or forest edges. There are many flowering plants that would provide nectar for the butterfly in all types of habitat throughout the Forest.

Rose-breasted Grosbeak- This is a neotropical migrant that would be found during the nesting season at elevations above 2500 feet. Requires a combination of large trees, open areas, and thick shrubs or brush.

Rafinesque's Big-eared bat- This species is associated with mature forests near permanent water. It can be found in caves, mines and similar artificial habitats. However, they can roost in hollow trees, occasionally under loose bark (Laerm, 1981).

New England Cottontail - This species closely resembles the eastern cottontail, but is a little smaller and darker. In the Southern Appalachians (north Georgia is the southern edge of its range), its populations are small and isolated; it is limited to high elevation forests with conifers and dense cover such as blocks of early successional habitat and dense laurel and rhododendron thickets (Chapman and Feldhamer, 1982).

Southern Appalachian Woodrat- This species is primarily associated with dense timbered and swampy deciduous forests where it is often found in rocky areas including caves, outcrops and dry rocky hill sides as well as brush piles, flood drift and abandoned buildings.

Red Squirrel- This is a species of higher elevations in hardwood or conifer forests. It feeds on nuts, fungi or seeds. It will nest either in cavity trees or outside branches, built of leaves, twigs, and shredded bark, usually near tree trunk.

4-toed Salamander-This species is associated with sphagnum bogs or slow-moving streams with abundant moss or sedges adjacent to woodland areas. Adults live under rocks, logs leaves or moss. The adults are terrestrials, however the larvae are aquatic requiring permanent water sources.

Northern Pine Snake- This species is usually found in dry upland forests, mostly xeric conditions. This very secretive snake spends much of its time concealed in burrows, under leaf litter, or in natural cavities.

Broadleaf tickseed- This species occurs in rich, moist wooded mountain slopes. It flowers from August to September. It was found during field surveys of the trail route.

Horse Gentian- This species grows in more open woods and clearings and flower in the spring. It was found during field surveys of the trail route.

Broadleaf bunchflower- This is a species of rich woods and meadows. It flowers in the summer. It was found during field surveys of the trail route.

Sweet White Trillium- This species grows in rich woods at elevation above 2500ft. It was found during field surveys of the trail route.

EFFECTS OF ALTERNATIVE 1 (No Action)

MIS, PETS and locally rare species, aquatic biota - No trail development or other connected activities will be implemented with this alternative. Since things will “stay the same” there will be no impacts to MIS, aquatic biota, PETS or locally rare species.

EFFECTS OF ALTERNATIVE 2 (DENNIS TO FLAT TOP MOUNTAIN) - This alternative proposes to develop about 34.7 miles of trail. At the northern end of the project between Mountaintown Creek and Flat Top Mountain, the trail is located on about 2.5 miles of a remote major ridgeline passing through three prominent mountain gaps (Sassafras Gap, Pink Knob Gap, and one unnamed gap).

MIS/Aquatic biota – Under this proposed alternative, terrestrial species will not be impacted or disturbed by trail development or increased public use. Individual black bear may experience a minor loss of remote quality of habitat, but viability will not be impacted. The habitat for the aquatic species will not be impacted or degraded with proper mitigation. The overall impacts to MIS and aquatic biota will be negligible. Specific discussion of this alternative’s effects on individual MIS follows:

Yellow Lady’s Slipper- It was not found during plant surveys for this project. This alternative will have no impact on this species.

Pileated Woodpecker- Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Therefore, this alternative will have no impacts on this species.

Black Bear- Habitat components for this species will not be removed or changed, except for a degree of remote quality. Bears are known to be “ridge runners and gap crossers”, and to utilize both manmade trails and natural travelways in their wide-ranging movements. Trail construction and an increase in access to the area should not impact this species; the area would still retain its remote quality. Hiker/bear interaction is very rare and almost without exception ends without the human being aware of the bear’s presence, due to the bear’s better sense of smell and desire to avoid an encounter. Therefore, this alternative should have no negative effect on this species.

Gray Squirrel- Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Squirrels are very tolerant to human visitation; it does not impact their normal day-to-day activity. Therefore, this alternative will have no impacts on this species.

White-Tailed Deer- Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Most of the time deer move out of sight before people ever see them. Therefore, this alternative will have no impacts on this species.

Ruffed Grouse - Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Therefore, this alternative will have no impacts on this species.

Wild Turkey - Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Therefore, this alternative will have no impacts on this species.

Acadian Flycatcher- Habitat components for this species will not be removed or changed. Trail construction and increased public use of the area will not impact this species. Therefore, this alternative will have no impacts on this species.

Red-eyed Bass- Mitigation measures to preserve water quality include temporary trail closure during rainy season, use of hand tools near “live” streams, armoring stream crossings and utilization of natural ford locations. Other mitigation measures are listed in Table 3 – Alternative 2 Mitigation Measures. Trail construction standards will reflect the need to control soil movement during construction and public use. This alternative will have no impact on this species due to the use of mitigation measures.

Coosa Darter- Mitigation measures to preserve water quality include temporary trail closure during rainy season, use of hand tools near “live” streams, armoring stream crossings and utilization of natural ford locations. Other mitigation measures are listed in Table 3 – Alternative 2 Mitigation Measures. Trail construction standards will reflect the need to control soil movement during construction and public use. This alternative will have no impact on this species due to the use of mitigation measures.

Rainbow and Brown Trout- Mitigation measures to preserve water quality include temporary trail closure during rainy season, use of hand tools near “live” streams, armoring stream crossings and utilization of natural ford locations. Other mitigation measures are listed in Table 3 – Alternative 2 Mitigation Measures. Trail construction standards will reflect the need to control soil movement during construction and public use. This alternative will have no impact on this species due to the use of mitigation measures.

Cumulative Effects on MIS and Aquatic Biota - The cumulative effects of Alternative 2 in relation to past, present, and reasonably foreseeable future actions on the MIS and their habitats have been considered in this analysis. The location of existing and planned trails was taken into consideration. It is not foreseen that

current trail densities and planned trails will have any negative impact on wildlife species.

The potential effect of this alternative on habitat fragmentation was considered. Fragmentation as it relates to this project is defined as the breakup of large contiguous blocks of mature forest by timber harvest, road construction, and other land disturbing activities. The construction of this trail does not create a fragmented landscape due to the limited scope of the disturbance created by the trail.

The activities proposed in this alternative are similar to activities conducted over the previous years. These activities did not damage the fishery or aquatic habitats, and any sediment sources from those activities have healed. This alternative is not expected to contribute any significant sediment to the streams. Therefore, the proposed activities would not cause cumulative negative effects in combination with previous activities and no adverse effect on the fishery is expected.

PETS and Locally Rare Species - Under this proposed alternative, the habitat for the aquatic species will not be impacted or degraded with proper mitigation. The terrestrial animal species will not be impacted. There will be no impact on the viability of the plant species. Specific discussion of this alternative's effects on individual PETS and locally rare species follows:

Aquatic species- None of the PETS or LR aquatic species occur in the upper reaches of the streams, which are located on National Forest land. These stream sections are high gradient, swift water, low sediment sections and do not provide the mussels, fish, or insects with their primary habitat needs. The proposed trail location is not near any of these species; they are located several miles away. Mitigation measures to preserve water quality are given in Table 3 – Alternative 2 Mitigation Measures. This alternative will have no impact on these species.

Diana fritillary- This species is common throughout the Forest and overwinters in the duff and leaf layer of the soil. It utilizes nectar plants as an adult and violets as a host plant while in larval stage. The small scale of the disturbance planned in this alternative should not impact this species due to the widespread availability of its potential habitat.

Rose-breasted Grosbeak- Trail construction and public use will not impact this species because elements of its nesting habitat will not be removed or changed. This alternative will have no impact on this species.

Rafinesque's Big-eared bat- Large potential roost trees will not be removed under this alternative. Use of the trail and trail construction will not impact this species. This alternative will have no impact on this species.

New England Cottontail - The type of habitat this species occupies (high elevation shrubby habitat) will not be modified or affected by this alternative. There will be no impact on this species.

Southern Appalachian Woodrat- This species is primarily associated with dense timbered and swampy deciduous forests where it is often found in rocky areas including caves, outcrops and dry rocky hillsides as well as brush piles, flood drift and abandoned buildings. This alternative will have no impact on this species because trail construction and public use will not take place in these types of habitat.

Red Squirrel-. There will no loss of habitat under this alternative. Trail use and construction is not expected to impact this species, because its primary habitat will be unchanged and public use does not disturb it.

4-toed Salamander-This species is associated with sphagnum bogs or slow-moving streams with abundant moss or sedges adjacent to woodland areas. Adults live under rocks, logs leaves or moss. The adults are terrestrials, however the larvae are aquatic requiring permanent water sources. This type of habitat is not associated with the trail location. Therefore, this alternative will have no impact on this species.

Northern Pine Snake- This species is usually found in dry upland forests, mostly xeric conditions. This very secretive snake spends much of its time concealed in burrows, under leaf litter, or in natural cavities. Habitat for this species does occur in the area of the trail location, but since this is a very secretive species, there are no negative impacts expected under this alternative for this species.

Broadleaf tickseed- This species occurs in rich, moist wooded mountain slopes. It flowers from August to September. A large number of these plants were found during the survey along the trail route. Many over populations were found in the same area of the district this past summer. It is possible, but unlikely that some individual plants may be lost or damaged during trail construction, but this will not affect the viability of this species across the forest. This alternative will not impact this species.

Horse Gentian- This species grows in more open woods and clearings and flower in the spring. Four plants were found during field surveys of the trail route. Trail location and construction will not impact the viability of this species.

Broadleaf bunchflower- This is a species of rich woods and meadows. It flowers in the summer. Five plants were found during field surveys of the trail route. Trail location and construction will not impact the viability of this species.

Sweet White Trillium- This species grows in rich woods at elevation above 2500ft and is very common in the Cohutta mountains. A small population of these plants was found during field surveys of the trail route. The trail route was slightly adjusted

to avoid these plants. This alternative will have no impact on the viability of this species.

Cumulative Effects on PETS and Locally Rare Species - The proposed project involves a small amount of trail construction and linking up existing roads and trails. The impact of this project on PETS species or their habitats will be negligible. Implementation of Forest standards and guidelines including trail construction guidelines and water quality standards and guidelines all assist in avoiding adverse cumulative effects on PETS and wildlife species. Adherence to these standards and guides also assist in maintaining habitat for PETS species on the Forest level. Any future action requires the appropriate analysis including cumulative effects on PETS species and their habitats.

Surveys have been and continue to be conducted in portions of the Forest to determine presence and distribution of various small mammals, birds, amphibians and reptiles, aquatic species, and PETS plants. The Georgia National Heritage Program records are checked for known occurrences of PETS species in project areas, and close contact is maintained between the Heritage biologists and Forest Service biologists for sharing of new information. Forest Service and other records are also checked for occurrences.

Future management activities and project locations will be analyzed utilizing any new information available on PETS species. For Sensitive species, mitigating measures will be implemented to maintain habitat for these species on the Forest, and to prevent future listing under the Endangered Species Act. These strategies will assist in avoiding cumulative effects on PETS species and their habitats.

Two sensitive plants were found during the survey, tickseed broadleaf and sweet white trillium. To avoid impacts to the species, the trailbed will be located a safe distance from the plants. No federally listed plant species will be affected by the proposed action and no sensitive plants will be impacted. Botanical inventories will be conducted on all high-risk sites proposed prior to all future activities. Effects on federally listed species will be avoided and significant populations of sensitive plant species will be protected on the Forest. No cumulative effects to PETS plants from past, present, and reasonably foreseeable future actions will occur.

Forest-wide water quality standards and guidelines as well as Georgia State BMP's will be followed on all future projects in the area to maintain water quality and prevent adverse impacts to aquatic species. Measures will be taken to minimize soil movement. All aspects of trail construction and establishment will be evaluated for the appropriate mitigation measures to avoid impacting water quality. These aspects include, trails, trailheads, bridges, and stream crossings. Therefore, the cumulative effects from past, present, and reasonably foreseeable future actions will not impact any aquatic PETS species.

Habitat for Diana fritillary butterfly is found throughout the Chattahoochee National Forest. The project sites contain no rare habitat specifically required by this species. Potential habitat for Rafinesque's big-eared bat will be unaffected by the project. Future projects will be analyzed using any new information available on the Diana and other terrestrial PETS invertebrates and vertebrates. Negative impacts to federally listed terrestrial species will be avoided and mitigating measures will be implemented to ensure viability of all Forest Sensitive species. There will be no cumulative effects to terrestrial PETS invertebrates and vertebrates from past, present, and reasonably foreseeable future actions.

For the reasons discussed above, cumulative effects from past, present, and reasonably foreseeable future actions in development of the Pinhoti trail are not expected to impact any PETS or locally rare species.

EFFECTS OF ALTERNATIVE 3 (DENNIS TO SOUTH FORK OF THE JACK'S RIVER) - This alternative differs from Alternative 2 only in that it proposes a trail route from the upper Mountaintown Creek Trail northeast to the South Fork of the Jack's River (and the South Fork Trail) following a system road (closed to public vehicle travel) and an old woods road. This proposed trail route would reduce the total trail project mileage by about 1.4 miles.

MIS/Aquatic biota – Under this proposed alternative, terrestrial species will not be impacted or disturbed by trail development or increased public use. Compared to Alternative 2, this alternative will effect a smaller loss of remote quality of habitat for individual black bears as the trail route avoids the remote backcountry and undeveloped major ridge line in the area of Pink Knob.

The habitat for the aquatic species will not be impacted or degraded with proper mitigation (see Table 5 – Alternative 3 Mitigation Measures).

Other direct, indirect and cumulative effects on MIS and aquatic biota are the same as Alternative 2. The overall impacts to MIS and aquatic biota will be negligible.

SUMMARY OF THE EFFECTS OF ALTERNATIVES ON THE MIS

The various objectives of forest management should also include provisions to provide the basic needs for the MIS. This would ensure the resource manager that community, successional and species diversity remains throughout the forest. The biological effects on the MIS in regards to the alternative chosen are summarized in the table below. The table lists the MIS, the habitat objective and the probable effect of each alternative on the MIS habitat.

Table 9 - Effects of Alternatives on Project MIS

MIS	Habitat Objectives	Alt. 1	Alt. 2	Alt. 3
Yellow Lady Slipper	Maintain	M	M	M
Pileated Woodpecker	Maintain	M	M	M
Acadian Flycatcher	Maintain	M	M	M
Indigo Bunting	Maintain	M	M	M
Black Bear	Maintain	M	M	M
Ruffed Grouse	Maintain	M	M	M
Gray Squirrel	Maintain	M	M	M
White-tailed Deer	Maintain	M	M	M
Coosa Darter	Maintain	M	M	M
Red-eyed bass	Maintain	M	M	M
Rainbow/brown trout	Maintain	M	M	M

Where, D = Decrease, M = Maintained, and E = Enhanced

PETS and Locally Rare Species - Under this proposed alternative, the habitat for the aquatic species will not be impacted or degraded with proper mitigation (see Table 5 – Alternative 3 Mitigation Measures). The terrestrial animal species will not be impacted. There will be no impact on the viability of the plant species.

Two sensitive plants located on the Alternative 2 trail route were not found on the route proposed under Alternative 3.

Other direct, indirect and cumulative effects on PETS and locally rare species are the same as Alternative 2. No effect is expected on PETS and locally rare species.

ISSUE 4: EFFECTS ON CULTURAL RESOURCES

CURRENT SITUATION – Approximately 6,400 acres have been surveyed for heritage/archeological (cultural) sites on the Cohutta unit of the Armuchee-Cohutta Ranger District. From these surveys, the Forest Service has documented about 150 heritage/archeological sites located throughout the Cohutta unit. Many of these sites are protected from ground disturbing action, because they are either eligible, or potentially eligible, to the National Register of Historic Places. Presently, any ground disturbing activities must be screened for cultural resources prior to the activity occurring. This screening ensures that heritage/archeological sites are located, recorded, assessed and protected prior to trail development activities.

EFFECTS OF ALTERNATIVE 1 (No Action) – No ground disturbance would occur and there would be no effects to cultural resources.

EFFECTS OF ALTERNATIVE 2 (DENNIS TO FLAT TOP MOUNTAIN) – A cultural resource survey was completed for the proposed trail route. One historic house site

was located on the proposed route. The house site will need additional testing to determine National Register eligibility, and until that time, it is recommended as Potentially Eligible therefore receiving the protection needed to prevent disturbance.

To mitigate any direct effects on the historic site resulting from the trail construction activity, the trail centerline will be moved 50 feet away from the site to avoid any disturbance. With this stated mitigation measure, no effect on the cultural resources is expected.

EFFECTS OF ALTERNATIVE 3 (DENNIS TO SOUTH FORK OF THE JACKS RIVER) – Same as Alternative 2. No effect on the cultural resources is expected with applied mitigation measures.

ISSUE 5: EFFECTS ON SOIL AND WATER

CURRENT SITUATION

Soils – The project area is located within the Blue Ridge Physiographic Province. Soils have been formed in place (residuum) from the underlying metamorphic bedrock. Examples of bedrock include granite, gneiss, and schist. In the southern portion of the project area in Murray County, residuum soils developed in metasedimentary materials such as phyllite and metasandstone. Soils generally have loamy surfaces and clayey loam to sandy loam subsoils. Predominate soil types are stony to cobbly and well drained (See Soil Resource Inventory: Appendix E).

Much of the land area managed by the USDA Forest Service on the Cohutta unit experienced erosion during the 1800s and early 1900s, due to lack of conservation practices during intensive logging and farming. In the 1930s when the US Forest Service obtained the land, conservation methods such as tree planting, gully removal and soil restorations occurred. These practices continue today, reducing additional sediment loads into streams.

Water - The project area is located within the Rock Creek, Mountaintown Creek and South Fork of the Jacks River watersheds. Rock Creek and Jacks River are tributaries of the Conasauga River; Mountaintown Creek is a tributary of the Coosawattee River. The Conasauga and Coosawattee Rivers merge near Calhoun, Georgia to form the Oostanaula River.

Nearly 95% of the project area south of State Highway 52 drains into Rock Creek which empties into the Conasauga River south of Dalton, Georgia. The Rock Creek watershed is classified as a “primary trout stream” upstream of Murray County Road 4, at Dennis, by the Georgia Department of Natural Resources, Environmental Protection Division. Named perennial streams in the Rock Creek watershed include Falls Branch, Bearpen Branch, and Baker Branch. The remaining 5% of the project

area south of State Highway 52, is drained by Harkins Creek in Gilmer County. Identified with a beneficial use of “fishing”, Harkins Creek empties into Rainbow Lake, a privately owned warm water fishery.

About 75% of the project area north of State Highway 52 is drained by the Mountaintown Creek watershed located in both Gilmer and Fannin County. The main stem of Mountaintown Creek flows into Hills Lake, a privately owned impoundment, just north of its confluence with Bear Creek. The Mountaintown Creek watershed is classified as a “primary trout stream” upstream of Highway 76 in Gilmer County which includes all of the National Forest land in the watershed. Named perennial streams include Barnes Creek, Bear Creek, Little Bear Creek, Dyer Creek, Heddy Creek, Betty Creek, Natty Cove Branch, Crenshaw Branch and Rich Knob Branch. Mountaintown Creek is a popular cold water fishery. The U.S. Forest Service in partnership with Trout Unlimited has constructed numerous fish structures in Mountaintown Creek on National Forest land between Hills Lake and Dyer Creek to improve stream habitat for native trout.

Approximately 25% of the project area north of State Highway 52 is drained by the South Fork of the Jacks River which is found in both Gilmer and Fannin County. From these headwaters, the Jacks River flows into the Cohutta Wilderness about three miles downstream. Most of the Jacks River watershed is included within the wilderness boundary; however, about 1000 acres of private land north of the project area are located within the drainage. Inside the wilderness boundary, the Jacks is classified as a State “wild and scenic” river. Outside of the wilderness, the river is designated as a “primary trout stream”.

Residential development and land clearing continues on private land. The impacts of these activities upon National Forest lands are unknown, but are monitored closely.

EFFECTS OF ALTERNATIVE 1 (No Action) – There would be no potential for any effects upon the soil and water resources with this alternative. Effects from existing roads, past and current land-use activities and activities on adjacent private lands will continue to occur.

EFFECTS OF ALTERNATIVE 2 (DENNIS TO FLAT TOP MOUNTAIN) – Compaction will likely occur within the trail and parking area clearing limits. The trail and parking areas will be maintained for access, thus the effects of compaction will be minimal on soil drainage and vegetation growth.

The construction of the trail and its connected actions will result in areas of ground disturbance that will create a potential erosion source and subsequently, generate sediment. The highest potential for sediment is at trail stream crossings. Increases in erosion are expected to be within the range of natural variability and should not

affect soil productivity or sedimentation rates. With proper mitigation, erosion and sediment delivery would be within acceptable limits.

Trail construction at stream crossings can potentially effect changes in stream shading. However, with trail clearing widths limited to 4 feet to 8 feet, and with the midstory and overstory vegetation left largely intact, the changes in vegetative shading will be minor and are not expected to significantly effect water temperature. Stream channel disturbance can occur at fords if crossings are unstable or damaged from use outside of tolerable limits. During trail layout and design, natural ford locations with gradual approaches were utilized where the channel bottom is firm, relatively smooth and level and where water depths are two feet or less during the normal trail use season. With other applied mitigation measures to stabilize and armor stream approaches and to restrict use, no significant effect is expected on stream channels.

Increases in water yield associated with the proposed activities will be minor in volume and short-term in impact. This is related to the small amount of area to be cleared for the trail and connected actions, the prompt revegetation of exposed soil, and gravel surfacing of the trailhead parking areas.

Direct effects from this alternative, experienced during the construction phase, should be short lived and recover quickly. Timely maintenance of the completed trail should minimize the potential for impacts over the long term. Downstream beneficial uses would have a slight chance of being adversely affected from the proposed actions.

Future actions in the next ten years by the Forest Service will likely continue to be custodial with continued focus on road maintenance and recreation uses. The potential for cumulative effects on the soil and water resources is not expected to be significant within the project area. The greater potential for adverse impacts to soil and water quality will occur downstream from National Forest on private land where growth in residential uses is increasing.

No significant effect is expected on the soil and water resources with applied mitigation measures (See Table 3 – Alternative 2 Mitigation measures).

EFFECTS OF ALTERNATIVE 3 (DENNIS TO SOUTH FORK OF THE JACKS RIVER) – From the southern terminus of the project area at Dennis to the upper Mountaintown Creek watershed, the effects of this alternative on the soil and water resources are the same as Alternative 2 as the proposed trail corridor location and connected actions are the same for each. However, this alternative differs from Alternative 2 in that it proposes trail establishment on a different route that avoids the headwaters of Mountaintown Creek instead locating the trail to the north of FDR 64 into the South Fork of the Jacks River drainage.

This alternative proposes to use the existing South Fork Trail ford of the South Fork of the Jacks River to access the Benton MacKaye Trail. Use of this existing ford is preferable to construction of a new ford as much less soil disturbance would ensue. The existing ford two feet deep or less during the normal trail use season, the river bottom is firm, and good natural trail approaches are utilized. While beavers have built dams in some areas of the South Fork drainage creating small wetlands, the proposed trail has been located to avoid these wetlands.

The potential effects of this alternative on the Mountaintown Creek watershed would be less than Alternative 2 as no new trail construction is proposed in the upper headwaters of the drainage. Conversely, this alternative would potentially affect the South Fork of the Jacks River watershed to a larger degree than Alternative 2 as proposed trail development activity is shifted to this drainage. However, all new trail development in the Jacks River drainage is located on either an existing gated system road or an old woods road. Consequently, there will be less potential for erosion as no new trail excavation will be needed.

This alternative proposes 1.4 miles less trail development than Alternative 2. Overall, direct and indirect effects of this alternative will be similar to Alternative 2, but somewhat lower in potential erosion, soil compaction, and volume of sediment due to a smaller area of disturbance. Downstream beneficial uses should not be adversely affected as a result of the proposed actions. As in Alternative 2, the greater potential risk of adverse impacts to water quality will likely occur off the National Forest, downstream on private lands where residential growth is occurring.

No significant effect is expected on the soil and water resources with applied mitigation measures (See Table 5 – Alternative 3 Mitigation measures).

CHAPTER IV – LIST OF AGENCIES OR PERSONS CONSULTED

A. AGENCIES PROVIDING CONSULTATION

State Historic Preservation Office – Compliance with National Historic Preservation Act
North Georgia Regional Development Center

B. INDIVIDUALS, AGENCIES AND ORGANIZATIONS PROVIDING PUBLIC INPUT

David Govus
Shepherd L. Howell
W. Harvey Howell
Billy J. Jump
Rene Voss
Georgia Pinhoti Trail Association
Benton MacKaye Trail Association

Southern Off-Road Bicycle Association
Georgia ForestWatch
Wilderness Society
Sierra Club
John Muir Project of Earth Island Institute
Georgia Department of Natural Resources, Wildlife Resources Division
Georgia State Parks and Historic Sites, Fort Mountain State Park

C. LIST OF PERSONS AND ORGANIZATIONS NOTIFIED OF PROPOSED ACTION

Steve Burch, Georgia Outdoor News	R.F. Kibler
Bobby Bell, GA Council of Trout Unlimited	George Jiminez
Tommy Short, Ruffed Grouse Society	Nat Cloer
Southern Appalachian Biodiversity Project	Karen Joyce Lowe
FEMA – Natural Hazards Branch	George Owen
Rene Voss, John Muir Project	David Govus
Devin Scherubel, Heartwood	Shepherd Howell
Susan Andrews, SAFC	Dr. W. Harvey Howell
Brent Martin, GA ForestWatch	Sam Booher
Angela Martin, GA ForestWatch	Tony Patterson
Dennis Stansell, GA ForestWatch	Nathan Melear
Tom Keene, Benton MacKaye Trail Assoc.	John Sherwood
Carey Mitchell, Trout Unlimited	Harold Sutton
Hillrie Quin, GA Pinhoti Trail Assoc.	Dick Baldrige
Bryan Bird, Forest Conservation Council	Barnett Chitwood
Bob Baldwin, USDA – NRCS	Greg Beavers
Southern Off-Road Bicycle Assoc	Jackie Gallman
Charles Hart, Jr., Louisiana Pacific Corp.	Roy Bryan
Jerry McCollum, GA Wildlife Federation	John Longino
Dan Bowden, ForestWatch	Kathy Bowden, ForestWatch
Larry Bosch, N. GA Regional Dev. Center	The Nature Conservancy
Steve Anglea, GA Power Co.	Ed Nicholson
Dr. Bill Jump, Dalton State College	Walter Williams
Barry Tarter, N. GA Regional Dev. Center	George Ivy, Conasauga Alliance
Larry Etheridge, Chattahoochee Sportsman Club	GA Pinhoti Trail Assoc.
David Butler, Murray County Manager	Wally Woods, Ft. Mtn. State Park
Rayburn Smith, Gilmer County Commissioners	GA DNR, Wildlife Resources Div.
Cline Bowers, Jr., Fannin County Commissioners	Sen. Steve Farrow
Noel Holcomb, GA DNR, Wildlife Resources Div.	Times Courier
Rep. Nathan Deal, Ninth District	Chatsworth Times
Daily Citizen News	

CHAPTER V – LIST OF PREPARERS AND FOREST SERVICE PERSONNEL PROVIDING SPECIALIZED INPUT (Full IDTeam members & IDTeam consultants)

A. List of Preparers

Larry Thomas, Operations Leader, Armuchee-Cohutta RD
Keith Wooster, former Wildlife Biologist, Armuchee-Cohutta RD
Ruth Stokes, Contract Wildlife Biologist

B. List of IDTeam Members

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Keith Wooster, former Wildlife Biologist, Armuchee-Cohutta RD
Scott Layfield, Silviculturist/NEPA, Armuchee-Cohutta RD
Debbie Whitman, District Ranger, Armuchee-Cohutta RD

C. Other Forest Service Personnel Providing Input

John Petrick, Forest Planner/NEPA, Supervisor's Office, GA
Becky Bruce, Forest Archeologist, Toccoa RD
Dick Rightmyer, Soil and Water Specialist, Supervisor's Office, GA
Bill Black, former District Ranger, Cohutta RD

CHAPTER VI – LITERATURE CITED AND REFERENCES

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Table 2 – Alternative 2 Description

TRAIL SECTION	USER GROUP(S)	CONSTRUCTION METHOD	ADDITIONAL NEEDS
Dennis to across Rock Creek	hikers, horseback riders, mountain bikers	<u>New Construction and Reconstruction of Old Woods Road:</u> Trail machine and/or hand tools <u>New Construction and Reconstruction of Old Woods Road within Riparian Zone of Rock Creek:</u> hand tools	1) Secure Right-of-Way at Dennis. 2) Construct equestrian trailhead parking area at Dennis. 3) Construct bridge over Rock Creek.
Rock Creek to Tatum Mountain	hikers, horseback riders, mountain bikers	<u>Reconstruction of Old Woods Road and Maintenance of Existing System Road:</u> Trail machine and/or bulldozer	
Tatum Mountain to State Highway 52	hikers, horseback riders, mountain bikers	<u>New Construction:</u> Trail machine and/or hand tools	
State Highway 52 to FDR 90 at Stillhouse Branch	hikers, mountain bikers	<u>Existing System Roads, County Roads, State Highway:</u> None	1) Resolve Right-of-Way issues between State Highway 52 and FDR 90.
FDR 90 at Stillhouse Branch to Bear Creek Trail	hikers, mountain bikers	<u>Maintenance of Existing System Road:</u> bulldozer <u>Maintenance of Existing System Trails and Reconstruction of Old Woods Roads:</u> Trail machine and/or handtools <u>New Construction and Reconstruction of Old Woods Roads in Riparian Zones:</u> hand tools	1) Construct trailhead parking area on FDR 90. 2) Install trailhead amenities (well and handpump, new toilet) at existing Bear Creek parking area.

Table 2 – Alternative 2 Description (continued)

TRAIL SECTION	USER GROUP(S)	CONSTRUCTION METHOD	ADDITIONAL NEEDS
Bear Creek Trail to Mountaintown Creek Trail	hikers	<u>New Construction and Reconstruction of Old Woods Roads:</u> Trail machine and/or hand tools <u>New Construction and Reconstruction of Old Woods Roads in Riparian Zones:</u> hand tools	
Mountaintown Creek Trail	Hikers, mountain bikers	<u>Maintenance of Existing System Trail:</u> hand tools	
Upper Mountaintown Creek Trail to Crenshaw Gap	hikers	<u>New Construction and Reconstruction of Old Woods Roads:</u> Trail machine and/or hand tools	
Crenshaw Gap to Benton MacKaye Trail at Flat Top Mountain	hikers, horseback riders	<u>New Construction and Reconstruction of Old Woods Roads:</u> Trail machine and/or hand tools <u>New Construction and Reconstruction of Old Woods Roads in Riparian Zones:</u> hand tools	1) Construct equestrian trailhead parking area on FDR 64 at Crenshaw Gap.

Table 3 – Alternative 2 Mitigation Measures

SUBJECT OR RESOURCE ELEMENT	MITIGATION MEASURE	REFERENCE SOURCE
Trails	Install broadbased dips, rather than waterbars, as needed during construction to ensure adequate surface drainage.	Plan, page 4-37, item #1
Trailheads, Bridges	During construction, install hay bales and/or silt fence to minimize off-site soil movement	EA specific
Trails, Trailheads	During construction, include timely revegetation of exposed soils using recommended seed mixtures and sufficient surface drainage to prevent concentrated soil movement	Plan, page 4-39, item B. Georgia BMPs, page 42, table 6-A.
Trails, Stream crossings	Install a drainage structure 50-75' from any defined stream channel crossing to reduce direct sediment runoff.	Plan, page 4-39, item B2.
Trails, Stream crossings	Except for stream crossings, locate new trails outside streamside management zones as much as possible.	Georgia BMPs, page 14, item 3.1.
Trails, Stream crossings	Use fords as the preferred method of stream crossing where the water is $\leq 2'$ deep during normal trail use season, the stream bottom is firm, and good natural trail approaches can be utilized.	Trails South, page 48. Georgia BMPs, page 21, item 3.34.
Trails, Stream crossings	Stream crossings should be placed at or near right angles to the stream channel whenever possible.	Trails South, page 28. Georgia BMPs, page 20, item 3.32.
Trails, Soils	Design and construct trails with minimal clearing	Trails South, page 22.

	widths, construction along the contour of the slopes, trail grade with minimal cut and fill slope dimensions where possible, and full bench cuts on steeper slopes > 25%	EA specific
Trails, Stream crossings	Keep bulldozers out of streamside management zones. Use handtools for construction. Rubber-tired tractors and All-terrain-vehicles may be used to armor stream approaches with rock/gravel, as needed.	EA specific
Trails, Stream crossings	Stabilize stream approaches with rock/gravel and/or geotextile, as needed	Georgia BMPs, page 20, item 3.32.
Trails	Restrict traffic on trail or trail sections when unacceptable resource damage is occurring that cannot be mitigated by any other means. Use seasonal, advisory or regulatory restrictions to fit the situation.	Forest Service Handbook (FSH) 2309.18, section 4.12.
Trails, User conflicts	Install barriers and place informational signs to restrict trail traffic to authorized users.	Forest Service Handbook (FSH) 2309.18, section 4.12.
Disturbance areas	Inventory the project area for cultural sites prior to ground disturbance. Protect and preserve significant sites as per the direction of the Forest Archaeologist and the State Historic Preservation Office.	Plan, page 4-16, Item #1, 2, 3, 4. Forest Service Manual (FSM) 2361.
Disturbance areas	Inventory the project area for Proposed Endangered, Threatened, or Sensitive (PETS) species prior to ground disturbance.	Plan, page 4-19.

	Protect or mitigate all significant sites found.	
Disturbance areas	A biological evaluation of how a project may affect any PETS species is required.	Veg Mgt EIS, Vol I, Section II-47, item #2.

Table 4 – Alternative 3 Description

TRAIL SECTION	USER GROUP(S)	CONSTRUCTION METHOD	ADDITIONAL NEEDS
Dennis to across Rock Creek	hikers, horseback riders, mountain bikers	<u>New Construction and Reconstruction of Old Woods Road:</u> Trail machine and/or hand tools <u>New Construction and Reconstruction of Old Woods Road within Riparian Zone of Rock Creek:</u> hand tools	1) Secure Right-of-Way at Dennis. 2) Construct equestrian trailhead parking area at Dennis. 3) Construct bridge over Rock Creek.
Rock Creek to Tatum Mountain	hikers, horseback riders, mountain bikers	<u>Reconstruction of Old Woods Road and Maintenance of Existing System Road:</u> Trail machine and/or bulldozer	
Tatum Mountain to State Highway 52	hikers, horseback riders, mountain bikers	<u>New Construction:</u> Trail machine and/or hand tools	
State Highway 52 to FDR 90 at Stillhouse Branch	hikers, mountain bikers	<u>Existing System Roads, County Roads, State Highway:</u> None	1) Resolve Right-of-Way issues between State Highway 52 and FDR 90.
FDR 90 at Stillhouse Branch to Bear Creek Trail	hikers, mountain bikers	<u>Maintenance of Existing System Road:</u> bulldozer <u>Maintenance of Existing System Trails and Reconstruction of Old Woods Roads:</u> Trail machine and/or handtools <u>New Construction and Reconstruction of Old Woods Roads in Riparian Zones:</u> hand tools	1) Construct trailhead parking area on FDR 90. 2) Install trailhead amenities (well and handpump, new toilet) at existing Bear Creek parking area.

Table 4 – Alternative 3 Description (continued)

TRAIL SECTION	USER GROUP(S)	CONSTRUCTION METHOD	ADDITIONAL NEEDS
Bear Creek Trail to Mountaintown Creek Trail	Hikers	<u>New Construction and Reconstruction of Old Woods Road:</u> Trail machine and/or hand tools <u>New Construction and Reconstruction of Old Woods Road within Riparian Zone:</u> hand tools	
Mountaintown Creek Trail	Hikers, mountain bikers	<u>Maintenance of Existing System Trail:</u> hand tools	
Upper Mountaintown Creek Trailhead on FDR 64 to Benton MacKaye/South Fork Trail on the South Fork of the Jacks River	Hikers, horseback riders, mountain bikers	<u>Maintenance of Existing System Road:</u> bulldozer <u>Maintenance of Existing System Trails and Reconstruction of Old Woods Roads:</u> Trail machine and/or handtools <u>Reconstruction of Old Woods Roads in Riparian Zones:</u> hand tools	1) Construct equestrian trailhead parking area on FDR 64 at Buddy Cove Gap.

Table 5 – Alternative 3 Mitigation Measures

SUBJECT OR RESOURCE ELEMENT	MITIGATION MEASURE	REFERENCE SOURCE
Trails	Install broadbased dips, rather than waterbars, as needed during construction to ensure adequate surface drainage.	Plan, page 4-37, item #1
Trailheads, Bridges	During construction, install hay bales and/or silt fence to minimize off-site soil movement	EA specific
Trails, Trailheads	During construction, include timely revegetation of exposed soils using recommended seed mixtures and sufficient surface drainage to prevent concentrated soil movement	Plan, page 4-39, item B. Georgia BMPs, page 42, table 6-A.
Trails, Stream crossings	Install a drainage structure 50-75' from any defined stream channel crossing to reduce direct sediment runoff.	Plan, page 4-39, item B2.
Trails, Stream crossings	Except for stream crossings, locate new trails outside streamside management zones as much as possible.	Georgia BMPs, page 14, item 3.1.
Trails, Stream crossings	Use fords as the preferred method of stream crossing where the water is $\leq 2'$ deep during normal trail use season, the stream bottom is firm, and good natural trail approaches can be utilized.	Trails South, page 48. Georgia BMPs, page 21, item 3.34.
Trails, Stream crossings	Stream crossings should be placed at or near right angles to the stream channel whenever possible.	Trails South, page 28. Georgia BMPs, page 20, item 3.32.
Trails, Soils	Design and construct trails with minimal clearing widths, construction along	Trails South, page 22. EA specific

	the contour of the slopes, trail grade with minimal cut and fill slope dimensions where possible, and full bench cuts on steeper slopes > 25%	
Trails, Stream crossings	Keep bulldozers out of streamside management zones. Use handtools for construction. Rubber-tired tractors and All-terrain-vehicles may be used to armor stream approaches with rock/gravel, as needed.	EA specific
Trails, Stream crossings	Stabilize stream approaches with rock/gravel and/or geo-textile, as needed	Georgia BMPs, page 20, item 3.32.
Trails	Restrict traffic on trail or trail sections when unacceptable resource damage is occurring that cannot be mitigated by any other means. Use seasonal, advisory or regulatory restrictions to fit the situation.	Forest Service Handbook (FSH) 2309.18, section 4.12.
Trails, User conflicts	Install barriers and place informational signs to restrict trail traffic to authorized users.	Forest Service Handbook (FSH) 2309.18, section 4.12.
Disturbance areas	Inventory the project area for cultural sites prior to ground disturbance. Protect and preserve significant sites as per the direction of the Forest Archaeologist and the State Historic Preservation Office.	Plan, page 4-16, Item #1, 2, 3, 4. Forest Service Manual (FSM) 2361.
Disturbance areas	Inventory the project area for Proposed Endangered, Threatened, or Sensitive (PETS) species prior to ground disturbance. Protect or mitigate all	Plan, page 4-19.

	significant sites found.	
Disturbance areas	A biological evaluation of how a project may affect any PETS species is required.	Veg Mgt EIS, Vol I, Section II-47, item #2.

Table 6- Project Management Indicator Species

Species	Desired	Existing	Proposed
Yellow Lady Slipper	Habitat consists of rich cove hardwoods sites greater than 60 years old. Occurs more common on North and East slopes.	Habitat is common throughout the project level. This species was not found during field surveys.	Maintain current habitat conditions for this species.
Pileated Woodpecker Reasons for inclusion: - Indicator of specialized habitat, especially of large hardwood snags (dead, standing trees typically more than 60 years old) - Year-round resident.	Habitat consists of mature (60 years plus) and extensive hardwood and hardwood-pine forest; Habitat would occur in deep woods, cove hardwood stands. Also in rather open, upland forest of mixed forest types; Foraging and nesting occurs in and on the snag trees, with some foraging also occurring on fallen logs and other forest debris.	Habitat is common throughout the project area, especially in hardwood and mixed stands. The species uses snag trees for nesting.	Habitat Capability Objective: Continue the aging of the hardwood stands. Management Objectives: Maintain dead trees by providing approximately 3 snag trees for every 2 acres.
Acadian flycatcher Reasons for inclusion: - Ecological indicator of riparian corridor habitat - Neotropical migratory	Habitat consists of deciduous forests near streams. Usually builds nests in branches directly overhanging streams; Primarily feeds on insects.	Habitat is fairly good, with riparian areas common across the Forest and in generally good condition. Population levels have been relatively stable for this species, with surveys showing an increasing trend in abundance statewide over the past 30 years. Riparian habitat is expected to remain constant over time.	Habitat Capability Objective: Use of standards and guidelines will help maintain the quality and integrity of existing riparian corridors.
Black Bear Reasons for inclusion: -Ecological indicator of late successional habitat -hunted	Forested habitat of different age classes. Food varies from fruits, berry, and insects in the summer months to acorns in the winter months. They prefer large mature trees for acorns to grass and shrubs for food and cover.	Current habitat conditions provide most habitat requirements except early successional habitat is becoming more limited.	Maintain current levels of mast production but provide early successional habitat.
Ruffed Grouse Reasons for inclusion: -Ecological indicator for mid-successional habitat -hunted	Desired habitat includes multiple age classes were thick bushy cover areas are abundant.	The mid successional age classes are limited in the project area.	Maintain current levels around the proposed trails.

Species	Desired	Existing	Proposed
Wild Turkey Reasons for inclusion: - Hunted - Ecological indicator of mid to late successional habitat - Year-round resident.	Habitat is most common in the forest where understory is moderate; Also occurs in extensive upland hardwood or mixed forest, less so in pure pine forests; Frequents open woods, edges and woodland openings, Nest on the ground in thickets and feed on the ground; Hardwood mast, berries, insects and vegetable matter is primary forage.	While habitat is fairly abundant. Mast-producing trees are abundant as is nesting habitat.	Habitat Capability Objective: Maintain habitat levels by allowing age classes to grow older. Allow nesting habitat to grow.
Eastern Gray Squirrel Reasons for inclusion: - Hunted - Ecological indicator (for mature hard/soft mast bearing trees) - common resident.	Habitat is mid to late successional hardwoods that produce hard and soft mast. Cavity nester, which utilizes larger diameter hollow trees. Must rely on leaf nest if cavities unavailable. Can use habitat where it occurs, including forest, upland, or riparian areas. Forages in treetops or on ground.	Habitat level is high in general, which is related to the acreage of existing hardwood stands.	Habitat Capability Objective: Maintain population and habitat at present levels.
White-tailed Deer Reasons for inclusion: - Hunted - Common resident.	A user of many habitat types, including forest, riparian and early-successional habitats.	Population levels are fairly low due to older age classes and lack of early successional habitats.	Habitat Capability Objective: Maintain population at present levels.
Coosa Darter Reasons fro inclusion: -water quality -common resident	This species occurs in clear, clean streams. It occurs in Rock Creek, Mountaintown Creek, Jacks River and Bear Creek.	Populations are common to abundant. Habitat is clear clean riffles in cool streams.	Maintain current habitat and populations levels.
Red-eyed Bass -water quality common resident	This species occurs in the lower elevations of Rock Creek, Mountain town Creek, Jacks River and Bear Creek.	Populations are common to abundant. Habitat is clear clean pools in the warmer streams. Water depth and cover are very important to this species.	Maintain current habitat and populations levels.
Rainbow/brown trout -water quality common resident	These are introduced species. Rainbow is common in Rock, Mountaintown creek, Jacks River and Bear Creek. Brown trout only occur in Mountain town Creek and Jacks River.	Populations are common were they occur. Habitat is clear clan pool in the cooler steams. Mostly associated with higher elevations. Water depth and cover are important to populations levels.	Maintain current habitat and populations levels.

Table 7 – Forest Types (Based on Year 1998)

Ecological Community	Acres	Percent
Conifer-Northern Hardwood	6,800	6.3%
Dry & Dry-Mesic Oak and Pine	23,976	22.2%
Dry & Xeric Oak	3,348	3.1%
Dry Mesic Oak	22,356	20.7%
Eastern Riverfront	328	0.3%
Mixed Mesophytic	29,484	27.3%
Xeric Pine/Pine Oak	21,708	20.1%
Total	108,000	100%

Table 8 - Age Class Distribution (Based on Year 1998)

Age Class	Acres	Percent
Early Successional Habitats:		
0-10	1,080	1.0%
11-20	12,420	11.5%
Mid Successional Habitats:		
21-40	5,400	5.0%
41-60	6,480	6.0%
Late Successional Habitats:		
61-80	56,700	52.5%
81-100	17,712	16.4%
101 +	8,208	7.6%
Total	108,000	100%

APPENDIX A

INTRODUCTION TO FOREST PLANNING AND PLAN IMPLEMENTATION

The Forest Service uses a two-level process for all natural resource decisions.

Programmatic Decisions

The first level decisions are called programmatic decisions. They set the framework within which specific management actions will be carried out, but they do not decide on the specifics of individual actions. There is one programmatic environmental document that applies to this proposed action:

Forest Plan

The applicable programmatic decision is the Forest Land and Resource Management Plan approved by the Regional Forester in September 1985, and amended nineteen times. The National Forest Management Act of 1976 (NFMA) directed the Forest Service to make a plan for each National Forest. The law also said all resources would be considered together at one time. The Forest Service developed the Chattahoochee-Oconee Land and Resource Management Plan (also called the LRMP, the Forest Plan, or just the Plan) to meet the law. The Forest Plan did not decide on specific actions or projects that will occur in the National Forest. Instead it made certain first-level, or programmatic decisions.

Project Decisions

The second level decisions are project level, or site-specific, decisions. These are decisions to actually do something on-the-ground, and they must comply with all the programmatic decisions which have proceeded them. The decision supported by this environmental analysis will be a project level decision.

NEPA Analysis for Projects

When we propose an action that requires project level decision, we move into a process required by the National Environmental Policy Act (NEPA) of 1969. NEPA is the basic National charter for protection of the environment. The process is called environmental analysis. Key parts of the NEPA environmental analysis process include: an interdisciplinary approach; public involvement to find out the issues, or concerns, people have with the proposed actions and possible environmental effects of a proposal; alternative ways of addressing issues and achieving desired conditions; public notification of the results of the environmental analysis; and opportunity for public appeal of the decision.

The Environmental Assessment and Decision

An Environmental Assessment (EA) is a document that discusses the need for a project level proposal, alternatives to the proposal, and environmental impacts of the proposed action and alternatives. The document that follows is an Environmental Assessment. The EA will provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS). If an EIS is not necessary the EA will be the basis for deciding whether to go forward with a proposed action. This decision to proceed is documented in a Decision Notice (DN). One finding required by NEPA will be a Finding of No Significant Impact (FONSI), which is a finding that the quality of the human environment will not be significantly impacted by the actions decided, provided the analysis in the EA supports that conclusion.

The Endangered Species Act and Biological Evaluation

The Endangered Species Act of 1973 (ESA) provides a means to conserve threatened and endangered species and the ecosystems upon which they depend. The Act requires that all Federal agencies ensure through consultation with the Fish and Wildlife Service that actions are not likely to jeopardize the continued existence of listed species, or result in destruction or adverse modification of critical habitat. The Forest Service is required to evaluate planned activities for possible effects on proposed, endangered, threatened, and sensitive species. The process and resulting document is called a Biological Evaluation (BE). A reference to the effects of the planned activities on PETS Species will be made in the FONSI part of the Decision Notice.

The National Historic Preservation Act and State Historic Preservation Office

The National Historic Preservation Act, amended in 1982, expresses a general policy of supporting and encouraging the preservation of prehistoric and historic resources by directing Federal agencies to assume responsibility for considering historic resources in their activities. The Advisory Council on Historic Preservation has established a process to be followed by Federal agencies so as to avoid any adverse effect on historic properties. This is done through the State Historic Preservation Office (SHPO). A reference to the effects of the planned activities on prehistoric and historic resources will be made in the FONSI part of the Decision Notice.

APPENDIX B

MITIGATION

The Armuchee-Cohutta Ranger District will mitigate the environmental effects caused by the Pinhoti Trail Extension project actions by adhering to the applicable Regional and Forest-wide standards and guidelines (S&G's) contained in the Forest Plan for the Chattahoochee-Oconee National Forests and the final EIS for Vegetation Management in the Appalachian Mountains.

MONITORING/EVALUATION

Implementation monitoring will assure that 1) the trail is designed, laid out on the ground, and constructed to meet the standards and guidelines, and 2) the contractors involved in the trail construction activities fulfill the terms of their contracts. Implementation monitoring will be accomplished through contract inspections and field inspections of Forest Service and volunteer trail crews conducted by contract inspectors and district operation leaders, respectively. This will ensure that the appropriate standards and guidelines will be implemented to protect soil productivity, water quality, and other resources. Effectiveness monitoring will assure that the mitigations prescribed for the trail development actions are effective and preclude significant environmental effects. The Forest ID Team will monitor the environmental effects as directed by Chapter 5 of the Forest Plan.

Trail development actions will be screened against this EA document to ensure that applicable constraints are identified and implemented. This will ensure ongoing monitoring with checks and balances for such things as the Biological Evaluation and State Historic Preservation Office clearance. The Pinhoti Trail Extension project will have a written record of evaluation for PETS species and Heritage resources that will become part of the project file.

Management Areas covered by this decision would include:

Management Area 16 – General Forest Area. Semi-primitive (25%) and Roded Natural (75%) recreation opportunities are featured in this area.

Management Area 15 – Semi-primitive Non-motorized Recreation Area. Semi-primitive non-motorized recreation opportunities are featured in this area. Trail management calls for: 1) a highly developed hiking trails network with accompanying trailhead parking facilities and area trail maps, 2) sign trails thoroughly; feature one-day loop trails and short interpretive trails, and 3) as the need develops, consider constructing and designing horse trails.

APPENDIX C

PERMITS, LICENSES, AND AGREEMENTS

The Georgia Forestry Commission (GFC) is the State agency with the responsibility to see that the requirements of the Federal Clean Water Act are met for all forestry-related non-point sources of pollution in the State of Georgia. The Commission's handbook, "Georgia's Best Management Practices (BMP's) for Forestry", (1999) is the source of conservation practices designed to prevent or reduce the pollution from forestry activities to a level which meets or exceeds State-designated water quality beneficial uses for streams and rivers, such as fishing. In 1991, the Forest Service and the Georgia Forestry Commission signed a Memorandum Of Understanding (MOU, 1991) outlining the responsibilities of each agency with regard to water quality management and forest management. In the MOU the Forest Service agreed to recognize State designated beneficial waters uses and meet the BMP's. Current Forest Plan standards and guidelines for erosion and sediment control for road and trail building activities meet or exceed the direction of the State BMP's. GFC agreed to review the FS process of selecting BMP's, and monitor State-approved BMP's on National Forest system lands.

Agreement by the State Historic Preservation Office (SHPO) to the procedures to be used to determine whether or not heritage resource sites are present, their status under the National Historic Preservation Act (NHPA), and protection measures for them is required before ground-disturbing actions may occur. SHPO agreement to these procedures will have been received before a decision on this proposal is made.

To meet the requirements of the national Endangered Species Act, the presence or absence of, and possible effect on, Federally-listed Proposed, Endangered, or Threatened species will be analyzed before a decision on this proposal is made. In addition, the Forest Service assesses the occurrence of, and possible effect upon, species on a Forest Service list of "Sensitive" species, which includes State of Georgia, threatened or endangered species. The method used is first a risk assessment followed, if needed, by a field survey.

APPENDIX D

MANAGEMENT INDICATOR SPECIES

Regulations (36 CFR 219) developed to meet the requirements of the National Forest Management Act (NFMA), identify Management Indicator Species (MIS) as one planning tool to be used by the Forest Service to meet NFMA's mandate to "provide for a diversity of plant and animal communities". MIS are selected to reflect the diversity of habitats found on a National Forest. MIS are used during planning to: (1) set habitat objectives and management requirements, (2) focus analysis of effects, and (3) monitor effects of management. Guidelines for selection of MIS outlined in NFMA regulations include consideration of the following factors:

1. Demand; that is, whether a species is hunted, trapped, or fished. The use of demand as a factor reflects both the "human dimension", or how people interact with the ecosystem, and interest in ecosystem products.
2. The listing as Proposed, Threatened, or Endangered by the U.S. Fish and Wildlife Service (USFWS), the Federal agency responsible for listing species as required by the Endangered Species Act (ESA). Use of this factor reflects concern for species diversity and compliance with the ESA.
3. The ability of a species to serve as an ecological indicator of the condition of an ecosystem, including the aquatic ecosystem. Concern for community diversity is the basis for using this criterion.
4. The need for species to serve as indicators of specialized habitats, such as bogs, is the final criterion. This criterion also addresses community diversity concerns.

MIS also contribute to ensuring National Forests are managed to "maintain viable populations of existing native and desirable non-native vertebrate species" (36 SFR 219.9). By providing a diversity of habitats across a National Forest to meet the needs of MIS, most other species also are maintained. However, some species' needs may not be met with this approach. To ensure these species are considered and maintained, the Biological Evaluation process analyzes effects to those species deemed most at risk of losing viability – federally listed and sensitive species.

The FEIS for the Forest Plan chose 20 Management Indicator Species (FEIS, p. 3-21, Table 3-8). Together they represent six stages of succession (the gradual replacement of one plant community for another), five special habitats or habitat components, and three Federally-listed threatened or endangered species (Plan FEIS, p. 3-22, Table 3-9). From these 20, those with a range which included the project area were chosen by wildlife professionals as project MIS. The Acadian Flycatcher was recently added as a Forest MIS by amendment to the Forest Plan (replaced the Dusky salamander). In addition, three other species (Coosa darter, Red-eyed bass and Rainbow/Brown trout) were chosen as local MIS for this specific project.

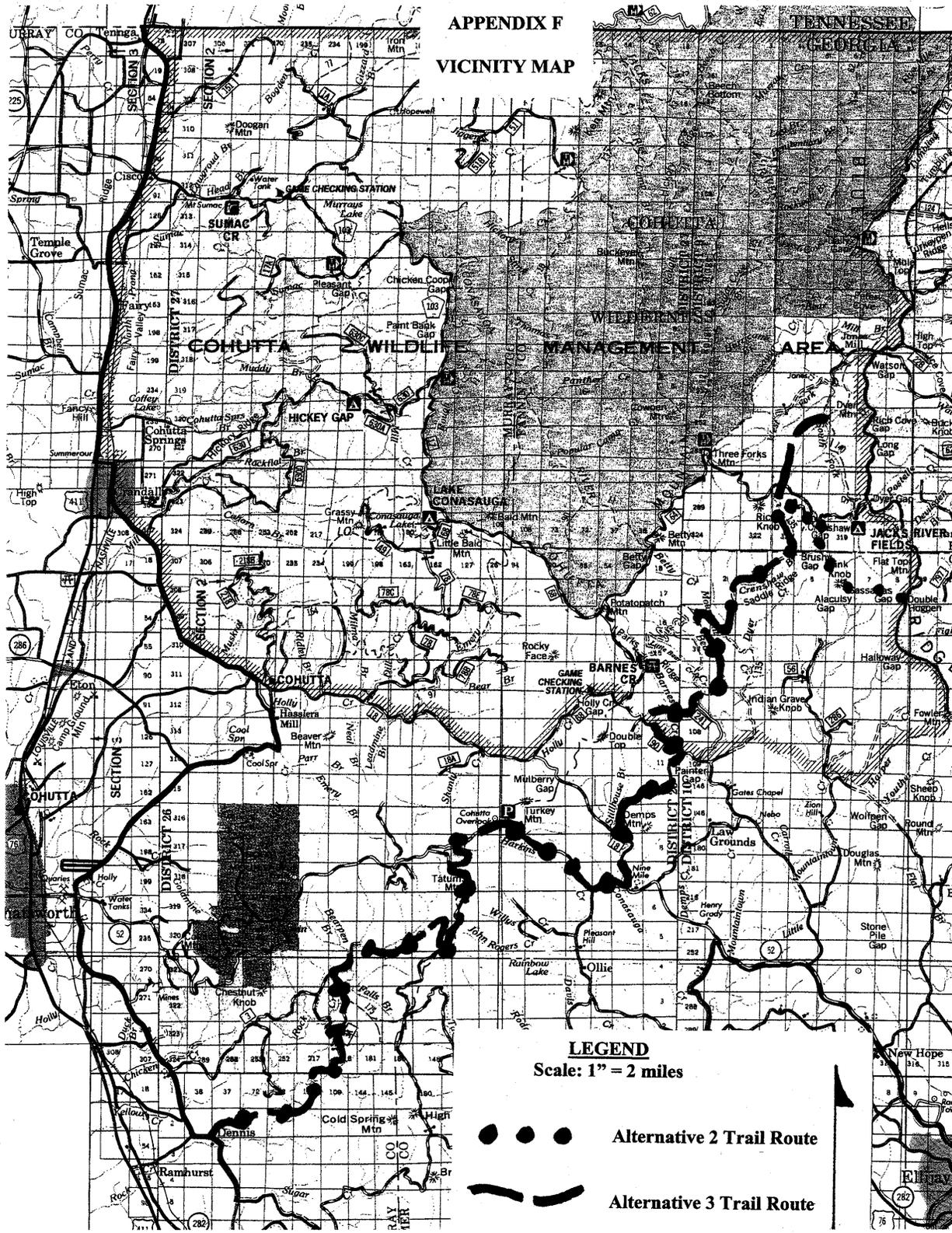
APPENDIX E

SOILS RESOURCE INVENTORY

SOIL SERIES	DESCRIPTION	EQUIPMENT LIMITATIONS	EROSION HAZARD
Junaluska loam, 5 to 15% slopes (13)	Well drained soil on narrow ridgetops and upper sideslopes. Surface texture is loam; subsoil is clay loam.	Slight.	Slight
Junaluska loam, 15 to 35% (14)	Well drained soil on upper and middle sideslopes and shoulder slopes. Surface texture is loam; subsoil is clay loam.	Slight.	Slight
Junaluska loam, 35 to 65% (16)	Well drained soil on middle and lower sideslopes. Surface texture is loam; subsoil is clay loam.	Moderate to severe due to slope steepness.	Severe due to slope steepness.
Northcove channery loam, 0 to 5% slopes (17)	Well drained soil on foot slopes and terraces along floodplains. Surface texture is channery loam; subsoil is channery sandy loam.	Slight. However, wetness may limit equipment during some periods of the winter months.	Slight
Shelocta channery loam, 2 to 10% slopes (19)	Well drained soil on foot slopes along narrow drainageways. Surface texture is channery loam; subsoil is channery clay loam.	Slight. However, wetness and flooding may limit equipment during some periods after heavy rains.	Slight
Ashe-Edneyville stony loam, 25 to 60% slopes (AEF)	Well drained to somewhat excessively drained, stony soils on narrow ridgetops and on long, irregular, mountainous sideslopes. Surface texture is stony loam to sandy loam; subsoil is loam or clay loam.	Severe due to slope steepness.	Severe due to slope steepness.
Ashe-Edneyville stony loam, 10 to 25% slopes (AEE)	Well drained to somewhat excessively drained, stony soils on ridges and saddles of higher mountains. Surface texture is loam to sandy loam; subsoil is loam or clay loam.	Moderate due to slope steepness.	Moderate on slopes > 15%.
Ashe stony loam, 60 to 80% slopes (AcG)	Somewhat excessively drained, stony soils on mountains at the highest elevations. Surface and subsoil texture is loam containing stones and cobblestones	Severe due to slope steepness.	Severe due to slope steepness.
Tusquitee	Well drained, stony soils on	Moderate due to slope	Moderate

stony loam, 10 to 25% slopes (TmE)	foothills and the base of slopes. Surface texture is loam with stones, gravel, cobblestones; subsoil is loam to clay loam with large stones.	steepness.	due to slope steepness.
Talladega channery loam, 25 to 60% slopes (TRF)	Well drained soils on sideslopes. Surface texture is channery loam; subsoil is channery clay loam or silty clay loam.	Moderate due to slope steepness.	Moderate due to slope steepness.
Talladega channery loam, 10 to 25% slopes (TRE)	Well drained soils on narrow ridges and sideslopes. Surface texture is channery loam; subsoil is channery clay loam or silty clay loam.	Moderate due to slope steepness.	Moderate due to slope steepness.
Saunook-Evard complex, 10-25% (SaE)	Deep, well drained soils on uneven sideslopes of uplands. Surface texture is loam to sandy loam; subsoil is loam to sandy clay loam.	Moderate due to slope steepness.	Moderate due to slope steepness.
Cowee-Evard complex, 45 to 60% slope (CxG)	Moderately deep to very deep, well drained soils on ridges and uneven sideslopes of uplands and mountains. Surface texture is fine, sandy loam; subsoil is sandy clay loam to sandy loam.	Moderate to severe due to slope steepness.	Severe due to slope steepness.
Porters loam, 45 to 60% slopes (PsG)	Deep, well drained soils on sideslopes of mountains mostly facing north. Surface texture is loam; subsoil is loam to sandy loam.	Severe due to slope steepness.	Severe due to slope steepness.
Cowee fine sandy loam, 60 to 90% slopes (CwH)	Moderately deep, well drained soils on ridges and uneven sideslopes of mountains and uplands. Surface texture is fine, sandy loam; subsoil is sandy clay loam.	Severe due to slope steepness.	Severe due to slope steepness.
Saunook-Evard complex, 25 to 45% slopes, stony (SnF)	Very deep, well drained soils on uneven sideslopes of uplands. Surface texture is loam to fine sandy loam; subsoil is loam to sandy clay loam.	Severe due to slope steepness.	Severe due to slope steepness.

APPENDIX F
VICINITY MAP



LEGEND

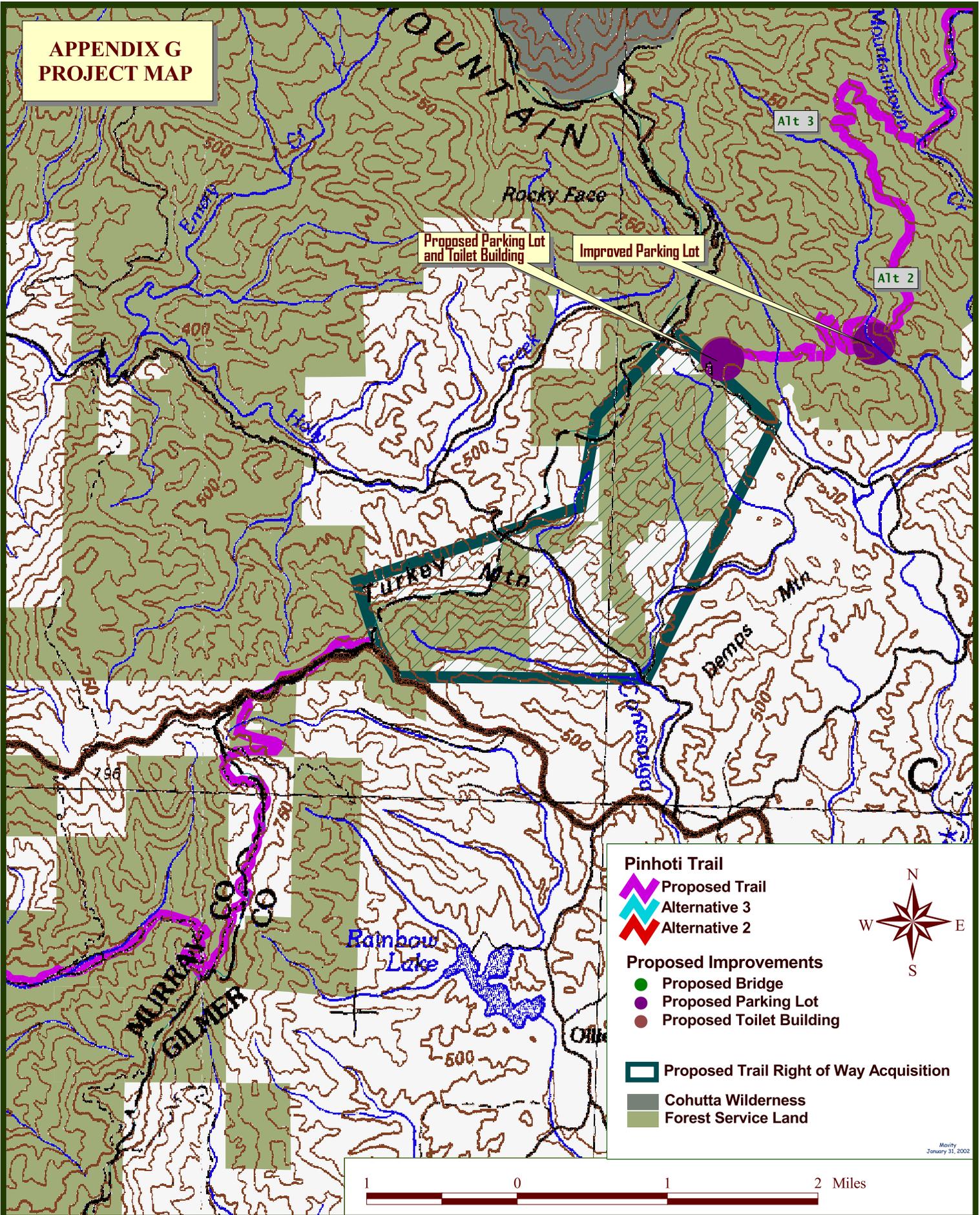
Scale: 1" = 2 miles



Alternative 2 Trail Route

Alternative 3 Trail Route

**APPENDIX G
PROJECT MAP**



Pinhoti Trail

-  Proposed Trail
-  Alternative 3
-  Alternative 2

Proposed Improvements

-  Proposed Bridge
-  Proposed Parking Lot
-  Proposed Toilet Building

 Proposed Trail Right of Way Acquisition

 Cohutta Wilderness
 Forest Service Land

APPENDIX H

COMMENTS RECEIVED DURING 30-DAY COMMENT PERIOD AND THE RESPONSE TO THE COMMENTS

Comments were received during the 30-day comment period from the following:

1. Jeffrey Narvil, Jacquelyn McGehee, Coosa Valley Cycling Association, Bob's Cycle Shop, Don Thompson, Elizabeth Oetter, Philip Smith, Larry Madden, Joan Grant, Rick Moon, Rick Guhse, Jean Cook, Gregory Ray, T.G. Evans, Alison Bullock, Beth Woodward, Shepherd Howell, Richard Morrow, Rep. Gerald Willis, John Longino, Tom Keene, Benton MacKaye Trail Association (David Blount), Walter Cook, R. Michael Leonard

All the above individuals and groups wrote in support of adopting Alternative 3 of the Pinhoti Trail Extension Project Environmental Assessment.

2. Georgia Pinhoti Trail Association (Hillrie Quin, Secretary)

Mr. Quin acting as Secretary for the Georgia Pinhoti Trail Association (GPTA) wrote that the GPTA Board of Directors "...voted in favor of Alternative 3, the preferred alternative". However, within the Alternative 3 proposal, the GPTA would like to see the trail location changed somewhat. On a map enclosed with their comments, the GPTA recommended an alternate route (within the trail segment between Buddy Cove Gap and the South Fork Trail...the northern most trail section) which basically paralleled the proposed trail route but utilized more old woods road and less system road, a distance of about 0.8 miles.

Response: The Forest Service reviewed both routes on the ground and determined that the route recommended by the GPTA is steep where it comes off the system road, it crosses 3-4 intermittent streams along the bottom and consequently, it would be more difficult and costly to construct and maintain than the Alternative 3 proposed route.

3. Georgia Forestwatch (Wayne Jenkins, Brent Martin, Angela Martin)

1. The present use of the Mountaintown Creek Trail by mountain bikes is a source of degradation to the stream. The gradient of the trail and proximity to the stream is inappropriate.

Response: Conditions on existing trails utilized for the Pinhoti Trail (such as Mountaintown Creek Trail) are expected to improve due to additional funding for maintenance arising from the proposed project. In addition, as listed in Table 5 – Alternative 3 Mitigation measures, a number of mitigation measures are proposed to protect streams potentially affected by the trail project. No significant effect is expected on the soil and water resources with applied mitigation measures.

2. Mountain biking is inappropriate in an inventoried roadless area with wilderness characteristics.

Response: Mountain biking is recognized as a conforming recreation use in inventoried roadless areas.

3. This decision should be postponed until the end of the forest planning process.

Response: The current amended Forest Plan provides direction for the Chattahoochee-Oconee National Forests until the new plan is approved. The purpose and need for the proposed Pinhoti Trail project helps to meet the desired conditions of the current amended Forest Plan.

4. It will be impossible to regulate or stop mountain bike use where it is prohibited on a new section of the trail between a parking lot (Bear Creek) and the Mountaintown Creek Trail.

Response: No effect is expected with stated mitigation measures. Barriers will be installed and informational signs placed to restrict trail traffic to authorized users.

5. The various uses of the trail must be consistent with the terrain and future potential designation for wilderness study; therefore, we can support the proposal only if the trail will be for foot travel only.

Response: The proposed trail design meets Forest Service standards for trail construction. No effect on wilderness designation is expected. The new trail development section within the Pink Knob inventoried roadless area is proposed for use by hikers which are conforming recreation users in wilderness. Mountain bike use of the Mountaintown Creek Trail would no longer be permitted should a future decision designate the Pink Knob inventoried roadless area as wilderness. Any decision on future wilderness designation is outside the scope of this document.

6. We support Alternative 3 for the northern section of the trail.

4. David Govus

1. The bike trail should be removed from the Mountaintown Creek corridor.

Response: Conditions on existing trails utilized for the Pinhoti Trail (such as Mountaintown Creek Trail) are expected to improve due to additional funding for maintenance arising from the proposed project. In addition, as listed in Table 5 – Alternative 3 Mitigation measures, a number of mitigation measures are proposed to protect streams potentially affected by the trail project. No significant effect is expected on the soil and water resources with applied mitigation measures.

Mountain biking is recognized as a conforming recreation use in inventoried roadless areas which includes the Mountaintown Creek corridor.

2. I cannot support the idea of placing the trail up Mountaintown Creek. The trail should be located on the ridge above the watershed, the same ridgeline that FS 64 runs on.

Response: As stated above, a number of mitigation measures are proposed to protect streams potentially affected by the trail project. No significant effect is expected on the soil and water resources with applied mitigation measures.