

# FOREST-WIDE COLLABORATIVE TRAILS ASSESSMENT

CHATTAHOOCHEE-OCONEE  
NATIONAL FOREST

CHATTOOGA RIVER RANGER DISTRICT

JANUARY- MAY, 2012  
CONTRACT #: AG-435H-S-12-0001

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## APPENDIX A: SURVEY RESULTS

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# CHATTOOGA RIVER RANGER DISTRICT

In the Chattooga River Ranger District, 24 individual trails and just over 98 miles were assessed. This represents 39% of the total non-motorized trail in the District (249.5 miles). Specifically, trails assessed as part of this project include:

## Chattooga River Ranger District- Trails Assessed

TRAIL NAME	TRAIL #	TRAIL MILEAGE	MILEAGE ASSESSED	DESIGNED USE	TRAIL CLASS
ANGEL FALLS	55	1.1	1.1	Pedestrian	3
BARTRAM	164	35.8	14	Pedestrian	3
BROAD RIVER	151	4.1	4.1	Pedestrian	3
CHATTOOGA RIVER	54	9.7	9.7	Pedestrian	4
COLEMAN RIVER	16	0.8	0.8	Pedestrian	3
DUKES CREEK FALLS	28	1.2	1.2	Pedestrian	4
FRADY BRANCH TRAIL SYSTEM	234A, B, C	8.1	8.1	Pack/Saddle	3
HEMLOCK FALLS	50	1	1	Pedestrian	4
LADYSLIPPER	153	5.3	5.3	Pack/Saddle	3
LAKE RUSSELL LOOP	73	4.9	4.9	Pedestrian	3
MINNEHAHA	147	0.2	0.2	Pedestrian	3
NANCYTOWN LAKE	152	0.7	0.7	Pedestrian	3
PANTHER CREEK	72	5.8	5.8	Pedestrian	3
PINNACLE	58	0.5	0.5	Pedestrian	3
RAVEN CLIFFS	22	2.5	2.5	Pedestrian	2
RHODODENDRON	185	1.7	1.7	Pedestrian	3
RHODODENDRON LAKE ACCESS	185A	1.2	1.2	Pedestrian	3
STONEWALL FALLS MTB TRAILS	59	7.6	7.6	Bicycle	3
WHITE TWISTER MTB TRAIL	48	4.1	4.1	Bicycle	3
WILLIS KNOB TRAIL SYSTEM	146A, B, C	16.7	16.7	Pack/Saddle	3 & 4

# Education/Outreach Activities

## **Willis Knob trail system Public Inventory & Assessment Workshop**

Woody Keen, Bill Goulding and Jeremy Wimpey hosted a public workshop on the Willis Knob trail system. Approximately 15 attendees, including Chattooga River Ranger District and Forest Supervisors Office staff, gathered at the Willis Knob Horse Camp to assess trails on the highly used Willis Knob equestrian trail system, near Clayton, GA.

This workshop introduced the assessment team, and their inventory and assessment procedures to the CoTrails and USFS attendees. Attendees hiked the trails in groups and discussed several features and problems located along Willis Knob Campground loop and Willis Knob loop trails. Topics covered included visitor and water management, recent contracted trail maintenance, signage along the trails USFS trail classes and related design parameters. Trail conditions illustrated topics of importance related to the physical, social and managerial setting of the trails. Discussion with USFS and CoTrails attendees covered topics related to improving visitor experience and protecting natural resources with trail alignment and maintenance improvements.

Workshop focused on topics related to sustainable layout and management of equestrian trails to minimize impacts to natural resources while providing a durable and enjoyable trail experiences. The Willis Knob trail system illustrated several points related to poor design and implementation of trail maintenance activities.

The Willis Knob trail system was chosen as the location for a field demonstration to exhibit trail maintenance activities that are recommended as a result of our assessment. The site was selected based on the needs of the trail, the educational opportunities present and the ability of the site to support an equestrian trail specific workshop showcasing improved maintenance activities and trail surface hardening techniques.

## **Bartram Trail Maintenance Demonstration Project**

A second workshop was conducted on Bartram trail near Warwoman Dell. This location was selected for a hand tools workshop presenting techniques and strategies for constructing improved water management structures. Workshop activities demonstrated proper location for rolling dips and how to build good drainage structures using only hand tools including Pulaskis, McLeods, and various types of hoes. The Bartram Trail was chosen as the location for hand tool field demonstration based on the assessed needs of the trail, the educational opportunities present near the Warwoman Dell Picnic Area, and relative proximity to the Willis Knob trail system, where the previous day's activities occurred.



# Physical Setting/Sustainability

Many of the trails included in this assessment are completely or in part located on existing forest management routes, including trails in backcountry settings. While expedient from a design and construction standpoint, these types of routes (i.e. old haul roads, railroad beds, fire breaks, etc.) were rarely created with long-term physical sustainability. Many of these routes are insloped (negative cross slope) or not developed with effective water drainage management. Most are linear on both horizontal and vertical axes and do not have natural rolling contours, so effective water management is difficult without substantial material movement and consistent, ongoing maintenance.

Corridor management, including the clearing of downed trees, the removal of hazard trees, and the brushing of encroaching vegetation appear sporadically implemented, often not at the annual frequency prescribed by Forest Service Trail Handbook Operations and Maintenance Considerations for Class 3 and 4 trails. The majority of water management structures on old routes were machine-built have been constructed with sharp dips and narrow drains that quickly lose functionality. On narrower, hand-built trails, water management structures are often now-rotten log water bars with sediment-filled, non-functioning drains. In each case, more durable and less maintenance-intensive rolling grade dips will improve water management. More than other districts, the Chattooga has large numbers of bridges in very poor condition, many of which can be made unnecessary with improved trail design (e.g. Lake Russell trail system). Where bridges are new and meet Forest Service construction standards (e.g. Bartram and Chattooga River), they will require consistent condition survey and maintenance in the future. In contrast, the water fall destination trails, as well as mountain bike and horse primary use trails, have many unimproved wet area crossings, minimizing the overall effectiveness of sedimentation control in the mountain stream systems.

Where trail sections have been routed on side slopes, often grades are overly steep and treads consist of partial bench cut construction that is showing indications of sloughing. Steep trail grades very often exceed prescribed design parameters for their designed uses, and in most instances with the areas of most apparent erosion.

## **Opportunities for improving the physical sustainability of Chattooga River Ranger District trails abound in the potential for:**

- 1. Improving destination trails with improved water and tread management to handle high use levels**
- 2. Trail relocation at moderate, rolling grades to minimize impacts to aquatic and riparian environments and remove unnecessary bridges, water bars, and steps that require much greater long-term maintenance than is currently demonstrated in the District**



# Social Setting/Sustainability

The quality of trail experiences in the Chattooga River Ranger District is less than optimal, mostly due to the high percentage of adopted forest management routes as trails. These linear corridors simply do not connect visitors with the forest resources as well as rolling contour, narrow corridors, which also minimize resource impacts. Unfortunately, both public stakeholders and Forest Service personnel, accept these routes as positive experiences with no comparable, better experience provided.

Use conflict is a product of goal interference. Trail use goals may include exercise, serenity, resource appreciation, time with friends and family, etc. Conflicts are often the result of crowding. Conflict can also occur without crowding or interaction between users. Signs of illicit use, litter, or vandalism may harm a visitor's experience. This is called indirect conflict. Further, recreation conflict is often asymmetrical, where one party may experience conflict while another may not. Classic examples of this often occur between recreationists traveling by different modes when the achievement of these goals is interfered with by the presence or actions of others. Some conflicts are caused by degraded trail conditions. Flaws in trail design/construction result in situations where startling or collision are possible. Shortcutting and social spur trail development can occur where users are not routed to desired locations or tread conditions are difficult and cause further resource damage. Insufficient public access and management at trailheads, camping areas, waterfalls, and fishing streams cause undo vegetation trampling and subsequent erosion.

Overcrowding and subsequent conflicts on the Chattooga River Ranger District is likely a concern on short, high-quality destination trails and on shared-use trails. The short destination trails are generally not constructed or maintained to a Class 4 level, and the lack of adequate, accessible trail corridor is resulting in resource damage. Mileage allowed for equestrian and mountain bike use is a much lower percentage relative to the remainder of the Forest, resulting in 1) heavy use on allowed shared-use trail systems that do not have sufficient design, construction, or maintenance characteristics for such use, and 2) unauthorized use on hiking-only trails. With easy travel access from the northern and eastern portions of metro Atlanta, which have high numbers of short, suburban mountain bike and equestrian trails, higher future demand for these types of allowed trail uses should be expected.

**Opportunities for improvement in this situation, outside of converting old roads to trails and more sustainable trail design and construction, include:**

- 1. Enhanced or new shared-use trail system development, especially at Developed Recreation Areas and in the Clayton/Lake Burton area.**
- 2. Partnerships with local counties/municipalities to improve the sustainability and visitor access to high-quality destinations, such as waterfalls, fishing streams, and panoramic views.**



# Managerial Setting/Sustainability

Chattooga River Ranger District trails assessed in this project showed signs of sporadic and often ineffective maintenance. Forest Service management of the trail corridor seemed to lack the necessary staff allotment to achieve annual maintenance tasks. Contracted work consisted mostly of replacement of existing water management structures, and volunteer-led work was minimal in quantity and low in quality. As with social sustainability, the public has generally accepted the quality of the managerial setting without a better situation for comparison.

Trail management is a human resource-intensive process. However, without a high-intensity event such as a fire (wild or prescribed) or a large and consistent budget item, such as Forest System Road maintenance, it is difficult to assign the necessary resources to properly manage trails. A remedy to this situation is possible, but dependent on significant and strategic public involvement. First, more volunteers need to become involved in managing the trails. This has potential to stretch scarce Forest Service resources and lead to a broader understanding of partnerships in sustainable land management. Second, citizens and smaller government entities must effectively lobby for the importance of sustainable recreation and demonstrate a commitment to partnerships that will improve the situation. In both of these solutions, collaborative partnerships are the only means to short- and long-term improvements to recreational and resource quality.

With population generally increasing and ease of access to northern Georgia and from South Carolina, it is likely that the Chattooga River Ranger District trails and recreation facilities will see even greater visitation in coming years. This will put additional strain on existing Forest Service resources and an already tenuously managed system of trails. Better managed trails will be a portion of the solution, but there will be the need for additional trails. The need will be greatest near vacation portals for frontcountry and shared-use trail systems that can accommodate high use without significant Forest-based facility development. Innovative management partnerships are possible, and potentially effective, options in these locations as the benefits to all parties can be easily illustrated.

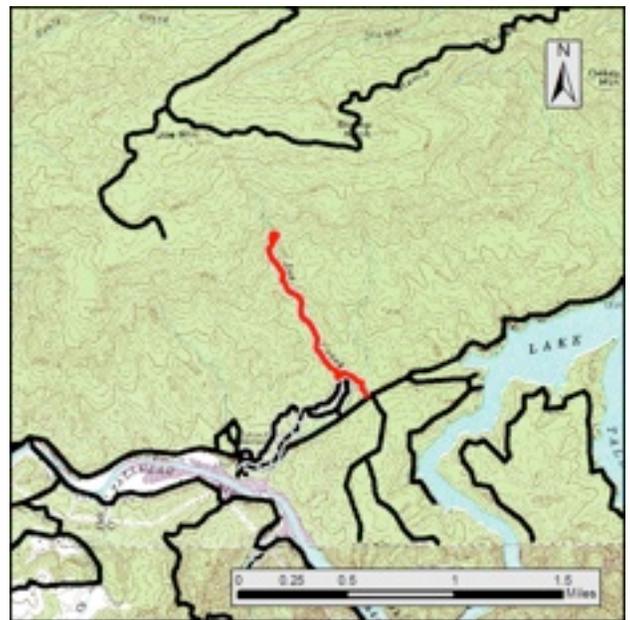
**Opportunities for improved managerial sustainability are immediate with:**

- 1. Formalized, strategic trail maintenance partnerships with parties interested in the improvement and involved in the use of specific trails or trail systems.**
- 2. Increased stakeholder outreach to non-federal government entities to solicit support for and explain the economic value of enhanced and robust trail systems.**



# TRAIL: ANGEL FALLS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Angel Falls
<b>Trail Number</b>	55
<b>Miles Assessed</b>	1.10
<b>Beg. Location</b>	CR 218 (Lake Rabun Rd.)
<b>End Location</b>	Angel Falls
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



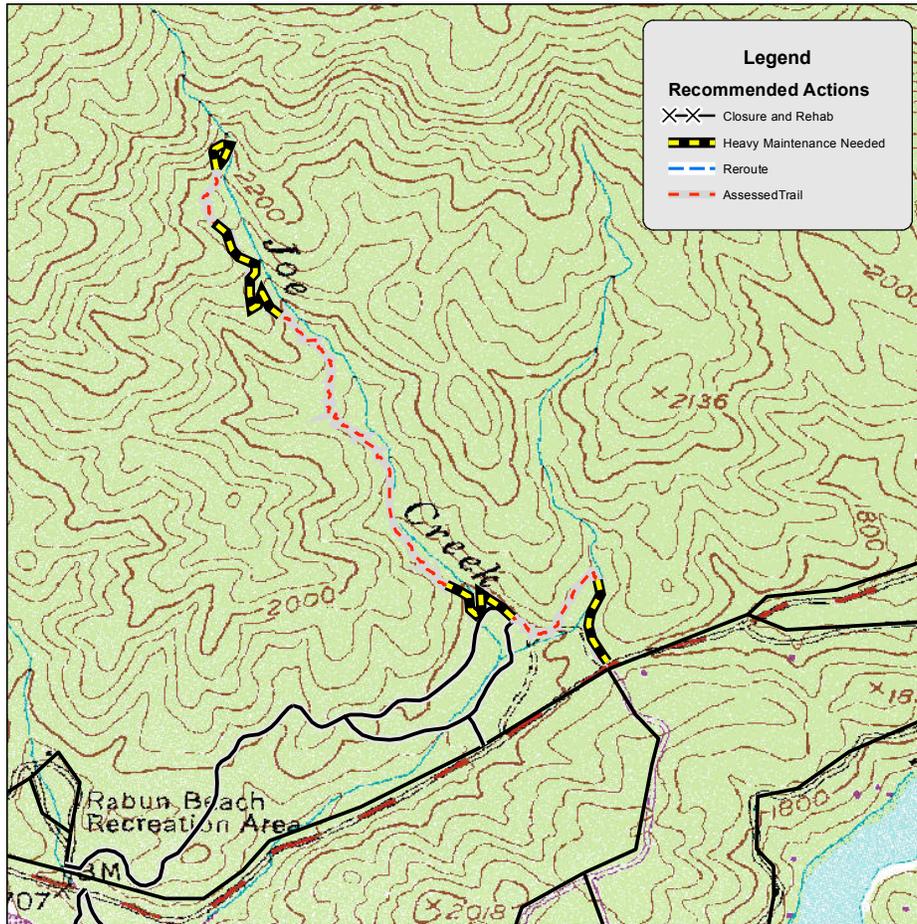
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	Semi-primitive, non-motorized ROS

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 36-60 (NW, DL)	36-48	Currently 18-60+" tread width
Structure Width (")	18 min.	36-48	Bridges starting to rot, listing, and should have railings. Guard cable uprights often loose.
Tread Surface	Native, w/borrow for stabilization	Native, improved for minor rough	Root laces hazardous to trail use in dev. rec area setting, as well as potentially undermining trees
Protrusions/Obstacles (")	<3/10	<3/8	Many protrusions >12", especially at switchbacks
Target Grade/Max/Density (%)	3-12/25/10-20	3-12/25/10-20	Trail is relatively flat and not draining or overly steep and eroding- little in the 3-12% range
Target Cross Slope/Max (%)	5-10/15	3-7/10	Many areas with off-camber roots and cross slope >15%
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	7-8/3-5	
Turn Radius (')	3-6	3-6	Second switchback needs major improvements

# Recommendations



Setting	Comments
Physical Setting	Trail from CCC work camp adopted next to Joe's Creek to provide access to Panther and Angel Falls. TH in Dev. Rec./Fee Area. Grades and trail condition alternatively too flat, steep, or with poor drainage mgt.- significant erosion. Many CCC structures provide great interest, but trail is very informal and requires improvement for resource protection.
Social Setting	Some sections of trail too narrow for two-way traffic. Somewhat hazardous raiing condition on steep ascent to Angel Falls. Potential traffic requires Trail Class 4 experience with Trail Class 3 parameters for experiential improvement and user safety.
Managerial Setting	No effective water mgt. Some tread armoring, but not functioning well. Many bridge and step structures rotting, guard cable uprights loose, higher switchback is far from sufficient, stream sections running down trail. But, the Angel Falls overlook structure is well-built and in great condition.

Priorities	High- Institute a water management maintenance program High- Reconstruct second switchback High- Provide enhanced root protection Medium- Improve and increase width of tread (with retaining walls and fill), repair/reconstruct bridges, railings, and steps
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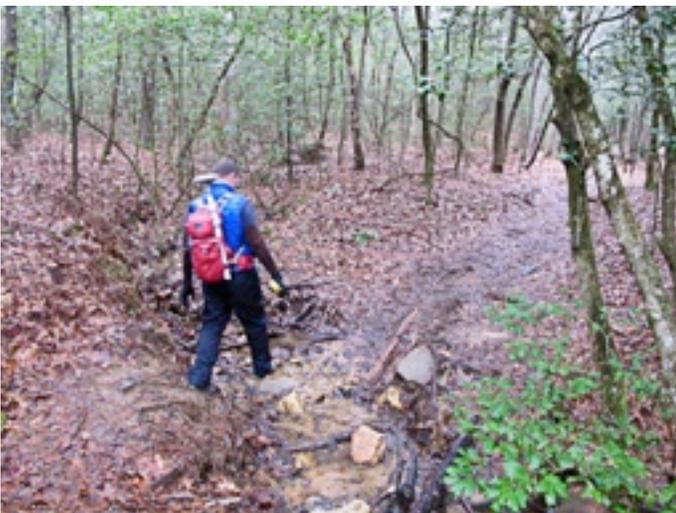
## Representative Photographs:



*Above and Below: Trailhead and interpretive signage at trailhead within Rabun Beach Developed Recreation Area*

*Above and Below: Panther Falls and viewing bench above and Angel Falls and viewing platform below*





*Top Left and Right: A number of simple bridges are present on the trail, most in need of inspection/repair*

*Middle Left and Right: Historic CCC-constructed spring box adjacent to trail, but lack of water management (nearby seeps) keeps the area saturated and beginning to erode*

*Bottom Left: A number of small drainages need armored or bridge crossings*



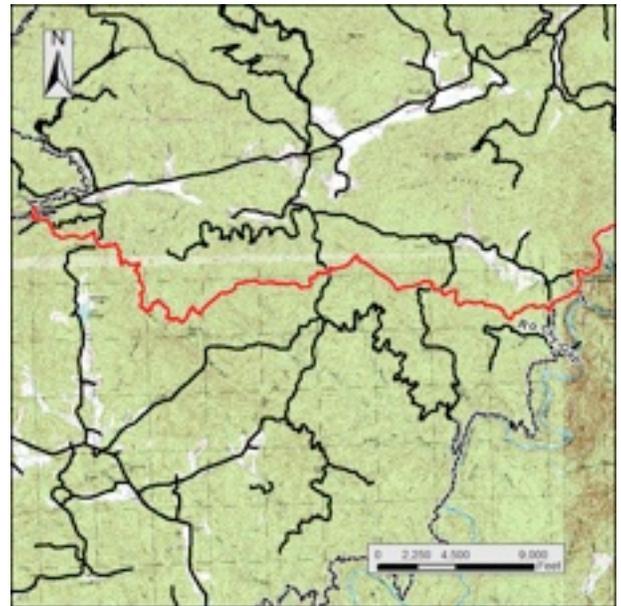
*Top Left and Right: Lack of water management has numerous saturated and eroding areas. Guide wires are broken and loose in numerous locations.*

*Middle Left and Right: Excellent engineering and aesthetic treatment at Panther Falls viewing platform*

*Bottom Left: Deadfall has ruined bench. Corridor cleared, but broken structure left in place*

# TRAIL: BARTRAM

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Bartram
<b>Trail Number</b>	164
<b>Miles Assessed</b>	18.34
<b>Beg. Location</b>	HWY 28 @ Chattooga River
<b>End Location</b>	HWY 76 @ Warwoman Dell
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

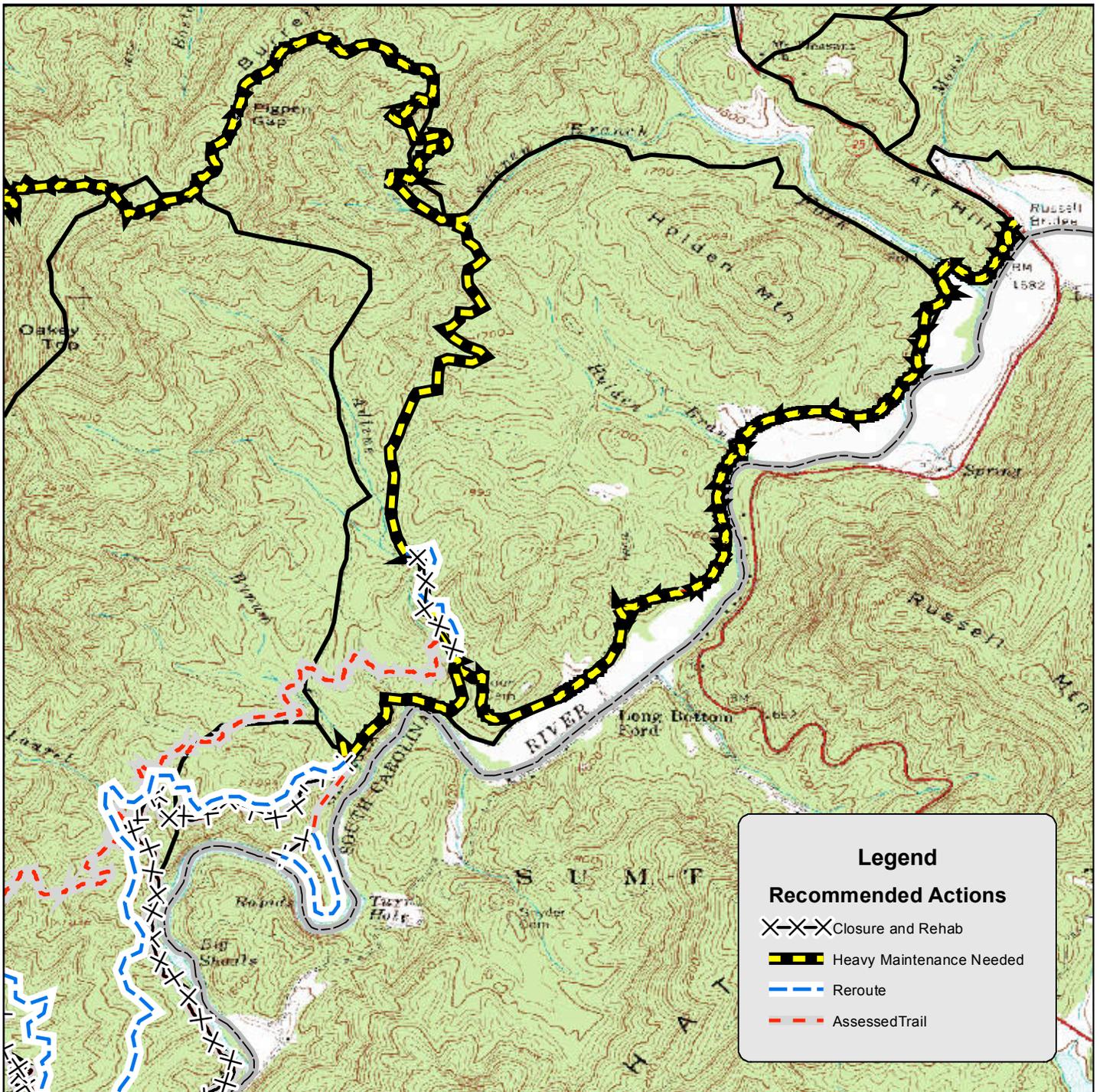
## Design Parameter Recommendations:

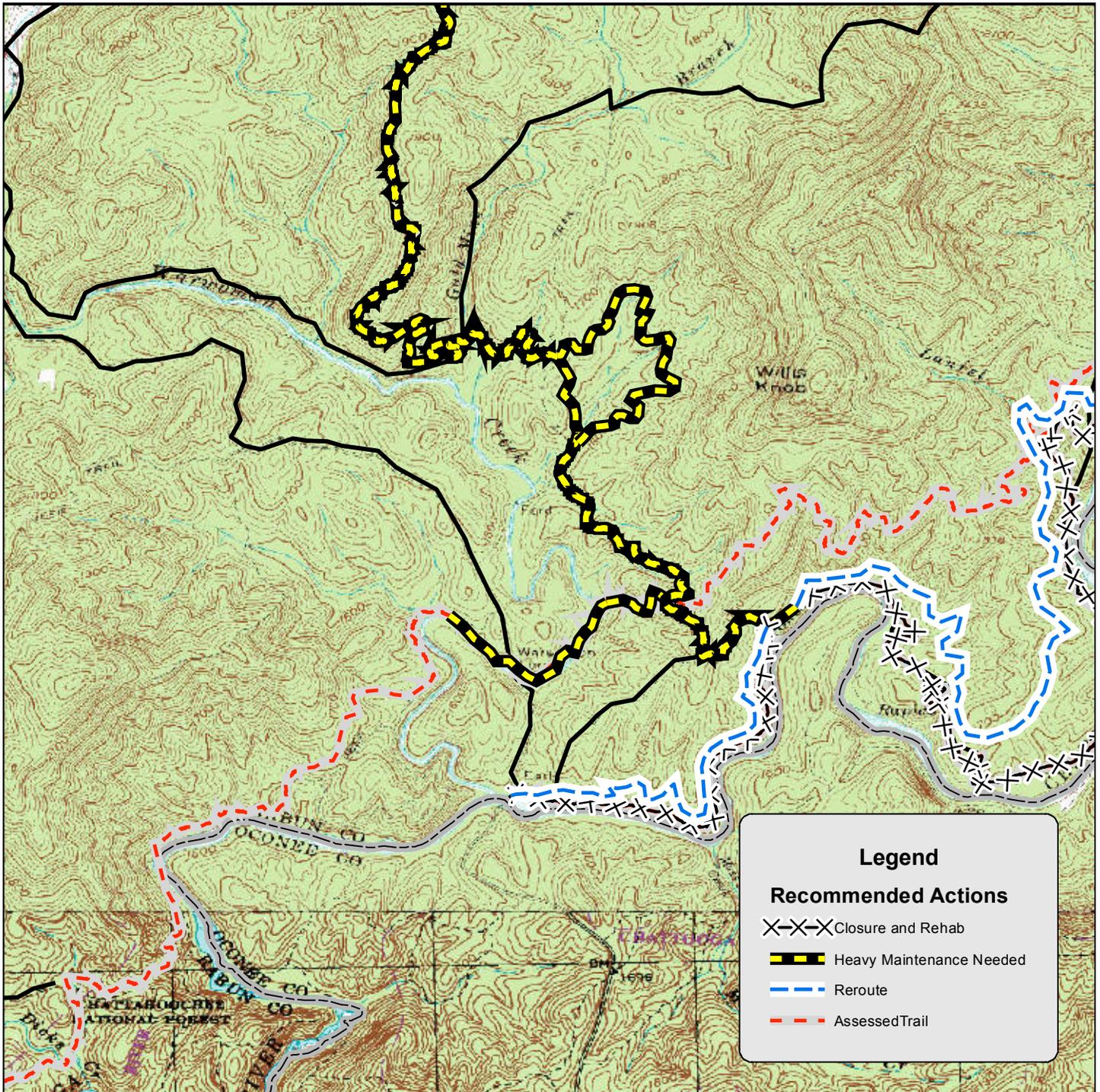
Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 18-36	24	Most constructed sections are half-benched on sidehill to 18-24" with ~12-18" of solid tread
Structure Width (")	18 min.	24-48	24"-wide small bridges, 48" on large steel bridges and a few 36" bridges and puncheons
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	Relatively low rugosity. Many bridges have 12" steps onto the decking. Exposed rebar on rotting waterbars
Target Grade/Max/Density (%)	3-12/25/10-20	3-12/25/10-20	Most constructed sections with avg. grades of 10-15%, old road beds at 5-15%.
Target Cross Slope/Max (%)	5-10/15	5-10/15	
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	7-8/3-5	Many trees down and rotting in corridor. Previous blow downs cleared to 18"
Turn Radius (')	3-6	3-6	

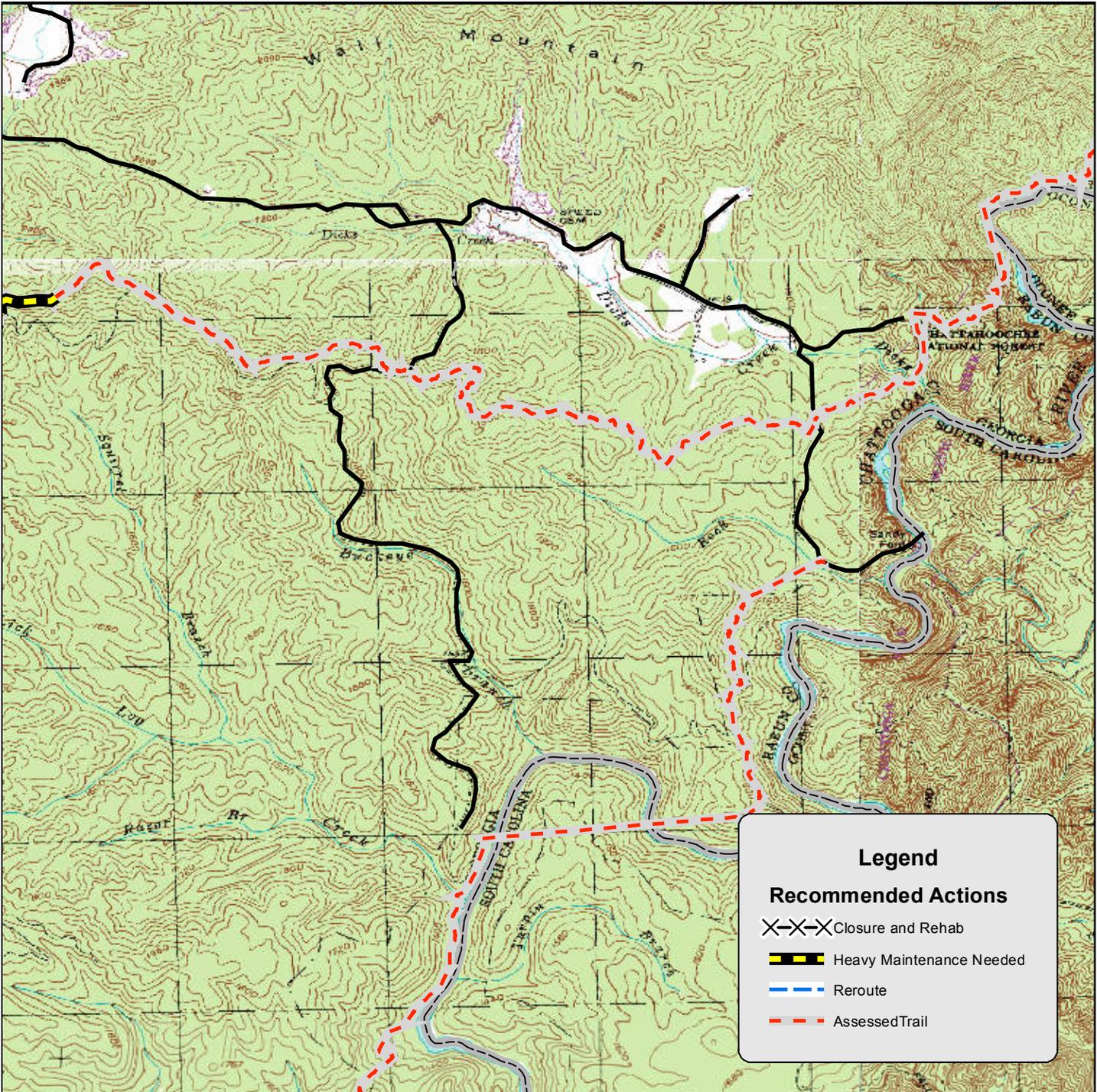
# Recommendations

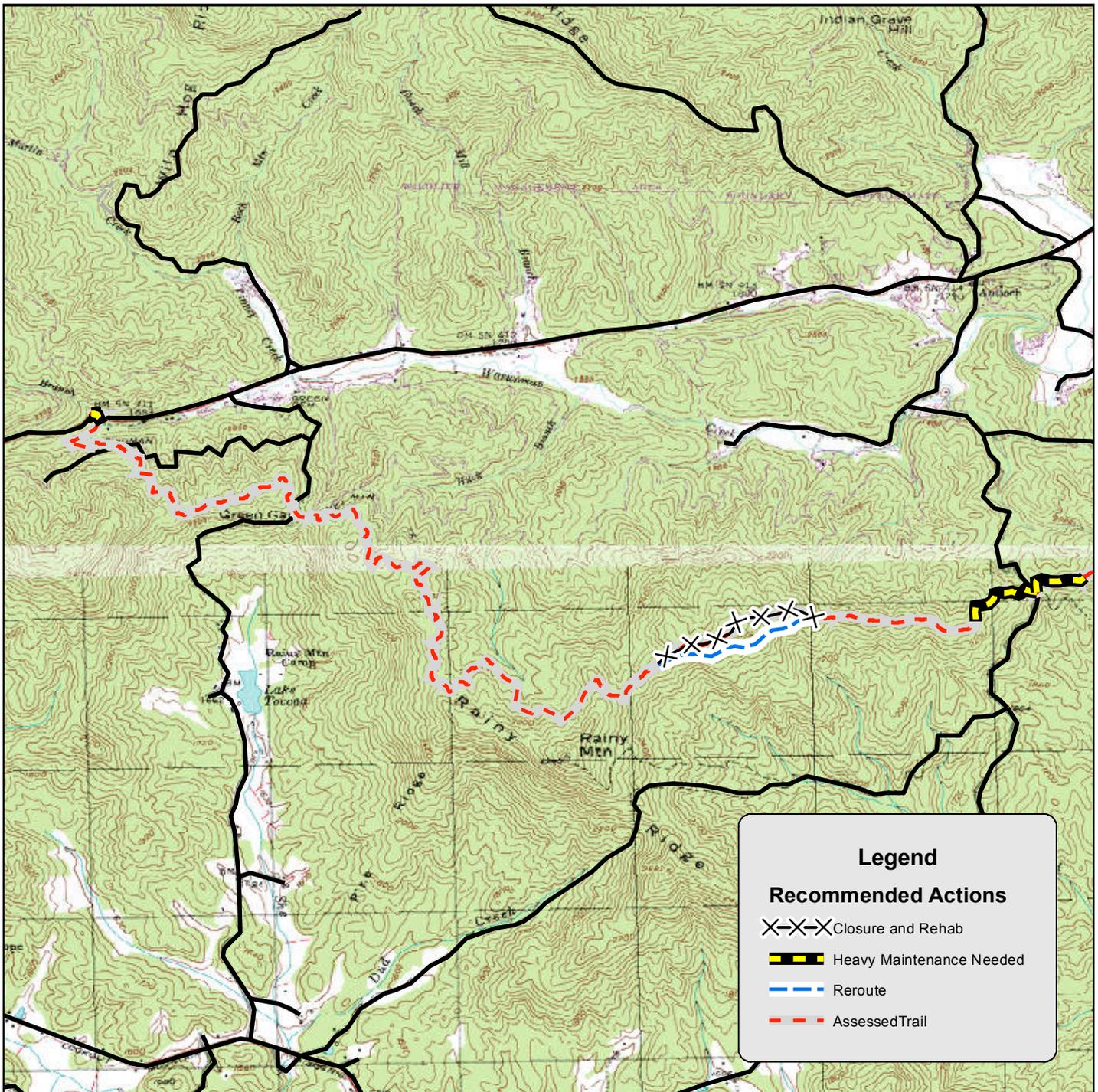
See recommendation maps on following pages

Setting	Comments
Physical Setting	Trail has semi-informed design with a good amount of sidehill contour trail. Often exceeds design grades unnecessarily and construction is mostly half-bench that will slough eventually. 15% grades show signs of maintenance need. Much of the old road beds that were adopted have non-functioning drainage, a combination of road incision, lack of or failing drainage dips.
Social Setting	Hiking-only trail that shows little sign of use or recent stewardship. Crosses many old road beds and some FS trails (Willis Knob system). Signs of equestrian and ohv use entering at old road beds and signs of light bike use throughout. Extensive signage attempting to regulate use detracts from recreational experience. Floodplain section near HWY 28 is very unappealing
Managerial Setting	Maintenance attempts are quite dated- narrow drains, log on crests of rolling grade dips, rotting steps with exposed rebar, rotting blow downs across corridor. Relocation off roads would improve experience and minimize ohv and horse use. Dozens of bridges for water quality protection with cable railing issues and extra bridge materials left in creek and riparian area in a number of locations.
Priorities	<p>Medium- Decommission open road corridors to minimize illicit use and then remove the ubiquitous carsonite posts</p> <p>Medium- Continue to relocate trail off old road beds, road to trail conversion near River to preserve viewshed. Improve constructed tread to full bench, 24" for trail durability</p> <p>Medium- Consider expanding use to bikes to enhance stewardship, keep corridor open, and increase use to level more appropriate to financial resource allocation</p>

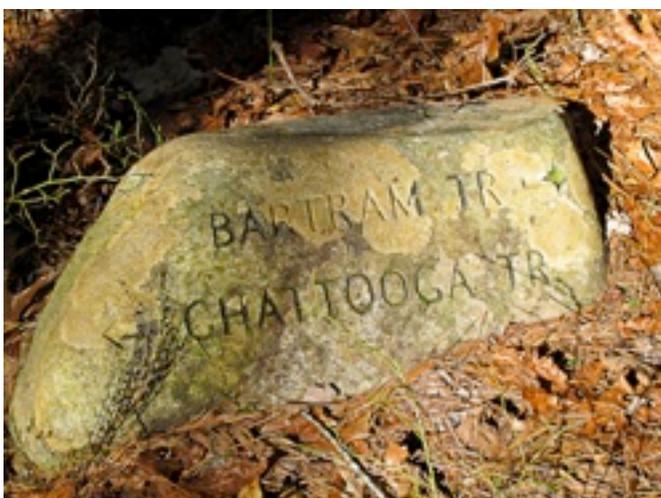
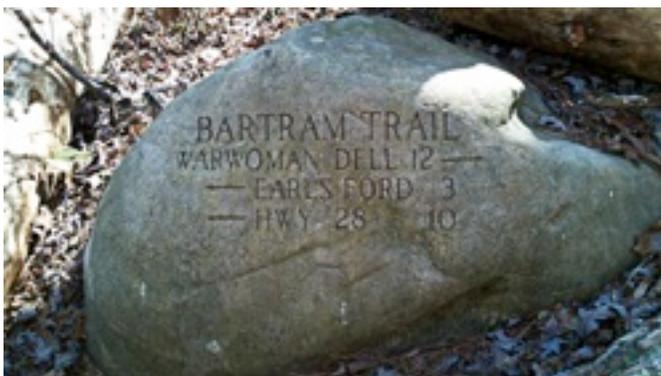
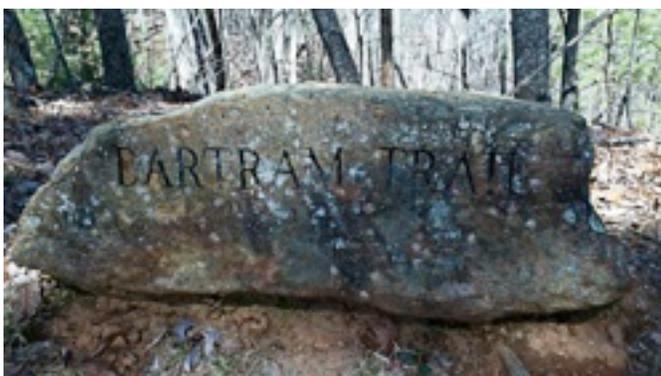








## Representative Photographs:



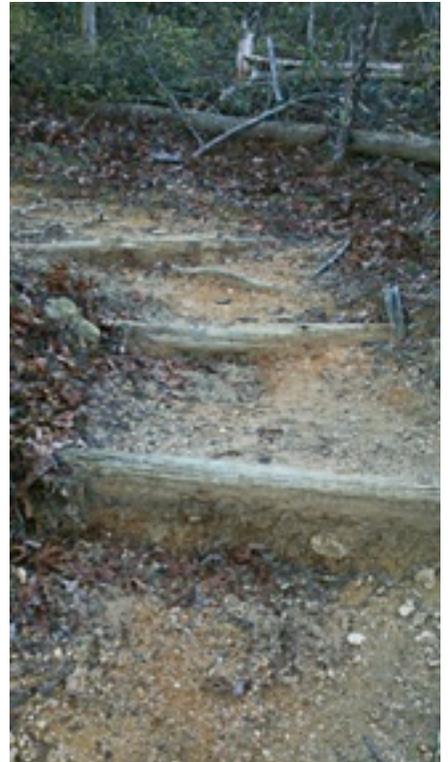
*Left, Top to Bottom: Etched rock trail signs*

*Below: Pervasive carsonite signage appears at all junctions with open corridors, including system trails, roads, and non-inventoried corridors. The regulatory signage is not always appreciated and many have been vandalized.*





*This page: Additional signage of various types. Most old signs have not been removed when newer or additional signs were placed*



*This page: Most of the Bartram constructed as recreational trail is quite narrow, but often design grades exceed sustainability and design parameters. Steps were often constructed on these steep areas, but a lack of water management brings on scour under steps and eventually rotted steps break off to expose rebar.*



*Top Row: Narrow trail was only partially bench cut and fill slope is beginning to slough in many places, leaving 6-8" wide trail tread*

*Middle Row: Dozens of bridges have been built on this portion of the Bartram, including two large steel structures and many 24"-wide, single railing bridges over narrow creeks*

*Left: Erosion gully on fall-line portion of trail at a road junction*



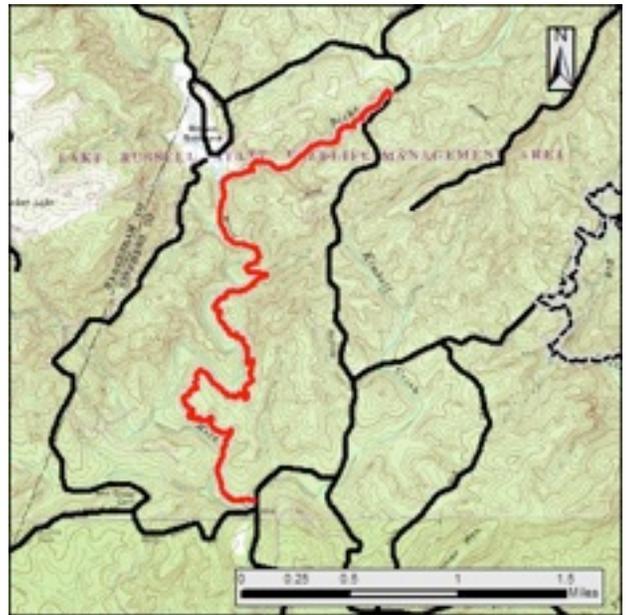
*Top Row: Extra bridge materials abandoned in forest. Some materials were left in the stream channel*

*Middle Row: Insufficient routing and simple bridge to replace culvert that has been left on-site near old homestead*

*Left: In many locations, Bartram is on old road bed that intersects with many other open, wide corridors (see middle left). Unauthorized use enters the trail on these corridors and the lack of narrow, sidehill construction allows access to continue*

# TRAIL: BROAD RIVER

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Broad River
<b>Trail Number</b>	151
<b>Miles Assessed</b>	4.09
<b>Beg. Location</b>	FDR 87
<b>End Location</b>	FDR 87
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



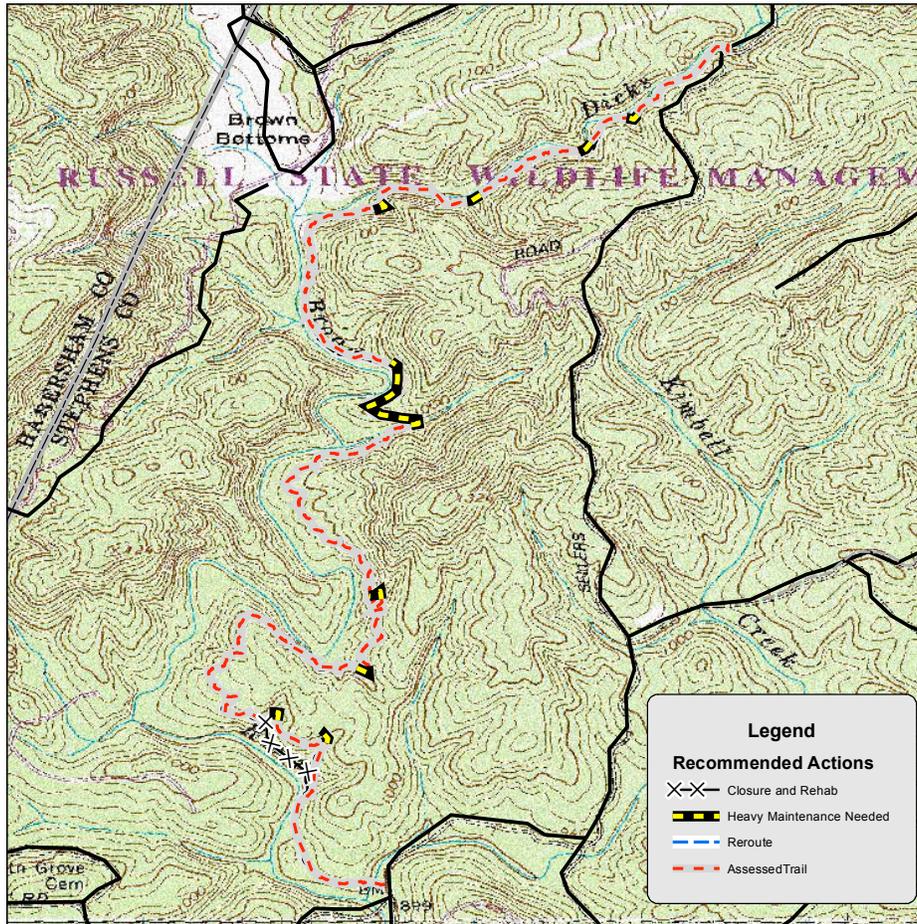
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36	6-18	12-18" width for most of trail
Structure Width (")	18 min.	18 min.	5+ bridges, 18-36" in width
Tread Surface	Native, w/borrow for stabilization	Native, limited grading	
Protrusions/Obstacles (")	<3/10	<6/14	Currently <3/12 with a few rocks and tread failure ledges approx. 18"
Target Grade/Max/Density (%)	12 max (from TMO) 3-12/25/10-20	5-18/35/20-30	~8/20/10
Target Cross Slope/Max (%)	5-10/15	5-20/25	
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	6-7/2-4	Corridor not clear and 50+ logs/blowdowns across tread
Turn Radius (')	3-6	2-3	

# Recommendations



Setting	Comments
Physical Setting	Mostly sidehill location with adequate roll and meander to naturally manage water. A few sections with steep grades, very narrow tread, and bridges over side drainages. Recent fire around trail.
Social Setting	Higher use near trail termini, w/ much less use in middle portions. High quality scenery with river and tumbling waterfalls for fishing/hiking use. A few social trails to river.
Managerial Setting	Corridor needs significant attention with 50+ downed trees. Bridges in need of inspection/attention. Narrow tread is often not fully bench cut- sloughing and in need of stabilization.
Priorities	<p>High- Clear corridor and remove any additional hazard trees</p> <p>Medium- Downgrade to Class 2 trail and remove bridges unless connected to a larger trail system in future. If that becomes the case, trail should be improved to Class 3 parameters with widened tread, improved bridges, and potentially the addition of bike use.</p>

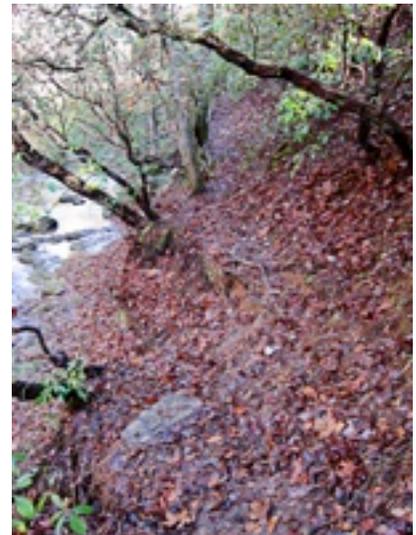
## Representative Photographs:



*Above Left: Historical trail sign*

*Above Right: The Broad River Trails conditions vary as you proceed down the trail. Some portions are failing where they cross steep landform grades and have insufficient construction.*

*Left: Sections from the river confluence north, are in better shape and seem to receive more use.*





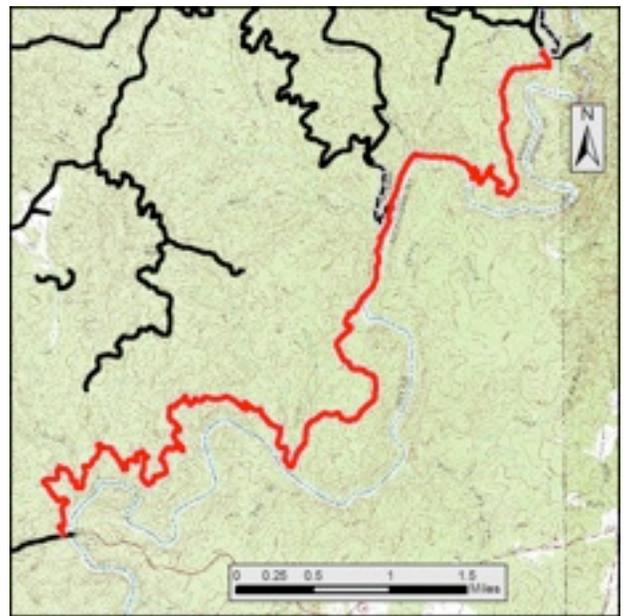
*Above, Right, and Below Right: Several bridges on the broad river trail are in need of inspection and repair.*

*Below: Many blowdowns along the trail have been in place long enough that substantial user created bypasses exist.*



# TRAIL: CHATTOOGA RIVER

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Chattooga River
<b>Trail Number</b>	54
<b>Miles Assessed</b>	9.68
<b>Beg. Location</b>	US 76
<b>End Location</b>	CR 60 (Sandy Ford Rd.)
<b>Trail Class</b>	4- Highly Developed
<b>Designed Use</b>	Hike



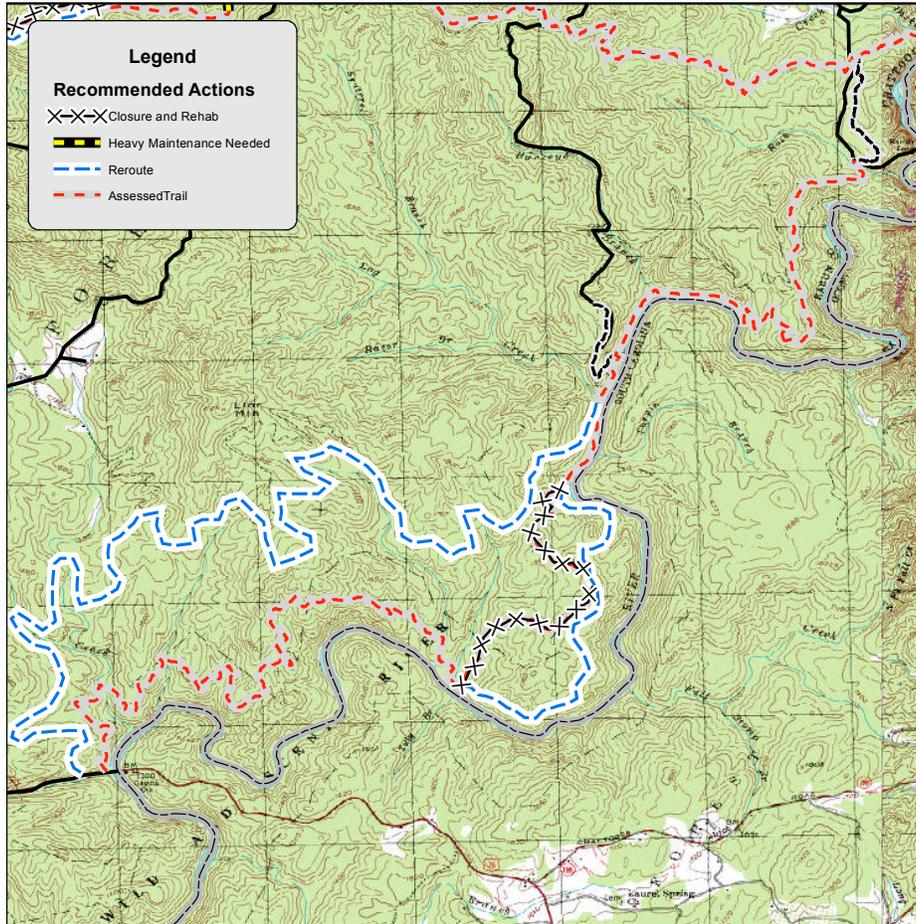
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	Semi-primitive, motorized

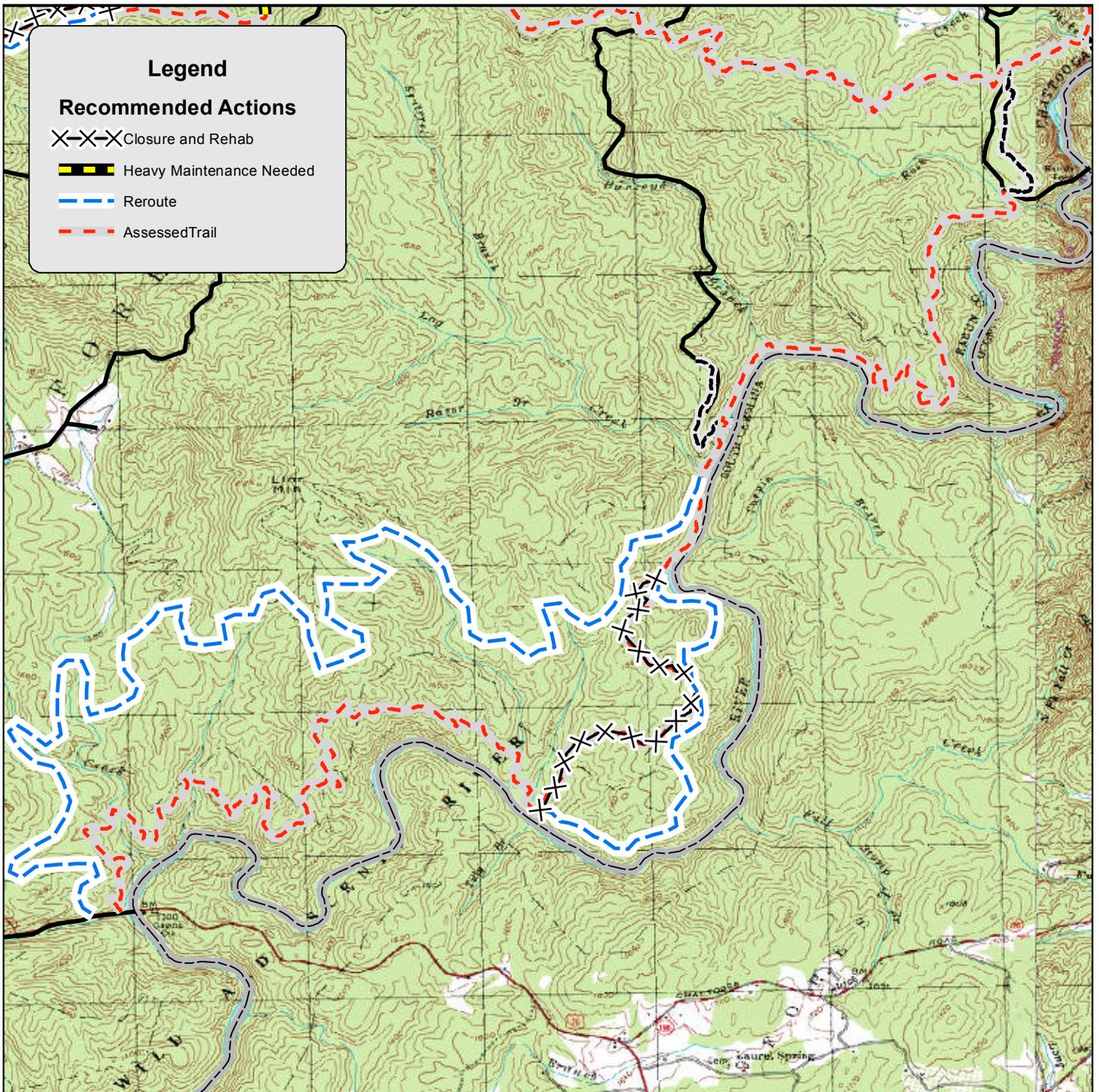
## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 24-60 (NW, SL)	24	Much of trail is 18" width, 3/4 bench cut on steep slope- outer 4-6" will slough over time. Other sections on old road and 72+' width
Structure Width (")	36 min.	24	Many bridges, most are 24" wide and good cond. 1 gully needs bridge, 1 bridge with foundation issue
Tread Surface	Native, w/improved for minor rough	Native, w/borrow for stabilization	Much cribwalling and steps that have rotted and exposed rebar 1-2" above tread in many locations
Protrusions/Obstacles (")	<3/8	<3/10	Many greater than 3/10
Target Grade/Max/Density (%)	2-10/15/5-20	3-12/25/10-20	Long stretches of consistent 15-20% grade with 30+% pitches. Max. sustainable grade ~15%
Target Cross Slope/Max (%)	3-7/10	3-7/10	Minimal cross slope necessary where trail is on steep slopes
Clearing Height/Width (')	8/4 (from TMO) 8-10/4-6	8/4	Corridor relatively clear
Turn Radius (')	4-8	3-6	Most turns ~3' radius

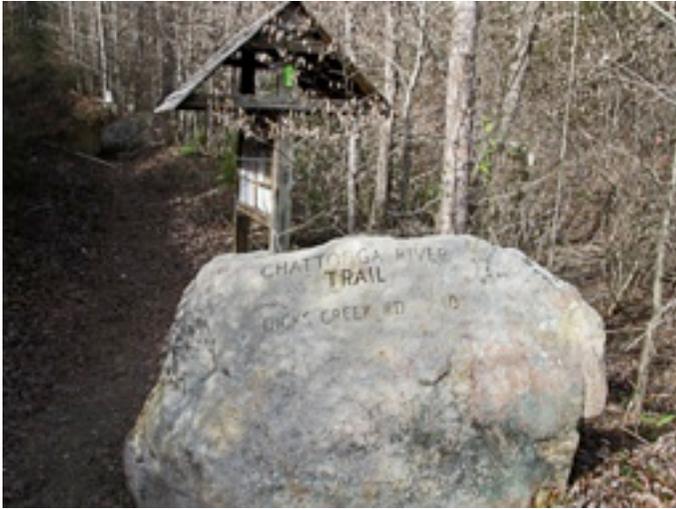
# Recommendations



Setting	Comments
Physical Setting	50/50 split between 18" 3/4 benchcut singletrack and old road. No reason for TC 4 backcountry style trail when trail not even constructed to TC 3 specifications. Many sections excessively steep, sometimes actively sloughing/narrowing and requiring steps for use without slipping or loosening tread.
Social Setting	Hiking only trail with some signs of bike use. Constructed singletrack trail provides high-quality rec. experience, while road sections detract from W&S River Setting. Trail seems to see relatively low use, especially further from HWY 76 parking area.
Managerial Setting	Maintenance relatively recent on road-based trail sections. Section above large river bend done very effectively, others are functional but will experience more frequent revisiting due to somewhat ineffective grade dip shape that will fill over time.
Priorities	<p>High- Lower to Trail Class 3</p> <p>High- Remove rotting crib walls and rebar, widen and fully benchcut trail</p> <p>Medium- Consider loop from HWY 76 parking area</p> <p>Medium- User experience would improve if excessively steep grades were relocated</p> <p>Medium- Replace old and broken signage</p>



## Representative Photographs:



*Left, Top and Bottom: Large rocks carved with trail names (Chattooga and Bartram/Chattooga) at junctions*

*Above: Typical bridge and step construction on Chattooga River Trail*



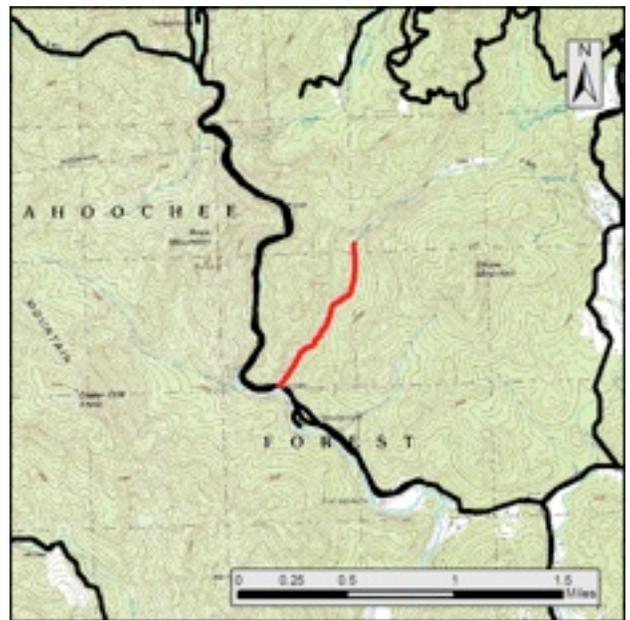
*Top Left and Right: Chattooga River Trail is a combination of hand-built, sidehill trail with some rolling contour and old, slightly incised road bed*

*Middle Left and Right: Crib wall and water bar structures are falling along the trail, leaving exposed rebar*

*Bottom Left: Carsonite posts, present at every corridor opening, have irregular and incomplete regulatory stickers*

# TRAIL: COLEMAN RIVER

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Coleman River
<b>Trail Number</b>	16
<b>Miles Assessed</b>	0.81
<b>Beg. Location</b>	FDR 70/Tallulah River Rd.
<b>End Location</b>	Dead End
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



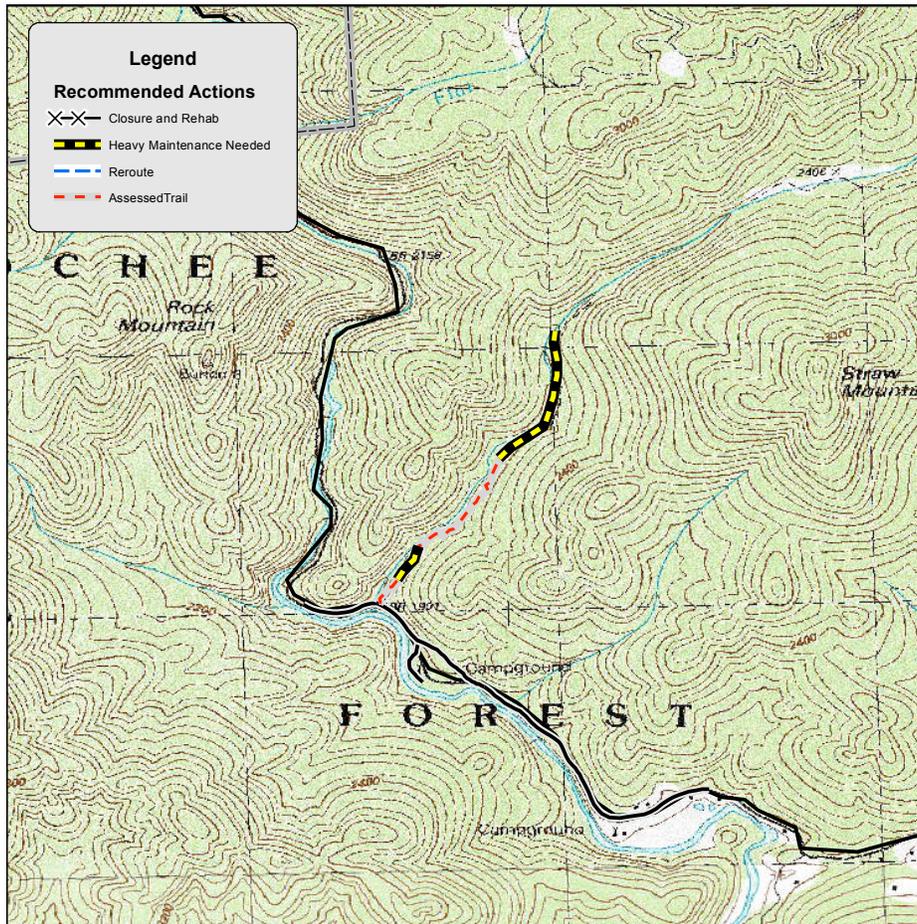
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 18-36 (NW, SL)	18-36	Mostly old road bed with active tread of 48-96" with a few locations of <12" tread failing
Structure Width (")	18 min.	18 min.	Some structures in rotting condition
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	A few obstacles >10" that could use a rock step structure
Target Grade/Max/Density (%)	3-12/25/10-20	3-12/25/10-20	One location of 40+% grade that needs formalized steps
Target Cross Slope/Max (%)	5-10/15	5-10/15	
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	7-8/3-5	A few downed trees in corridor
Turn Radius (')	3-6	3-6	

# Recommendations



Setting	Comments
Physical Setting	Very scenic location and stream with tumbling water. TH currently unsigned and adjacent to bridge under construction. Located near developed camping area- rather rough trail with structures needing repair for developed area and potential traffic.
Social Setting	Foot traffic only and no evidence of unsanctioned use. More than a dozen social trails to edge of creek where fishing holes exist, many causing erosion and vegetation damage, potentially sedimentation to creek.
Managerial Setting	Little maintenance attempted other than constructed bridges that are failing. Terminus of trail was very difficult to determine.
Priorities	High- Replace signage at TH Medium- Replace/repair bridges, add water mgt., and decrease roughness where possible. Add stringer steps to replace 40+% grade area

## Representative Photographs:



*Top: Tallulah River Campground area and “trailhead” near Coleman River Trail*

*Bottom: Trail tribute plaque attached to rock and status of bridge construction at trail junction*





*Above: Trail junction with road obscured by ongoing bridge reconstruction*

*Right: New bridge constructed along trail*



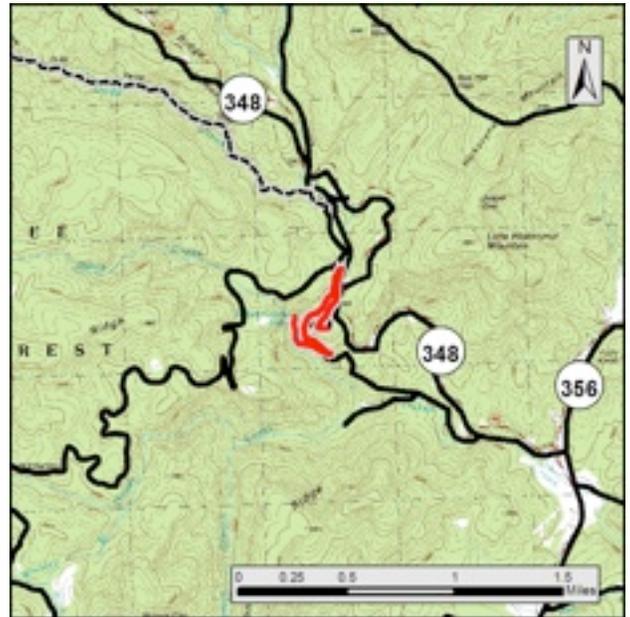
*Left: Old steps placed in trail to provide footing when tread is wet, no management of water on steep areas*

*Below: Bridge in need of inspection and repair*



# TRAIL: DUKES CREEK FALLS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Dukes Creek
<b>Trail Number</b>	28
<b>Miles Assessed</b>	1.23
<b>Beg. Location</b>	FDR 678
<b>End Location</b>	Dukes Creek Falls
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



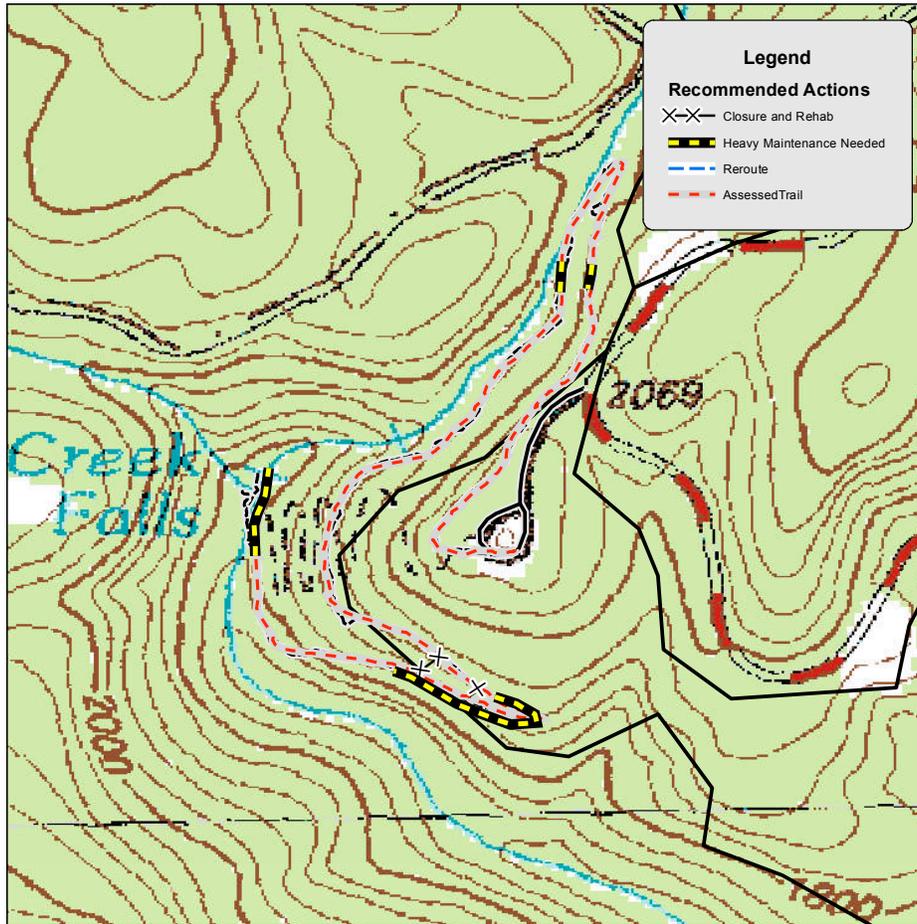
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	36-48 (from TMO) 36-60		
Structure Width (")	18 min.		72+'' structures present
Tread Surface	Native, w/borrow for stabilization		Paved to 1st overlook platform (ADA-accessible), then old road/rail road w/ gravel surface
Protrusions/Obstacles (")	<3/10		6-10'' protrusions and 8+'' obstacles present
Target Grade/Max/Density (%)	20 max (from TMO) 3-12/25/10-20		Grades relatively low on old road/railroad
Target Cross Slope/Max (%)	5-10/15		3-5% cross slope present
Clearing Height/Width (')	8/6 7-8/3-5		
Turn Radius (')	3-6		Large 10' radius turns on old road

# Recommendations



Setting	Comments
Physical Setting	Trail descends to Dukes Creek Falls from parking area. Paved and ADA-accessible to upper overlook, then located on old road/railroad that is limestone/gravel-surfaced.
Social Setting	Very high use area for creek/water fall viewing and swimming with large amounts of developed rec. and trail infrastructure. Lots of carving on wooden structures, social trail formation, and switchback shortcutting.
Managerial Setting	Hemlocks dying rapidly and endanger all structures. Some signage missing and needed for navigation. Structures in need of inspection and maintenance. Culvert outflows from HWY 348 causing major erosion.
Priorities	<p>High- Remove diseased hemlocks to preserve high-dollar trail infrastructure</p> <p>High- Provide higher level of culvert outflow protection</p> <p>Medium- Improve stability and quality of switchbacks, and close off shortcuts</p> <p>Medium- Improve formality of social trails to direct creek access at most sustainable locations</p>

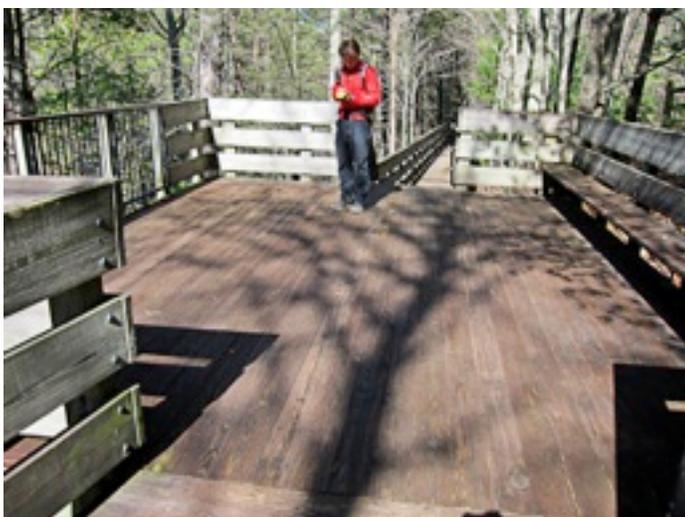
## Representative Photographs:



*Above Left: Large, relatively new navigation signage*

*Above Right: Regulatory signage installed, but little mitigation of problem attempted*

*Right and Below: Observation deck at falls overlook. The lower viewing structure is threatened by the ailing hemlock trees that flank the creek bottom.*





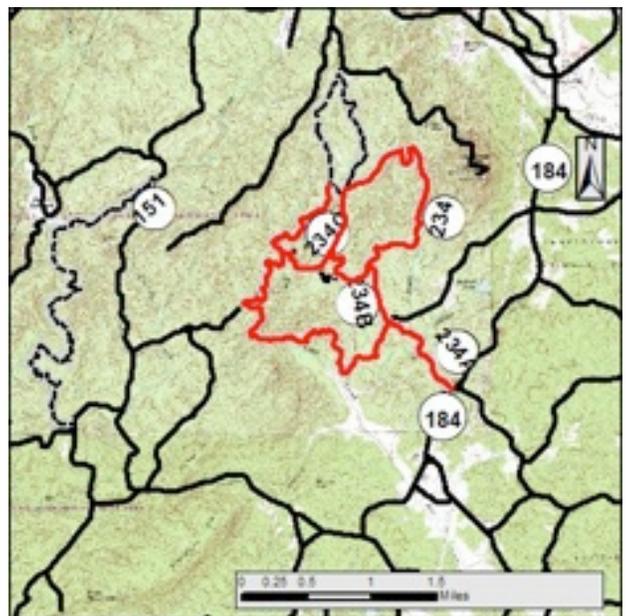
*Above Left and Right: Culverts from the road (348 Richard Russell Scenic Hwy) above the trail complicate water management and are causing natural resource damage and erosion.*

*Below Left and Right: A section of trail is held in place by a wooden structure that is starting to fail, and will need replacement soon. Multiple user shortcuts at switchbacks are a natural resource concern.*



# TRAIL: FRADY BRANCH LOOP

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Frady Branch
<b>Trail Number</b>	234
<b>Miles Assessed</b>	3.54
<b>Beg. Location</b>	FDR 389
<b>End Location</b>	FDR 389
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse-Bike



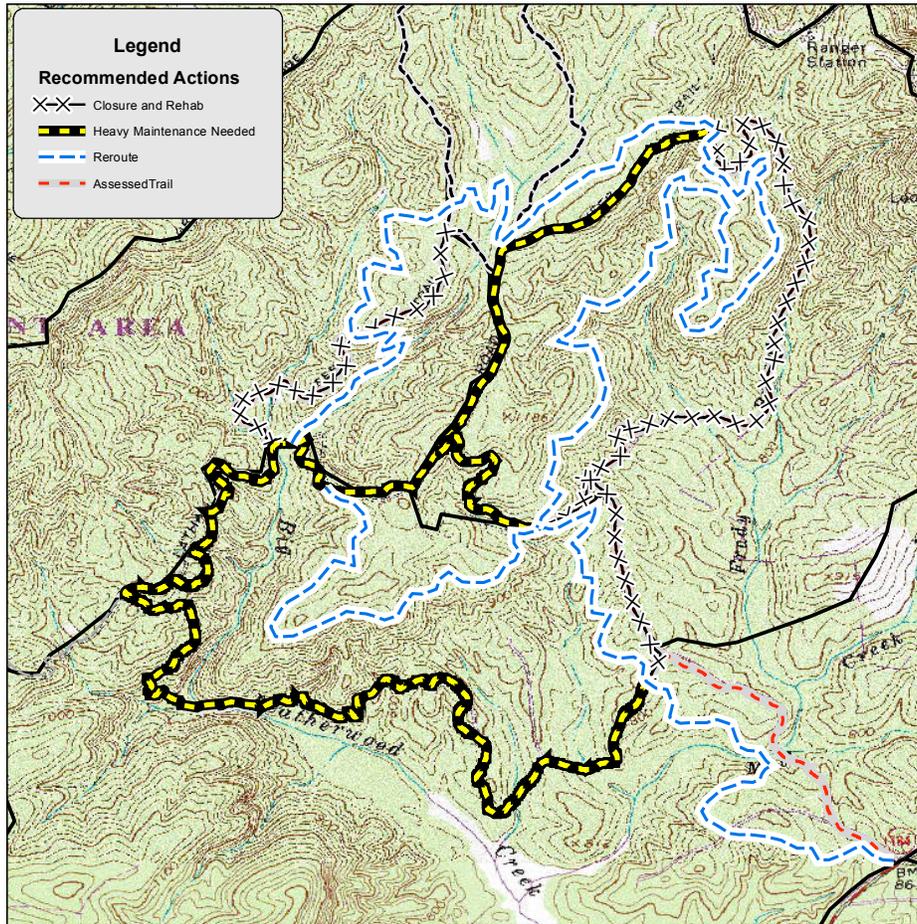
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Designed use issues on TMO (three uses). Design use should be pack and saddle.

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48-60 (from TMO) 18-48	48-60	Most sections 72+", when constructed or located on old road bed
Structure Width (")	60" bridges, 36" for other structures	60	1 bridged crossing that does not meet width standard. 2-3 more bridges needed if route retained
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	Few and most <6".
Target Grade/Max/Density (%)	12 max. (TMO) 3-12/20/5-15	3-8/12/5-10	A number of 15-20% stretches of old road bed with maint. not quite functional. Max. sustainable grade is about 15% on rocky loam and 7% on sandy clay loam
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	10/8 10/6-8	10/6-8	Suspended blow downs have social routes around
Turn Radius (')	5-8	5-8	

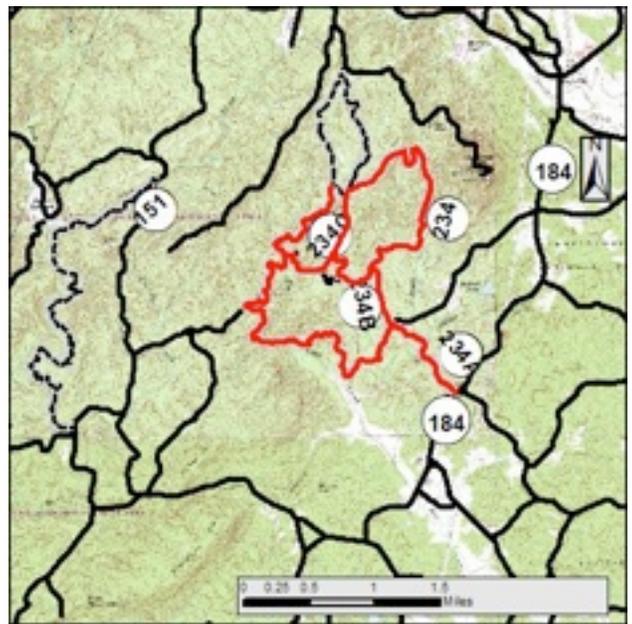
# Recommendations



Setting	Comments
Physical Setting	Roaded setting. Trail design is generally contour, but too aggressive with grade for area soils and horse use. Sections on old road is either flat and incised or too steep and eroding. Far too many stream crossings, each of which is eroded and transporting sediment into the stream.
Social Setting	Horses and bikes pictured at TH, but little evidence of bike use. Moderate horse use, based on maintenance cues. Co-location with FDR not likely a use conflict situation due to limited traffic.
Managerial Setting	Water management is semi-functional- locations not great, drains too narrow, tread not sloping toward drain. Many issues with stream crossings. Further maintenance will only further entrench tread and sharpen dip structures which will exacerbate the erosion situation
Priorities	High- Relocate eastern half of trail to avoid stream and riparian impacts Medium- Reshape dips with wider drains, tread canted toward drain, and mellow transition from crest to tail. Harvest material from unfinished backslope for work to minimize further tread entrenchment.

# TRAIL: PARKING SPUR

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Frady Branch
<b>Trail Number</b>	234A
<b>Miles Assessed</b>	0.81
<b>Beg. Location</b>	FDR 389
<b>End Location</b>	FDR 389
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse-Bike



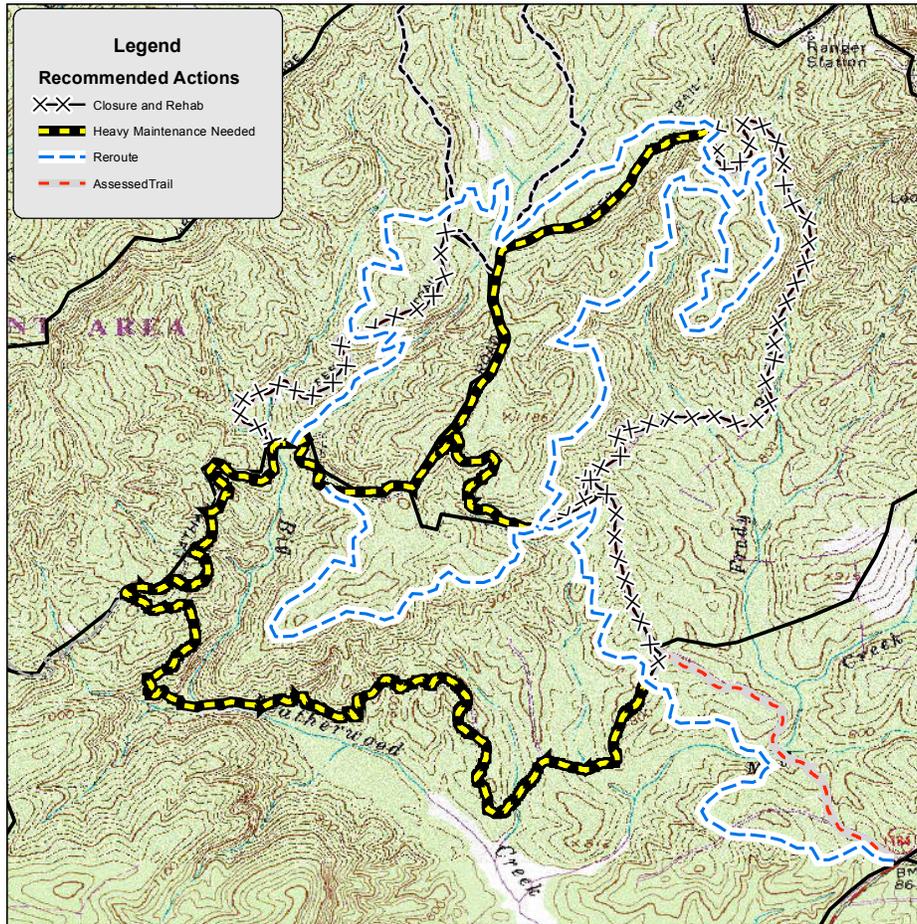
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Designed use issues on TMO (two uses). Use should be pack and saddle

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48-60 (from TMO) 18-48	48-60	120+'' on much of length
Structure Width (")	60'' bridges, 36'' min other structures	60	Box culvert in construction to open access back up to TH
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	Few protrusions or obstacles
Target Grade/Max/Density (%)	12 max. (TMO) 3-12/20/5-15	2-10/15/5-10	Generally <10% with some steep pitches of 20%
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	10/8 (TMO) 10/7-8	10/7-8	
Turn Radius (')	5-8	5-8	

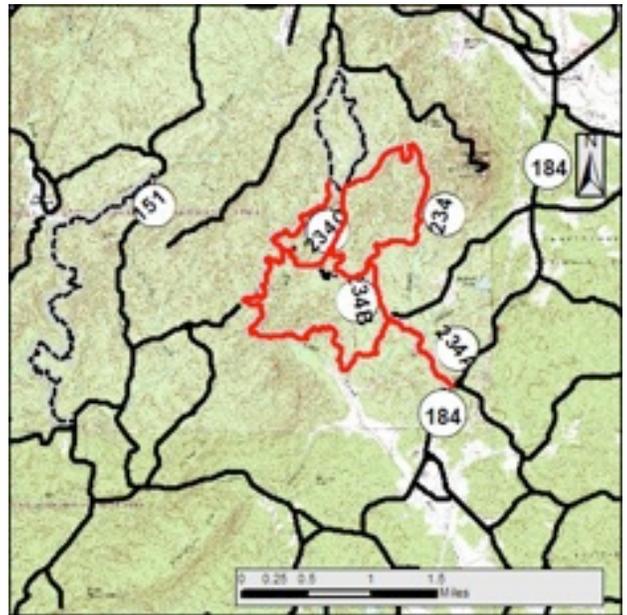
# Recommendations



Setting	Comments
Physical Setting	Trail is entirely located on old road bed that sees regular vehicular use.
Social Setting	Signs of moderate equestrian use, likely higher prior to TH access issue (box culvert). Long sight lines, so there is lessened probability of conflict with vehicular use on the road, but recreational quality is considerably lower and interactions could be numerous close to TH
Managerial Setting	Trail co-location with road and should require maintenance as FDR with heavy equestrian use with appropriate warnings.
Priorities	<p>Immediate- Complete box culvert to restore utility of the developed Trailhead facility and connectivity to the trail system</p> <p>Medium- Construct trail off of road from TH to Frady Branch, utilizing the box culvert/road as a stream crossing</p>

# TRAIL: LEATHERWOOD CREEK

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Frady Branch
<b>Trail Number</b>	234B
<b>Miles Assessed</b>	3.59
<b>Beg. Location</b>	FDR 62A
<b>End Location</b>	FDR 62B
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse-Bike



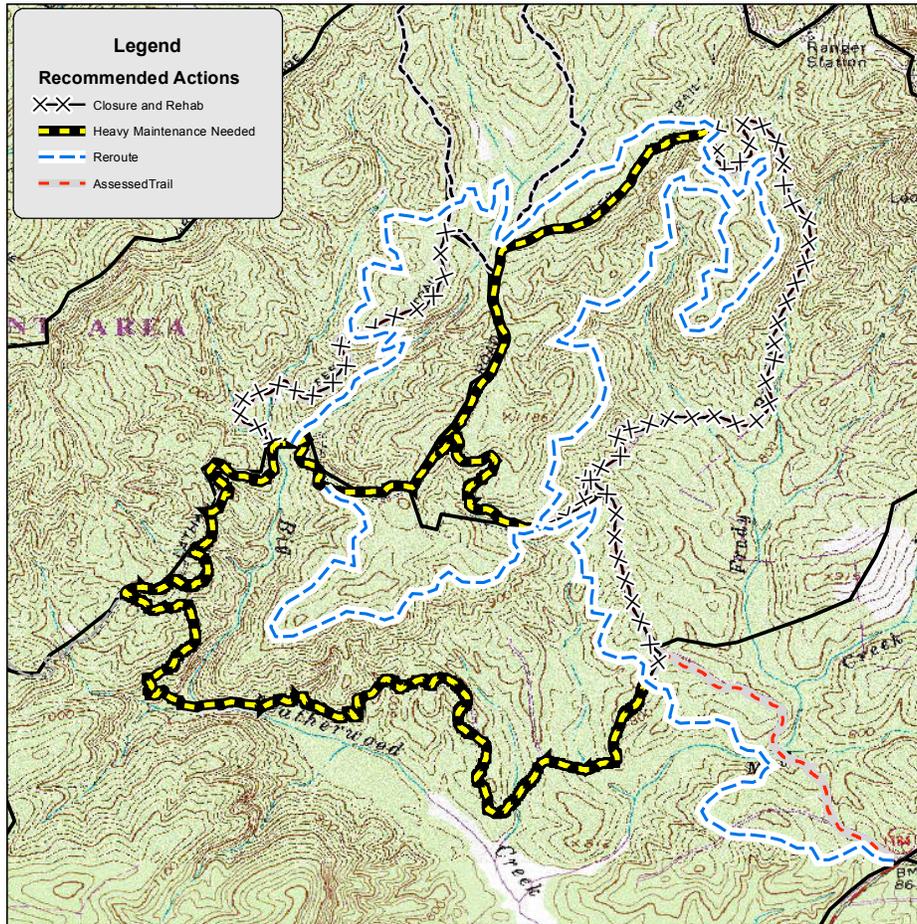
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Designed use issues on TMO (two uses). Should be pack and saddle designed use

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48-60 (from TMO) 18-48	48-60	Trail on old road bed with many recent relocations- all ~84" wide
Structure Width (")	60 for bridges, 36 for other structures	60 for bridges, 36 for other structures	One bridge, 84" wide and 20' long in good condition
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	Generally native, with some on-site borrow and railroad ballast at stream crossings
Protrusions/Obstacles (")	<3/6	<3/6	
Target Grade/Max/Density (%)	12 max (TMO) 3-12/20/5-15	2-10/15/5-10	Relocations generally ~15% grade with some pitches at 25+%
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	10/8 (TMO) 10/6-8	10/6-8	Blow downs across trail- all have social routes around
Turn Radius (')	5-8	5-8	

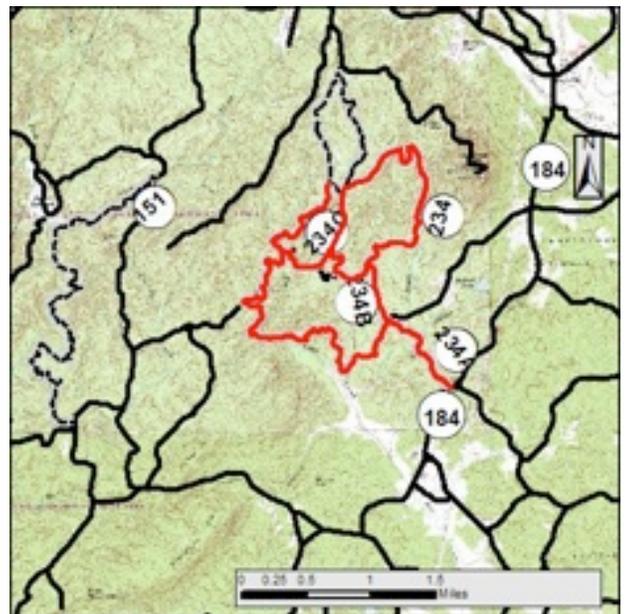
# Recommendations



Setting	Comments
Physical Setting	Trail follows old road bed with many recent relocations. On old road, drainage structures necessary. Relocations generally on contour, but often too steep for sustainability in soil type/use matrix. Construction lacks back slope and constructed grade dips on relocations are already failing.
Social Setting	Moderate signs of use, likely to increase to previous levels when box culvert construction opens TH access. Little evidence of hike or bike use.
Managerial Setting	Relocation work does not meet design parameters for Class 3. Soils likely require trail grades from Class 4 for sustainability. Old road bed not sufficiently closed and use persists. Lack of bucking on trail leading to social routes and unnecessary resource impact.
Priorities	<p>Immediate- Complete box culvert construction to provide utility of developed facilities and recreational access to TH</p> <p>High- Repair drain dips, employing material from uncut backslope to broaden crests and enhance flow off trail with improved, widened drains.</p> <p>High- Buck and clear corridor</p> <p>Medium- Reconstruct/harden Leatherwood Creek crossing</p> <p>Medium- Relocate or harden sections of trail grade &gt;12%</p> <p>Medium- Provide sufficient closure of old road bed</p>

# TRAIL: PEAR ORCHARD

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Frady Branch
<b>Trail Number</b>	234C
<b>Miles Assessed</b>	1.48
<b>Beg. Location</b>	FDR 62A
<b>End Location</b>	FDR 62B
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse-Bike



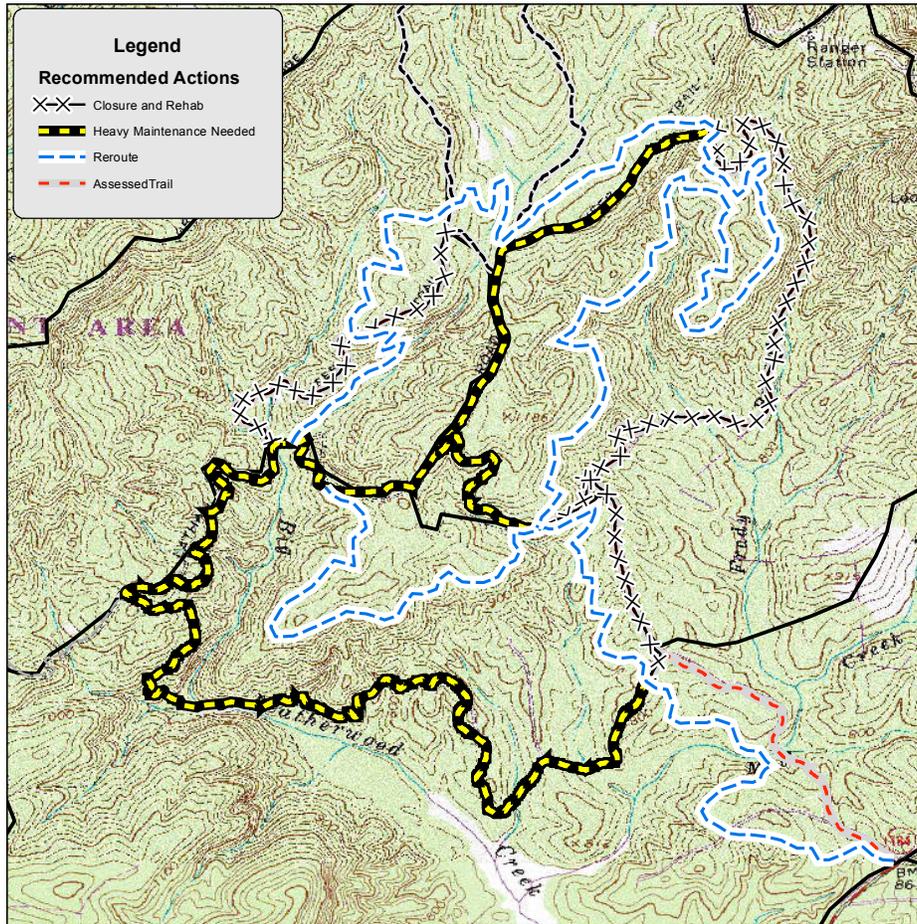
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Designed use issues in TMO (3 uses)- should be pack and saddle.

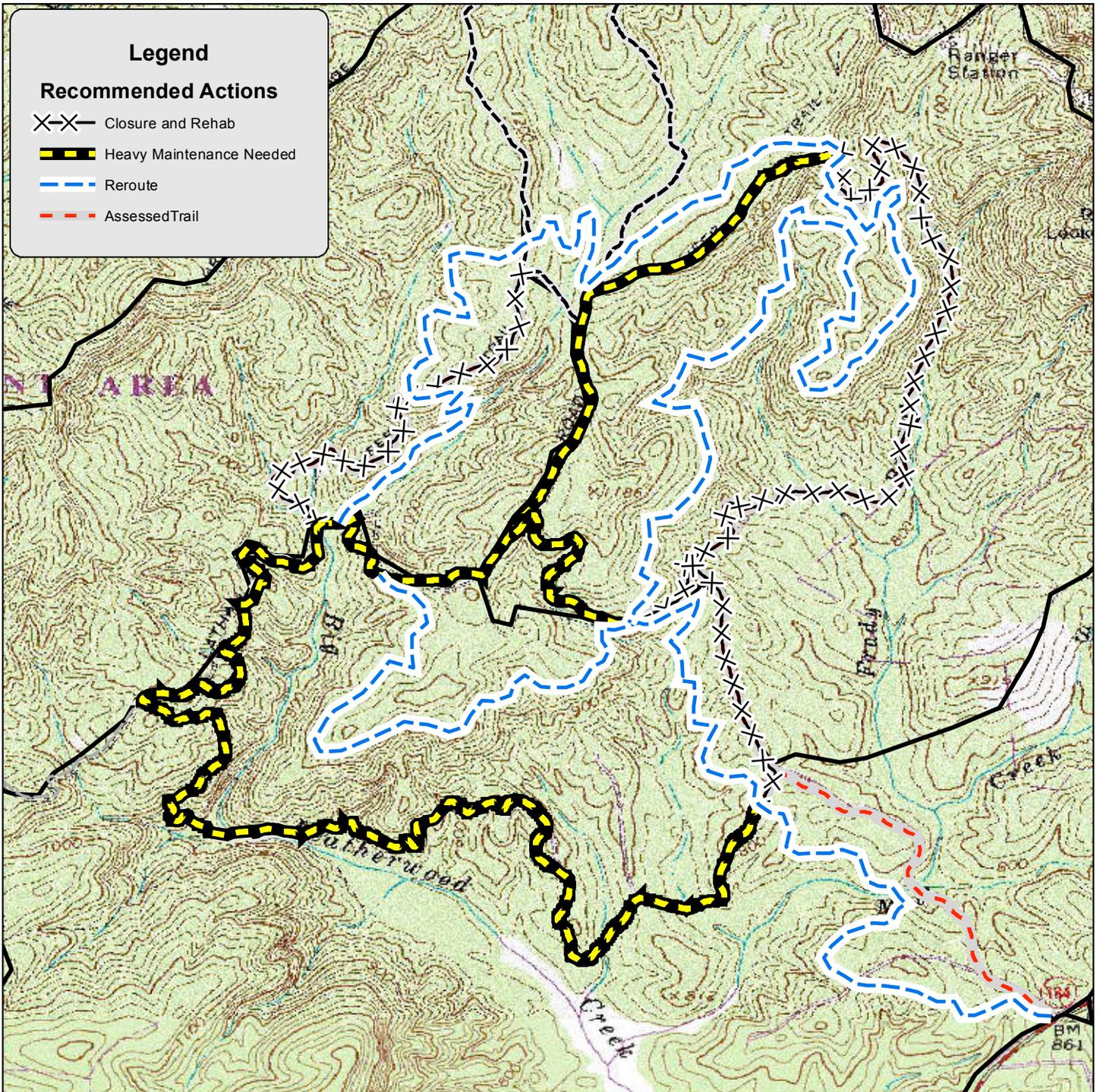
## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48-60 (from TMO)	48-60	Much of loop on old road bed w/96+” tread width. Constructed portion is ~72”
Structure Width (")	60 for bridges, 36 for other structures	60	
Tread Surface	Native, w/ borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	
Target Grade/Max/Density (%)	20 max. (TMO) 3-12/2-/5-15	2-10/15/5-10 7% max- sandy loam soils	Excessive grade, erosion issues north of waterfall and at stream crossing near Leatherwood Creek Trail junction
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	10/8 (TMO) 10/6-8	10/6-8	Social routes around downed trees
Turn Radius (')	5-8	5-8	

# Recommendations



Setting	Comments
Physical Setting	Roaded setting. Trail design generally on contour, but often too steep and width exceeding design parameters/TMO. Construction quality is not sufficient for sustainability- no backslope, lack of cross slope, drainage structures poorly located and too narrow. Old road bed portions often too steep or flat for sufficient drainage.
Social Setting	Signs of moderate horse use, but little evidence of bike or hike use. Cultural interpretation areas (foot traffic only) located along trails and outfitted with hitching rails.
Managerial Setting	Recent maintenance is average quality, but trail now cannot handle any additional scraping and next time will have to pull material from backslope and fill slope to rebuild drainages without increasing grades. Road sections not functioning well as sustainable trails and need relocation or additional surfacing with next drain clean.
Priorities	<p>Medium- Relocate trail from ridgeline road to sidehill all the way down drainage to Leatherwood Creek trail junction</p> <p>Medium- Next maintenance needs to build up tread, broaden and harden drain outflows</p> <p>Medium- Consider extending loop to the north and connect to Cemetery Loop and/ or Fradley Branch Loop without use of FDRs.</p>



## Representative Photographs:



*Above: Monument sign at Trailhead access road*

*Below: Typical Frady Branch navigation signage*



*Above: Kiosk signage at Trailhead*

*Below: Trail co-location with vehicular road*



*SST and tie up amenities at Trailhead*



*Status of bridge repair at Trailhead access*

*Right: Old road bed/trail crossing of creek. No water management*



*Left: Abandoned silt fence from previous maintenance contract*

*Below: Interpretive site signage on hiking-only trail*



*Below: Steep road bed to unmanaged creek crossing*





*Above: Steep road bed to creek crossing. No water management*

*Below: Incised portion of trail, no water management becoming linear mudhole*



*Below: Lack of water management over trail has scoured a culvert crossing. Culvert damaged where exposed and ~3' deep gully below culvert headcutting back into trail*



*Above: Large trees crossing trail all have fall line social trail development to avoid tree*

*Below: Creek crossing, no water management. Stringers abandoned at some point*

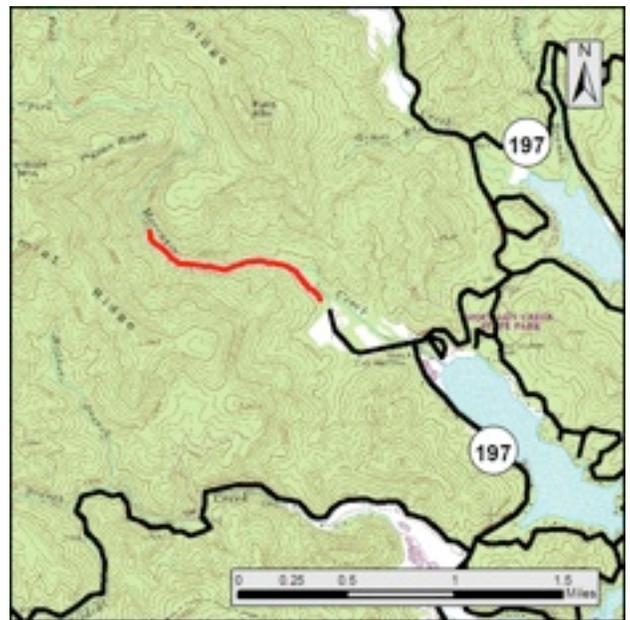


*Below: Dead fall over trail with social trail development*



# TRAIL: HEMLOCK FALLS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Hemlock Falls
<b>Trail Number</b>	50
<b>Miles Assessed</b>	0.97
<b>Beg. Location</b>	End of FDR 165A
<b>End Location</b>	Hemlock Falls
<b>Trail Class</b>	4- Highly Developed
<b>Designed Use</b>	Hike



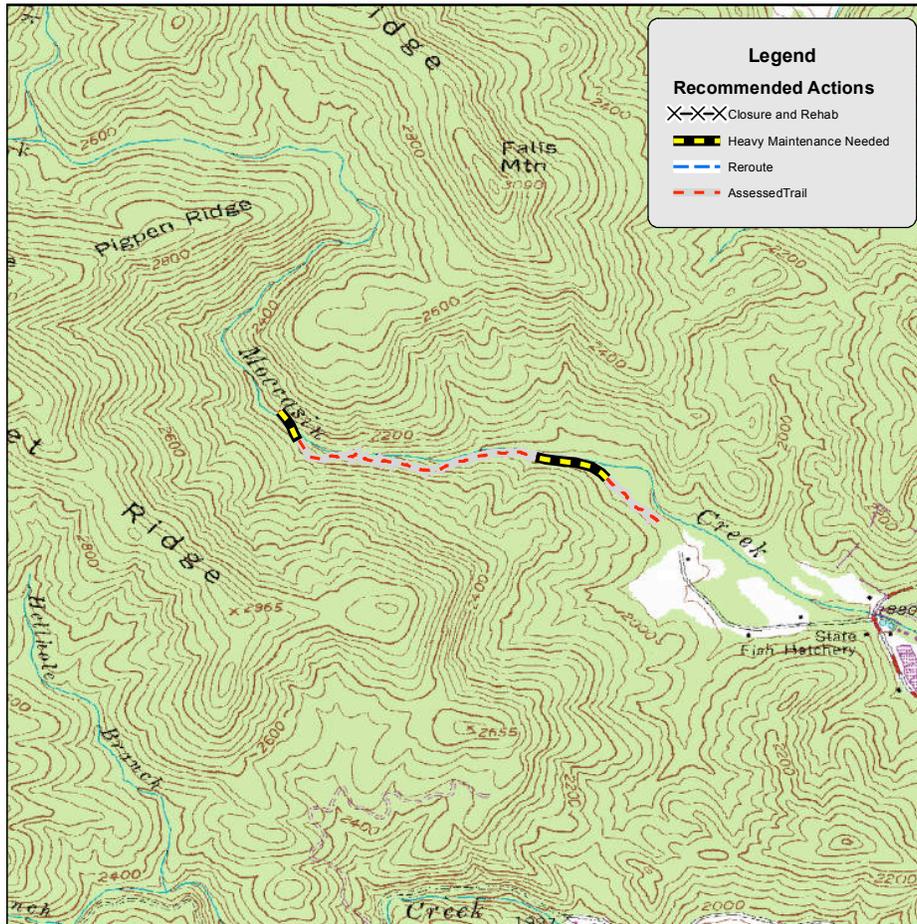
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 24-60 (NW, SL)	36-48	Located on old road bed, 120" wide with some areas narrowed to 12"
Structure Width (")	36 min.	36 min.	1 bridge- 36" wide and 25' in length
Tread Surface	Native, improved for minor rough	Native, improved for minor rough	Rough road bed that is continuously rough
Protrusions/Obstacles(")	<3/8	<3/8	5-6" protrusions/obstacles almost continuous and hidden under leaves
Target Grade/Max/Density (%)	2-10/15/5-20	2-10/15/5-20	
Target Cross Slope/Max (%)	3-7/10	3-7/10	
Clearing Height/Width (')	8/4 (from TMO) 8-10/4-6	8-10/4-6	Corridor height not maintained
Turn Radius (')	4-8	4-8	

# Recommendations



Setting	Comments
Physical Setting	Trail is located in easy proximity to highway, off paved road near Lake Burton and many second/rental homes. Located on old road bed, which makes maintenance complicated
Social Setting	Foot traffic only and no signs of unsanctioned use. Great distance and location for family hikes along stream to waterfall. Heavy use witnessed on Sunday afternoon in February, but very small TH and no attendant facilities such as a pit toilet. Roughness of tread detracts from recreational quality and accessibility.
Managerial Setting	Trail does not show indications of previous maintenance, save for sporadic corridor clearing and the bridge. Roughness of tread does not meet TC 4 standards. Water management needed on trail where seeps or tributaries are present.
Priorities	<p>High- Clear corridor and institute water management program</p> <p>High- Define end of trail at waterfall and decommission social trail extending up the valley</p> <p>Medium- Confine tread to 36-48" and surface or smooth that width for more accessible travel</p>

## Representative Photographs:



*Top: Old road bed with upslope ditch*

*Middle: Scenic creek setting for trail*

*Bottom: Typical, large camping area with trampling impacts*

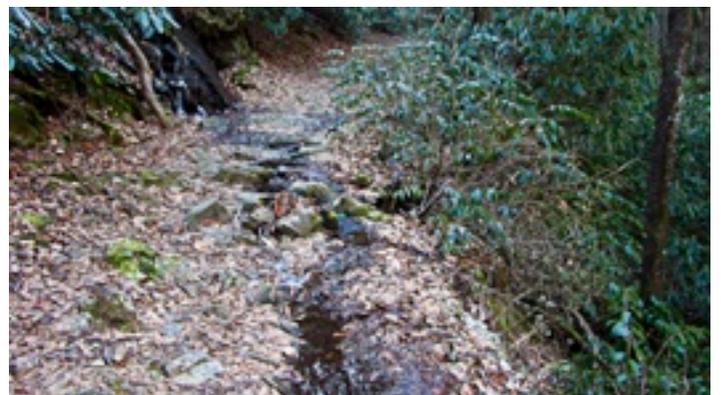
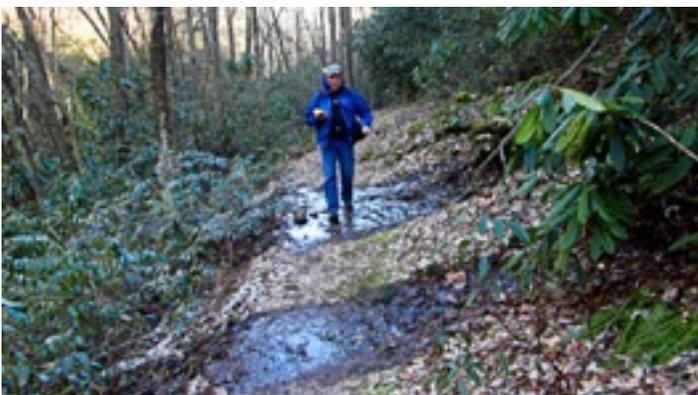




*Above Left and Right: Old road bed is at times incised/eroded and subsequently experiencing sediment deposition*



*Above and Below: Lack of water management across entire length of trail shows signs of long-term tread saturation, erosion, and much higher slipping potential than necessary on a Class 4 trail*





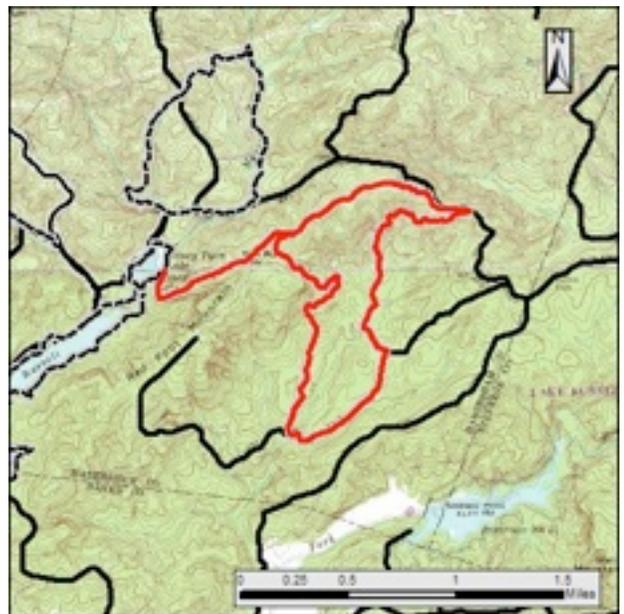
*Left and Right: Bridge structure and concrete/rock footers*



*Above: Very steep and eroding sections with large, uneven steps and scour erosion approaching bridge*

# TRAIL: LADYSLIPPER

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Ladyslipper
<b>Trail Number</b>	153
<b>Miles Assessed</b>	5.26
<b>Beg. Location</b>	Nancytown
<b>End Location</b>	Nancytown
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse



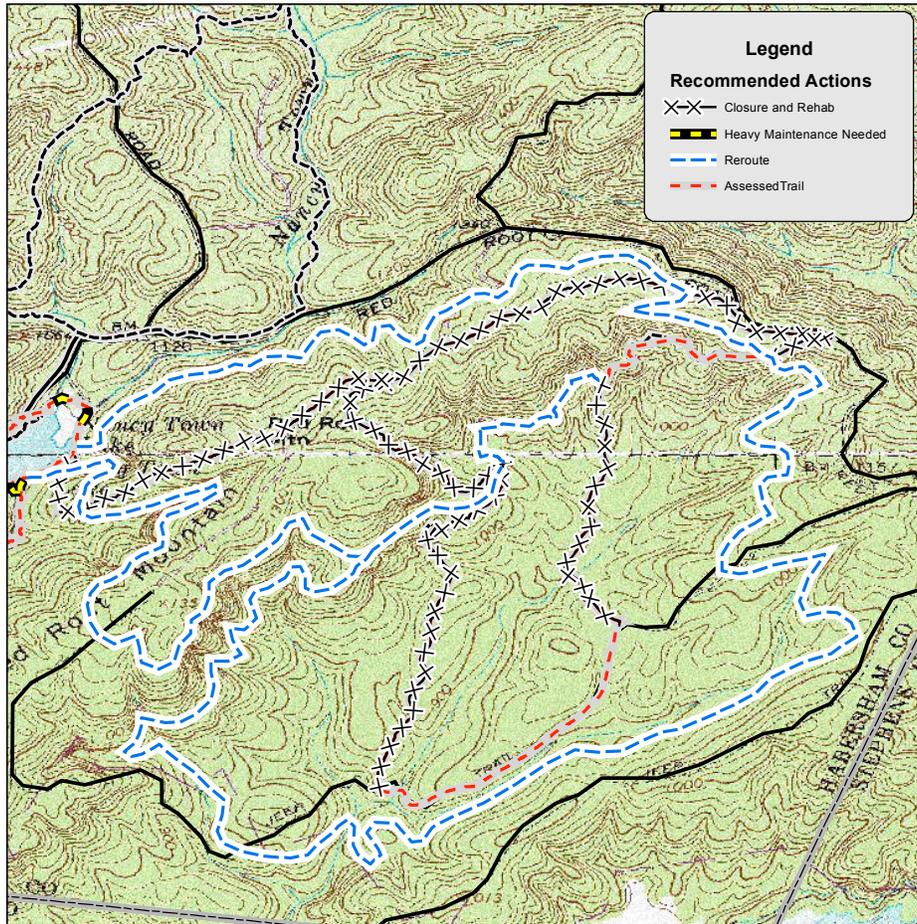
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48-60 (from TMO) 60-84	60	Tread varies from 18-96+" width
Structure Width (")	60" bridges w/o handrails, 36" other	60"	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	Few large protrusions expect on steep climb and occasional rocky stretches. Bridge step >1'
Target Grade/Max/Density (%)	20 max (from TMO) 3-12/20/5-15	3-12/12/5-15	~15/50/10. Many grades too steep for sustainable equestrian use
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	10/8 (from TMO) 10/6-8	10/6-8	Clearing height not managed to 10' for equestrian use
Turn Radius (')	5-8	5-8	

# Recommendations



Setting	Comments
Physical Setting	Most of trail is located on old road beds with widths of 96+”, with some overly steep stretches such as the ascent from Nancy Town Lake to Red Rock Mtn. User created routes on other old roads form additional connecting loops. Active OHV hill climb to Red Rock Mtn. on southeast flank.
Social Setting	Trail shows few signs of bike and horse use, but significant OHV (full-size) use. Visitor-created social routes to avoid section co-located with FDR and create loop connectivity.
Managerial Setting	Water management on roads in need of repair and some additional drainage maint. structures needed. Poor or missing signage. OHV use prevalent and lack of width restrictors or other management in place.
Priorities	<p>High- Manage OHV use, gates/restrictors and signage needed at junctions with County and Forest roads</p> <p>High- Provide signage</p> <p>High- Correct managed use conflict with Nancytown Lake Loop (no horse, bike)</p> <p>Medium- Relocation, maintenance and loop opportunity with Nancytown Lake, formalize and improve user-created routes on old roads and for internal loop.</p>

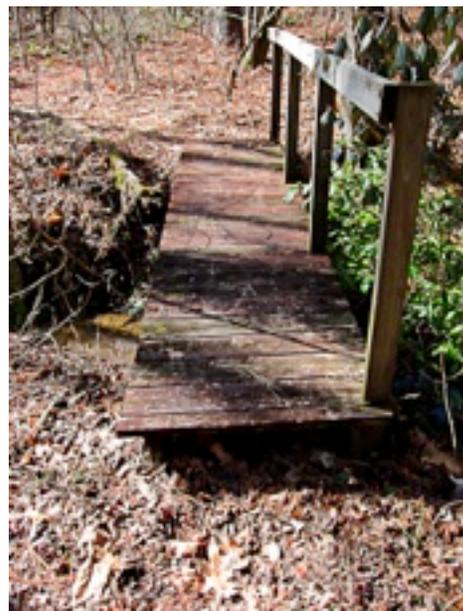
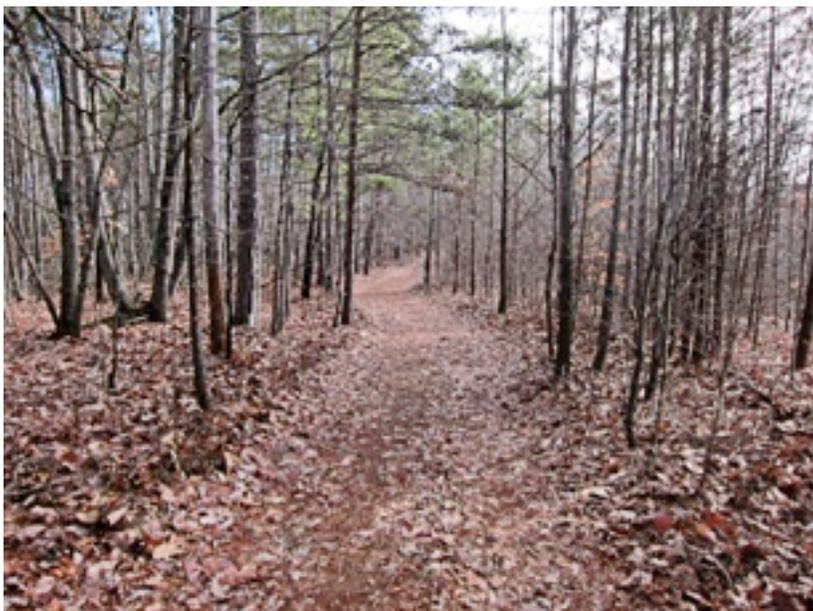
## Representative Photographs:



*Top and Bottom Left: Typical trail corridor width*

*Top Right: Four regulatory signs tacked to a tree with encroaching vegetation*

*Bottom Right: Bridge that does not meet design parameters for equestrian use*





*Left, Above and Below: Trail conditions on  
Ladyslipper are complicated by illegal motorized  
use.*

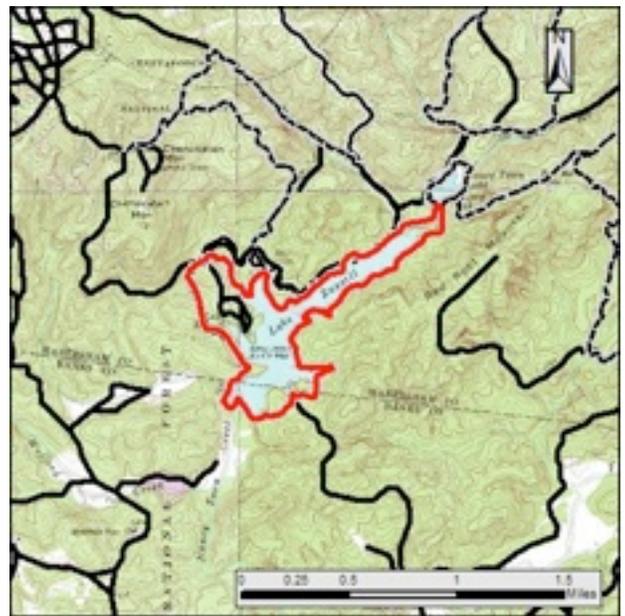


*Right, Above and Below: Steep grades and  
minimal water management have led to degrade  
trail conditions and impacts to adjacent natural  
resources.*



# TRAIL: LAKE RUSSELL LOOP

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Lake Russell
<b>Trail Number</b>	73
<b>Miles Assessed</b>	4.83
<b>Beg. Location</b>	Nancytown Lake Trailhead
<b>End Location</b>	Nancytown Lake Trailhead
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



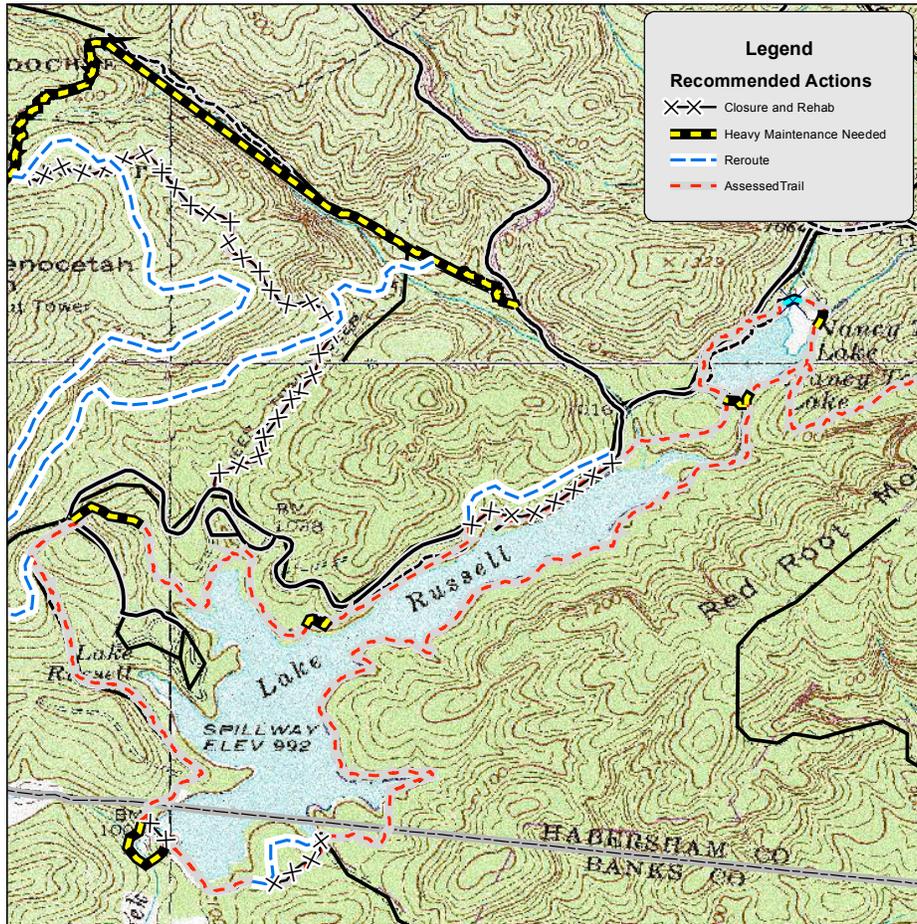
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	Bikes using trail regularly.

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36		Trail varies from 12" to 25"
Structure Width (")	18 min.		Structure-heavy trail with varying design standards and condition
Tread Surface	Native, w/borrow for stabilization		Native to gravel road to sidewalk and co-location with paved roads
Protrusions/Obstacles (")	<3/10		
Target Grade/Max/Density (%)	12 max (TMO) 3-12/25/10-20		Numerous stretches near or above 25% grade located on fall-line and eroding
Target Cross Slope/Max (%)	5-10/15		
Clearing Height/Width (')	8/4 (TMO) 7-8/3-5		
Turn Radius (')	3-6		

# Recommendations



Setting	Comments
Physical Setting	Frontcountry setting with trail nearly always in sight of built environment and Lake Russell. Majority of trail is narrow, natural surface with a sustainable alignment. Approx. 20% of trail has alignment or location issues. Dozens of bridge and other structures built to varying specifications, some with no apparent necessity.
Social Setting	Class 3 hiking trail, but only signs of use were by bikes. Most likely receives moderate to heavy use, relative to proximity to built environment, by pedestrians during swimming/boating season. This less experienced user would benefit from a more formally developed trail with improved navigation signage.
Managerial Setting	Risk management issues with a number of structures related to maintained condition and construction specifications. Social crossing near dam is significant issue. Higher level of maintenance necessary in such a highly developed recreation setting.
Priorities	<p>Immediate- Sign spillway crossing closed and clear/sign legitimate trail</p> <p>High- Remove, repair, or replace failing bridges.</p> <p>Medium- Relocate steep fall line portions of trail to improve sustainability.</p> <p>Medium- Relocate trail off of road sections to improve user experience and decrease potential traffic interaction</p>

## Representative Photographs:



*Above: Older trail navigation signage*

*Right: Steep fall-line trail eroding*

*Below: Minimally constructed trail at lakeshore*





*Top Left: Puncheon footers left in place with deck boards removed*

*Top Right: Steep, eroding trail widening with use as visitors search for solid footing*

*Middle Left: Bridge crossing a hillside seep. Unnecessary if trail is routed 10' higher on the hillslope*

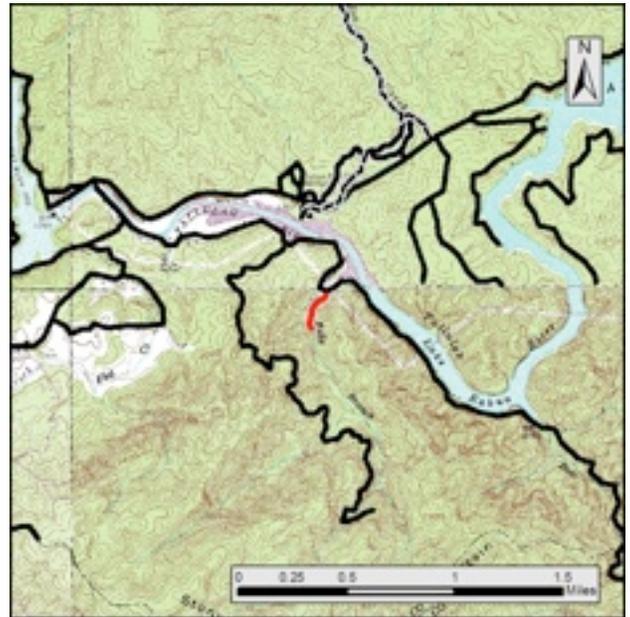
*Middle and Bottom Right: Well-used social trail to dam spillway*

*Bottom Left: Like many bridges on this trail, foundations, deck boards, or railings are in need of inspection or reconstruction*



# TRAIL: MINNEHAHA

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Minnehaha
<b>Trail Number</b>	147
<b>Miles Assessed</b>	0.19
<b>Beg. Location</b>	CR 83 (Bear Gap Rd.)
<b>End Location</b>	Minnehaha Falls
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



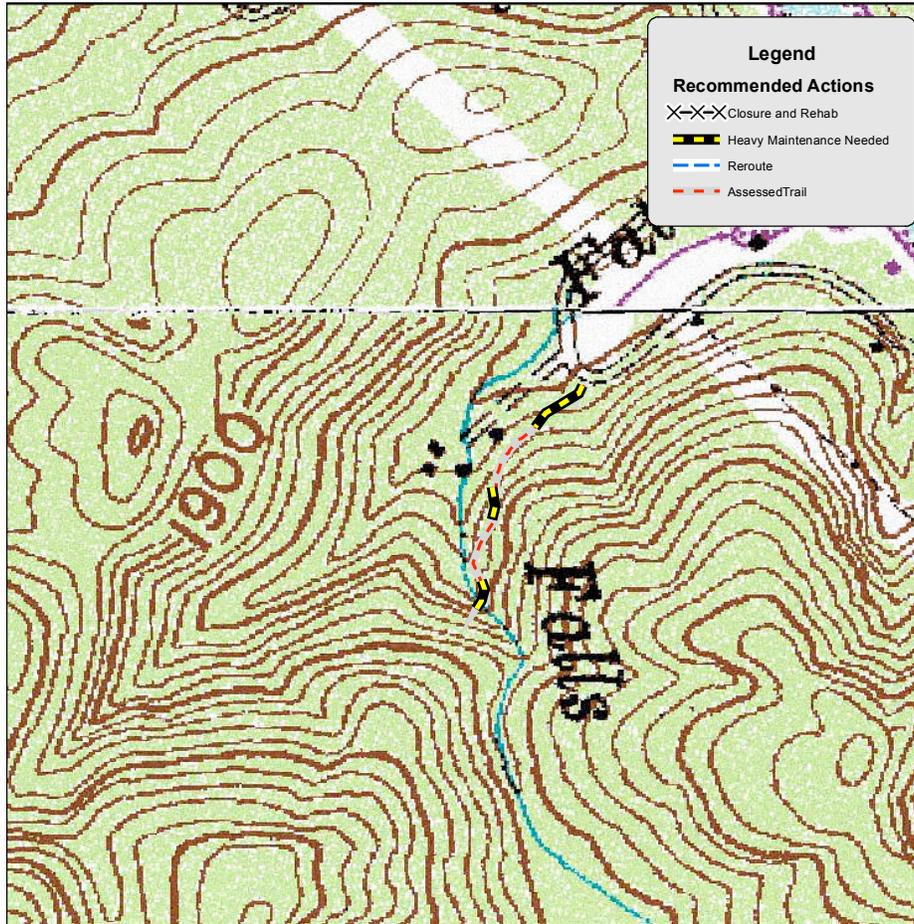
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	24 (from TMO) 36-60 (NW,DL)	36-48	Generally 36" wide tread, but some areas eroded down to 12"
Structure Width (")	18 min.	36 min.	36" stairs present and in degraded condition
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	Tread is native and continuously rough due to compaction and erosion
Protrusions/Obstacles (")	<3/10	<3/10	Many rocks, roots that make casual hiking difficult
Target Grade/Max/Density (%)	3-12/25/10-20	3-12/25/10-20	Steep areas above design parameters have stairs, but they are degraded and add'l steps needed
Target Cross Slope/Max (%)	5-10/15	5-10/15	
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	7-8/3-5	
Turn Radius (')	3-6		

# Recommendations



Setting	Comments
Physical Setting	Trail located in populated frontcountry location in the middle of second homes on Tallulah Lake. Very little parking for a short hike to a very scenic waterfall.
Social Setting	Foot travel only and no signs of unsanctioned use. Small parking area has potential to create unsafe condition for ingress/egress with traffic on road, which is relatively high. Two-way traffic to falls very likely. Combined with frontcountry setting, tread width should be increased to 48”.
Managerial Setting	Little to no maintenance evident. Erosion is decreasing available tread in some locations. Current condition much more closely aligns with TC 2 specifications but in a location where TC 4 would be a better fit.

Priorities	<p>High- Parking and access improvement to reduce potential for accidents on road</p> <p>High- Structures need to be upgraded, both in number and size</p> <p>High- Initiate water management program</p> <p>Medium- Tread stabilization/surfacing to decrease roughness and improve accessibility</p>
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## Representative Photographs:



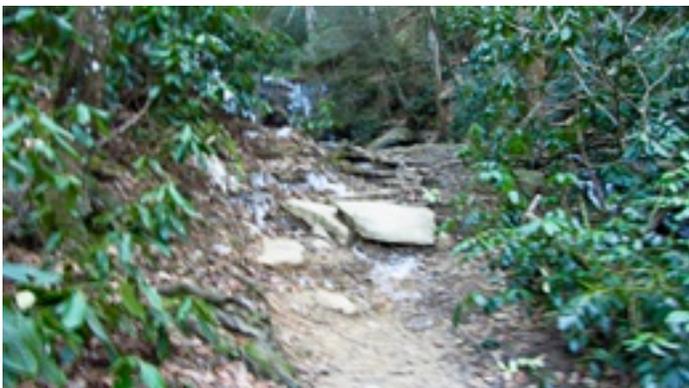
*Trailhead parking at maximum capacity (two vehicles) and initial stair step climb toward falls*



*Above: Social trail formation to avoid stair steps at beginning of trail*

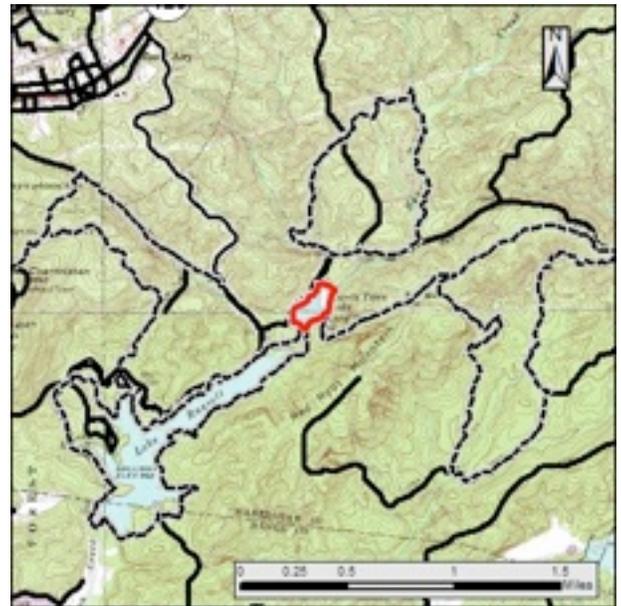


*Above and Below: Relatively narrow trail without active water management and beginning to show signs of erosion*



# TRAIL: NANCYTOWN LAKE LOOP

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Lake Russell
<b>Trail Number</b>	152
<b>Miles Assessed</b>	0.70
<b>Beg. Location</b>	Nancytown Dam
<b>End Location</b>	Nancytown Dam
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



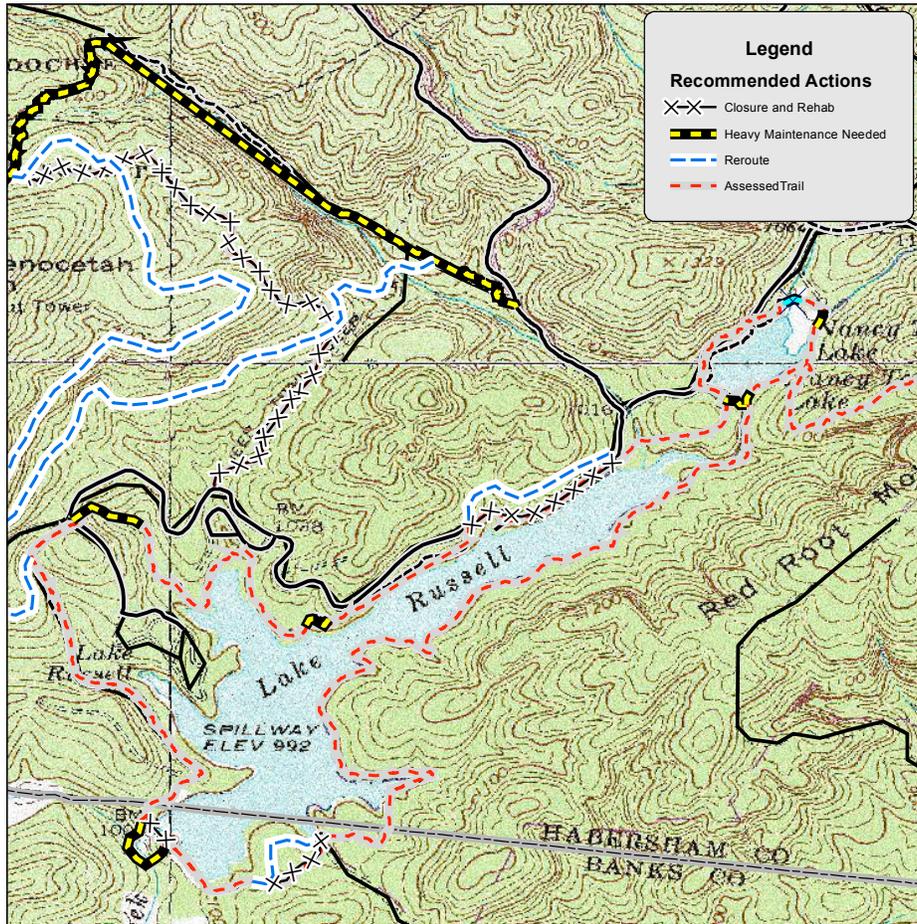
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	Bike use prevalent. Equestrian use signed at east side of lake (Ladyslipper Trail), but access unclear and/or disconnected

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36		Tread width varies from 18 to 48"
Structure Width (")	18 min.		40" bridge with low construction quality and handrail damage, stone steps at dam
Tread Surface	Native, w/borrow for stabilization		Native on east side of lake, flagstone and native on north side
Protrusions/Obstacles (")	<3/10		Rebar exposed at steps near dam and step risers >10"
Target Grade/Max/Density (%)	12 max. (TMO) 3-12/25/10-20		
Target Cross Slope/Max (%)	5-10/15		
Clearing Height/Width (')	8/4 (TMO) 7-8/3-5		
Turn Radius (')	3-6		

# Recommendations



Setting	Comments
Physical Setting	Frontcountry setting with trail interspersed with picnic/park facilities. Trail is generally within design specifications, except for unnecessarily steep section to road connection on northwest portion of loop. Structures built to varying standards. Trail co-located on paved road on west portion and could be relocated closer to lake.
Social Setting	High-use pedestrian and fishing use in developed picnic area setting. Bike use seems moderate, at least during non-crowded season. Use issues with bike and horse use at Ladyslipper junction- unclear if uses are allowed to the junction but not past.
Managerial Setting	Bridges, stone and timber steps, and stone culverts all in need of maintenance. Tread materials and dimensions are not consistent.
Priorities	<p>High- Remove, repair, or replace bridges and steps, especially broken handrail and exposed rebar near dam, which are significant risk management concerns.</p> <p>High- If equestrian use is allowed, must raise construction standard/design parameters, especially with bridges</p> <p>Medium- Consider reclassification to Class 4 and redevelop for maximum accessibility</p>

## Representative Photographs:



*Above: Picnic shelter structure along trail*



*Right: Steep stone steps downstream of the Nancytown Lake spillway*



*Above Left and Right: Kiosk, sanitation, and fee information at Nancytown Lake parking area*



*Left: Vandalized risk management signage*

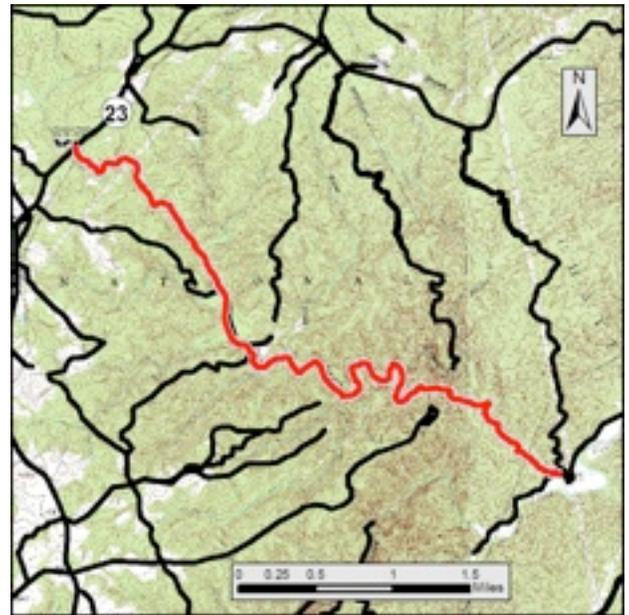


*Below Left and Right: Extensive steps and bridge structure showing damage from tree fall*



# TRAIL: PANTHER CREEK

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Panther Creek
<b>Trail Number</b>	72
<b>Miles Assessed</b>	5.81
<b>Beg. Location</b>	Panther Creek Rec. Area
<b>End Location</b>	Panther Creek Rd.
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

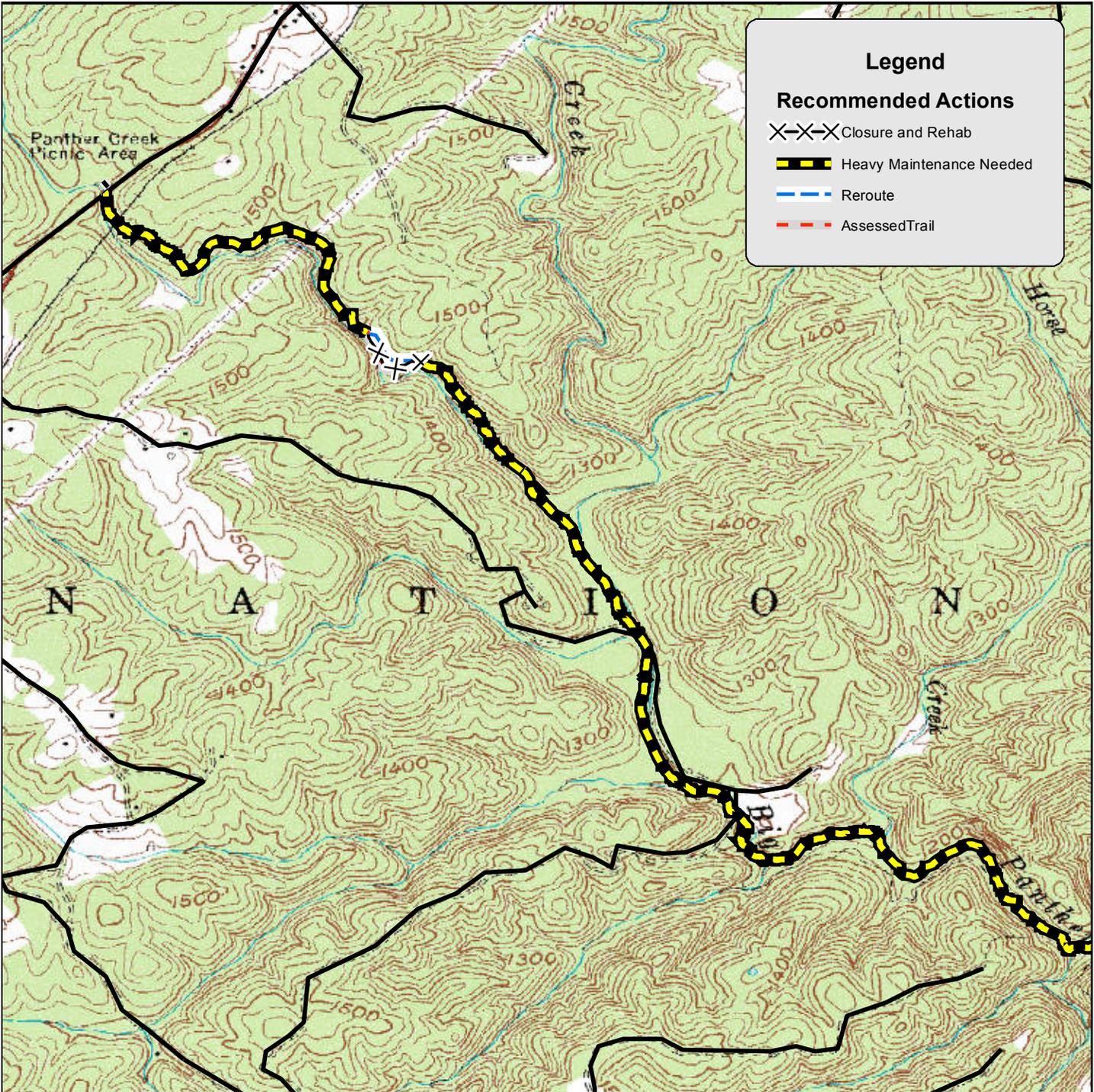
## Design Parameter Recommendations:

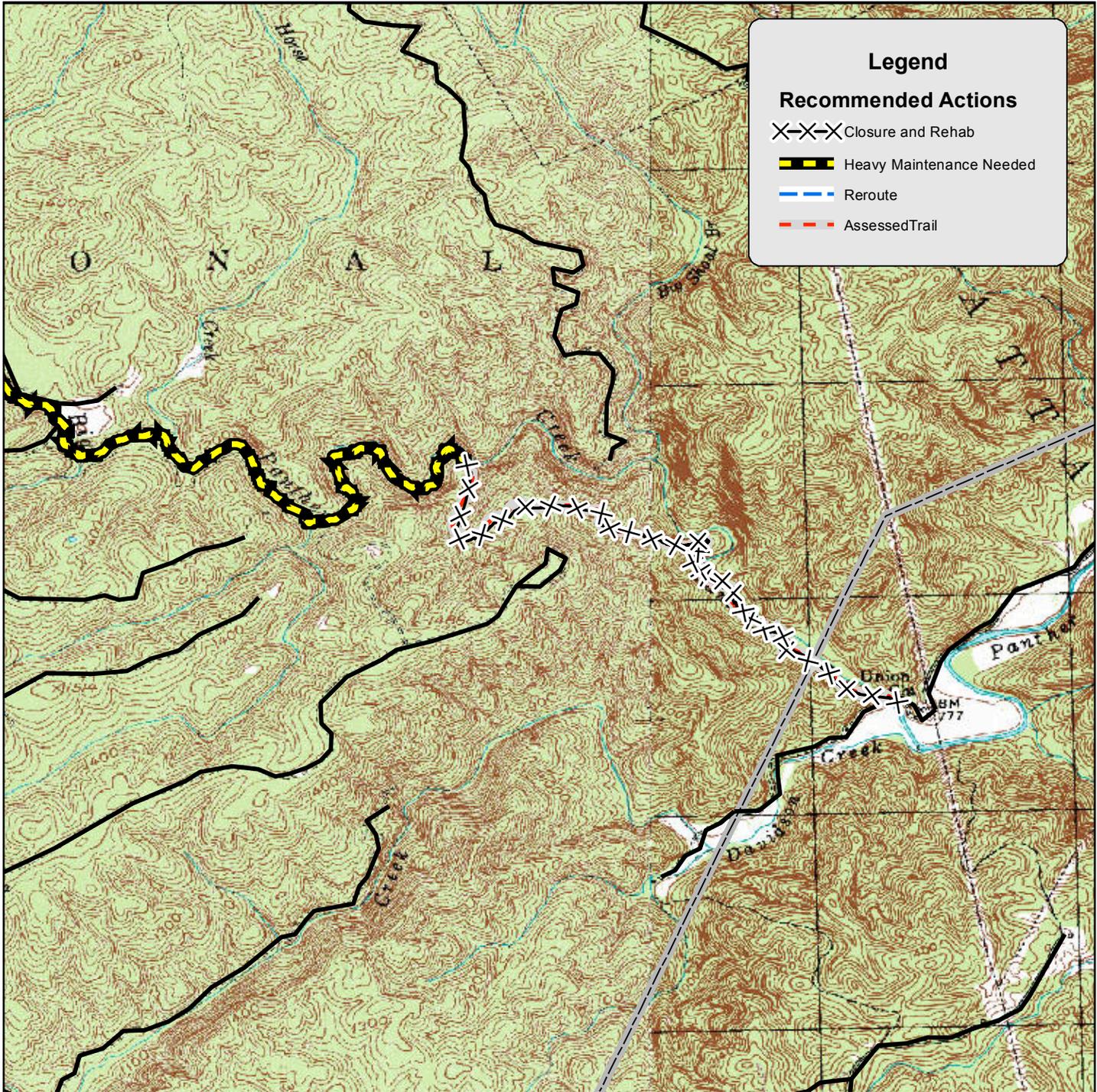
Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36	24-36	12-36" west of falls, indistinct east to Silk Mill Road
Structure Width (")	18 min.	36	36" structures w/inset handrails that restrict width to 24"
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	Currently more than intermittently rough and could use add'l root protection and some rock removal
Protrusions/Obstacles (")	<3/10	<3/10	
Target Grade/Max/Density (%)	20% max. (TMO) 3-12/25/10-20		Steep grades at rivers and near sheer slopes west of falls, east of falls, 30+% grades for most of length
Target Cross Slope/Max (%)	5-10/15		Natural side slope (>30%) east of falls
Clearing Height/Width (')	8/4 (TMO) 7-8/3-5		
Turn Radius (')	3-6		

# Recommendations

See recommendation maps on following pages

Setting	Comments
Physical Setting	Adjacent to developed rec. area- Panther Creek Picnic Area with easy access from HWY 441. Trail descends from picnic area to falls with many high roots and rocks in tread and some vegetation encroachment. Trail indistinct, at best, east of falls.
Social Setting	Trail seems to have heavy use from the TH to the falls (20 hikers and 2 campers on a Wednesday afternoon in February). Little sign of any use east of falls. With mostly two-way traffic between TH and falls, trail should be 36" to accommodate heavy use.
Managerial Setting	Trail shows little sign of maintenance in recent years. Many structures placed at one time that now show significant wear or damage. West of falls, trail should be maintained to Class 3 parameters to accommodate use. Trail east of falls is Class 1 experience and not in keeping with roaded surroundings.
Priorities	<p>High- Maintenance to bring trail to Class 3 standards, with increase in width to consistent 36", relocations to reduce grades, removal/hardening of rough trail, repair/replacement of structures.</p> <p>High- Trail closure east of falls and removal from system to address lack of maintenance and current risk management issues.</p>





Representative Photographs:

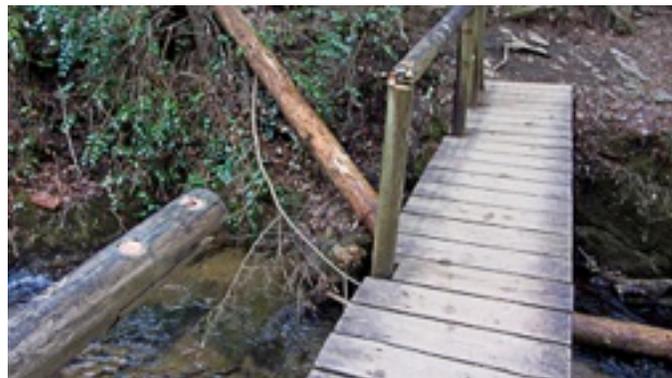


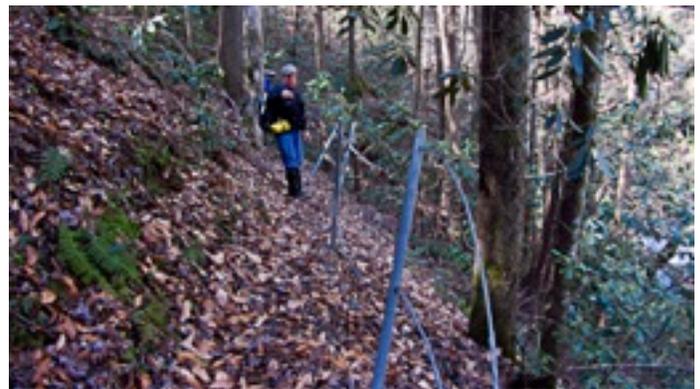
*Above: Developed Recreation Area signage along road at trail junction*

*Below: Waterfall destination of upper portion of trail*



*Below: Large, steel bridge crossing Panther Creek and railing damage on a much smaller foot bridge*





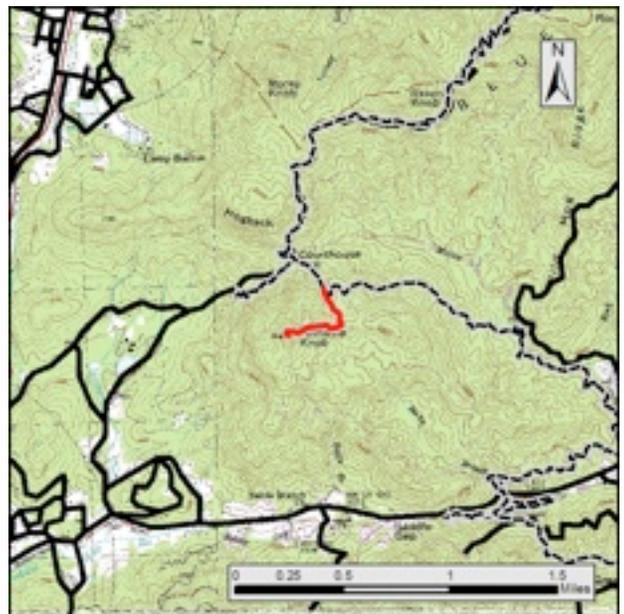
*A number of photos demonstrating the portion of the trail downstream/southeast of the waterfall. Trail is minimally constructed, often with tread less than 12". No evidence of corridor maintenance. Many locations where crib wall or guide wires were installed to maintain footing but are in disrepair and pose safety hazards.*



*A number of photos demonstrating the portion of the trail upstream of the waterfall. Trail is minimally constructed but more defined from higher levels of use. Significant erosion in many locations. More guide wires that are in disrepair and may pose safety hazards. Incised trail (~24" deep), with no attempts at water management, carrying sediment toward Panther Creek.*

# TRAIL: PINNACLE

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Pinnacle
<b>Trail Number</b>	58
<b>Miles Assessed</b>	0.53
<b>Beg. Location</b>	Bartram Trail
<b>End Location</b>	Pinnacle Knob
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



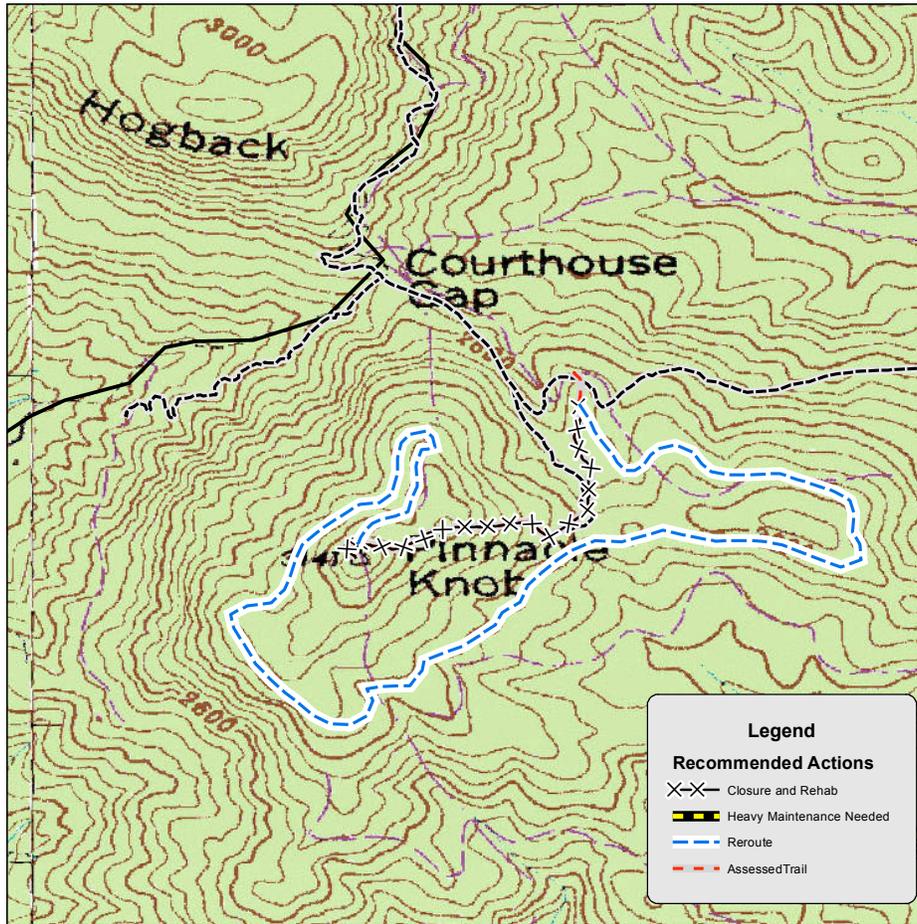
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	Semi-primitive Motorized

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18 (from TMO) 18-36	24-36	Up to 72" currently
Structure Width (")	18 min.	36	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	Native, eroding
Protrusions/Obstacles (")	<3/12	<3/12	Many from 12-18" currently
Target Grade/Max/Density (%)	3-12/25/10-20	3-12/25/10-20	40+% for more than 30% of length
Target Cross Slope/Max (%)	5-10/15	5-10/15	
Clearing Height/Width (')	8/4 (from TMO) 7-8/3-5	7-8/3-5	Many blowdowns
Turn Radius (')	3-6	3-6	

# Recommendations



Setting	Comments
Physical Setting	Steep ascent from Bartram Trail near Courthouse Gap to Pinnacle Knob. Initial section on contour to water crossing, steepens with no water mgt. to saddle- active erosion, 20+% grade, then ascends at 40+% to Knob w/o water mgt., excessive width and erosion.
Social Setting	Hiking only. Overlooks strong visual attraction, short distance, and accessibility to Clayton and Boy Scout Camp lead to high levels of use. Social trail development on difficult sections, around logs, etc. Paint on rocks at overlook summit. Some camping occurring along route.
Managerial Setting	No signs of maintenance and extremely eroded condition due to lack of water management. Several blowdowns.
Priorities	High- Relocate trail from water crossing to Knob, extending trail around lower knob to east on contour. Maintenance in place not possible. Active restoration of resource damage related to excessive width and erosion.

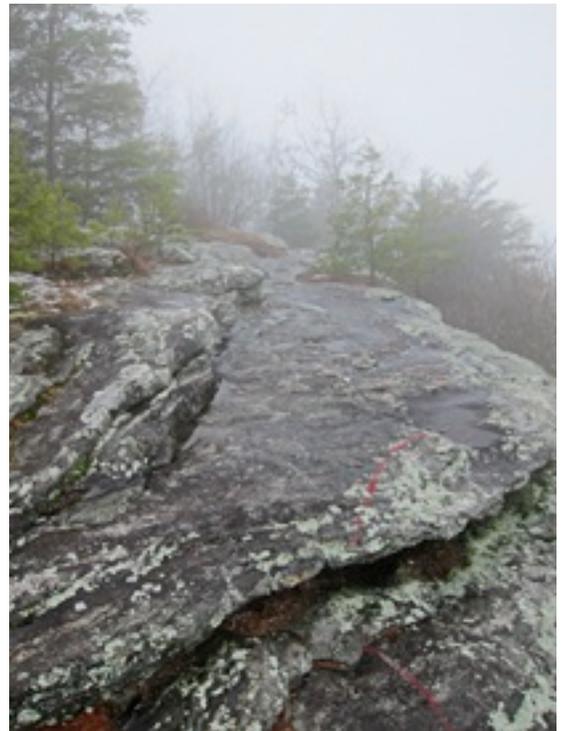
## Representative Photographs:



*Top Left: The trail starts at a junction with the Bartram trail near Courthouse Gap.*

*Bottom Left: A large sediment deposit at the base of the steep ascent to Pinnacle Knob.*

*Bottom Right: The overlook provides fantastic views when not clouded in; however someone has spray painted a red line on the rocks.*





*Trail is very steep throughout and demonstrating signs of a large amount of soil loss and deposition*



# TRAIL: RAVEN CLIFFS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Raven Cliffs
<b>Trail NUMBER</b>	22
<b>Miles Assessed</b>	2.46
<b>Beg. Location</b>	FDR 244
<b>End Location</b>	Raven Cliffs
<b>Trail Class</b>	2- Simple/Minor Dev.
<b>Designed Use</b>	Hike



## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 6-18	18-24	20-96" width currently w/much of trail on old railroad bed. Section approaching falls at ~24"
Structure Width (")	18 min.	18 min.	20-36" structures present in foot bridges and puncheons w/ significant rot or deterioration
Tread Surface	Native, limited grading	Native, w/ improved sections	
Protrusions/Obstacles (')	<6/14	<3/8	12/24" present
Target Grade/Max/Density (%)	20 max. (TMO) 5-18/35/20-30	2-10/15/5-20	Currently ~8/20/<15
Target Cross Slope/Max (%)	5-20/25	3-7/10	
Clearing Height/Width (')	8/4 (TMO) 6-7/2-4	8-10/4-6	
Turn Radius (')	2-3	4-8	

# Recommendations



Setting	Comments
Physical Setting	Easily access into Wilderness on HWY 348. Trail parallels stream at the bottom of the valley on an old railroad bed. Excessive trail braiding, width, erosion, and protrusions. ~10% of trail constructed on sidehill, otherwise just adopted from old, wide route.
Social Setting	High quality scenic setting and destination with easy highway access leads to very high use. Very large and numerous campsites along trail. User-created resource degradation and lack of maintenance detracts greatly from the high quality natural features.
Managerial Setting	Little meaningful maintenance apparent- lots of drainage “bandaids” and bridges, but minimal functional drainage management. Wooden structures are in need of inspection and repair/replacement/removal. Most hemlocks dead or dying.
Priorities	High- Use hemlock treatment to close existing trail corridor and rehabilitate large campsites to natural drainage permeability High- Reconstruct trail on higher sidehill location to Wilderness Class 4 design parameters

## Representative Photographs:



*Left, Above and Below: Signage directing traffic to the Trailhead and the trail. Raven Cliffs is a destination area in the Raven Cliffs Wilderness.*

*Right: The fall-line ascent to view the falls is eroded to a width of more than 10 feet.*





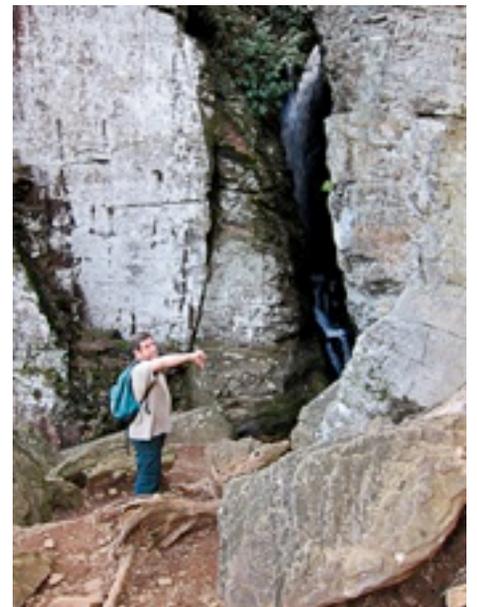
*Very high use trail, including large, user-developed camping areas with extensive vegetation impacts and massive fire rings adjacent to trail. Poor alignment and lack of consistent or effective maintenance has led to degraded condition.*



*Left, Above and Below: Many bridges along the trails are in need of repair and approaches to water crossings show little or no attempt to control sediment.*

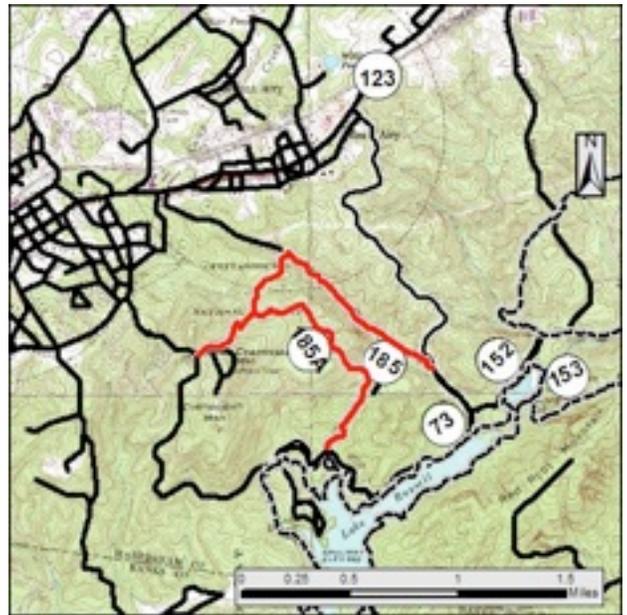
*Middle, Above and Below: Lack of tread definition has led users to attempt multiple routes and cause extensive trampling impacts and likely increased sedimentation to the water sources*

*Right, Above and Below: Lack of user management/routing has led to extensive resource impacts at the cliffs. Fall-line trail above is approximately 20' wide and actively eroding. Below, a typical Wilderness visitor demonstrates displeasure with his trail experience.*



# TRAIL: RHODODENDRON

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Lake Russell
<b>Trail Number</b>	185
<b>Miles Assessed</b>	1.70
<b>Beg. Location</b>	Chenocetah Mountain Rd.
<b>End Location</b>	FDR 59
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



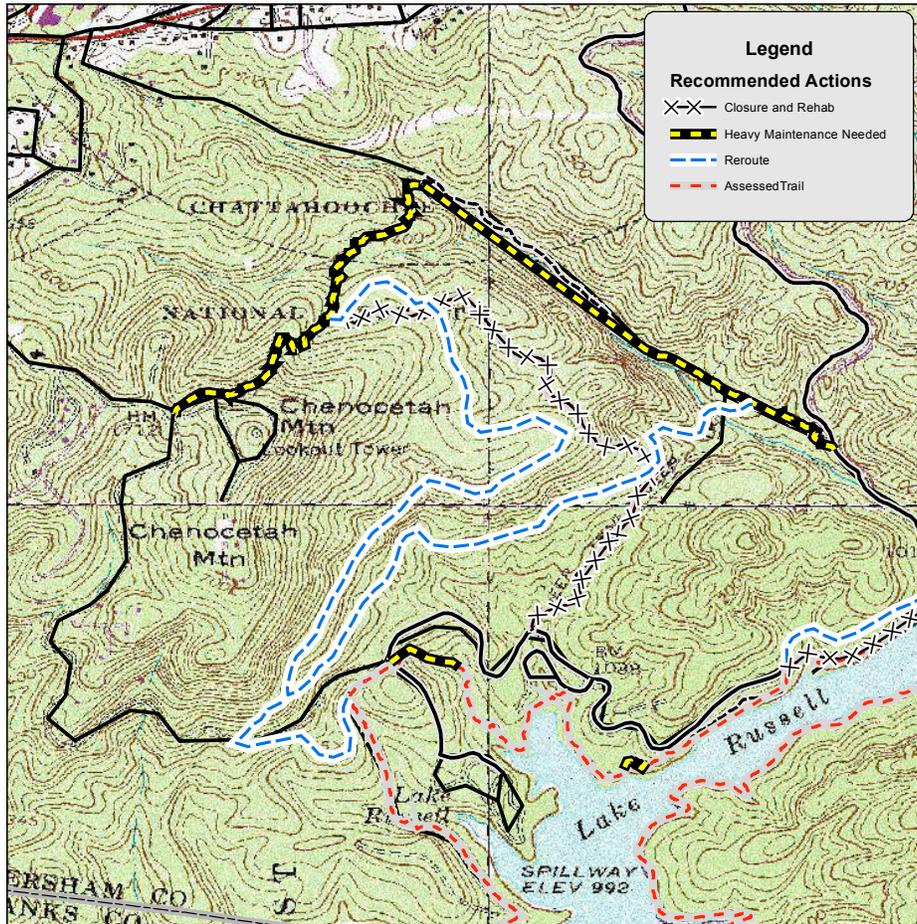
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36	24-36	Lower half of trail on old road bed (96+"), upper half 18-24", top contouring section 48"
Structure Width (")	18 min.	36	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	
Target Grade/Max/Density (%)	20 max. (TMO) 3-12/25/10-20	2-10/15/5-10	Many road sections of sustained 15+%, upper half is sustained 20-25% w/30+% switchbacks
Target Cross Slope/Max (%)	5-10/15	3-7/10	
Clearing Height/Width (')	8/4 (TMO) 7-8/3-5	7-8/3-5	Upper section is corridor-enclosed to 6/2 w/no evidence of annual brushing
Turn Radius (')	3-6	3-6	Turns not constructed switchbacks, but 30+% climbing turns with 1.5' radii

# Recommendations



Setting	Comments
Physical Setting	Frontcountry setting past small waterfalls and through rhododendron minor thicket. Old road bed in young forest provides inferior recreation setting- also has road-related stormwater blowouts and little functioning water management. Trail is in fee area but connects to adjacent residential neighborhood. Vast change from old road bed to 20-25% grade, half-bench trail, closing corridor, eroding switchbacks.
Social Setting	Hike-only but very few signs of use, except for a few bikes accessing from neighborhood. Trail not well connected to remainder of trail system and not presented on most area signs of trail system. Trail doesn't connect to fire tower on Chenocetah Mtn., leading use onto residential roads.
Managerial Setting	No evidence of maintenance on trail. Bridge slippery and rotting, erosion gullies forming on trail and road sections. No brushing evident. Stormwater blow outs undercutting trail on old road section.
Priorities	<p>High- arrest stormwater blow out issues on old road bed before 8' deep channels cut through trail</p> <p>Medium- Bring trail up to Class 3 design parameters, and connect to Lake Russell Loop at Nancytown parking area.</p> <p>Medium- Institute regular maintenance program, including water management on old road, bridge and switchback repair, corridor brushing, relocation of overly steep sections on upper half of trail.</p>

## Representative Photographs:



*Above Left and Right: Marble signage in residential neighborhood, adjacent to trail junction*

*Left: Informal directional signage at junction of Rhododendron and Rhododendron Lake Access trails*





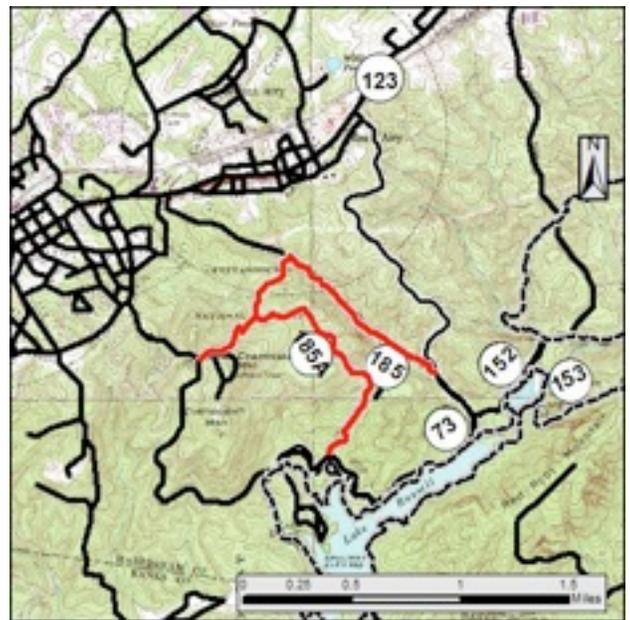
*Top Left and Right: Beginning of trail along Lake Russell access road and vandalized fee area sign*

*Middle Left and Right: Stormwater from access road causing significant scour of the old road bed*

*Left: Rotting bridge over minor creek that could be replaced with stepping stones*

# TRAIL: RHODODENDRON LAKE ACCESS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Lake Russell
<b>Trail Number</b>	185A
<b>Miles Assessed</b>	1.20
<b>Beg. Location</b>	Rhododendron Trail
<b>End Location</b>	FDR 59
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Hike



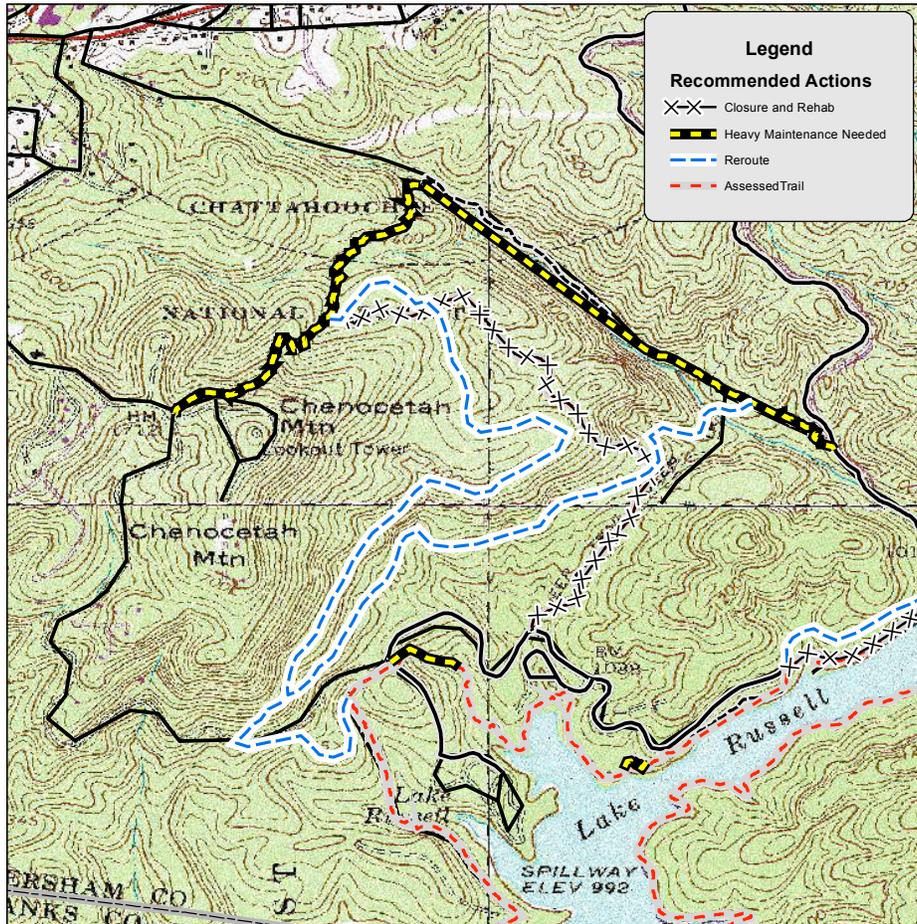
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	N	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	18-24 (from TMO) 18-36	24-36	Old road bed for entire length (96+") with active tread indistinct in many locations
Structure Width (")	18 min.	36	
Tread Surface	Native/w borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	
Target Grade/Max/Density (%)	20 max. (TMO) 3-12/25/10-20	2-10/15/5-10	Steep portion of road w/filling, non-fxnl drain dips and running 20% grade
Target Cross Slope/Max (%)	5-10/15	3-7/10	No cross slope on entire length
Clearing Height/Width (')	8/4 (TMO) 7-8/3-5	7-8/3-5	Road bed has a few seedlings sprouting, but otherwise ~15' wide and open canopy
Turn Radius (')	3-6	3-6	

# Recommendations



Setting	Comments
Physical Setting	Trail located on numerous old road beds and inconsistently signed/blazed. No trail design apparent, just adoption. Low quality setting in young forest adjacent to much more mature forest on east side of drainage.
Social Setting	Minimal to low use- trail tread is indistinct over much of the length. Connectivity lacking with other trails and Lake Russell facilities. Depicted only as “jeep trail” on trail maps rather than a forest system trail.
Managerial Setting	Water management on steep portion of old road not functional. No other maintenance apparent or attempted.
Priorities	<p>Medium- Relocate junction with FDT 185, design and construct trail on east and south side of drainage.</p> <p>Medium- Enhance connectivity with trails and facilities and create loop option with FDT 185</p> <p>Medium- Sign, blaze, and depict trail on maps</p>

## Representative Photographs:



*Above: Atypical navigation signage at junction of trails 185 and 185A and carsonite inventory sign*



*Above: Old fire break employed as trail*

*Above: Old road bed, approximately 25-foot wide employed as trail*

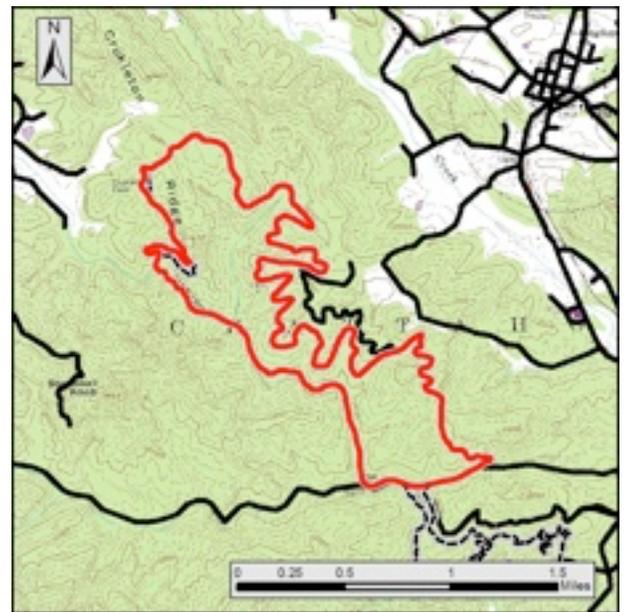
*Below: Atypical navigation sign near Lake Russell access road*

*Below: Random carsonite post, no stickers, near trail*



# TRAIL: STONEWALL FALLS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Stonewall Falls MTB
<b>Trail Number</b>	59
<b>Miles Assessed</b>	8.6
<b>Beg. Location</b>	FDR 20 @ Trailhead Parking
<b>End Location</b>	FDR 20 @ Trailhead Parking
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Bike



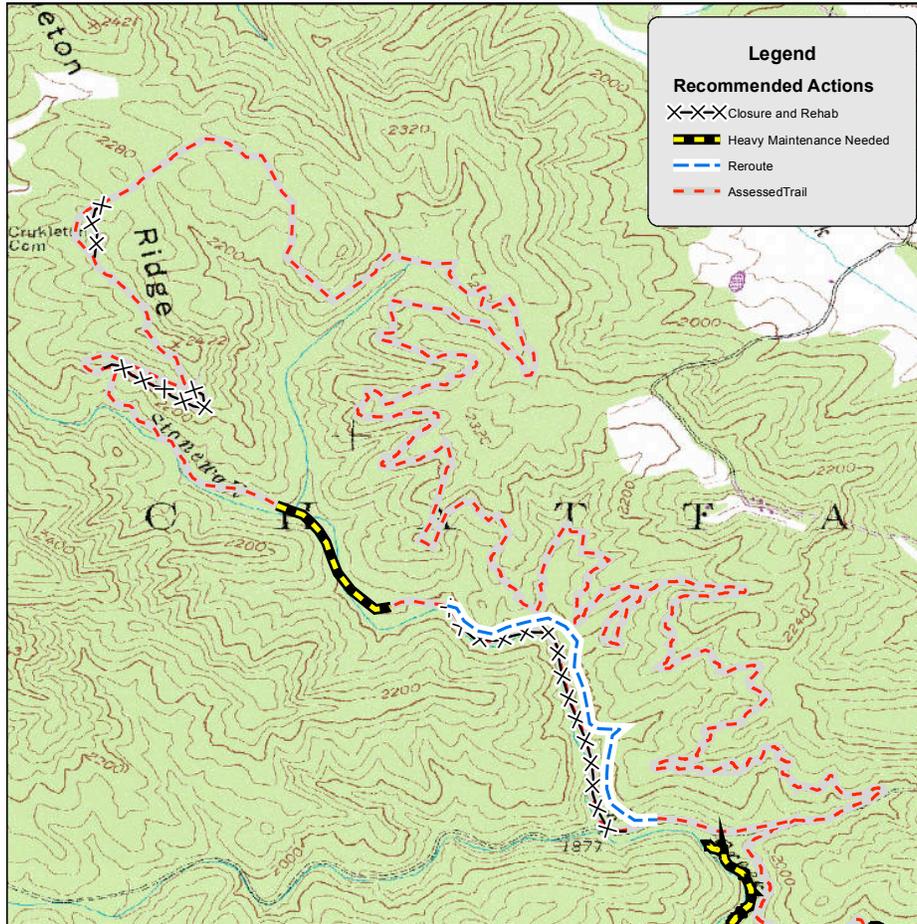
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	N	N	

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	24 (from TMO) 36-48	24-36	Some old road-based trail with many sections 96+'' wide tread
Structure Width (")	36 min.	36 min.	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	A few obstacles >12''
Target Grade/Max/Density (%)	3-10/15/10-20	3-10/15/10-20	Several extended stretches of 15-20% grade
Target Cross Slope/Max (%)	3-8/8	3-8/8	
Clearing Height/Width (')	8/4 (from TMO) 8/5-6	8/5-6	Some corridor clearing needed
Turn Radius (')	4-8	4-8	

# Recommendations



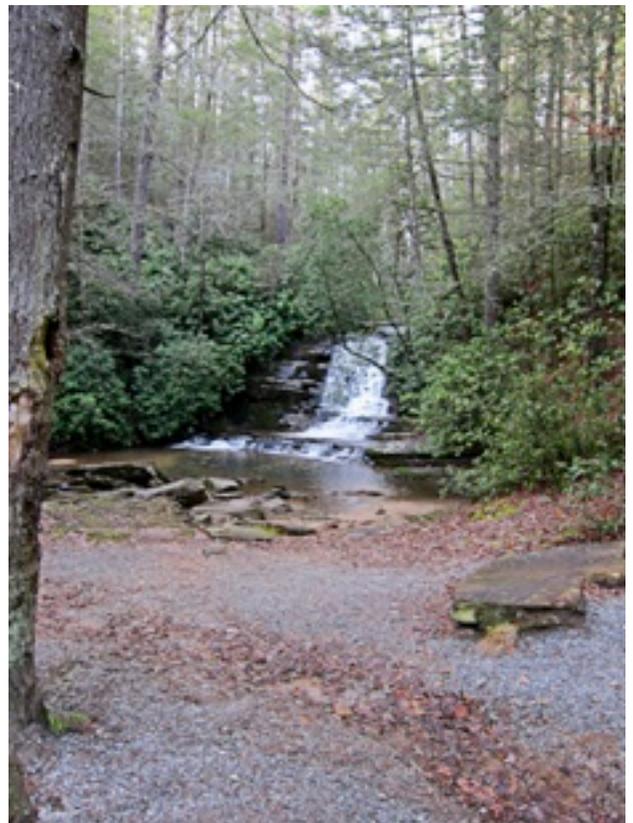
Setting	Comments
Physical Setting	Developed sidehill benchcut trail on eastern side of loop. Adoption of old road and/or railroad bed on eastern side of loop that is generally too steep on northwest and has insufficiently constructed crossings further south. Overall, alignment is sufficient.
Social Setting	Mountain bike-focused trail with some hiking use evident. Unsanctioned horse use also evident. Some large and resource-impacting campsites along the road near the falls.
Managerial Setting	Water management needs attention, with rolling grade dips full of sediment and additional, better constructed dips needed. Stream crossings on eastern portion of loop need better water mgt. on approaches and hardened crossings to decrease sedimentation.
Priorities	<p>High- Stream crossing and water management improvement on old road beds</p> <p>High- Rehab or eliminate campsites along road</p> <p>High- TH mapping and signage improvements</p> <p>Medium- Relocation of steep road-based section in northwest</p> <p>Medium- Road-to-trail conversion or decrease width through corridor mgt to improve user experience</p> <p>Medium- Eliminate optional lines on eastern portion and add short relocations for sustainability</p>

## Representative Photographs:



*Top Left: Carsonite with regulatory information along creek, but no gate or width restriction.*

*Bottom Left and Right: Trash and dumping are prevalent near the FSR access road. A campsite at the falls shows signs of OHV and fullsize trucks driving into the stream.*





*Above: Trail is actively eroding despite relatively recent construction. Design grades are too steep along some stretches and lack of rolling contour allows stormwater to build up erosive momentum*



*Above: Portions of the trail are sited on old road beds*

*Above: Poorly constructed technical trail feature*



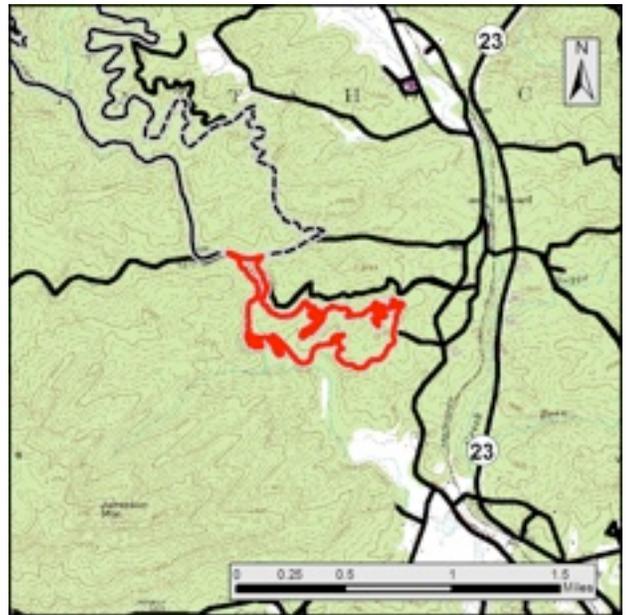
*Above: Corridor clearing activity that poses safety hazard to mountain bikers. Unimproved water crossings on loop heading back to FSR.*



*Above: Lower section of trail has a number of muddy areas and some areas show signs of considerable off-highway vehicle use*

# TRAIL: WHITE TWISTER

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Stonewall Falls MTB
<b>Trail Number</b>	48
<b>Miles Assessed</b>	4.22
<b>Beg. Location</b>	FDR 20/Stonewall Falls Rd.
<b>End Location</b>	FDR 20/Stonewall Falls Rd.
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Bike



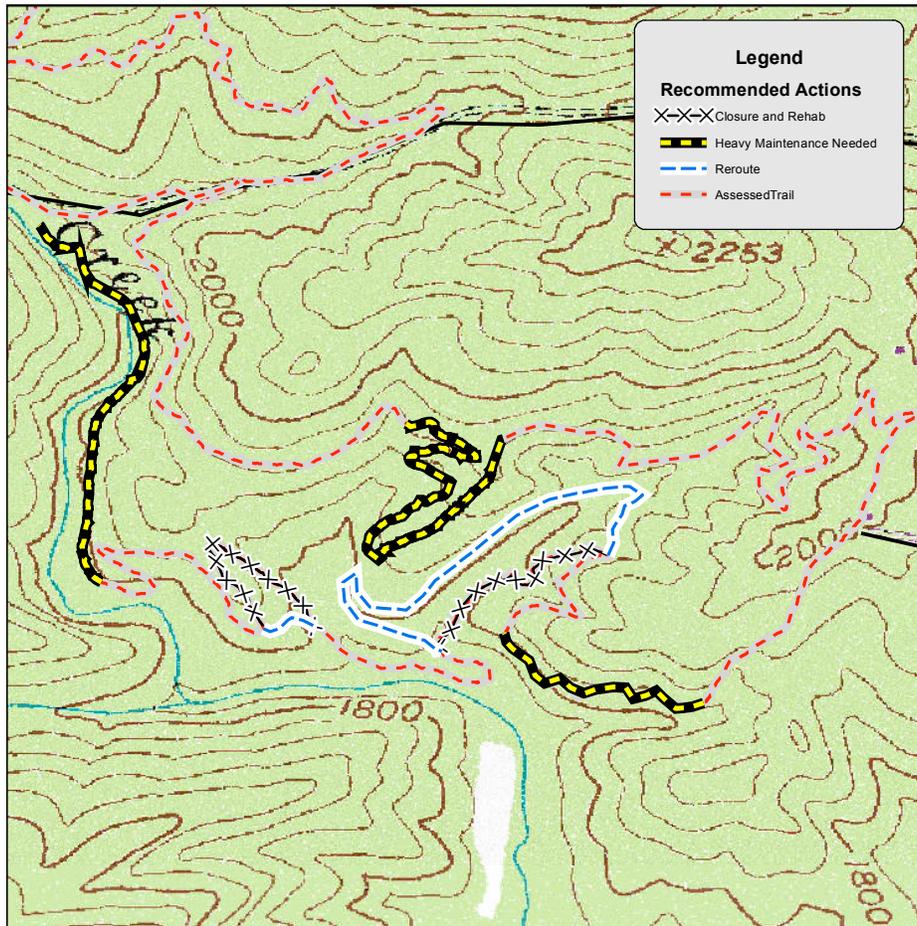
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	N	N	Managed use issues on TMO (no hike)

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	24 (from TMO) 36-48	36-48	Variable, with 18" hand-built to 96" machine-built to old road >96" to road open to motor vehicles
Structure Width (")	36 min.	36 min.	Replace current bridges/puncheon with rock-armored crossings
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/10	<3/10	
Target Grade/Max/Density (%)	3-10/15/10-20	3-10/15/10-20	A few overly steep areas need relocation and most turns are too steep and awkward to use
Target Cross Slope/Max (%)	3-8/8	3-8/8	
Clearing Height/Width (')	8/4 (from TMO) 8/5-6	8/5-6	
Turn Radius (')	4-8	4-8	Super-elevated climbing turns could be replace existing turns to reduce climbing grade & experiential quality

# Recommendations



Setting	Comments
Physical Setting	TH minimally developed with some vandalism and difficult to locate on rough road. Trail alignment compromised- often on flat ridge or shallow fall line, but not overly steep. Trail character and construction quality varies widely. Drainage structures under-built and wood structures unnecessary. Alignment is passable for sustainability, but has a number of short unnecessary and unsustainable sections.
Social Setting	Bike-focused trail with some evidence of hiking use. Evidence of unsanctioned motorized use in area, but not on trail. Use volumes seem moderate. Recreational quality is average, with a number of puzzling structures and turns that do not function well for bike use. A number of well-established but badly aligned and unsigned trails on the eastern portion of the loop making smaller loop and road connection.
Managerial Setting	Recent maintenance is apparent and of moderate quality. Water management structures present but relatively poorly constructed.
Priorities	<p>High- Trailhead improvements- signage, mapping, access</p> <p>High- Decommission or sign unmapped, established trails</p> <p>Medium- Improve climbing turns and correct alignment mistakes with short relocations for sustainability</p> <p>Medium- Improve drainage structure construction and replace wooden structures with armored crossings</p>

## Representative Photographs:



*Above: Trail sign and routed map*

*Right: Gravel Trailhead with recent fire ring*

*Below: Trail junction with FDR on old road bed*





*Above and Right: Trail location in seep and attempt to armor a drainage crossing*

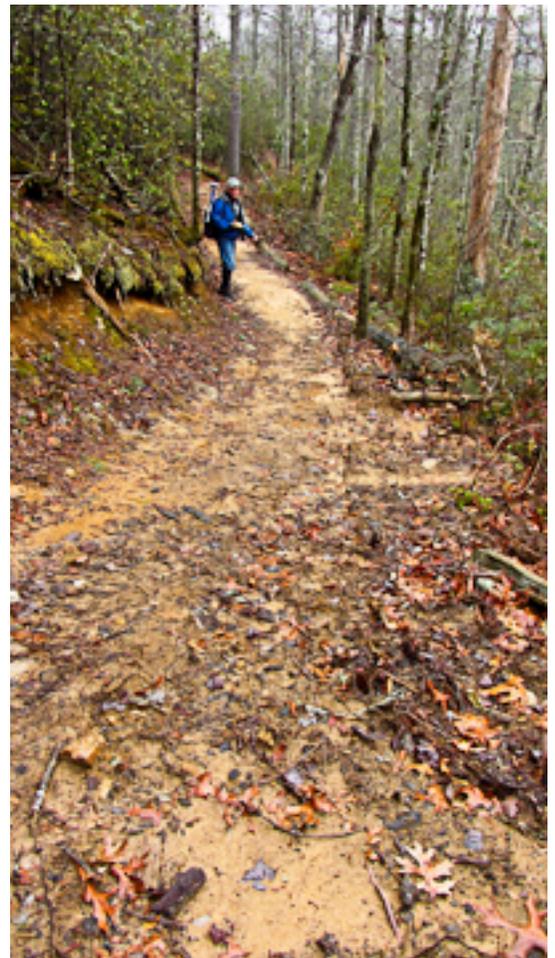


*Left and Below: Fall-line trail location requires water management, but should be more substantial than demonstrated below*





*Above: A number of strange and failing wood structures, constructed to avoid wet conditions, pose a safety hazard*



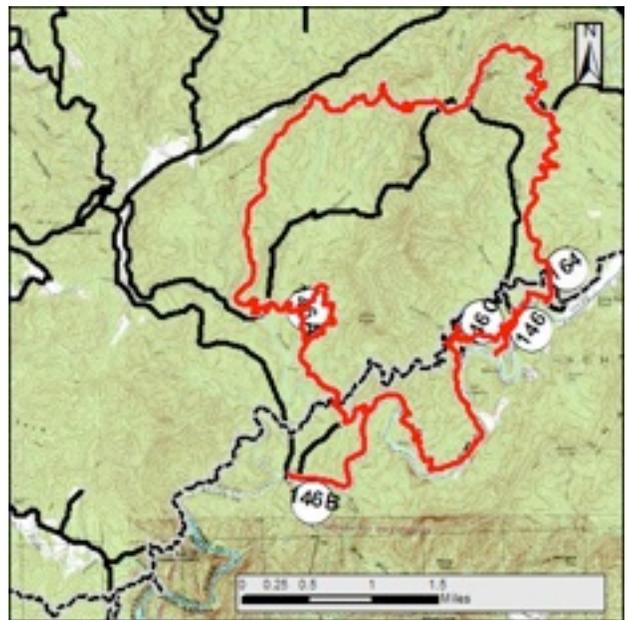
*Above and Right: Lack of rolling contour and water management leading to erosion/deposition*

*Below: Width restriction with route around due to lack of anchoring vegetation*



# TRAIL: WILLIS KNOB CAMP

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Willis Knob
<b>Trail Number</b>	146A
<b>Miles Assessed</b>	1.10
<b>Beg. Location</b>	Willis Knob Horse Camp
<b>End Location</b>	FDT 146 (W.N. Horse Trail)
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse



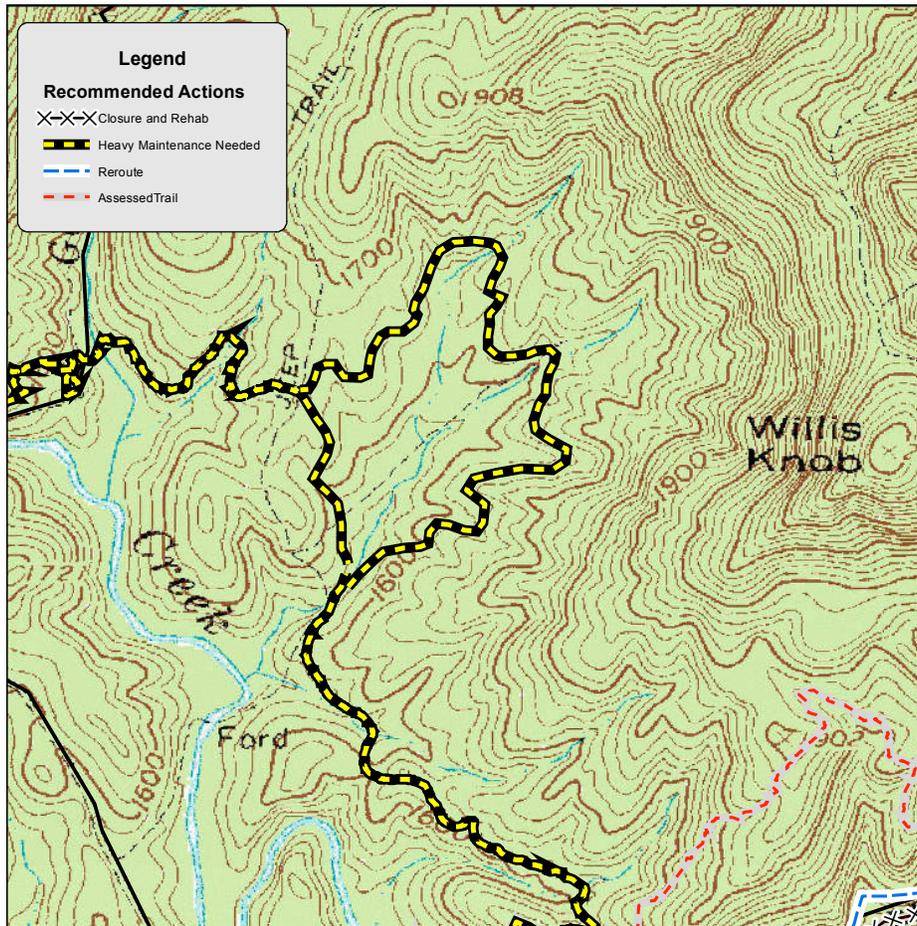
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Semi-primitive motorized

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48 (from TMO) 18-48 (NW, SL)	48	Existing condition is 60-96" tread width
Structure Width (")	60-84 (bridges) 36 (other)	60-84 (bridges) 36 (other)	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	Protrusions 3-6" and obstacles of 6-10"
Target Grade/Max/Density (%)	3-12/20/5-15	3-12/20/50/15	Avg. grade is ~8%, with ~30% of tread between 15 and 18%
Target Cross Slope/Max (%)	3-5/8	3-5/8	
Clearing Height/Width (')	12/8 (from TMO) 10/6-8	10/6-8	
Turn Radius (')	5-8	5-8	

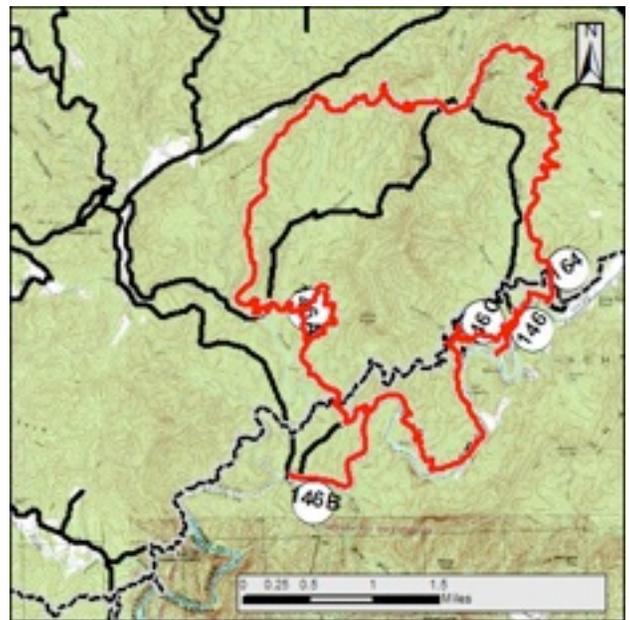
# Recommendations



Setting	Comments
Physical Setting	Trail forms a loop to/from 146 and the Willis Knob Horse Camp. Trail is located on soft soils and adjacent to streams and as a result is quite eroded and muddy. Steep descent to road on southern leg is outside sustainable and design parameter grades, especially with soft soils.
Social Setting	Equestrian-oriented trail with connection to Willis Knob Horse Camp. The trail exhibits high use on the southern portion of the loop with lower use on the northern portion.
Managerial Setting	No signs of recent maintenance, with corridor clearing and water management structures needed. Signage is almost completely absent except at Gold Mine Road.
Priorities	<p>High- Harden and stabilize soft tread and introduce effective water management structures, with highest priority at stream crossings and muddy areas</p> <p>High- Clear corridor on northern portion of loop</p> <p>Medium- Address stormwater situation at road/horse camp to save further damage to trail</p>

# TRAIL: RIVER ACCESS

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Willis Knob
<b>Trail Number</b>	146B
<b>Miles Assessed</b>	1.12
<b>Beg. Location</b>	FDT 146 (W.K. Trail)
<b>End Location</b>	River @ Earl's Ford
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse



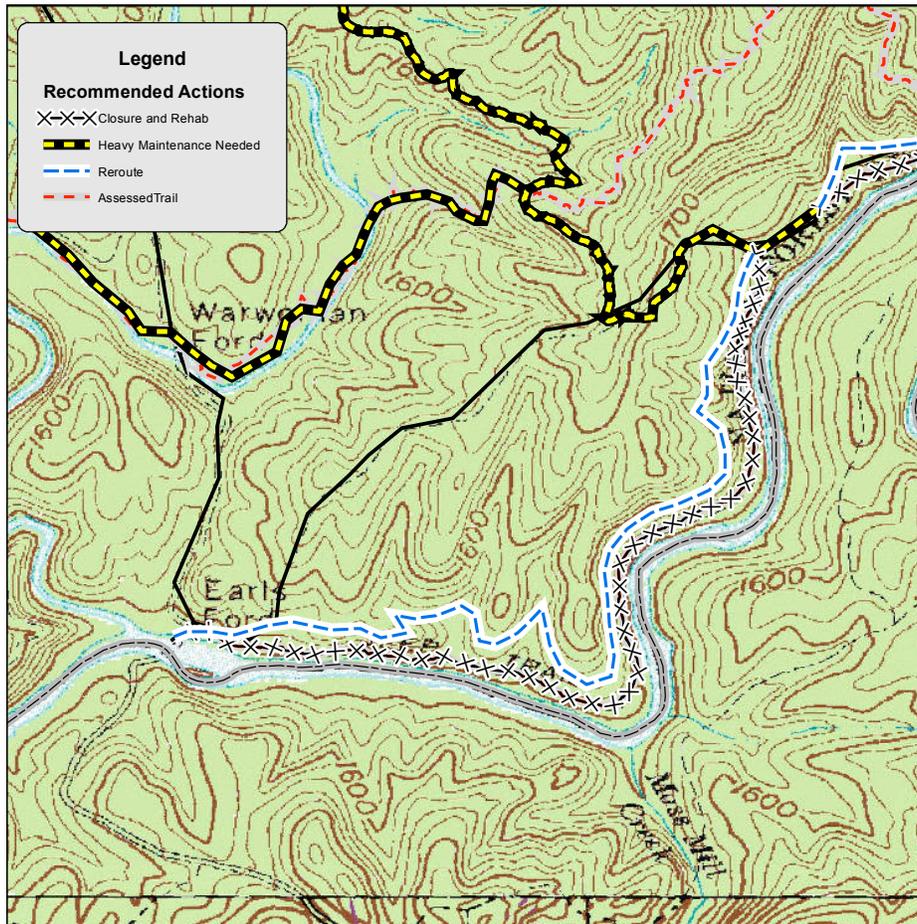
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Semi-primitive motorized

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48 (from TMO) 18-48 (NW,SL)	48	Located on existing road bed with current tread widths ranging from 48-96"
Structure Width (")	60-84 (bridges) 36 (other)	60-84 (bridges) 36 (other)	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	Clay/rock conglomerate on north end and silt/sand along river
Protrusions/Obstacles (")	<3/6	<3/6	<8" at north end where rocks are present
Target Grade/Max/Density (%)	3-12/20/5-15	3-12/20/50-15	Mainly 5-8%, but 20% at north end near intersection
Target Cross Slope/Max (%)	3-5/8	3-5/8	No cross slope- trail trapping and channeling water
Clearing Height/Width (')	12/8 (from TMO) 10/6-8	10/6-8	Some blow downs along river
Turn Radius (')	5-8	5-8	

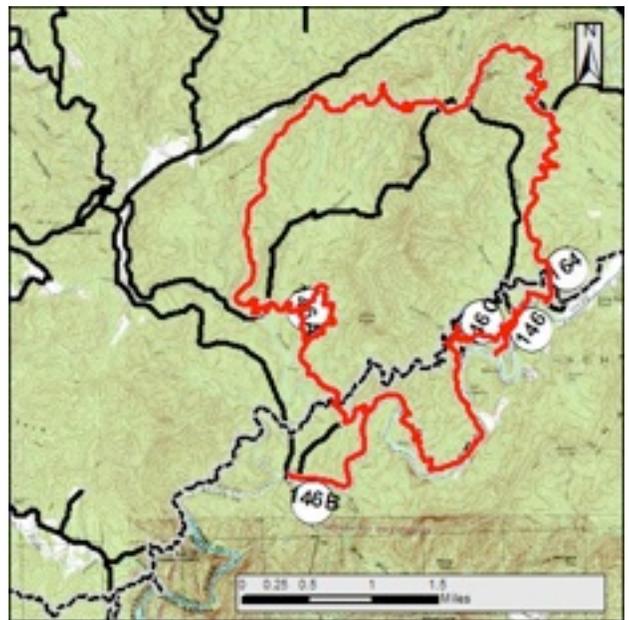
# Recommendations



Setting	Comments
Physical Setting	Trail is poorly located in many places, on incised road, too close to river, or with grades that are too steep for sustainability. North TH location at intersection of 146B, where non-draining, eroding trail descends with 20+% grade to river bottom, before following river on sandy, erodible soils. South TH area at Earl's Ford very damaged by illicit ohv use.
Social Setting	Equestrian-designed trail with signs of heavy use. Numerous social routes created- steep areas of trail being ridden around, trail eroded into river, and around blow downs. All the social routes are eroding and will require formal relocation. Illicit ohv use at Earl's Ford TH.
Managerial Setting	Little effective maintenance in evidence. Trail requires extensive water management, corridor clearing, and relocations away from river bank as well as steep, eroding sections.
Priorities	<p>High- Initiate regular maintenance program to manage water off the trail, especially at northern end with steep grades resulting in sedimentation toward river.</p> <p>High- Relocations away from eroding river banks, especially where trail has already sloughed into river</p> <p>Medium- Improve management at Earls Ford TH and consider establishing a stream crossing at Warwoman Ford.</p>

# TRAIL: RIVER SPUR

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Willis Knob
<b>Trail Number</b>	146C
<b>Miles Assessed</b>	0.36
<b>Beg. Location</b>	FDT 146 (W.K. Trail)
<b>End Location</b>	River @ Earl's Ford
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse



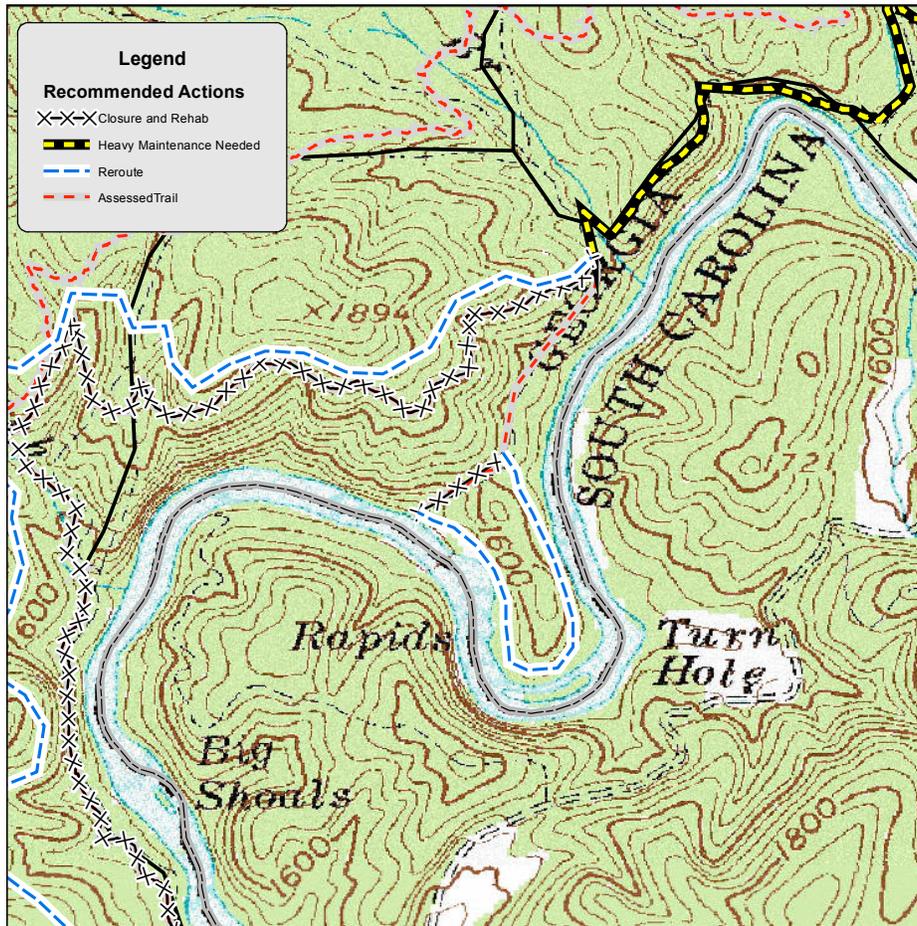
## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Semi-primitive motorized

## Design Parameter Recommendations:

Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48 (from TMO) 18-48 (NW,SL)	48	Located on existing road bed with current tread widths ranging from 120+''
Structure Width (")	60-84 (bridges) 36 (other)	60-84 (bridges) 36 (other)	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	
Target Grade/Max/Density (%)	3-12/20/5-15	3-12/20/50-15	15+% after crossing ridge to ford
Target Cross Slope/Max (%)	3-5/8	3-5/8	No cross slope- trail trapping and channeling water
Clearing Height/Width (')	12/8 (from TMO) 10/6-8	10/6-8	Some blow downs along river
Turn Radius (')	5-8	5-8	

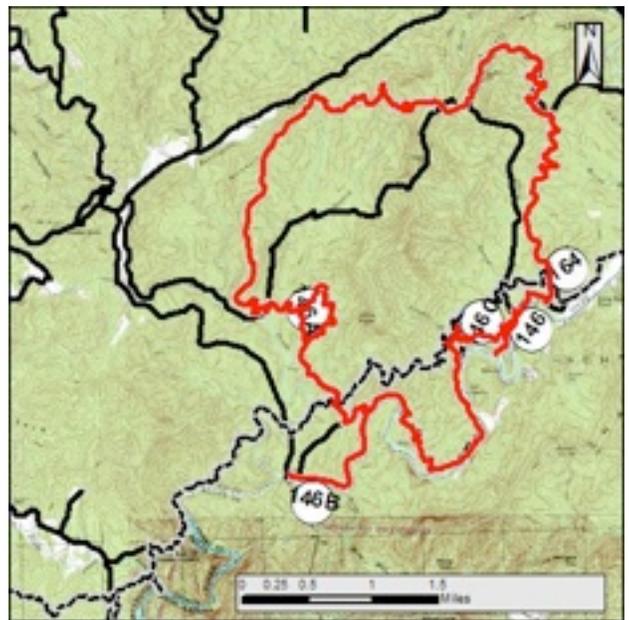
# Recommendations



Setting	Comments
Physical Setting	Trail is located on old road bed with alignment that is sufficient until crossing the ridge and approaching the ford, where it is located on the fall line, is eroding and transporting sediment toward the river.
Social Setting	Equestrian-designed trail with signs of moderate use.
Managerial Setting	Little effective maintenance in evidence. Trail requires extensive water management, relocation from the ridge to the ford, and hardening near the ford to minimize sedimentation to the river. Signage at intersection with 146 is not sufficient
Priorities	<p>High- Initiate regular maintenance program to manage water off the trail.</p> <p>High- Relocation from ridge to ford and armoring at ford approach to reduce grades and minimize potential sedimentation.</p> <p>High- Improve signage at intersection with 146.</p>

# TRAIL: WILLIS KNOB LOOP

<b>Ranger District</b>	Chattooga River
<b>System Name</b>	Willis Knob
<b>Trail Number</b>	146
<b>Miles Assessed</b>	14.09
<b>Beg. Location</b>	FDR 157 (Willis Knob Rd.)
<b>End Location</b>	FDR 157 (Willis Knob Rd.)
<b>Trail Class</b>	3- Developed/Improved
<b>Designed Use</b>	Horse



## Travel Management Strategies:

Strategy	Hike	Bike	Horse	OHV	Comments
Managed Use	Y	Y	Y	N	Semi-primitive motorized

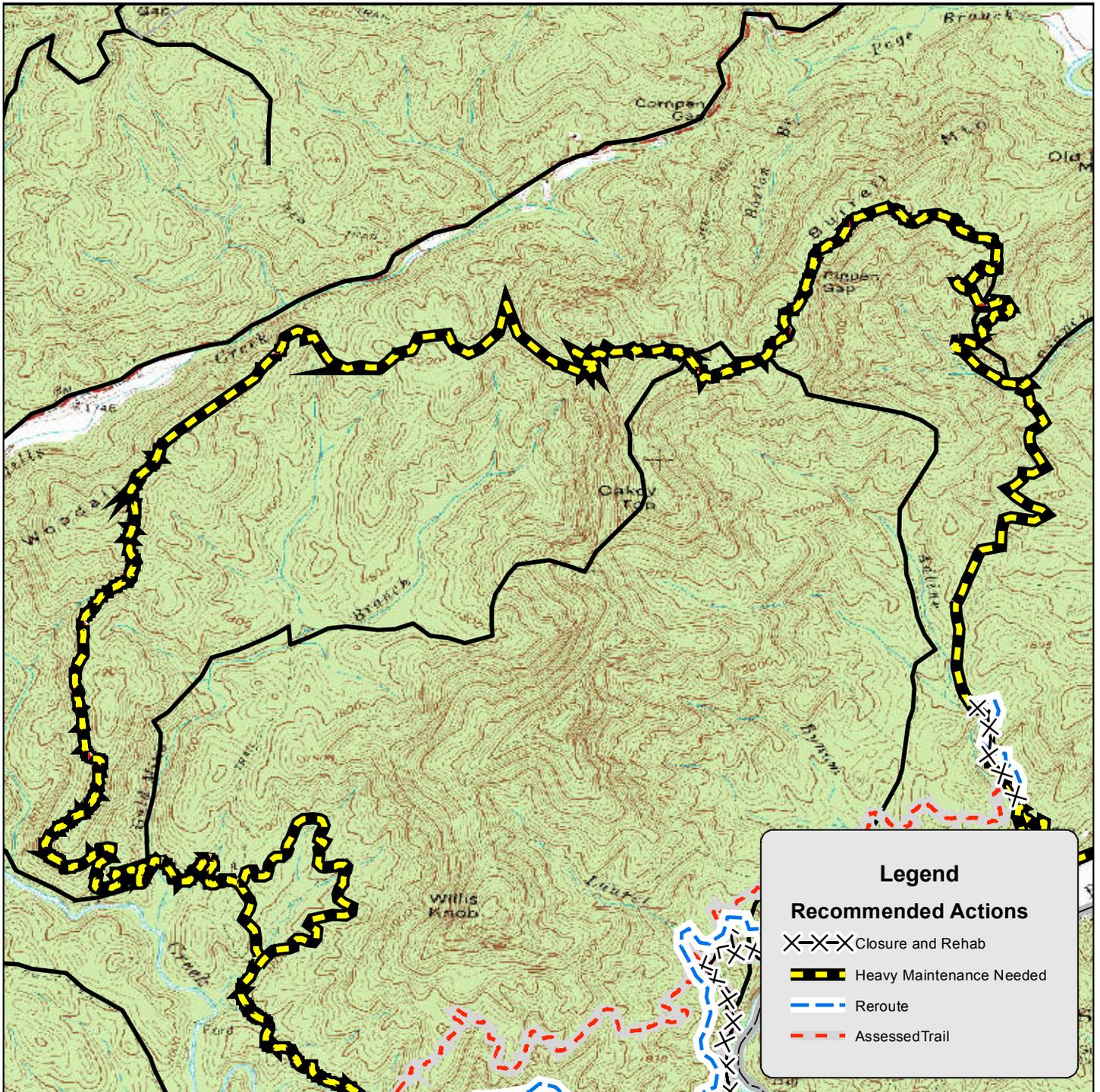
## Design Parameter Recommendations:

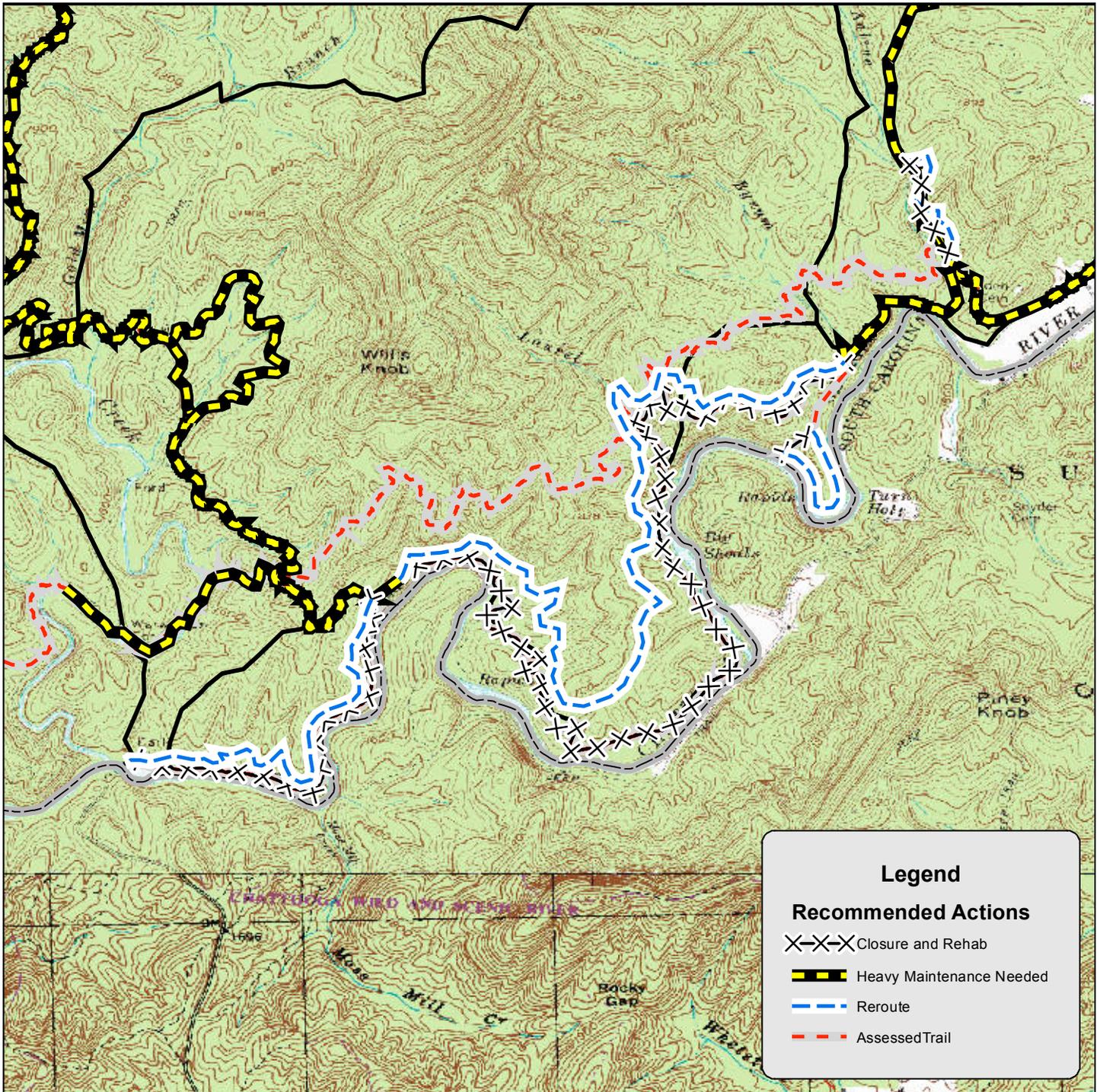
Design Parameter	USFS DP Value	Rec DP Value	Exceptions/Comments
Tread Width (")	48 (from TMO) 18-48 (NW, SL)	48	Currently 60-96"
Structure Width (")	60-84 (bridges) 36 (other)	60-84 (bridges) 36 (other)	
Tread Surface	Native, w/borrow for stabilization	Native, w/borrow for stabilization	
Protrusions/Obstacles (")	<3/6	<3/6	
Target Grade/Max/Density (%)	3-12/20/5-15	3-12/20/5-15	Avg. grade ~10% with short pitches 20-25% for approximately 10% of trail length
Target Cross Slope/Max (%)	3-5/8	3-5/8	3-8/10%
Clearing Height/Width (')	12/8 (from TMO) 10/6-8	10/6-8	
Turn Radius (')	5-8	5-8	8-10'

# Recommendations

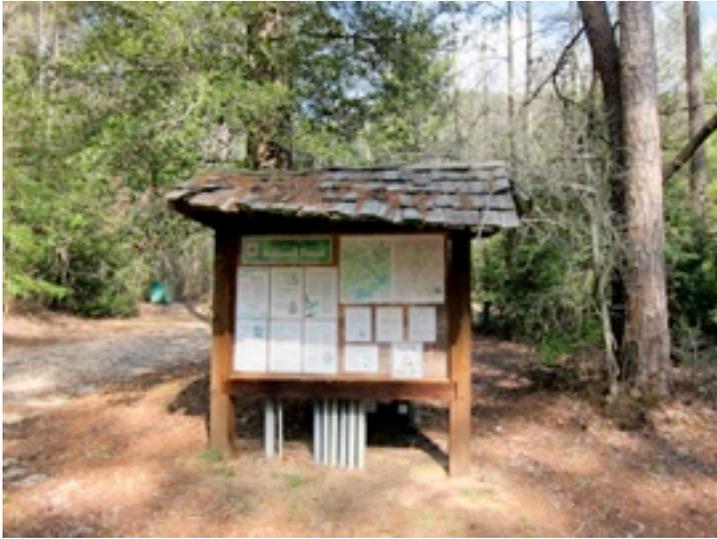
See recommendation maps on following pages

Setting	Comments
Physical Setting	Northern section of this loop trail is located on acceptable sidehill locations above active hydrology in most instances, but design grades are often too steep for sustainability under heavy equestrian use on sandy-clay soils. The southern portion of the loop suffers from poor design and associated degradation.
Social Setting	Equestrian-designed trail with moderate to heavy use evident. Numerous signs of older social trails, especially to locally high spots. Some illicit ohv use in the vicinity of Pigpen Road.
Managerial Setting	Water management maintenance attempts extensive throughout route, but often not well constructed- drains not steep enough to drain, troughs filling with sediment, crests compromised on steeper grades.
Priorities	<p>High- Additional dips with improved placement and construction, especially on steeper slopes. Compaction with rock is necessary in locations where sandy soils predominate or muddy conditions persist. Initiate regular maintenance program.</p> <p>High- Improve location and comprehensibility of signage.</p> <p>High- Close and rehabilitate social routes</p> <p>High- Improve durability of all stream crossings</p> <p>Medium- Relocate or armor/turnpike in flat areas adjacent to river</p>



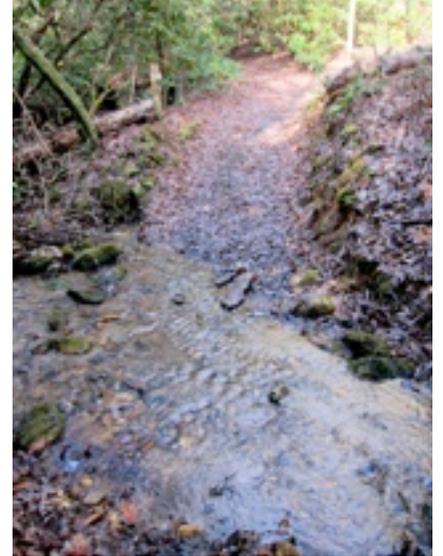


## Representative Photographs:



*Trailhead kiosk, hitching posts at Willis Knob Horse Camp, and navigation signage with BCH "tag"*





*Above Left: The Willis Knob loop is often co-located with open FSR.*

*Above Right: The ford at Pig Pen gap is functioning well.*



*Above Left: Soil loss is compounded by the poorly implemented maintenance.*

*Above Middle: The trail is commonly below grade with no way for water to leave the trail.*

*Above Right: Steep grades and highly erodible soils are a disaster for equestrian use.*



*Above Left: Water turn out, essentially constructed as a ditch, fills quickly and organic litter build up shows that the drain lacks sufficient outslope*

*Above Right: Trail located in flat terrain near the bottom of watershed have no possible drainage and become linear mudholes*



*Above Left: Stringers packed with ballast to control sedimentation. Should have cross pieces to better retain rock in structure. Structure should be crowned to avoid becoming a gutter for sediment washing down the trail*

*Above Right: Trail located on old road bed that has positive cross slope in good condition*



*Above and Below: Trail sections that are far too steep for equestrian use in these soil conditions become incised as tread material is loosened and lack of water management allows stormwater to entrain the sediment and carry it downslope, in some cases (below far right) directly to the river.*





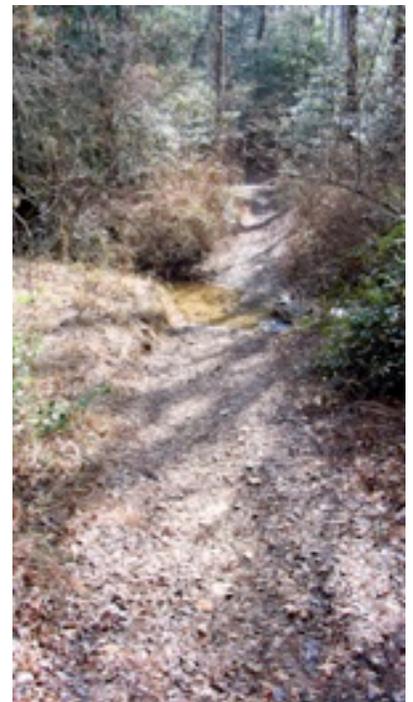
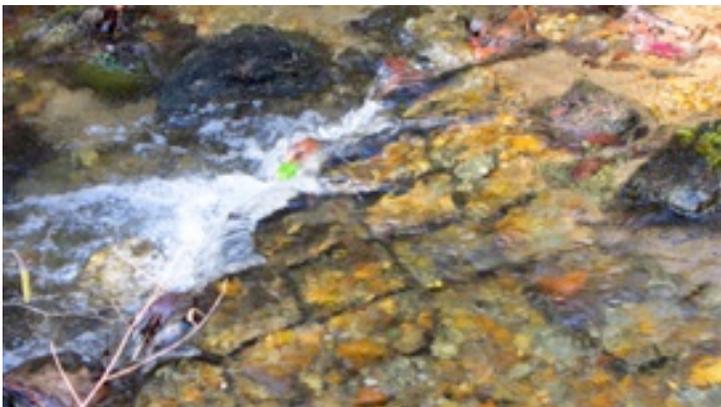
*Above Left: Open corridors become travel corridors. A branch pointing to the system route is not sufficient to minimize use on non-system routes.*

*Above Right: Lack of water management upslope results in mudhole formation at the bottom of the gradient*



*Above: Sand deposition at River access. Rip rap and ballast function is difficult to ascertain*

*Below: Geogrid placement in rocky stream to prevent substrate displacement. Because it wasn't below substrate grade, it has formed a hydraulic "jump" and*



*Above: Steep descent without water management to small water crossing*



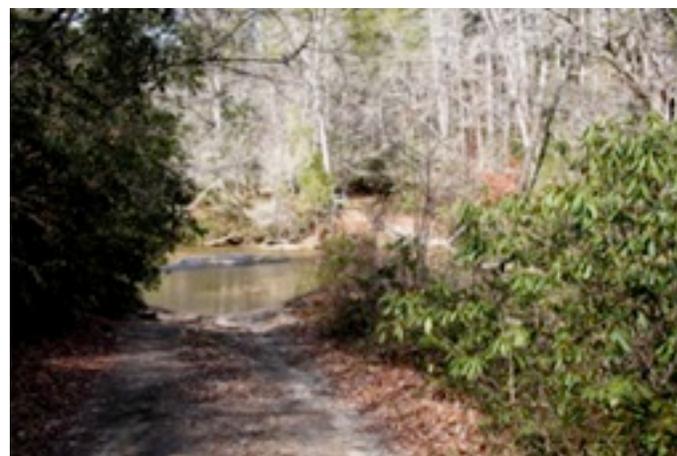
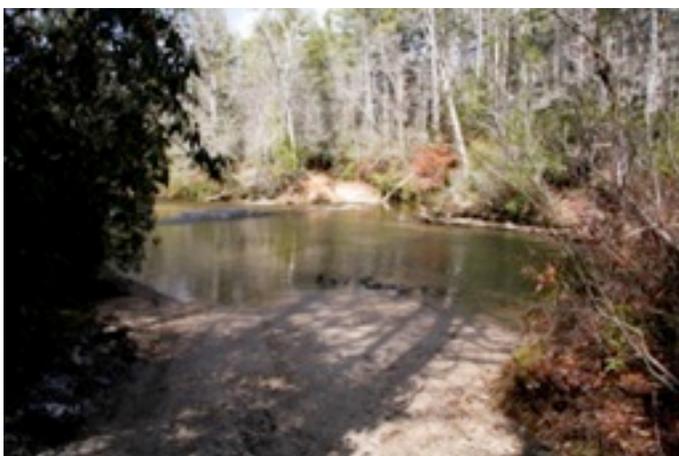
*Left: Attempt to harden water crossing. Stringers within stream channel cause flow alterations undermining fill and structure effectiveness*

*Right: While trail is located on sidehill, it lacks roll that adds a “natural” feeling and more effectively manages water and sediment*



*Left: River access without sufficient water management. Incised condition demonstrates the amount of sediment that has migrated below the normal high water line*

*Below: River access without sufficient water management. Incised condition demonstrates the amount of sediment that has migrated below the normal high water line*





*Above and Right: Erosion issues near the Chattooga River*

*Below: Trampling and vehicle impacts on the banks of the Chattooga River*



## **APPENDIX A: SURVEY RESULTS**

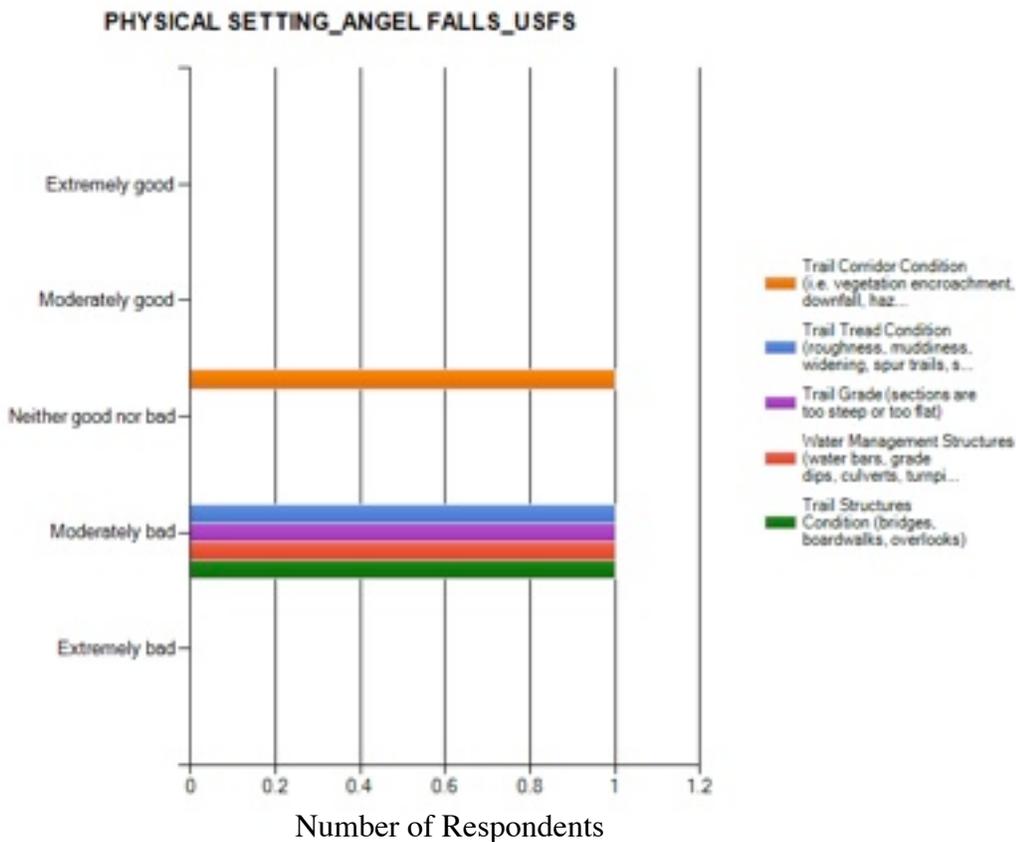
# TRAIL: ANGEL FALLS

## Survey Results: Forest Service

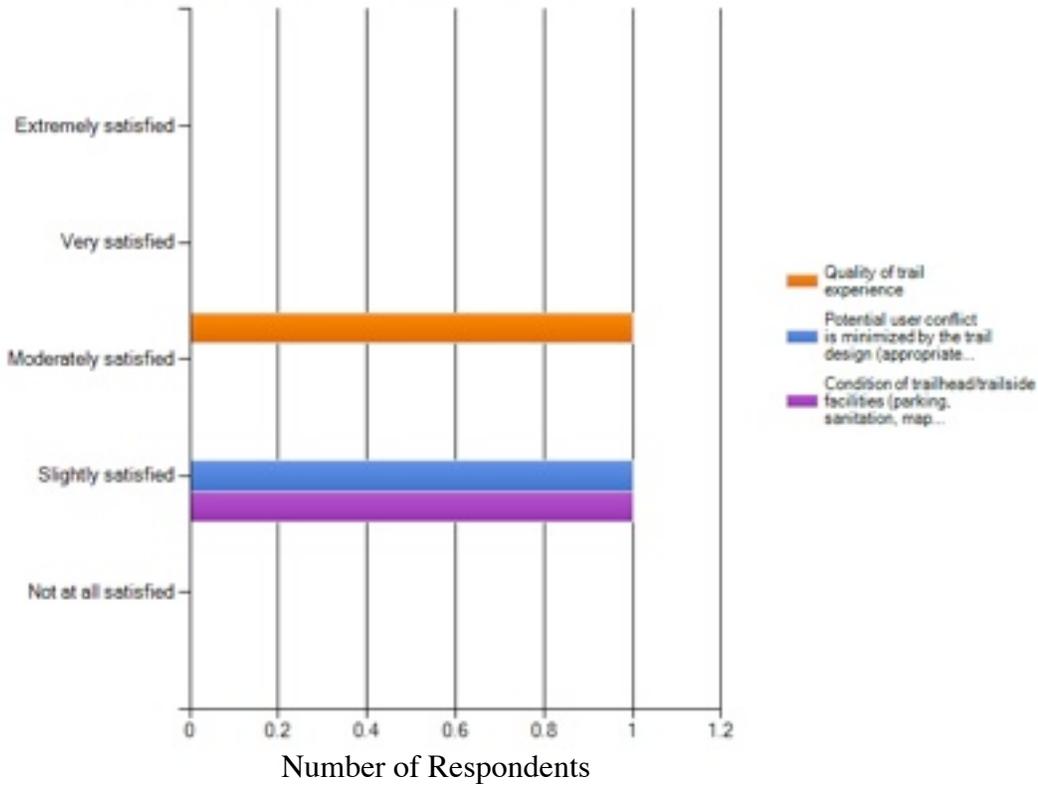
**History:** None provided

**Maintenance Providers:** USFS. Bridges Refurbished by Eagle Scout Project in 2012.

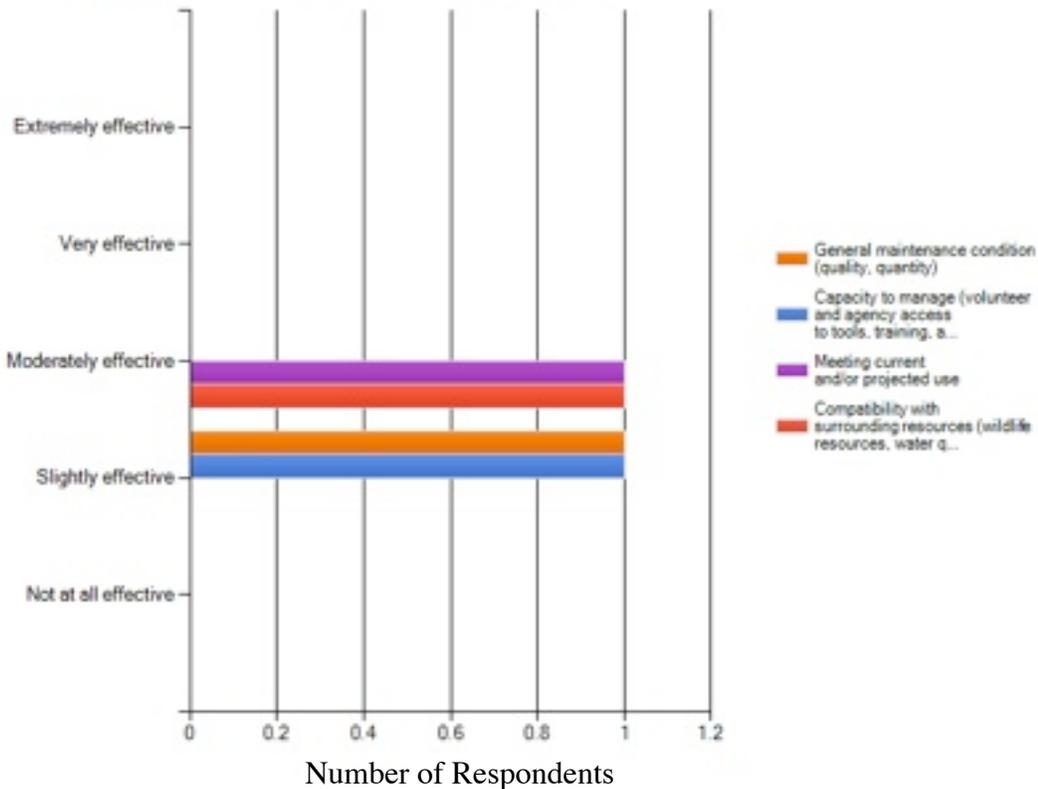
**Reasons Included In Assessment:** None provided



### SOCIAL SETTING\_ANGEL FALLS\_USFS

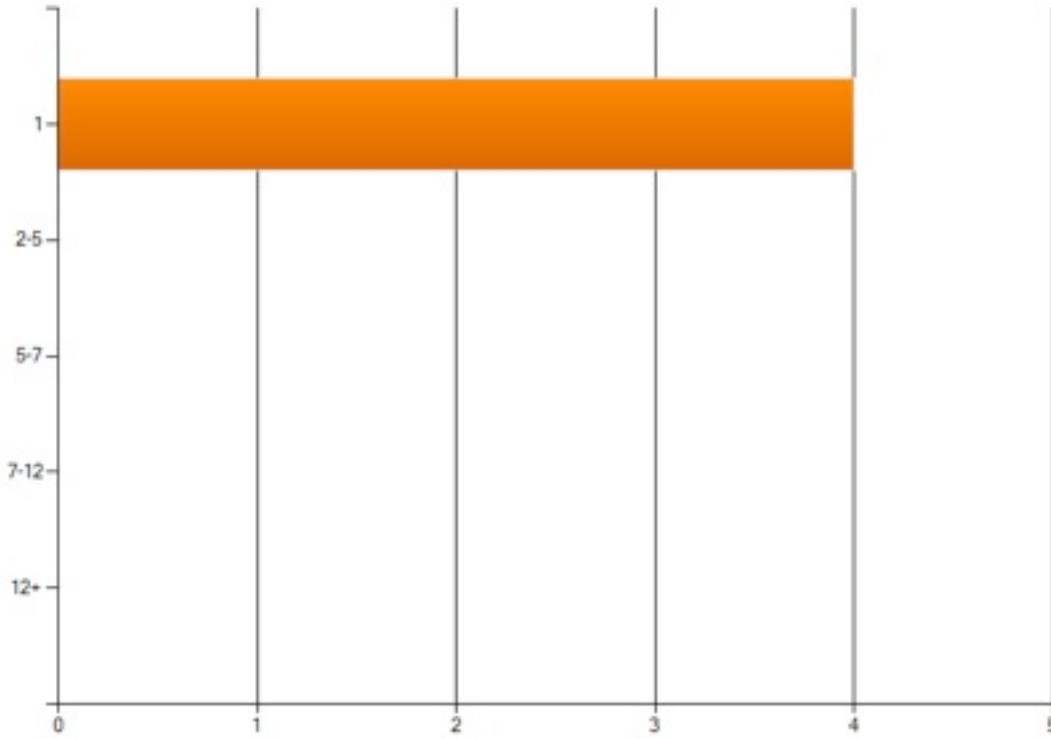


### MANAGERIAL SETTING\_ANGEL FALLS\_USFS



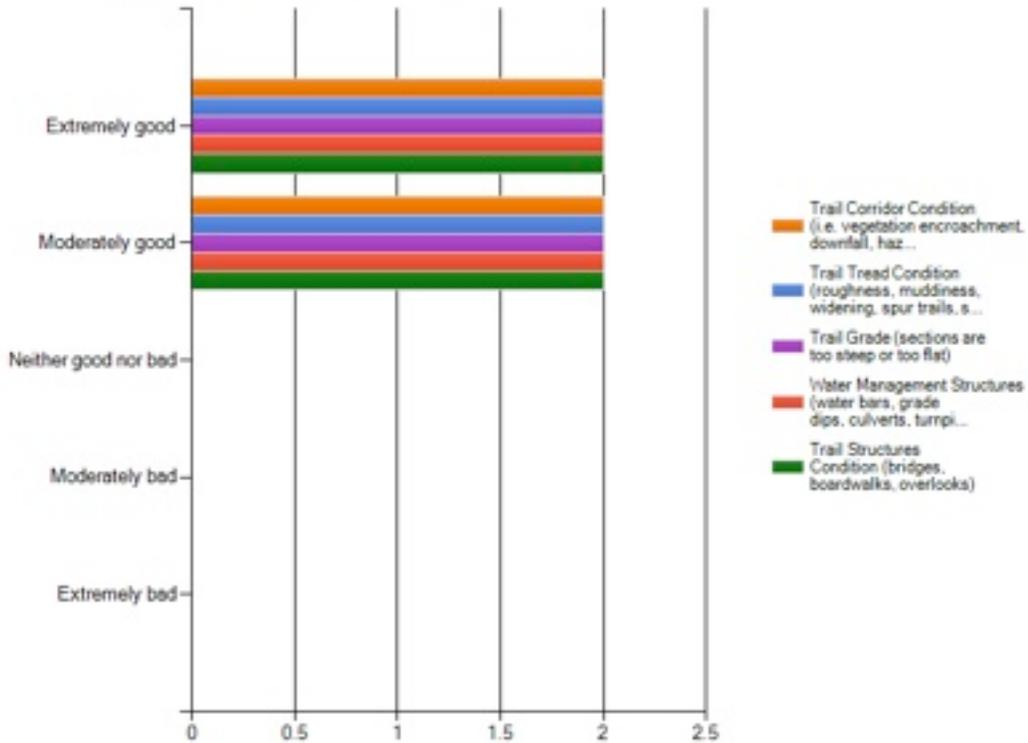
# Survey Results: Volunteers

TRAIL USE\_ANGEL FALLS\_VOL



Number of Respondents

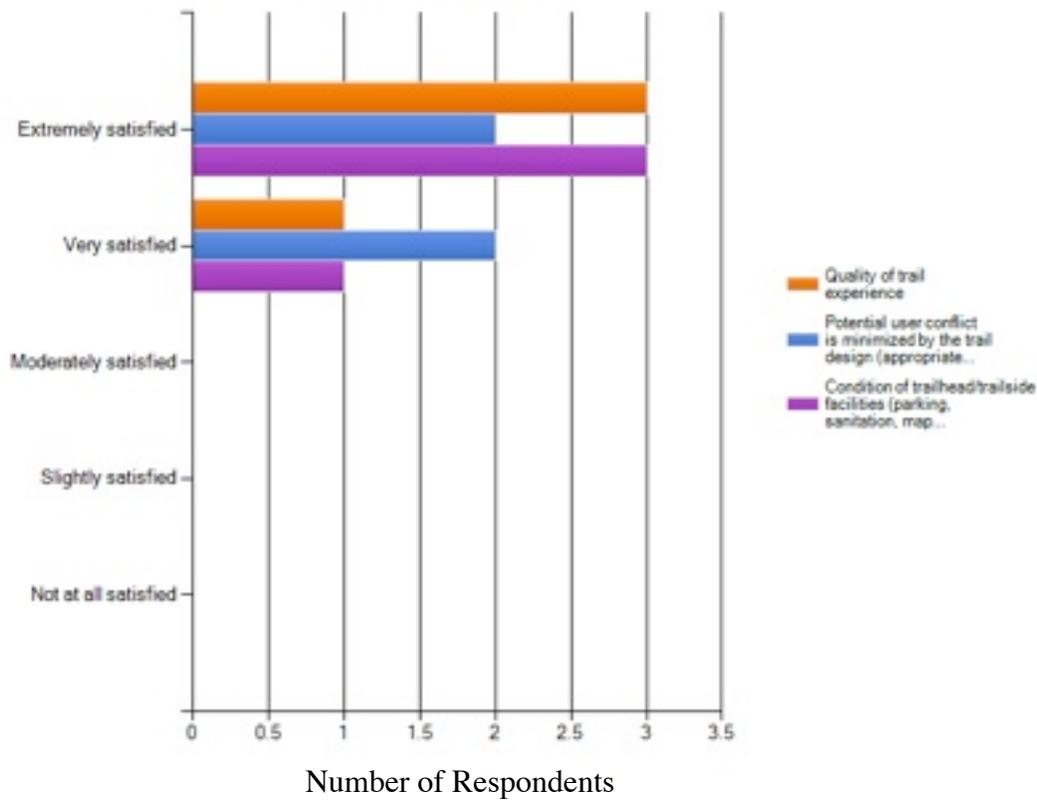
PHYSICAL SETTING\_ANGEL FALLS\_VOL



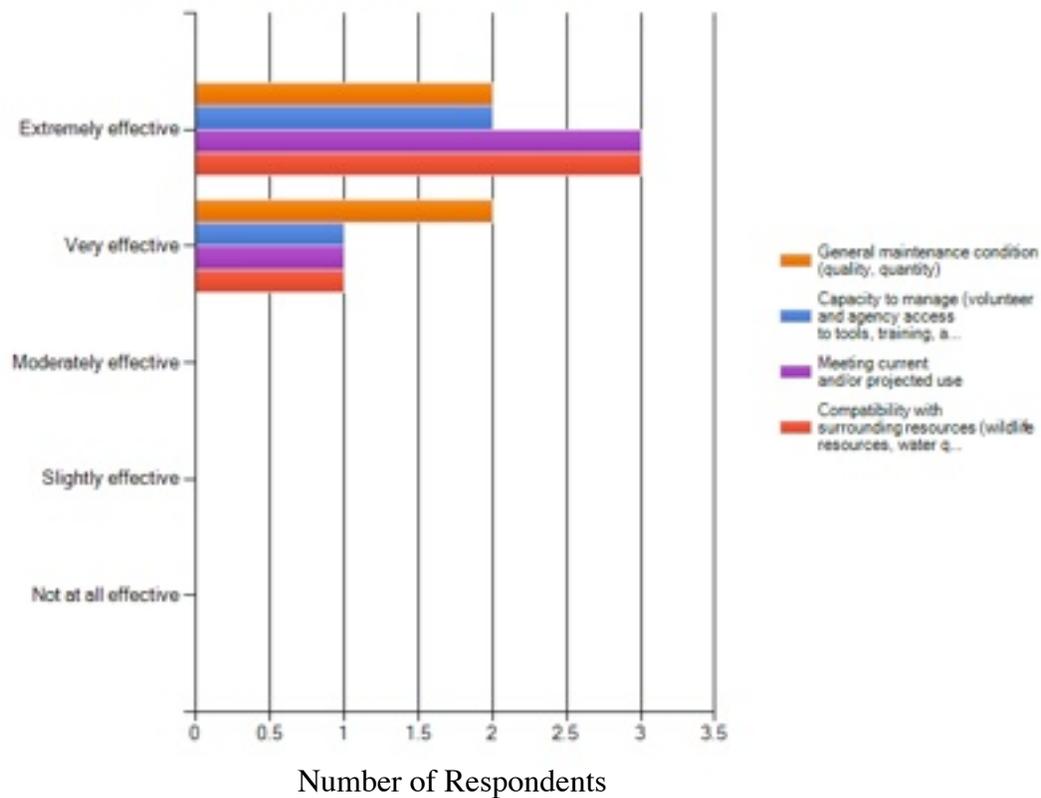
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_ANGEL FALLS\_VOL



MANAGERIAL SETTING\_ANGEL FALLS\_VOL



## Volunteer Group Comments:

### **Georgia Forest Watch:**

History: None provided

Maintenance: Maintenance could/should be allocated to the new campground managers, as part of their contract.

Use: This is a popular day-hiker trail, accessible both from the Rabun Beach campground and a spur from Lake Rabun Road.

Issues: None provided

# TRAIL: BARTRAM

## Survey Results: Forest Service

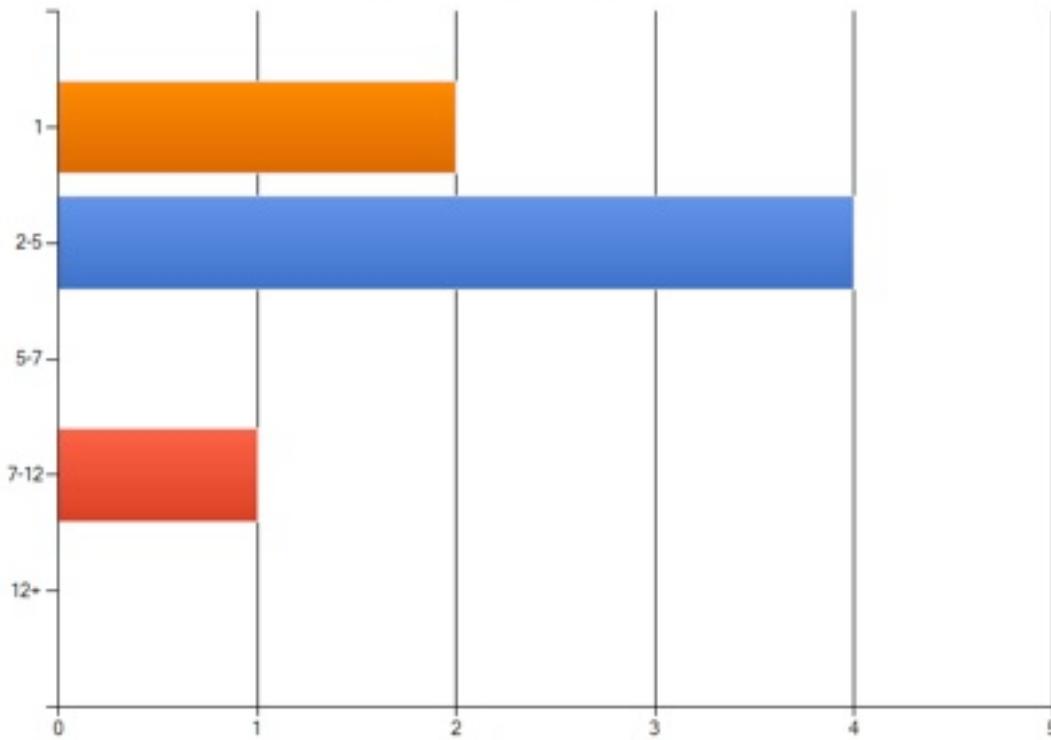
**History:** None provided

**Maintenance Providers:** Maintenance by USFS and District Volunteers. Last maintenance contract was in 2010 on the section between Hale Ridge Road and Rabun Bald.

**Reasons Included In Assessment:** None provided

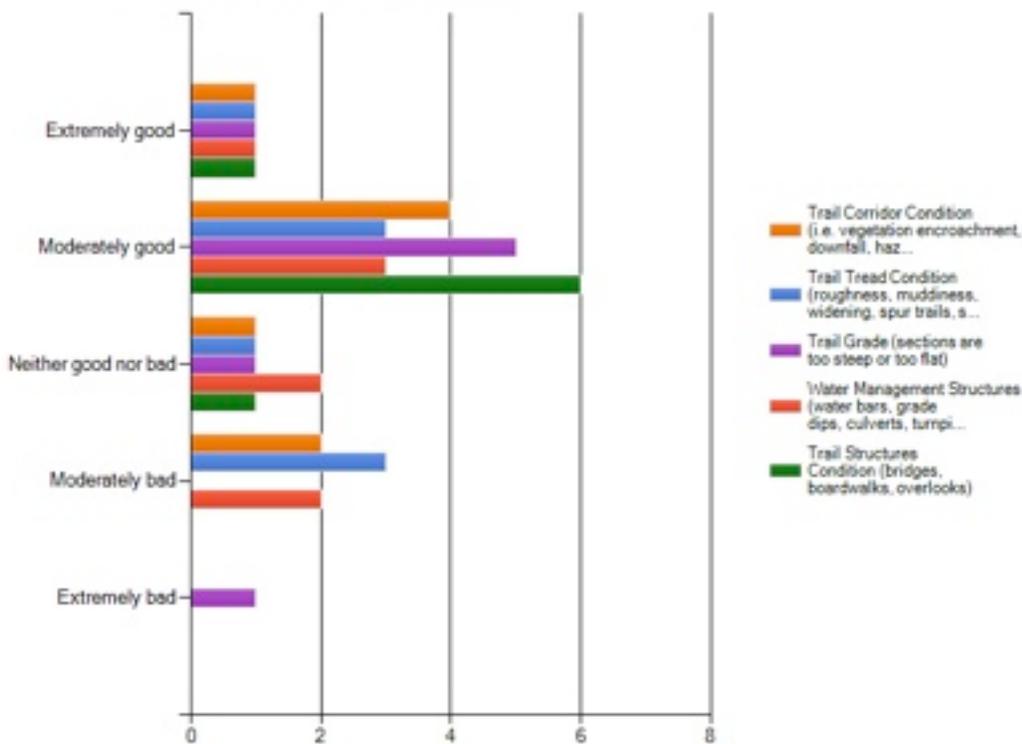
# Survey Results: Volunteers

TRAIL USE\_BARTRAM\_VOL



Number of Respondents

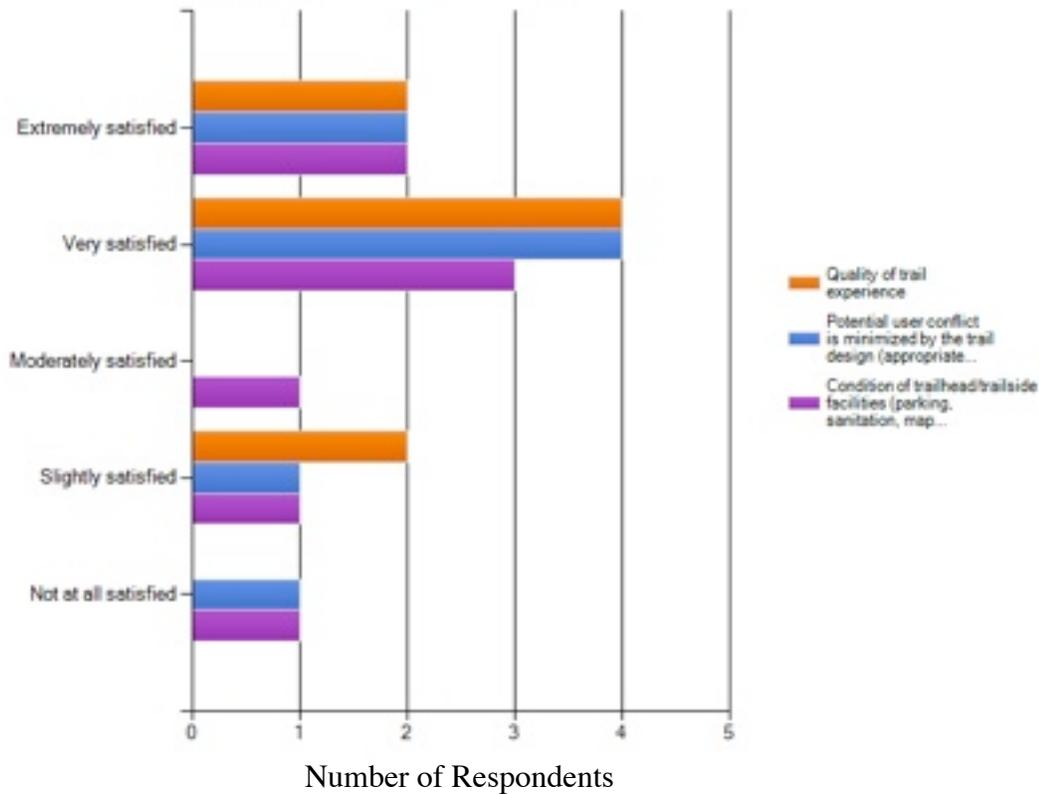
PHYSICAL SETTING\_BARTRAM\_VOL



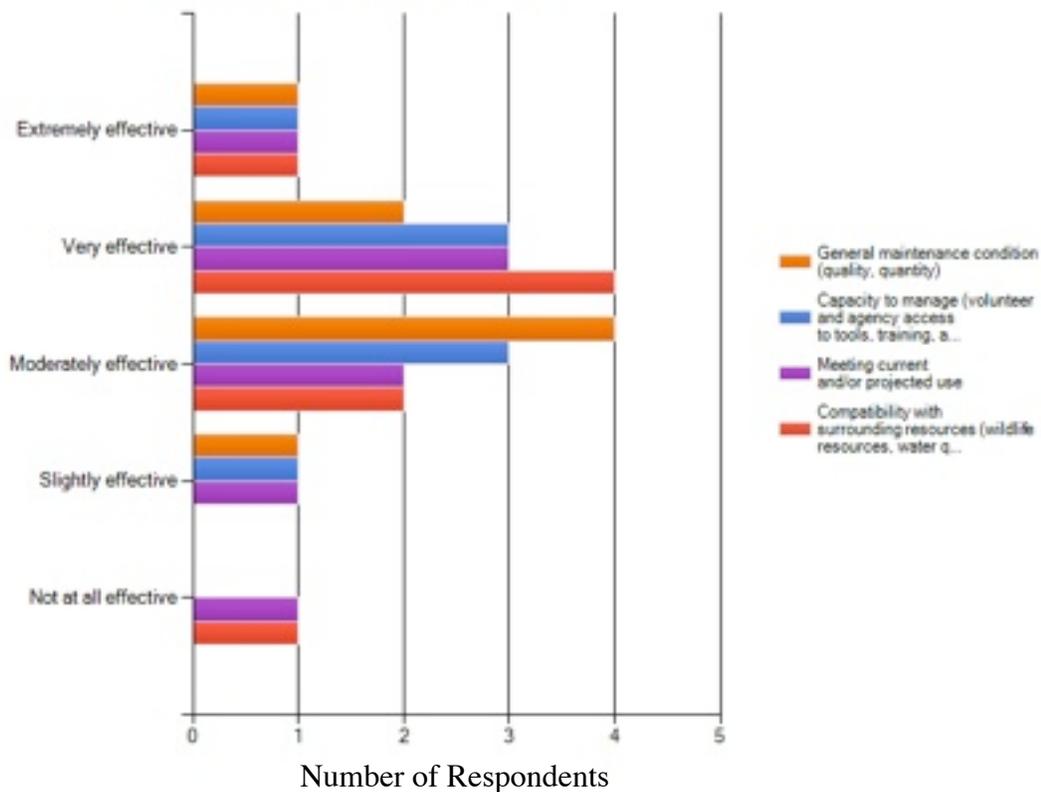
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_BARTRAM\_VOL



MANAGERIAL SETTING\_BARTRAM\_VOL



## Volunteer Group Comments:

### **Georgia Forest Watch:**

History: None provided

Maintenance: Georgia Bartram Trail Group and occasional help from USFS and contractors.

Use: Fairly well used by hikers. Numerous users have chronically encountered ATVs, dirt-bikes, and horses

Issues: Contractors don't always do a good job (like cutting out blow downs, making it easier for horses and bikes and ATVs to continue using trail.

Poor signage in some areas (route and user designation)

-- Starting at Route 28 and on to Mile 1.2 (the Holden Field). Mountain bike incursions.

-- About Mile 2.1 (where Long Bottom Ford from South Carolina dips into Bartram and Willis Knob Horse trail). Both equestrian and mountain bike incursions.

-- About Mile 5.5, where the Bartram essentially abuts Willis Knob Road. Both equestrian and mountain bike incursions.

-- About Mile 6.4 (where Bartram crosses Earl's Ford Road.) Both mountain bikes and equestrian traffic, (including, one time, a two-horse caravan chopping out blowdowns with a chainsaw.)

-- About Mile 8.8 (where a heavily-used spur trail from Sandy Ford Road moves eastward back to Bartram.) Mountain bikes.

-- About Mile 9.5 (where it crosses Sand Ford Road directly). Horse and bike signs.

-- About Mile 12.9 (Bob Gap). ATV incursions and trail sign removal from Pool Creek Road.

-- About Mile 17.3 (Green Gap) Bikes (I would say coming up from that unauthorized, but heavily used trail from Boy Scout Camp at Rainy Mountain.)

-- Between Mile 18.1 and 18.8 (Warwoman Dell.) ForestWatch member meets 12-plus mountain bikers along this section a couple of years ago.

# TRAIL: BROAD RIVER

## Survey Results: Forest Service

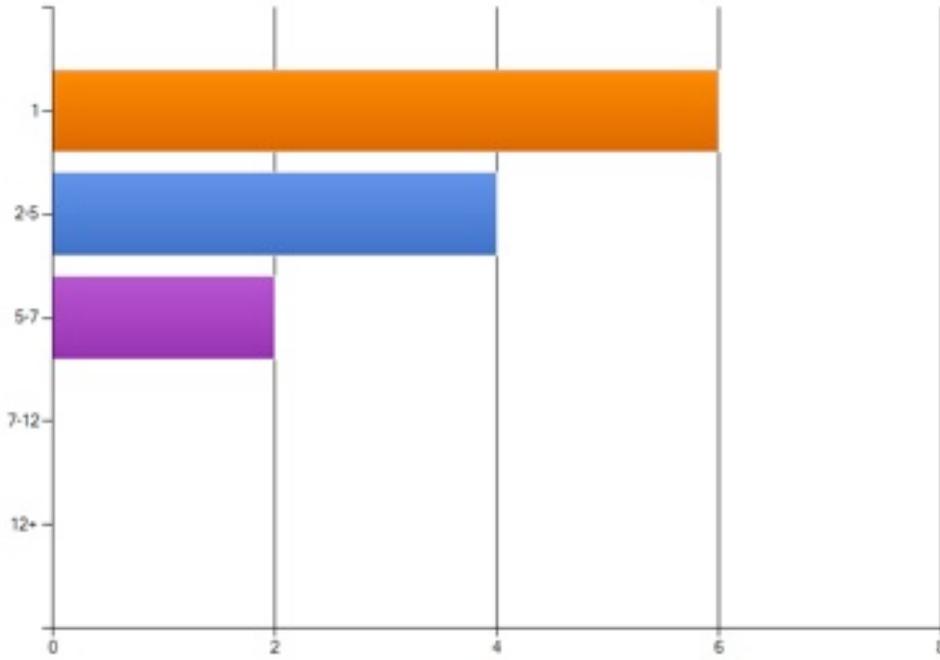
**History:** None provided.

**Maintenance Providers:** USFS

**Reasons Included In Assessment:** None provided.

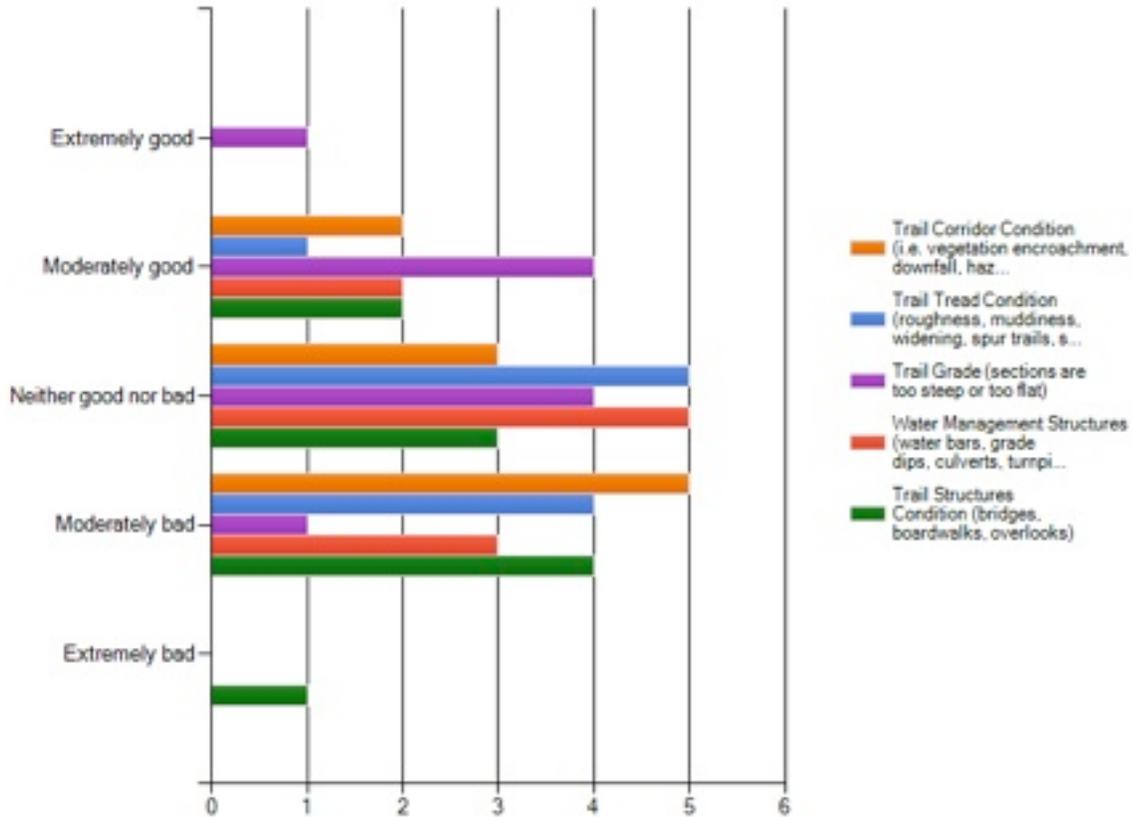
# Survey Results: Volunteers

TRAIL USE\_BROAD RIVER\_VOL



Number of Respondents

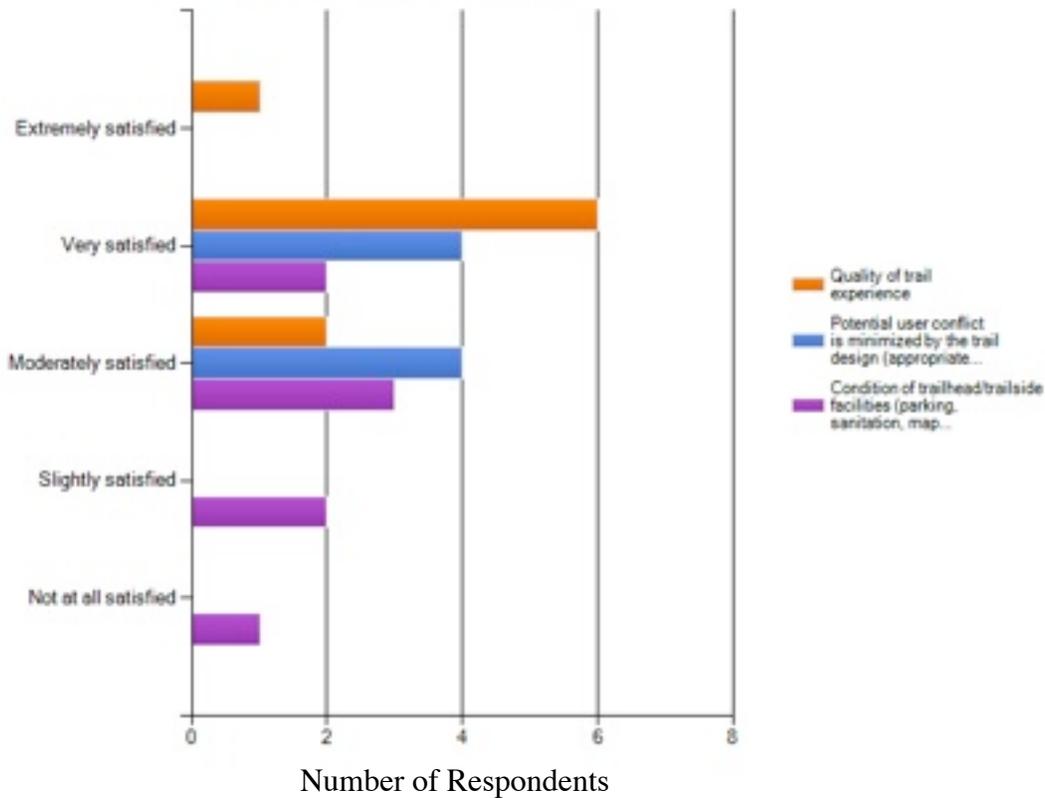
PHYSICAL SETTING\_BROAD RIVER\_VOL



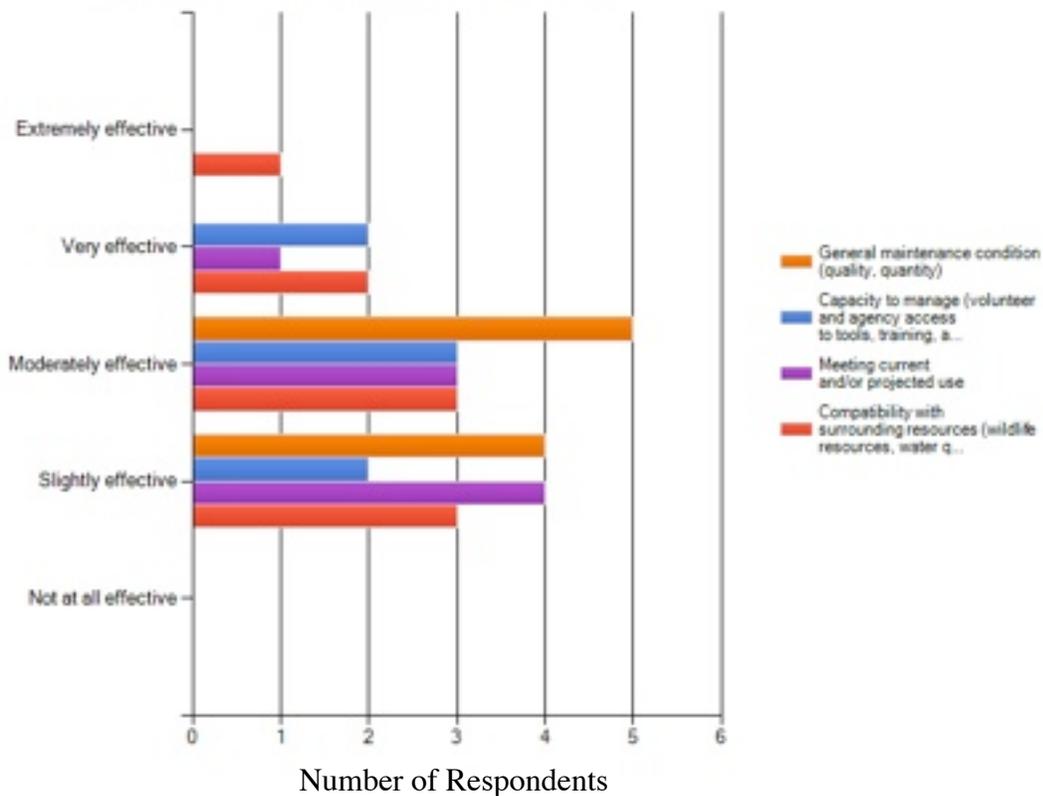
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_BROAD RIVER\_VOL



MANAGERIAL SETTING\_BROAD RIVER\_VOL



## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: Constructed by Resettlement Administration in late 1930s as a hiking trail & rebuilt by Youth Conservation Corps in 1980.

Maintenance: Maintained by NE Georgia Mountain Hiking Club of Clarkesville.

Use: None provided

Issues: Unauthorized equestrian use, Horse tracks on the trail and footbridges

# TRAIL: CHATTOOGA RIVER

## Survey Results: Forest Service

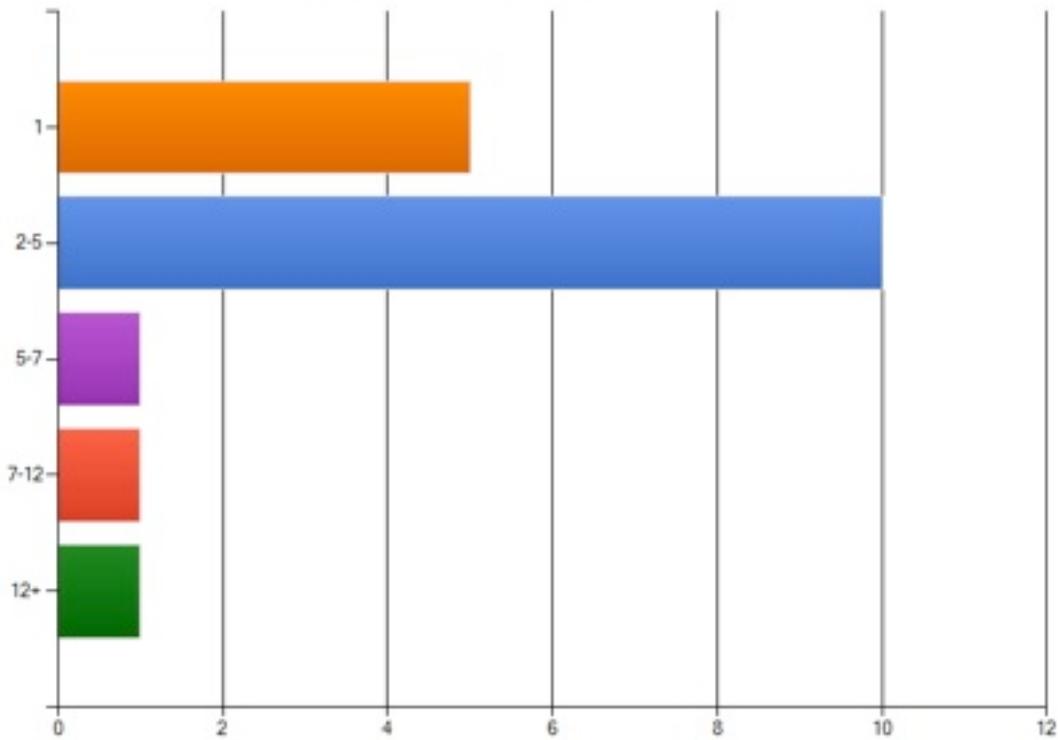
**History:** None provided

**Maintenance Providers:** Maintained by USFS. Last Maintenance Contract was done near Lick Log in 2010

**Reasons Included In Assessment:** None provided

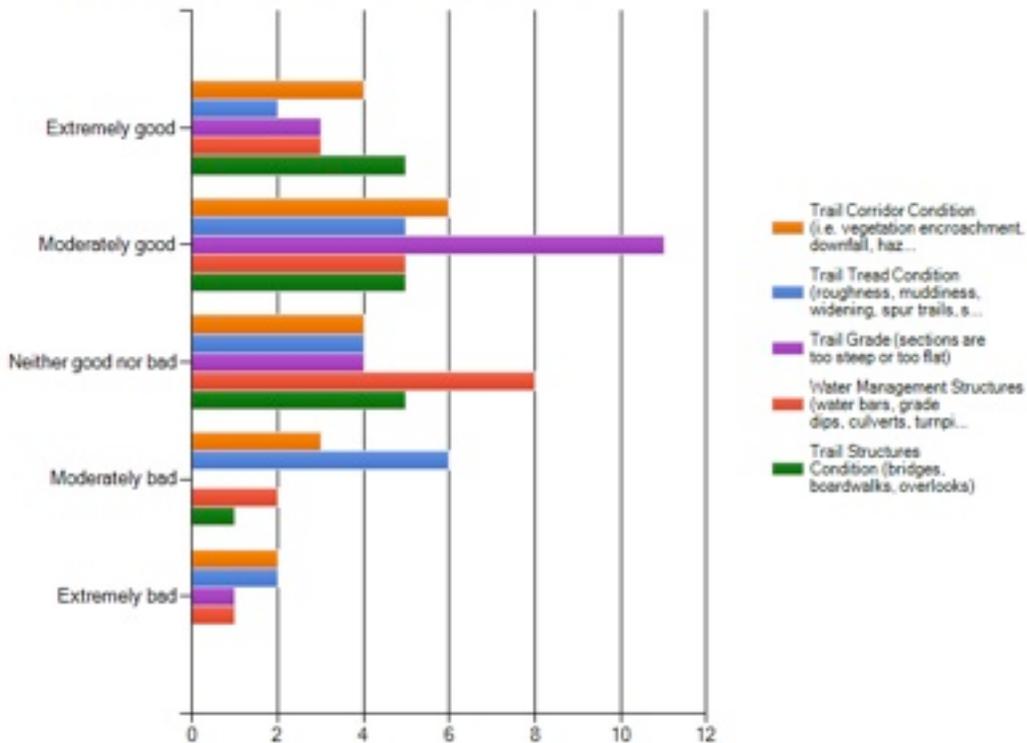
# Survey Results: Volunteers

TRAIL USE\_CHATTOOGA RIVER\_VOL



Number of Respondents

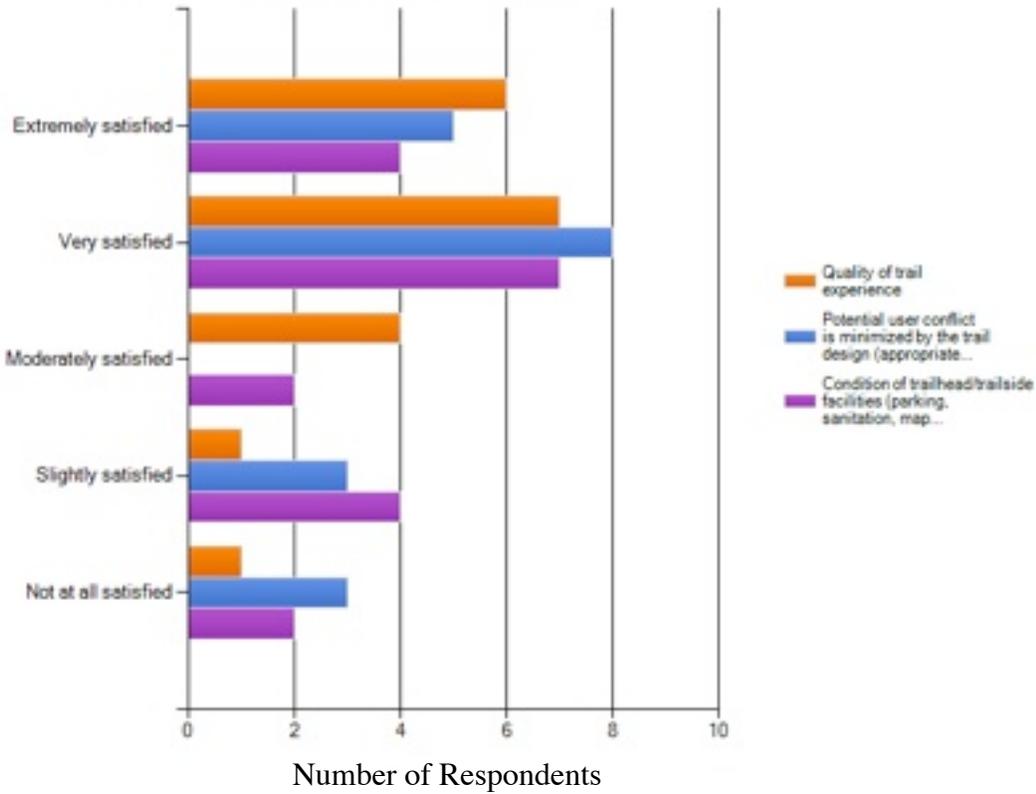
PHYSICAL SETTING\_CHATTOOGA RIVER\_VOL



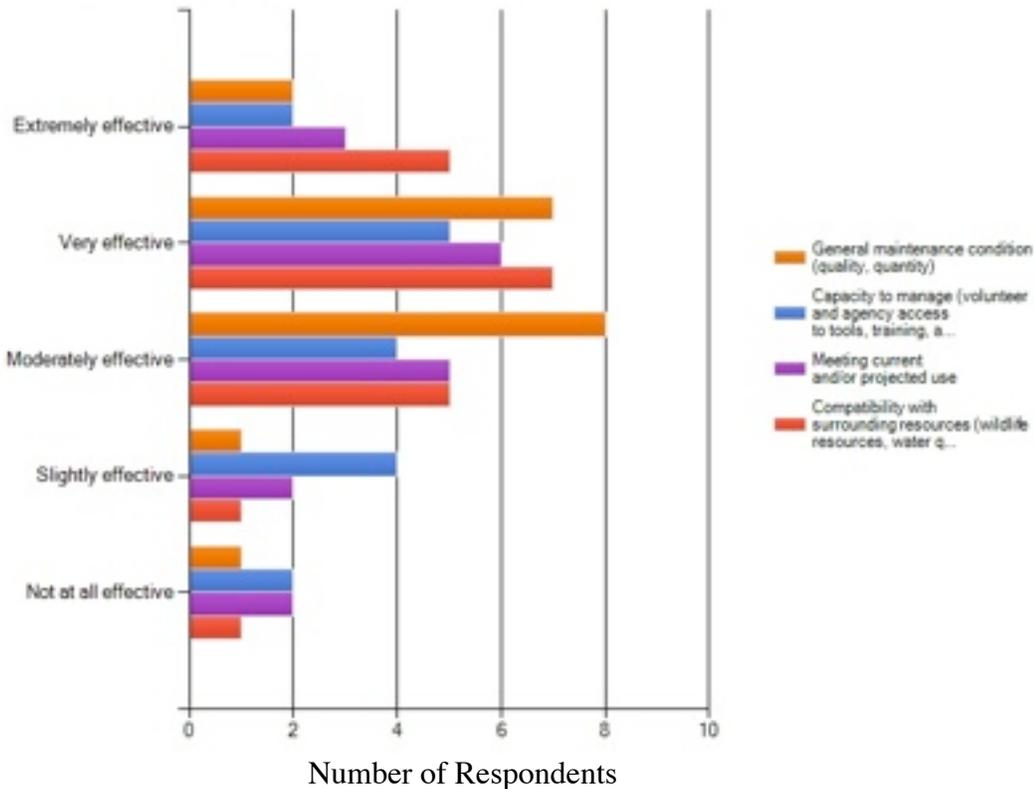
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_CHATTOOGA RIVER\_VOL



MANAGERIAL SETTING\_CHATTOOGA RIVER\_VOL



## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: Georgia Bartram Trail Group

Use: This trail is heavily used, year-round, and heavily abused by ATVs, mountain bikes and horses, too.

Issues: Confusing side trails, poor signage and markings.

The most egregious problem for this trail emanates from Forest Service System Road No.s 977 and 977A (spurs off of Poole Creek Road, FS No. 59), where at the 977 terminus one finds a muddy “ATV chute” down to the river and the trail. The ranger district has been made aware of this problem for several years, but has not addressed it to our knowledge. At a minimum, FS 977 and 977A should be gated and seasonally closed for all months except perhaps during big game hunting season. They also should simultaneously address the ATV “highway” of illegal trails that leads from the 977 terminus back to the Sandy Ford Road area (FS No. 9).

# TRAIL: COLEMAN RIVER

## Survey Results: Forest Service

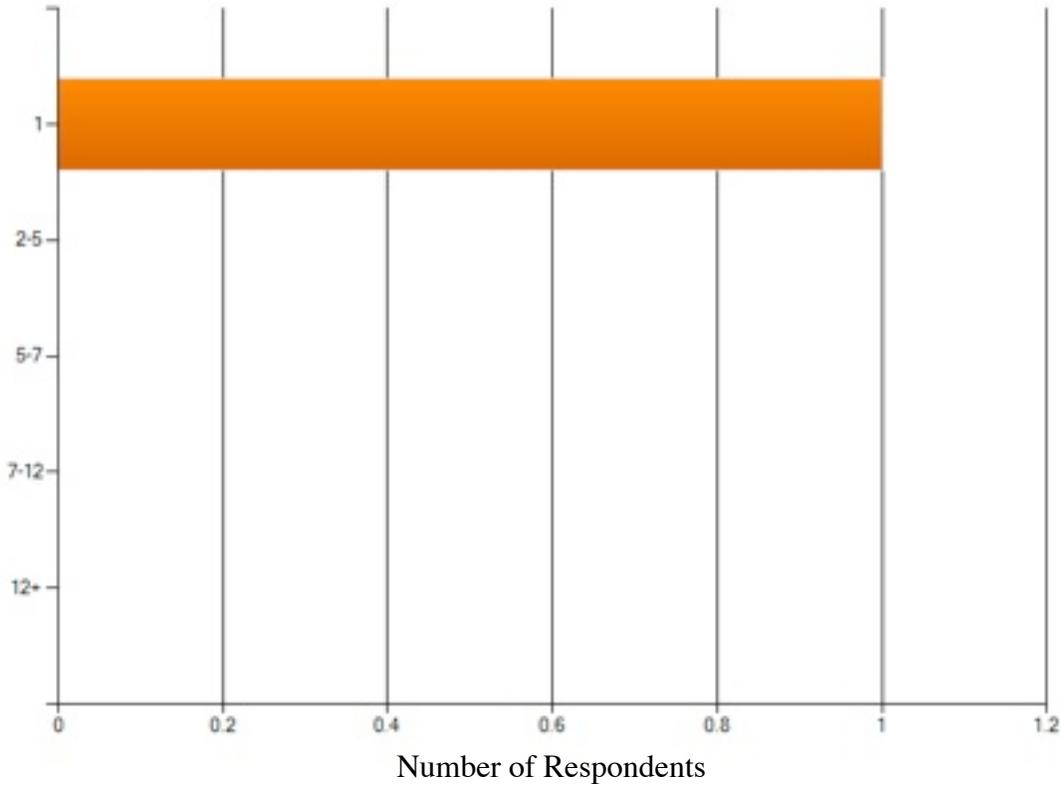
**History:** None provided

**Maintenance Providers:** None provided

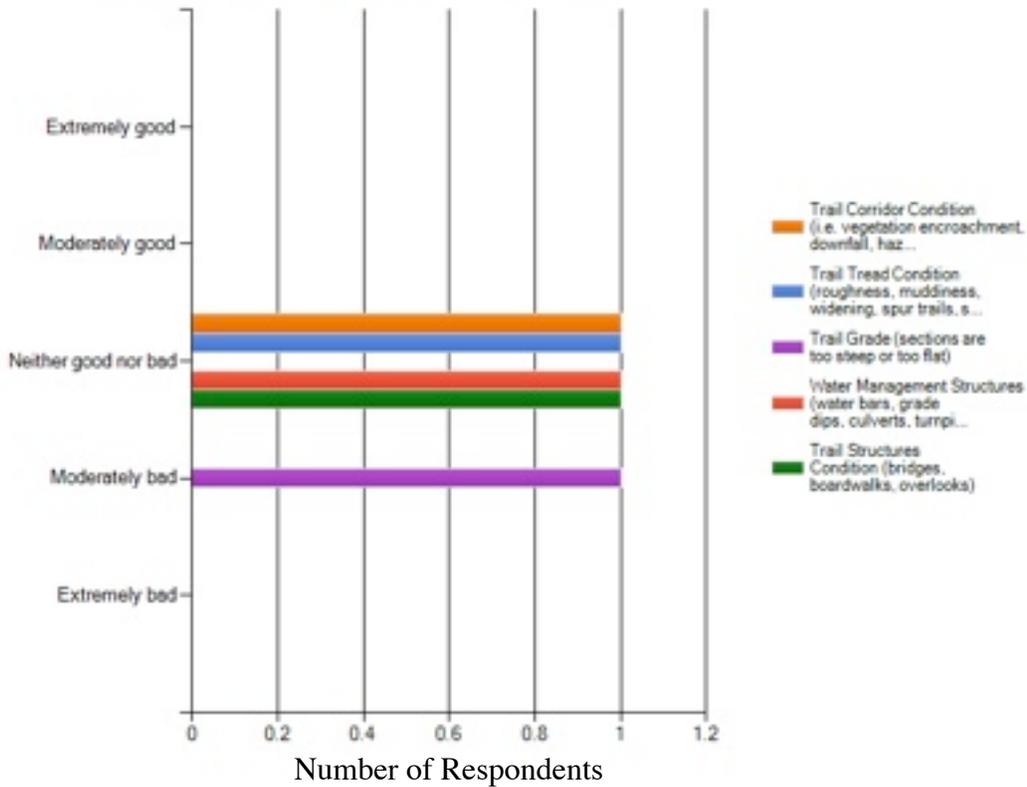
**Reasons Included In Assessment:** None provided

# Survey Results: Volunteers

TRAIL USE\_COLEMAN RIVER\_VOL

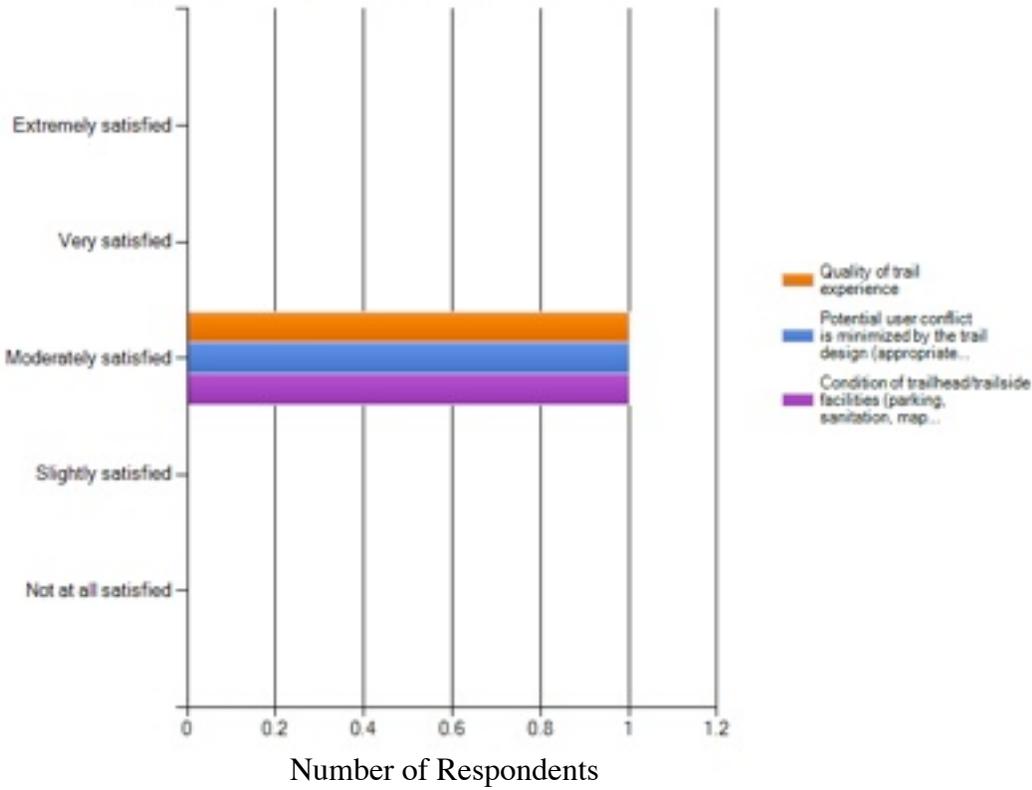


PHYSICAL SETTING\_COLEMAN RIVER\_VOL

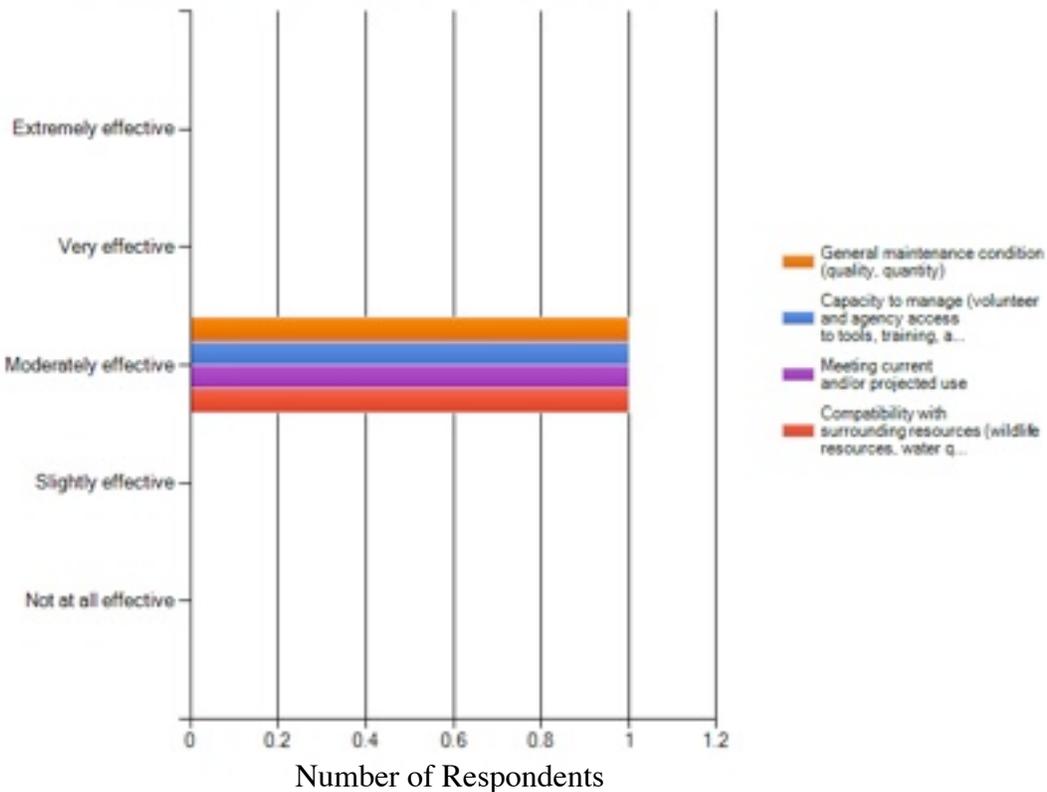


# Survey Results: Volunteers

SOCIAL SETTING\_COLEMAN RIVER\_VOL



MANAGERIAL SETTING\_COLEMAN RIVER\_VOL



## **Volunteer Group Comments:**

### **Georgia Forest Watch**

History: None provided

Maintenance: No particular group maintains this trail that we know of. So heavily used (and so short), its maintenance should remain the responsibility of local ranger district personnel and summer helpers.

Use: A very popular local trail, it gets heavy use in season from tourists and local people.

Issues: Access recently obstructed by adjacent bridge reconstruction work on Tallulah River Road (under joint program of the Chattooga River Ranger District and Eastern Federal Lands section of the Federal Highway Administration).

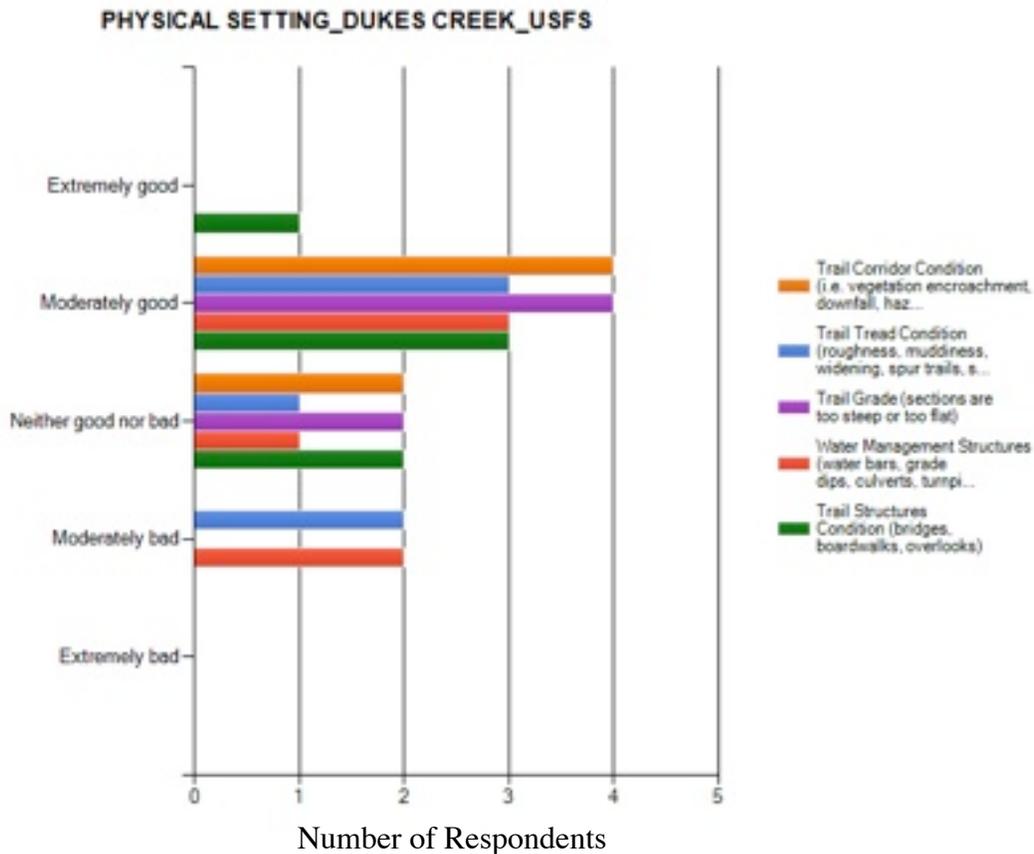
# TRAIL: DUKES CREEK FALLS

## Survey Results: Forest Service

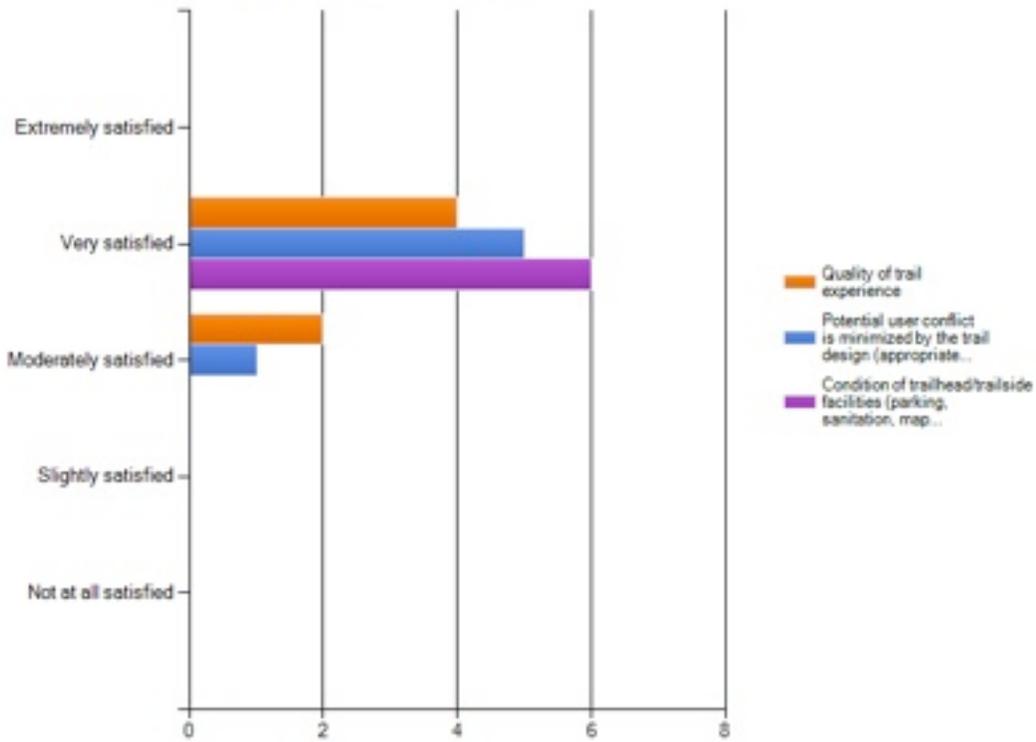
**History:** None provided

**Maintenance Providers:** USFS

**Reasons Included In Assessment:** None provided

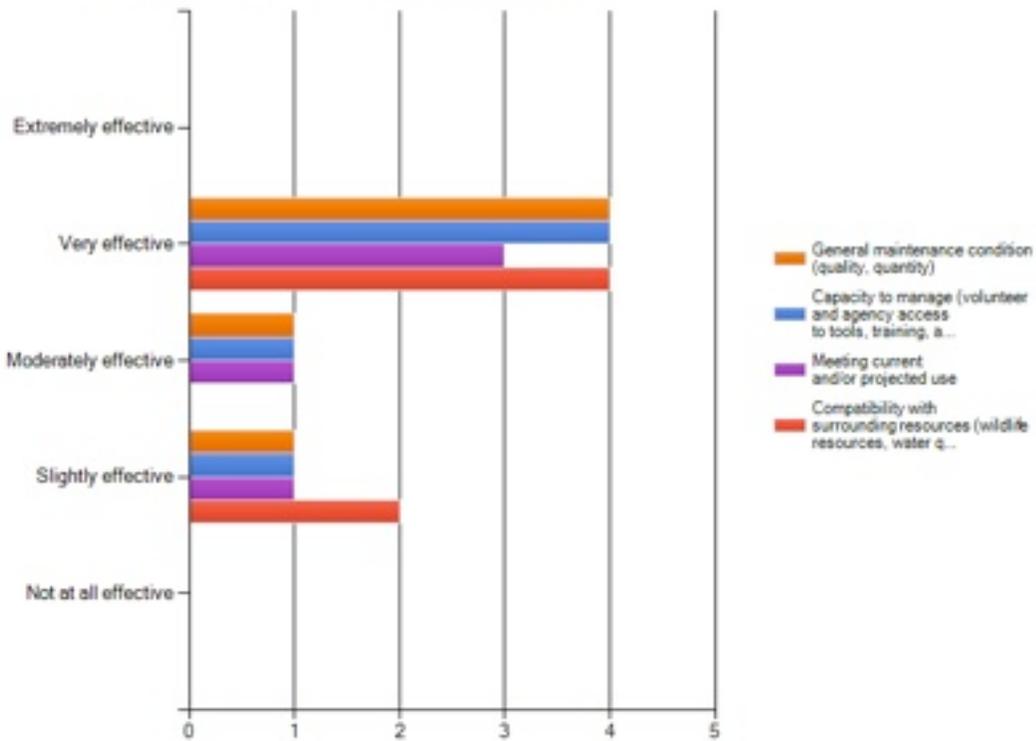


### SOCIAL SETTING\_DUKES CREEK\_USFS



Number of Respondents

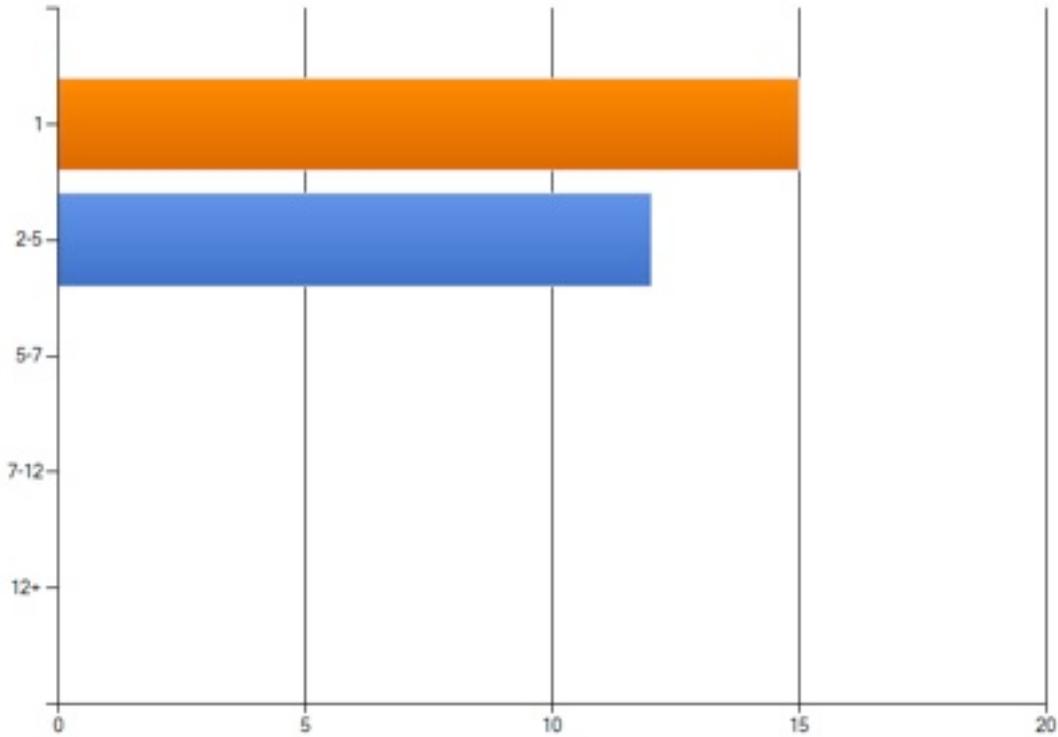
### MANAGERIAL SETTING\_DUKES CREEK\_USFS



Number of Respondents

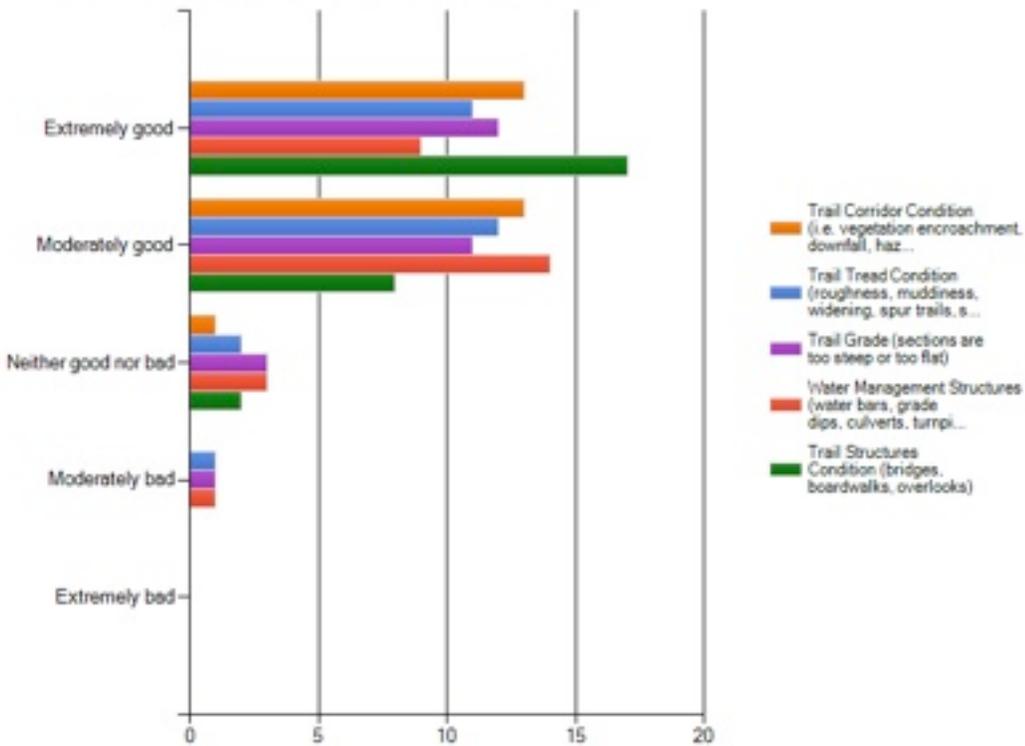
# Survey Results: Volunteers

TRAIL USE\_DUKES CREEK FALLS\_VOL



Number of Respondents

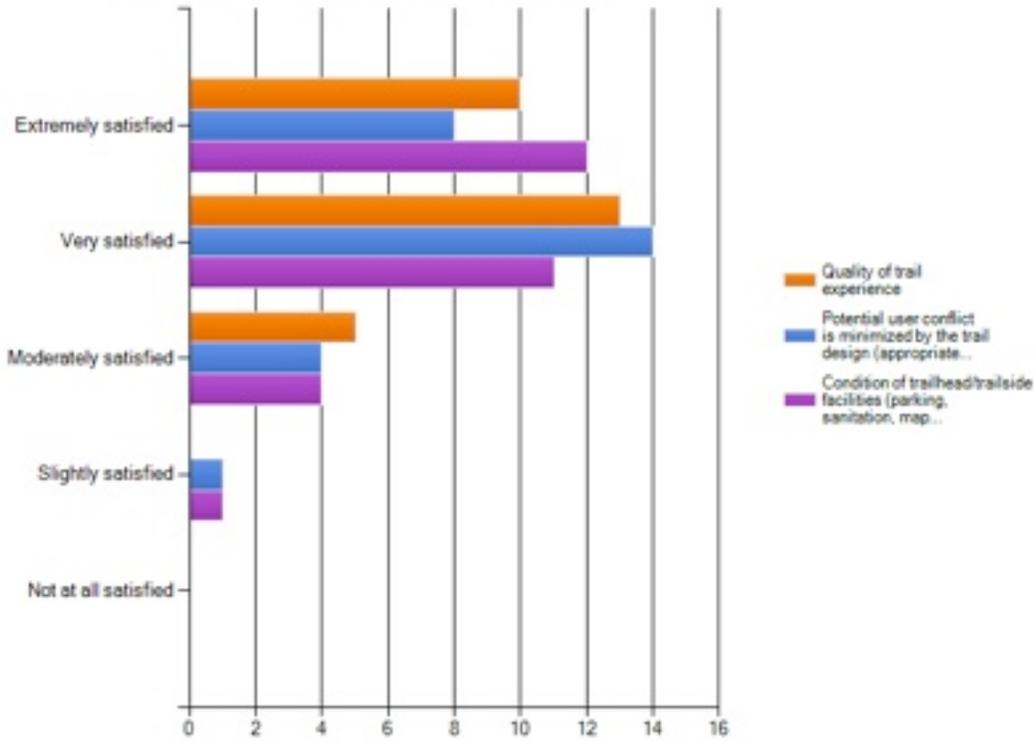
PHYSICAL SETTING\_DUKES CREEK FALLS\_VOL



Number of Respondents

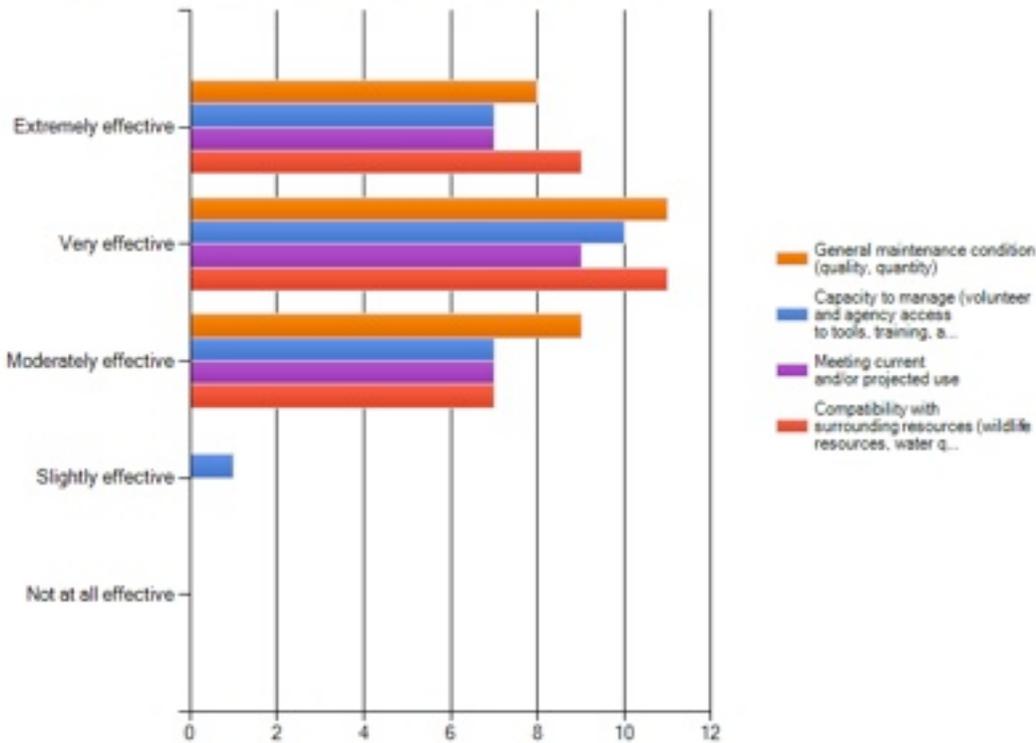
# Survey Results: Volunteers

SOCIAL SETTING\_DUKES CREEK FALLS\_VOL



Number of Respondents

MANAGERIAL SETTING\_DUKES CREEK FALLS\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Mountain High Hikers:**

Don't know history or who maintains it. Gets moderate usage from tourists in the area, all times of the year. no know trail issues, well laid out. Would be nice to put in a connector trail with the Ravens cliff trail (would be easy on old road bed present).

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: None provided

Issues: Numerous points where hikers cut across the switchbacks

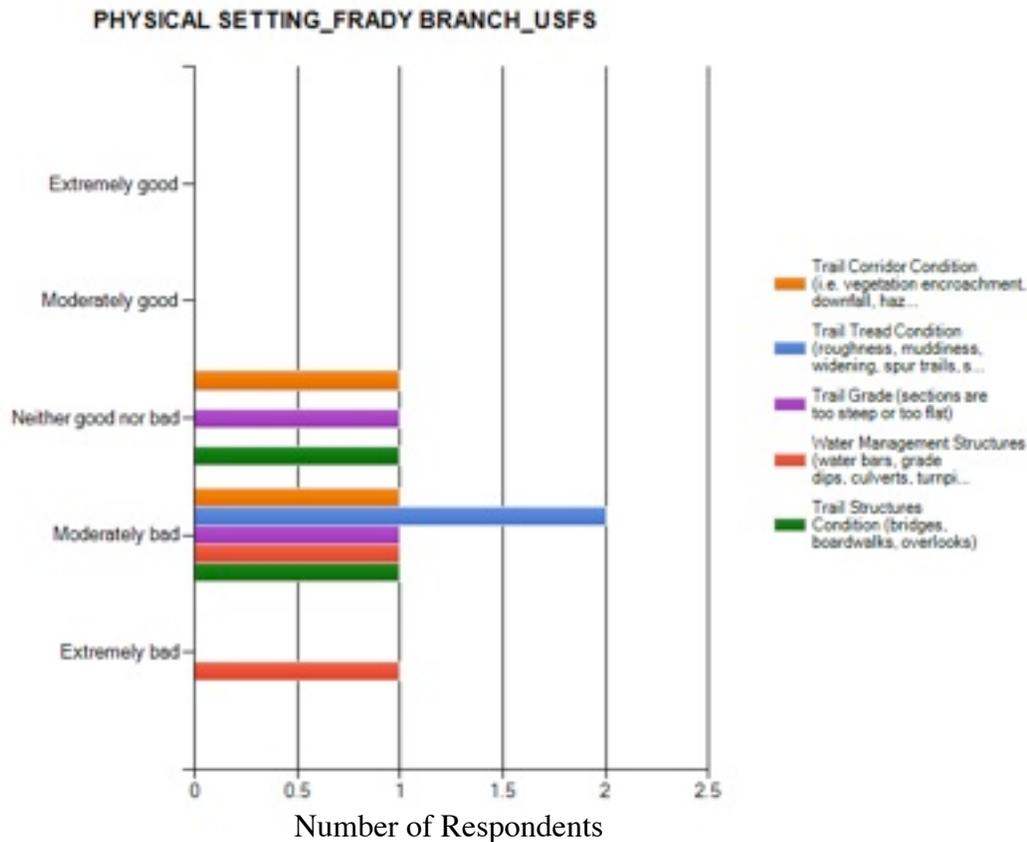
# TRAIL: FRADY BRANCH TRAIL SYSTEM

## Survey Results: Forest Service

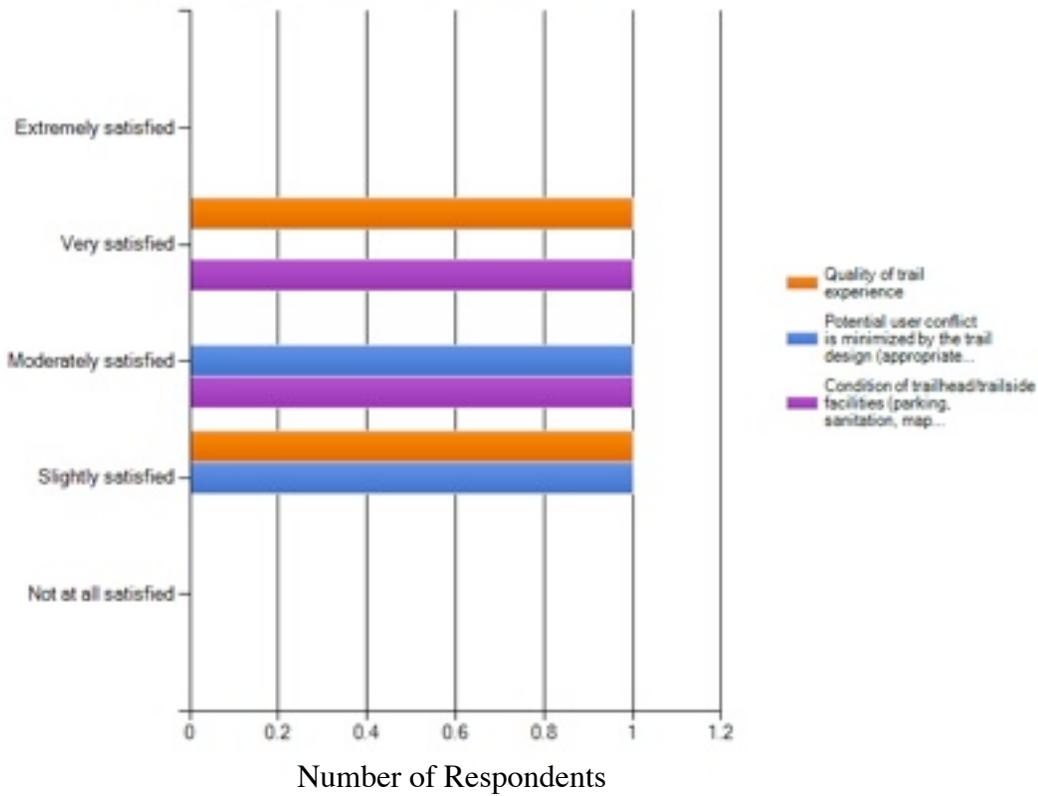
**History:** Trails constructed in 2003.

**Maintenance Providers:** Maintained by USFS, SORBA and various horse groups. Last maintenance contract done in 2010. Trails have been closed due to flood in 2008.

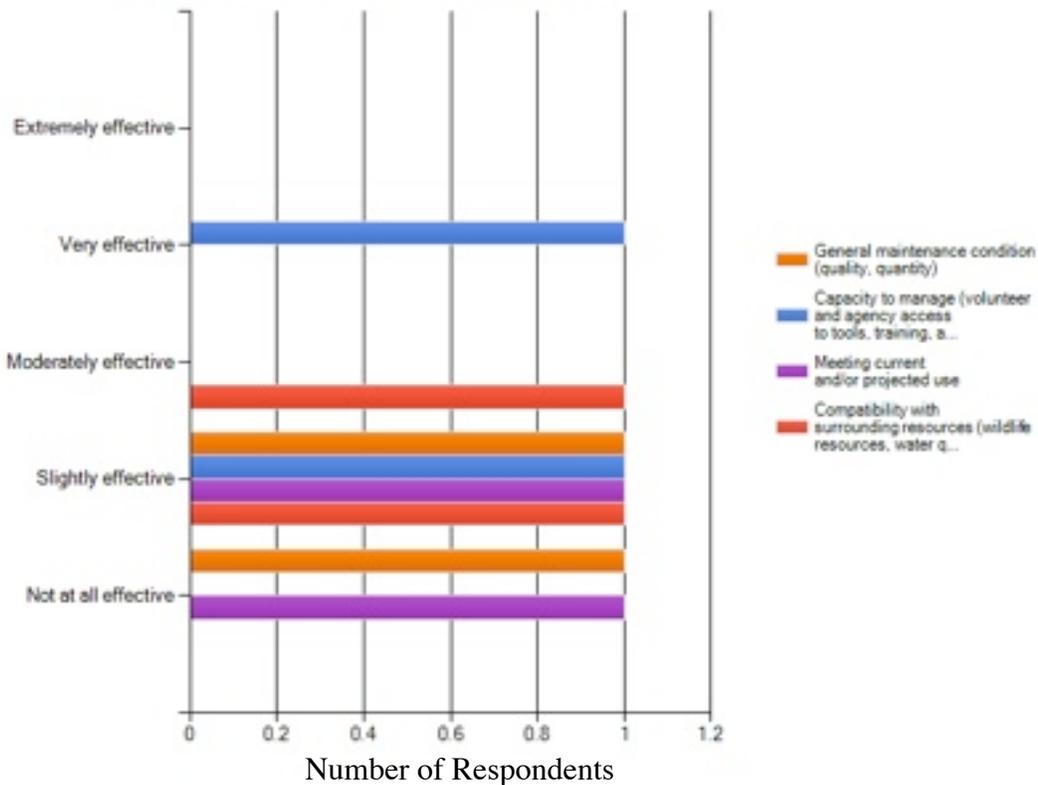
**Reasons Included In Assessment:** None provided



### SOCIAL SETTING\_FRADY BRANCH\_USFS

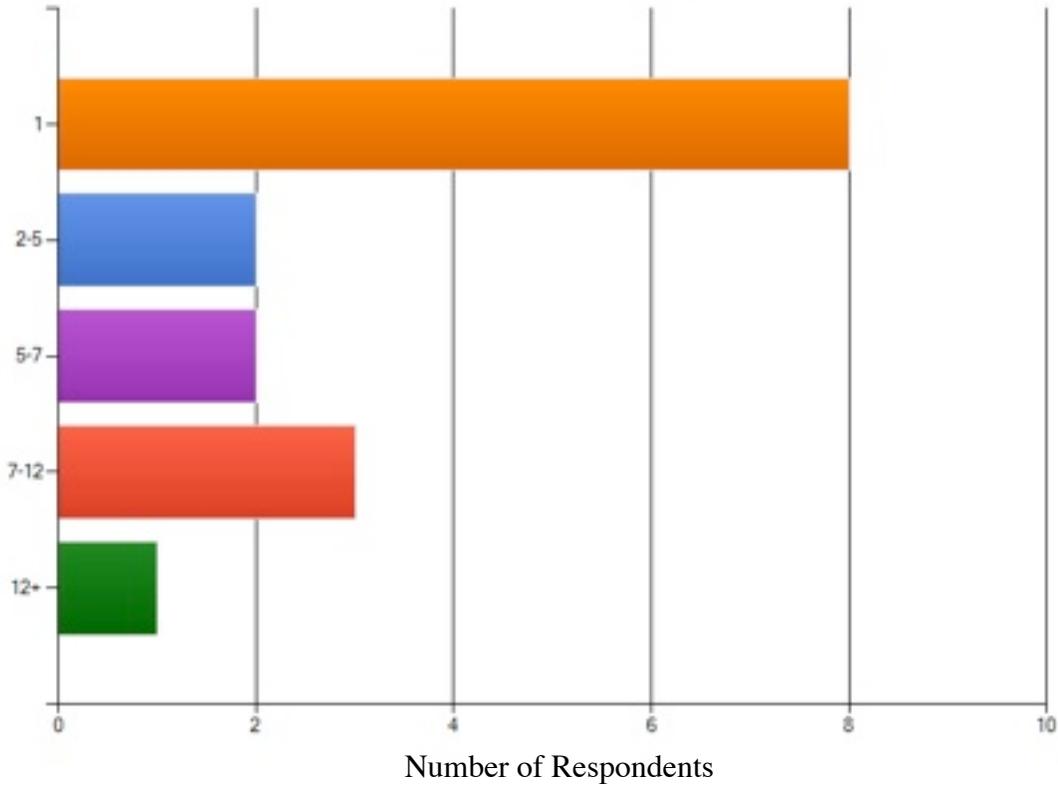


### MANAGERIAL SETTING\_FRADY BRANCH\_USFS

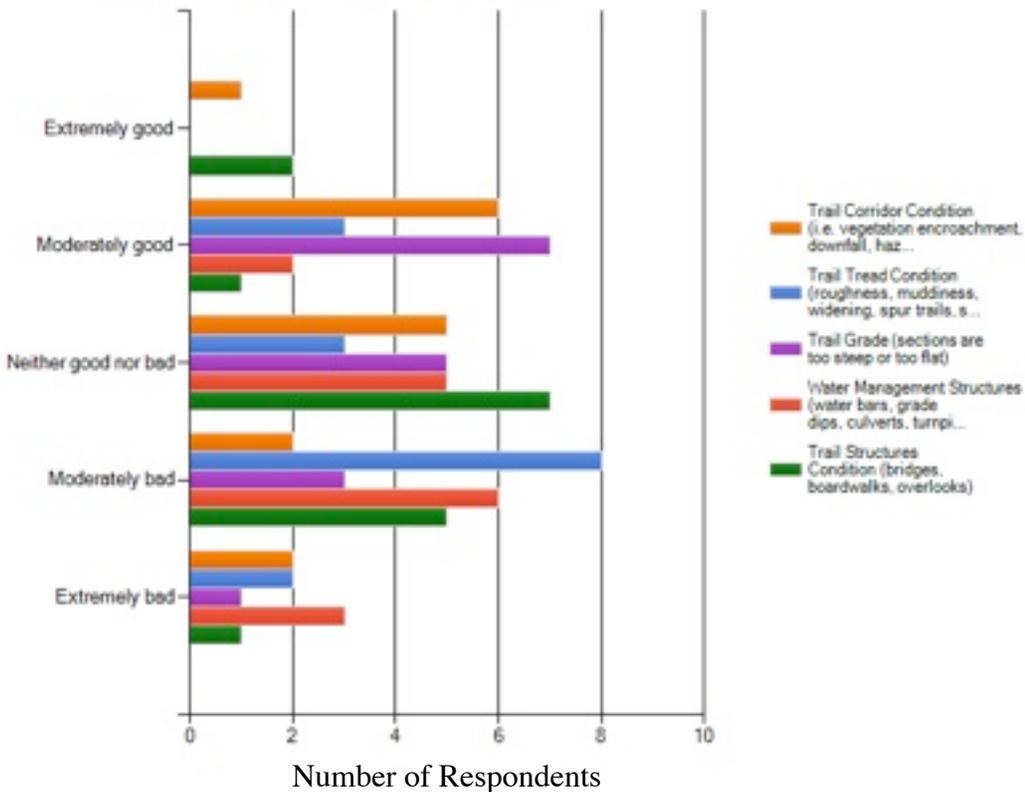


# Survey Results: Volunteers

TRAIL USE\_FRADY BRANCH\_VOL

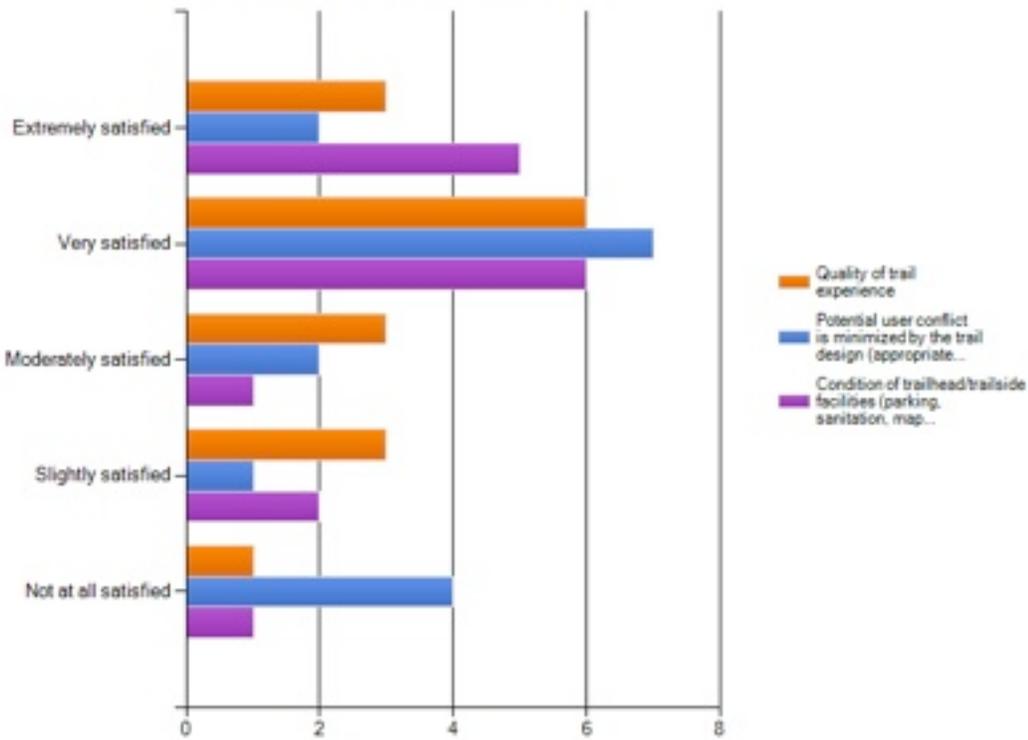


PHYSICAL SETTING\_FRADY BRANCH\_VOL



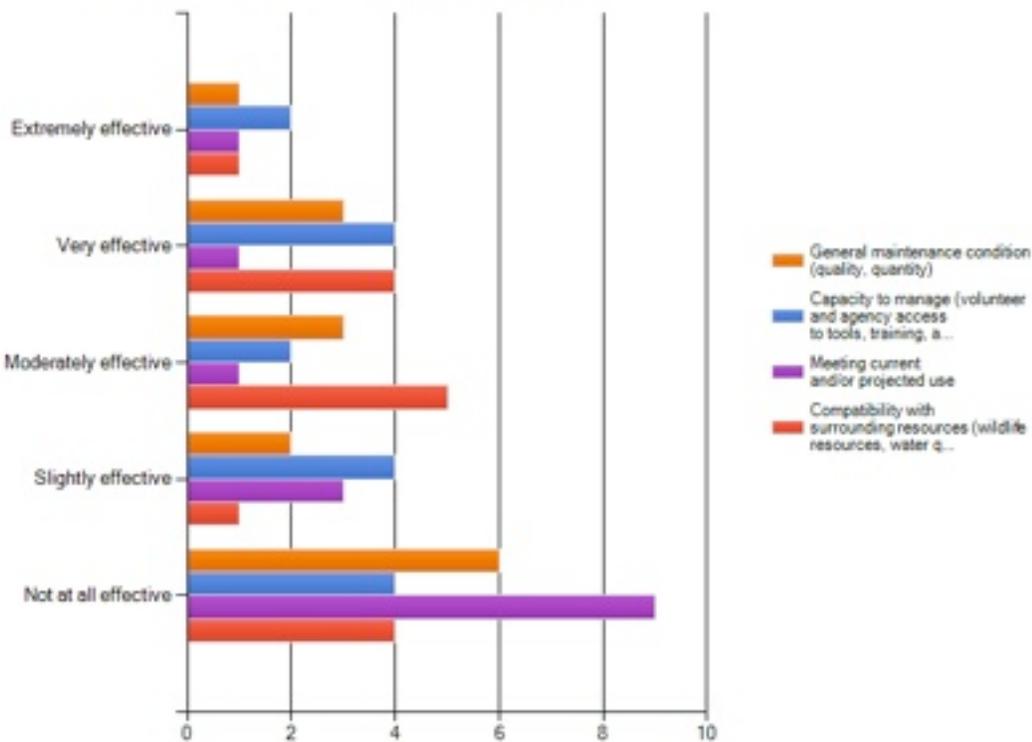
# Survey Results: Volunteers

SOCIAL SETTING\_FRADY BRANCH\_VOL



Number of Respondents

MANAGERIAL SETTING\_FRADY BRANCH\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **IMBA/SORBA:**

History: System was opened in 2003. Portion on existing roadbed and system road. About 6 miles of contractor built trail and a little over 1 mile of volunteer hand-built trail.

Maintenance: SORBA and CTHA have hosted several work days, probably average of two per year, roughly 120 hours plus ad hoc maintenance and deadfall removal. Three different episodes of contractor work – same contractor as Willis Knob on two occasions with same results.

Use: Heavy equestrian use before bridge was washed out September, 2009. Light mountain bike use – perceived user conflict and heavily eroded sections. Little to no hiking traffic.

Issues: Several sections that violate 50% rule. Sandy soil and wide corridor create erosion problems. Difficult to maintain drainage and outslope on wide corridor. Low lying creek crossing has chronic mud problem in winter. Poor initial construction.

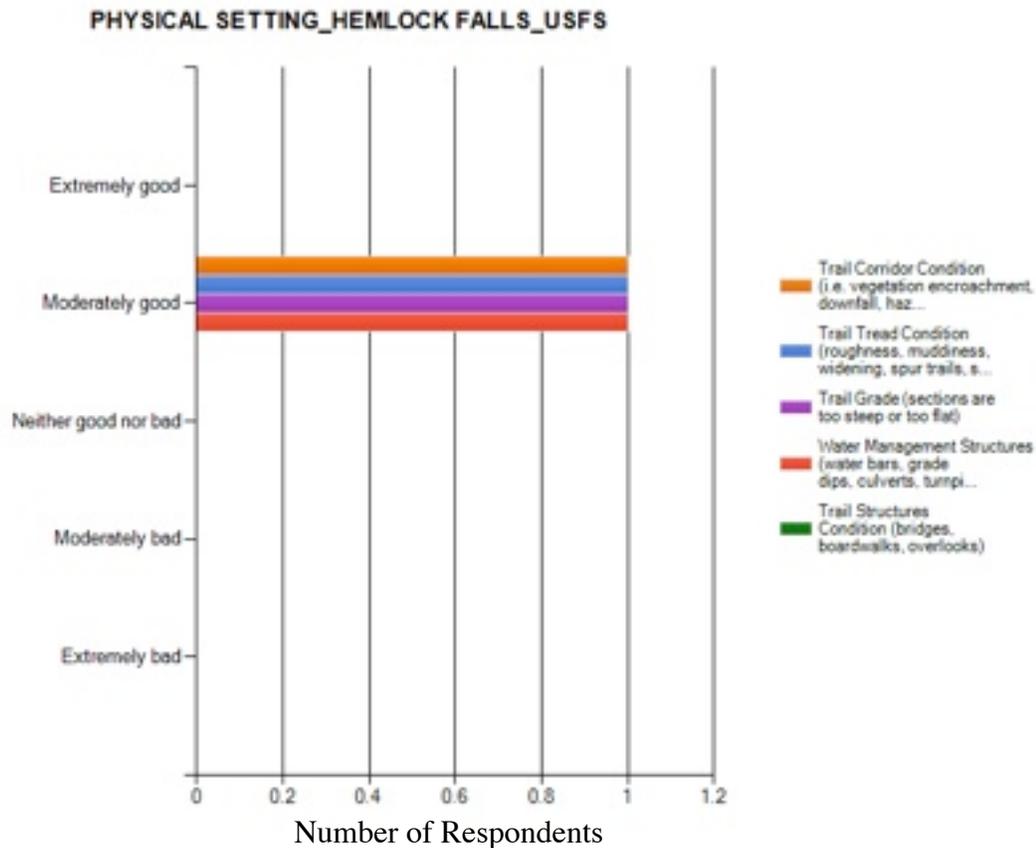
# TRAIL: HEMLOCK FALLS

## Survey Results: Forest Service

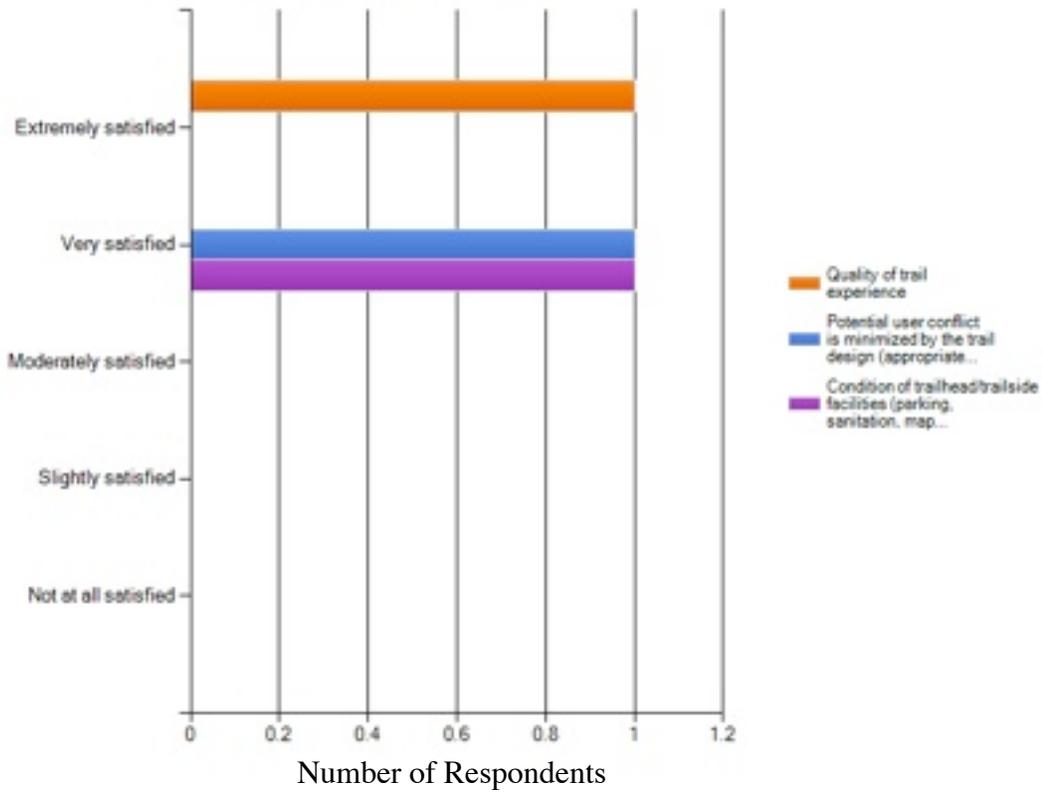
**History:** None provided

**Maintenance Providers:** USFS. Last work done on the trail was in 2012 on an Eagle Scout Project.

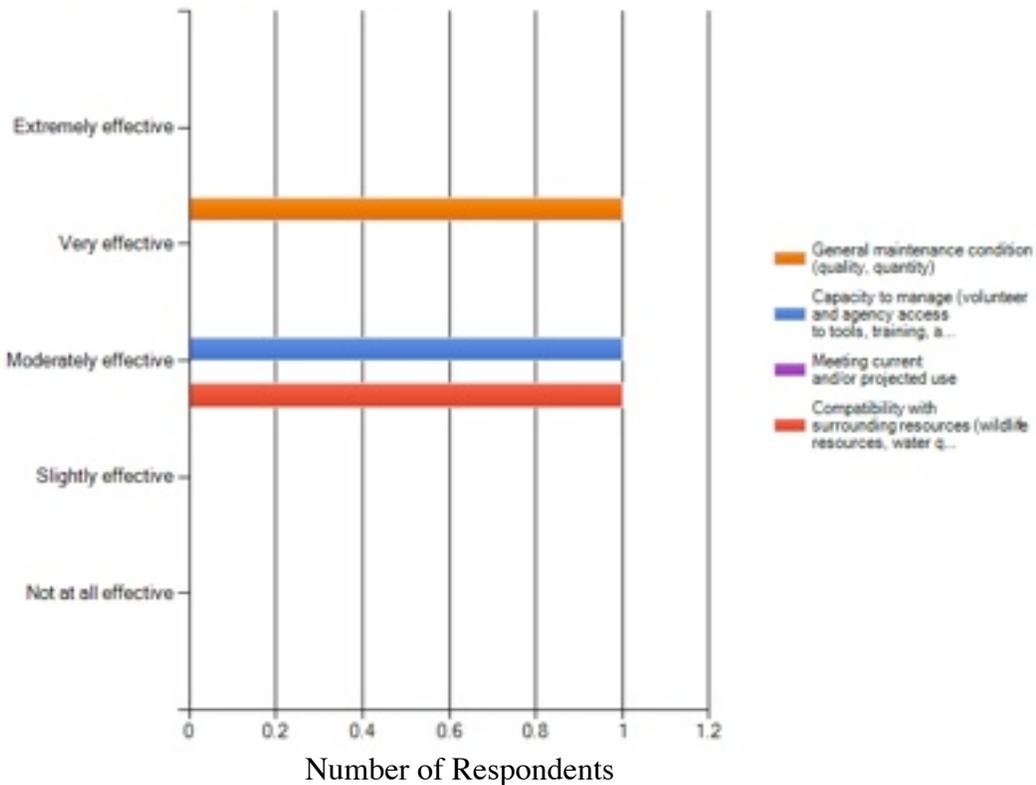
**Reasons Included In Assessment:** None provided



### SOCIAL SETTING\_HEMLOCK FALLS\_USFS

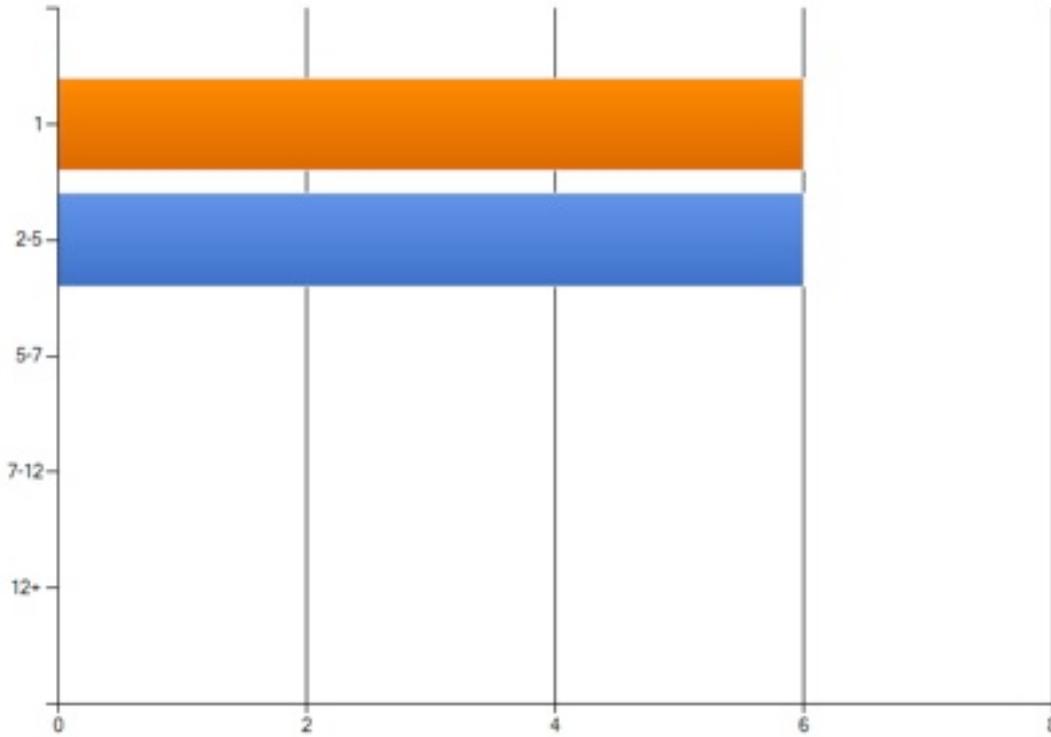


### MANAGERIAL SETTING\_HEMLOCK FALLS\_USFS



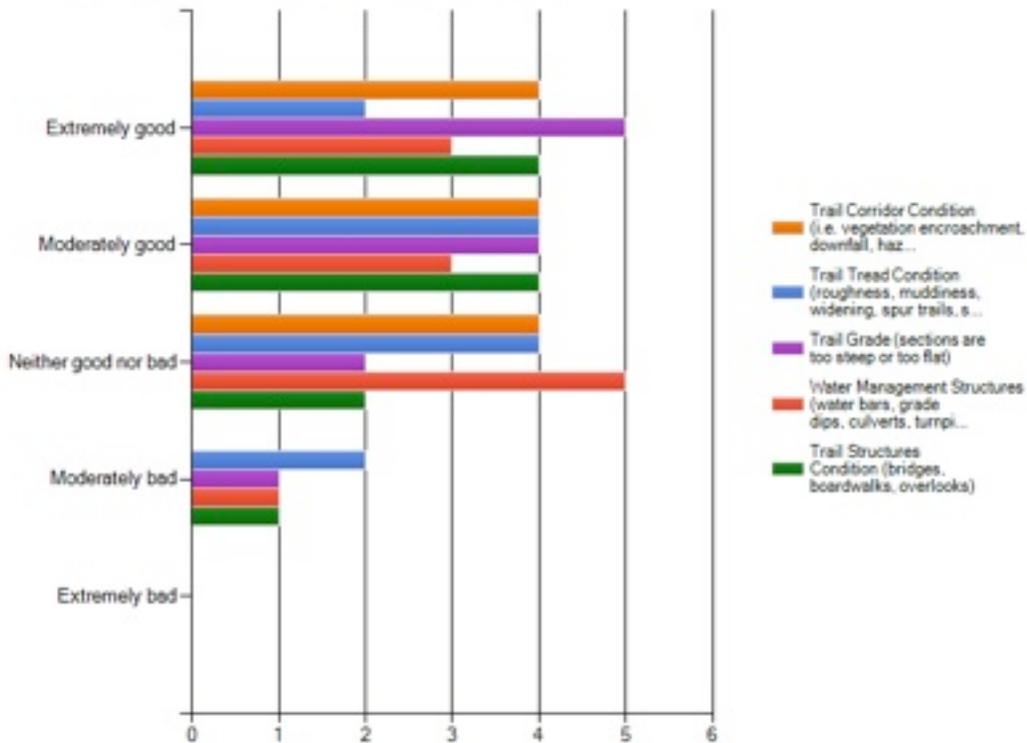
# Survey Results: Volunteers

TRAIL USE\_HEMLOCK FALLS\_VOL



Number of Respondents

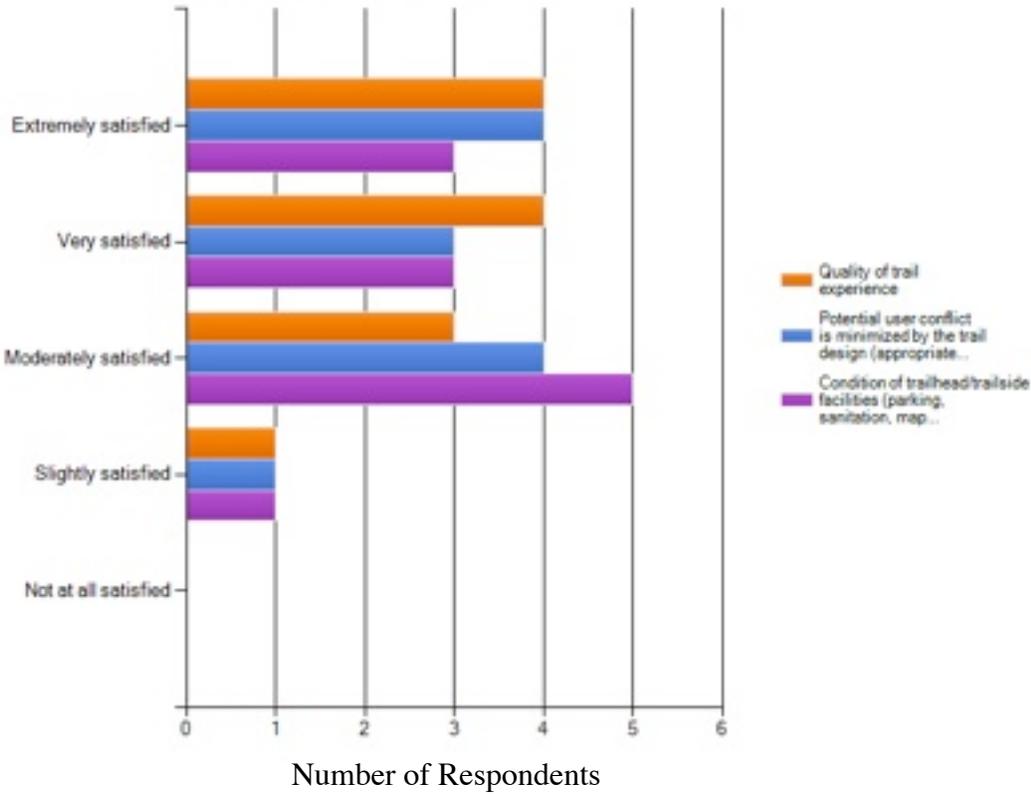
PHYSICAL SETTING\_HEMLOCK FALLS\_VOL



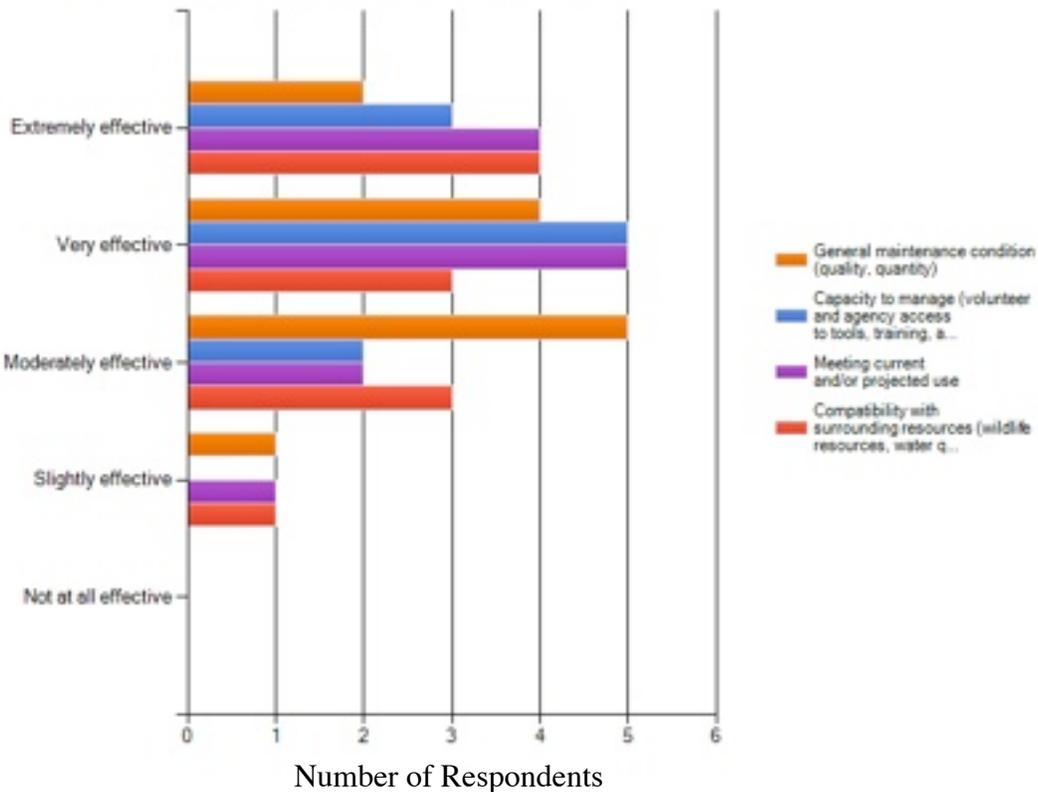
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_HEMLOCK FALLS\_VOL



MANAGERIAL SETTING\_HEMLOCK FALLS\_VOL



## Volunteer Group Comments:

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: This is a heavily visited trail that begins adjacent to the very popular FS campground at Lake Burton Fish Hatchery.

Issues: The initial section follows an old road bed that needs reshaping to fix “low spots.” The rest of the trail presents as a pretty, creek side trail that sometimes exceeds the basic, 18-inch recommended tread width (under current TMOs.) Visitors also have created an unofficial trail going west of Hemlock Falls, which peters out in the wilds after about 0.2 miles. It should be blocked or brought into the system?

# TRAIL: LADYSLIPPER

## Survey Results: Forest Service

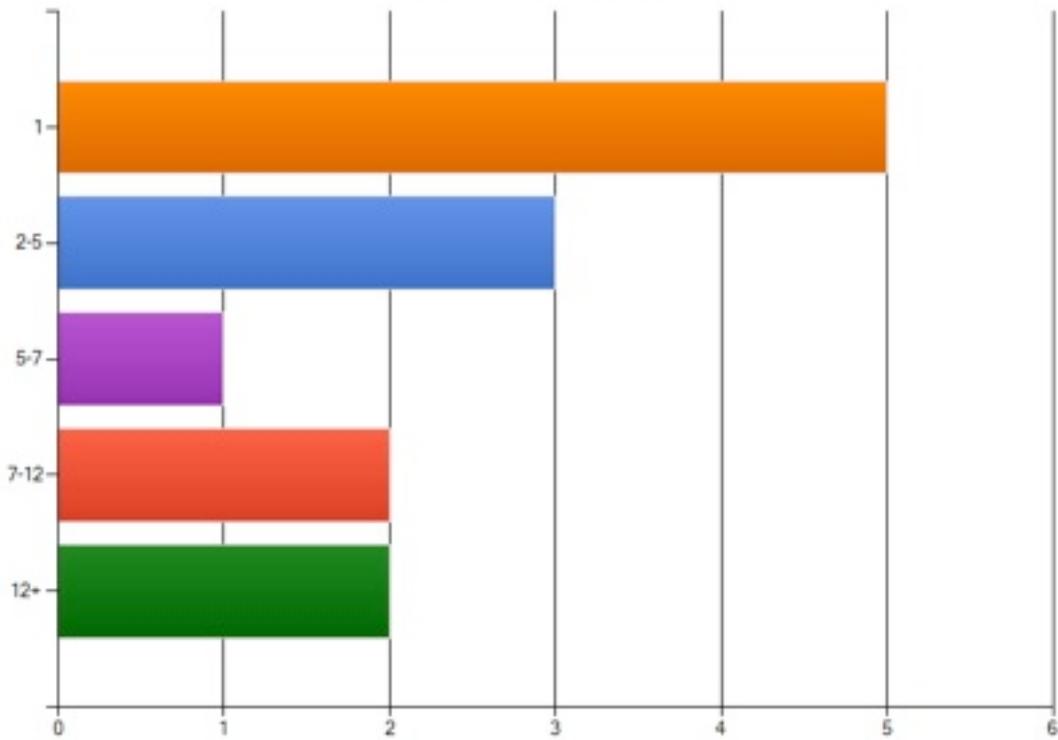
**History:** Constructed in 1983. Laid out by District Ranger using old roadbeds

**Maintenance Providers:** USFS& SORBA

**Reasons Included In Assessment:**

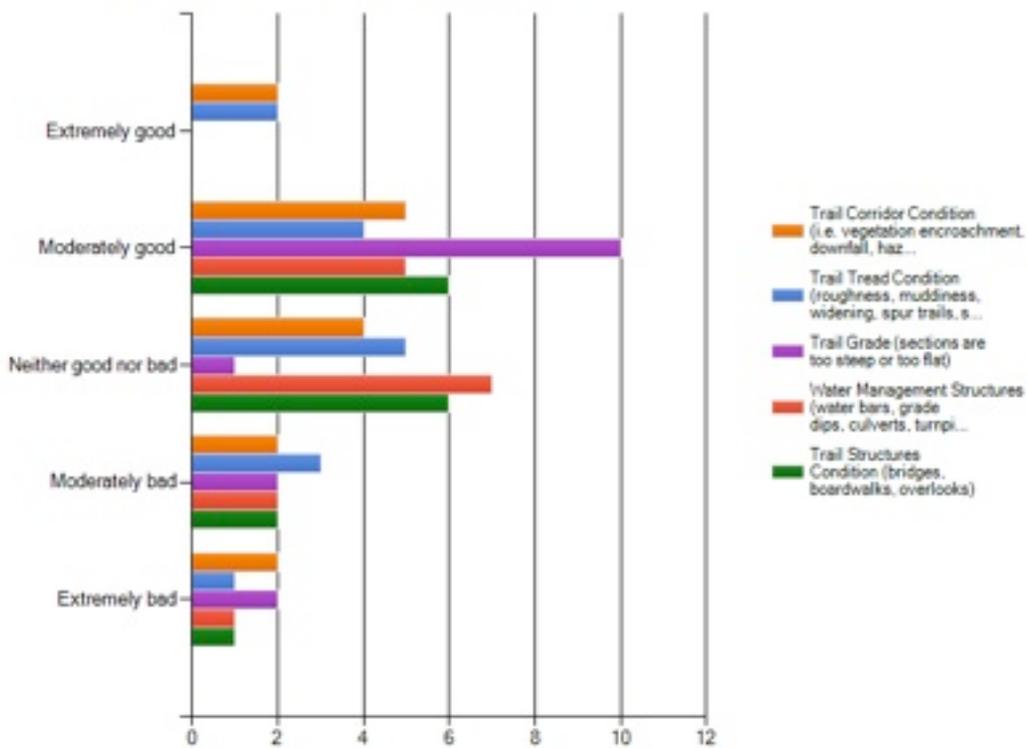
# Survey Results: Volunteers

TRAIL USE\_LADYSLIPPER\_VOL



Number of Respondents

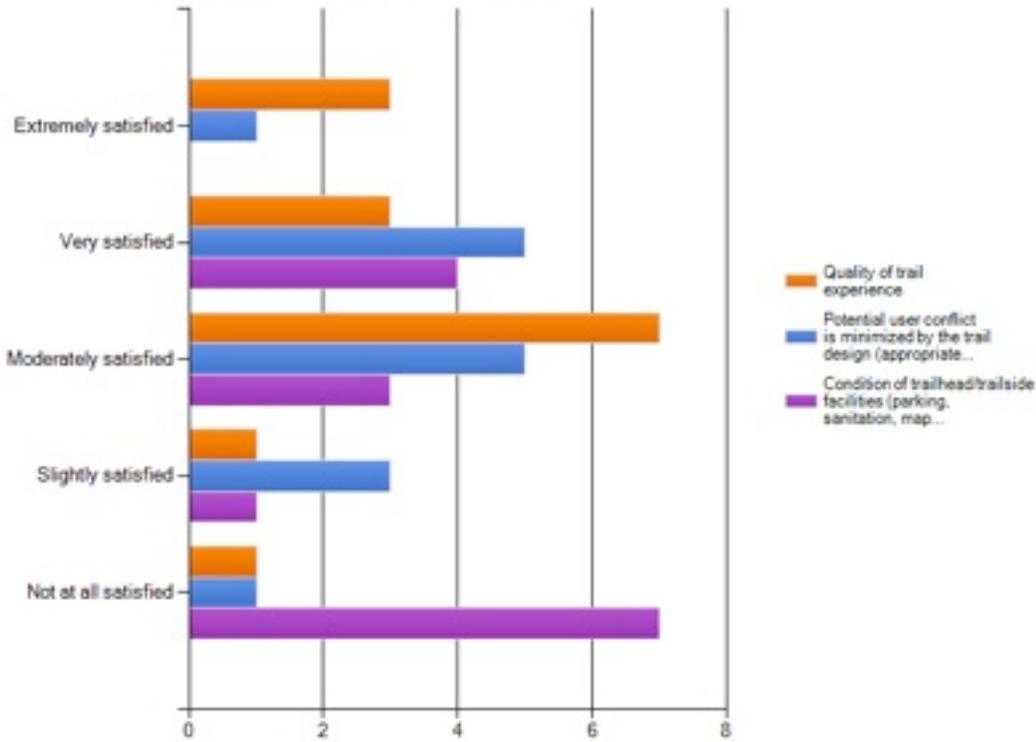
PHYSICAL SETTING\_LADYSLIPPER\_VOL



Number of Respondents

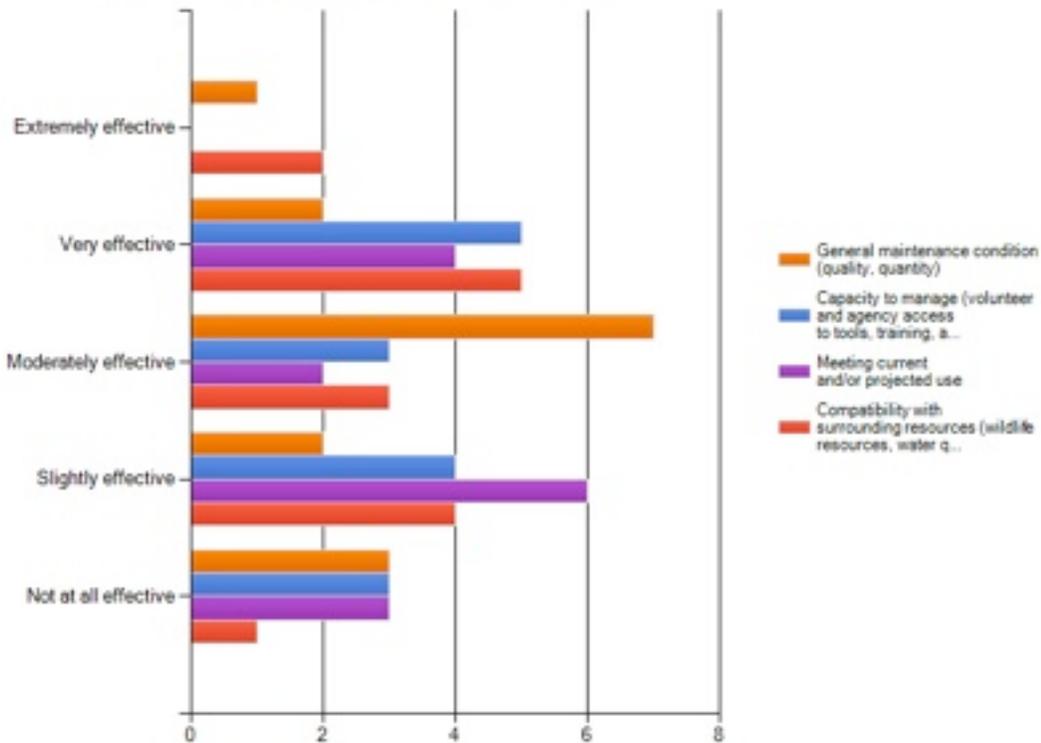
# Survey Results: Volunteers

SOCIAL SETTING\_LADYSLIPPER\_VOL



Number of Respondents

MANAGERIAL SETTING\_LADYSLIPPER\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: Receives most of its visits in season.

Issues: Recently, user-created mountain bike trails have been observed, originating from the designated Ladyslipper Trail and spreading into adjacent areas.

### **IMBA/SORBA:**

History of trail: In use for at least 20 years as hiking, equestrian, and mountain bike trail. Current or past maintenance providers, general maintenance intervals and activities undertaken.

Maintenance: SORBA clears trees, but no major tread work. Dozer work to build water bars and drainage every 5-7 years.

Use: Lightly used for hiking and mountain biking. Little equestrian use because of limited parking. More use in fall, winter, spring.

Issues: Several eroded fall-line sections. Corridor width is attractive to 4-wheel drive vehicles. Barriers have been compromised and illegal use has been a problem. Poor signage.

# TRAIL: LAKE RUSSELL LOOP

## Survey Results: Forest Service

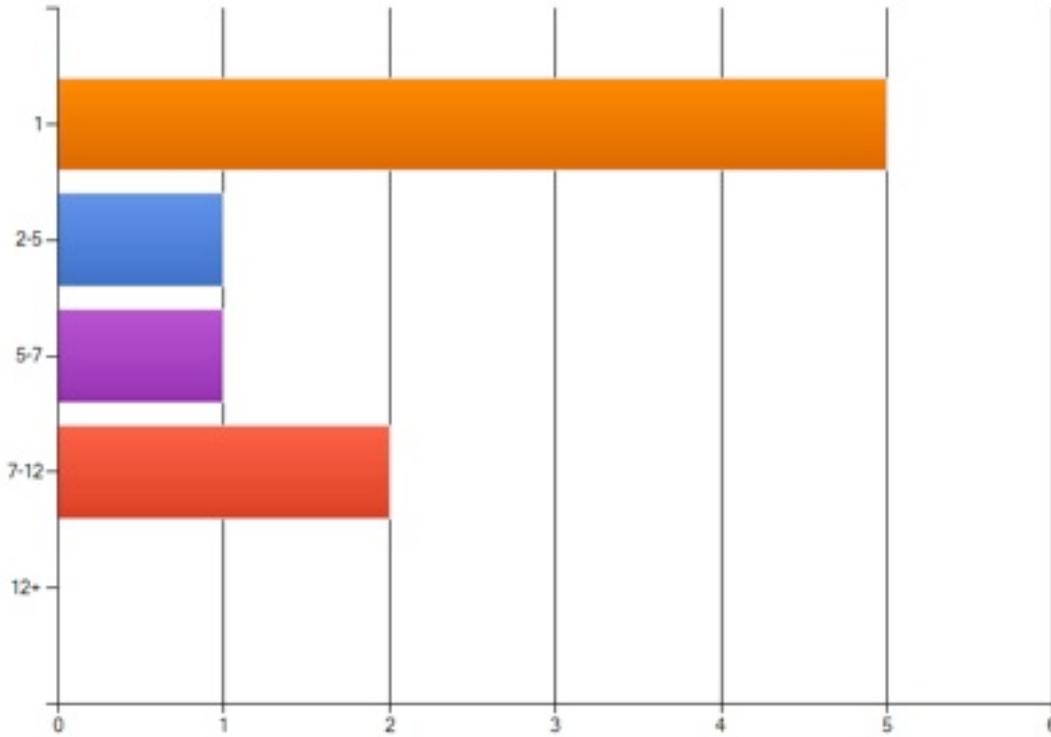
**History:** None provided.

**Maintenance Providers:** USFS

**Reasons Included In Assessment:** None provided

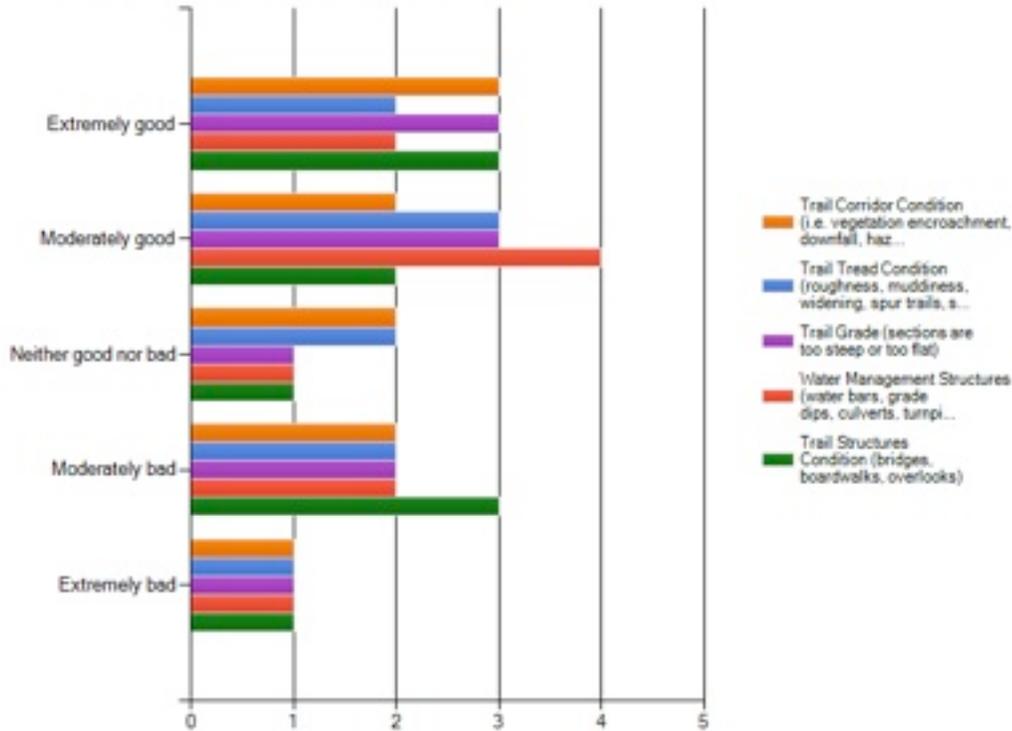
# Survey Results: Volunteers

TRAIL USE\_LAKE RUSSELL LOOP\_VOL



Number of Respondents

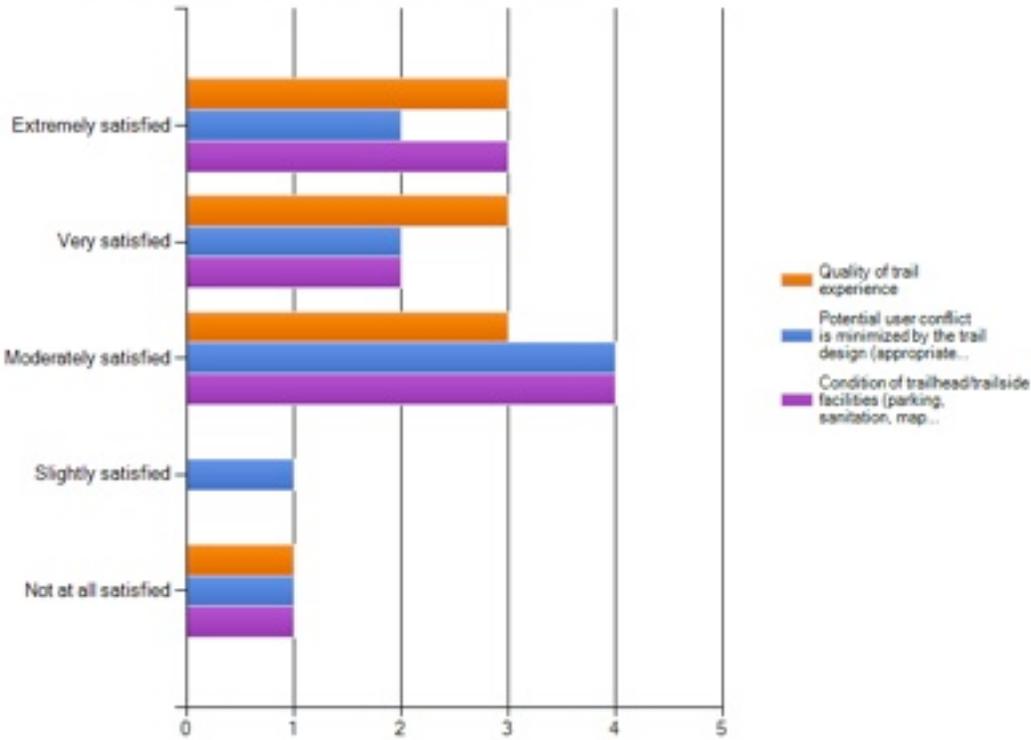
PHYSICAL SETTING\_LAKE RUSSELL LOOP\_VOL



Number of Respondents

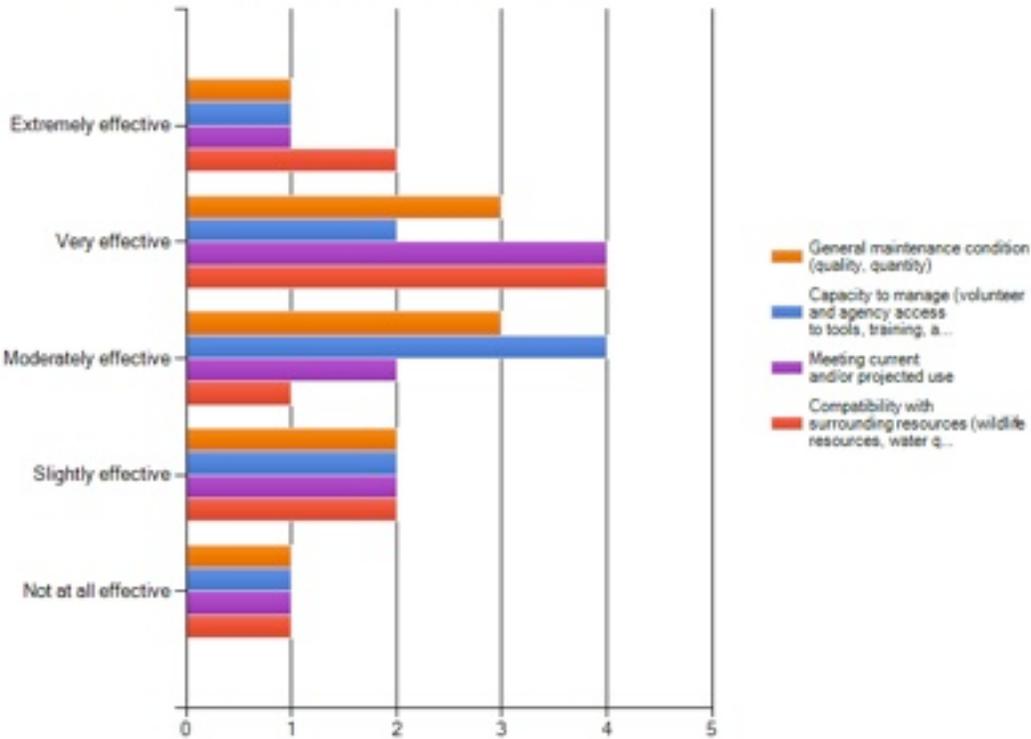
# Survey Results: Volunteers

SOCIAL SETTING\_LAKE RUSSELL LOOP\_VOL



Number of Respondents

MANAGERIAL SETTING\_LAKE RUSSELL LOOP\_VOL



Number of Respondents

## Volunteer Group Comments:

### **Georgia Forest Watch:**

History: None provided

Maintenance: Maintained by NE Georgia Mountain Hiking Club of Clarkesville.

Use: None provided

Issues: None provided

**TRAIL: MINNEHAHA**

## **Survey Results: Forest Service**

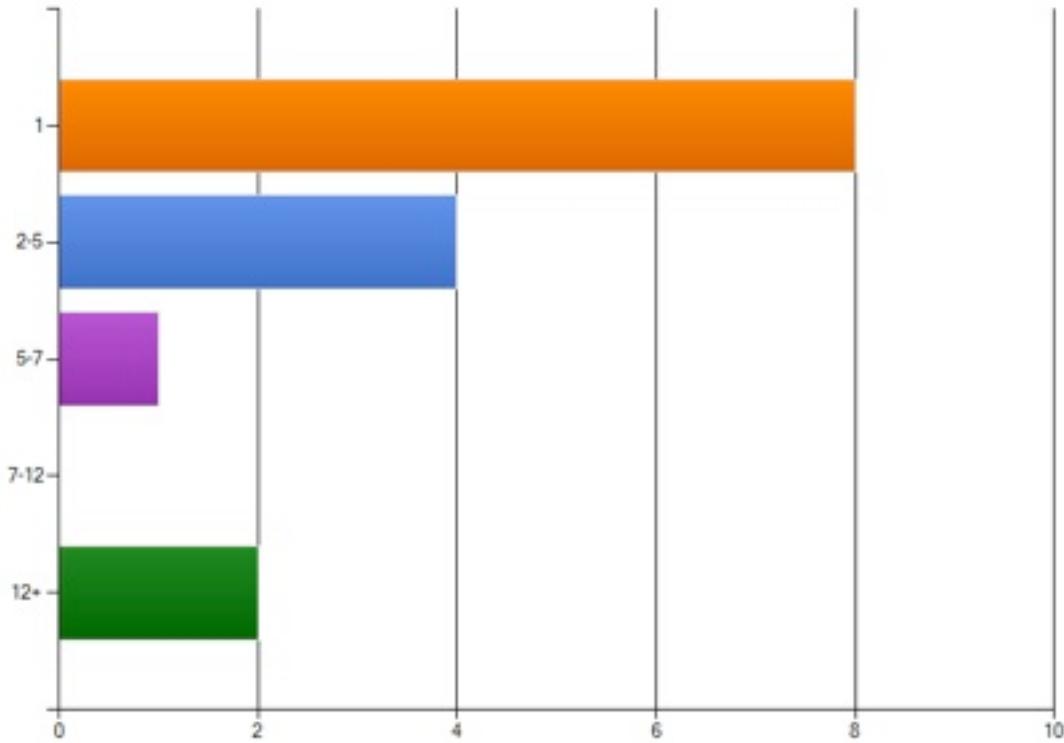
**History:** None provided

**Maintenance Providers:** USFS

**Reasons Included In Assessment:** None provided

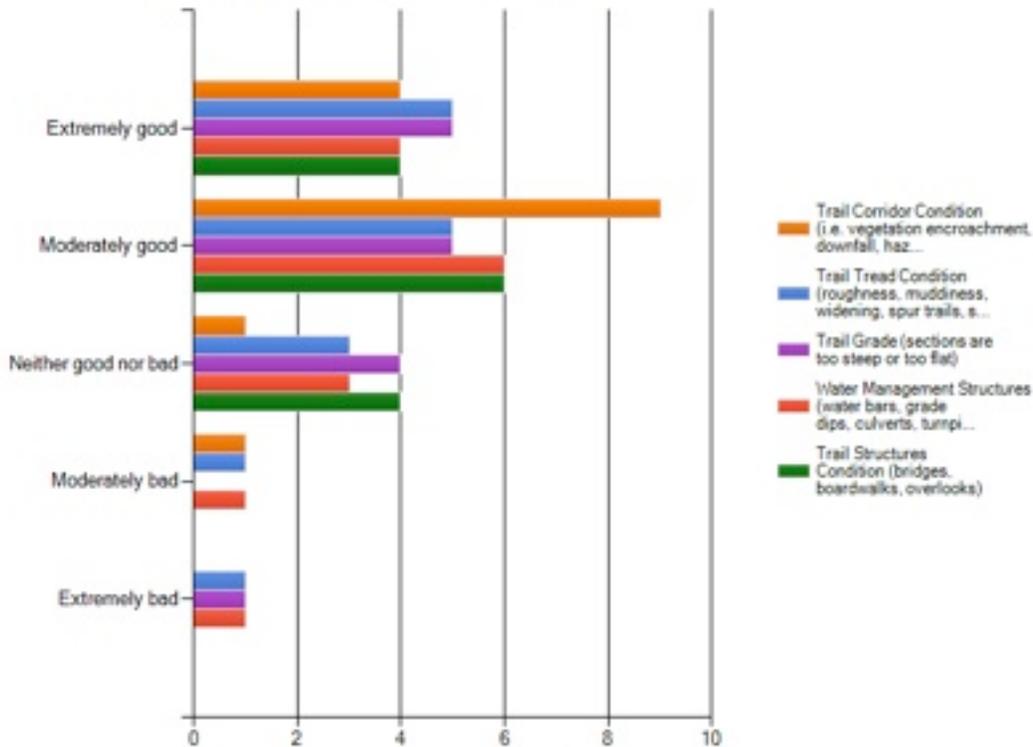
# Survey Results: Volunteers

TRAIL USE\_MINNEHAHA\_VOL



Number of Respondents

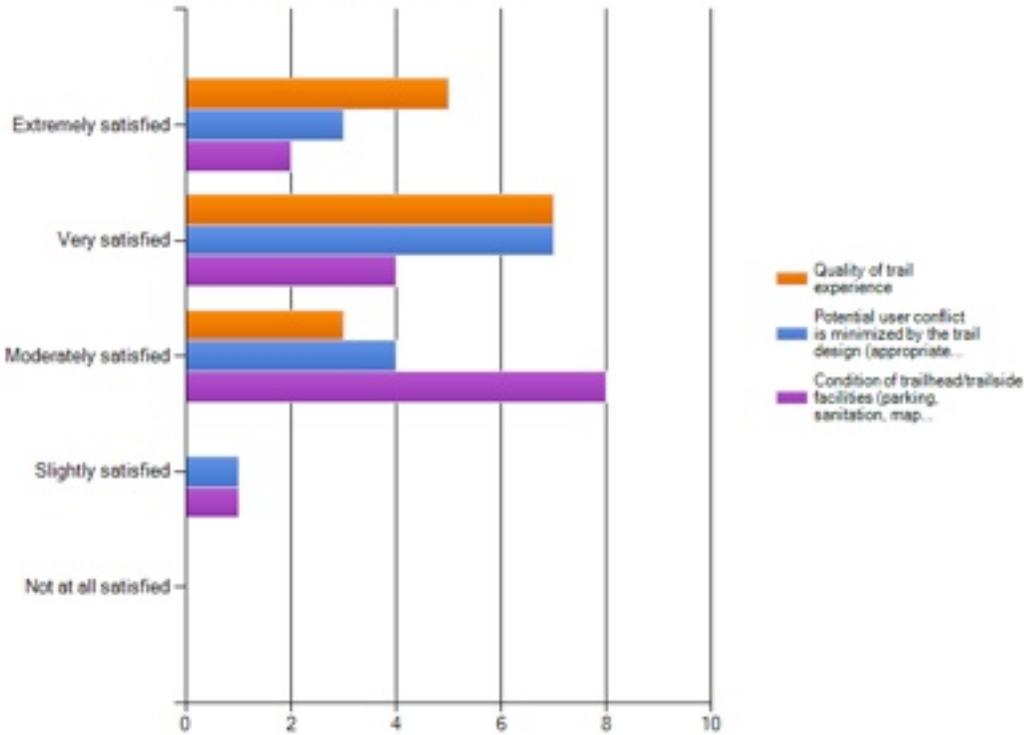
PHYSICAL SETTING\_MINNEHAHA\_VOL



Number of Respondents

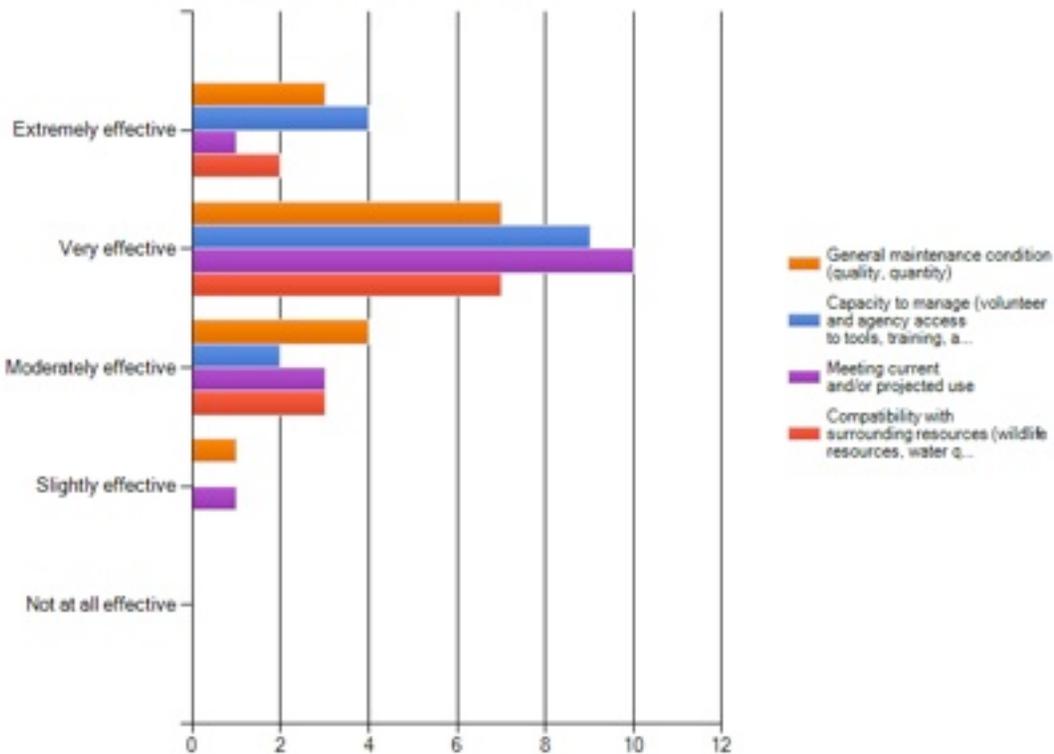
# Survey Results: Volunteers

SOCIAL SETTING\_MINNEHAHA\_VOL



Number of Respondents

MANAGERIAL SETTING\_MINNEHAHA\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: No known formal maintenance group. The Forest Service or the nearby Rabun Beach camp managers could and should participate with maintenance.

Use: Short trail leading to a popular waterfall, which is found in all area guidebooks and trail articles, mostly used on weekends in season.

Issues: None provided

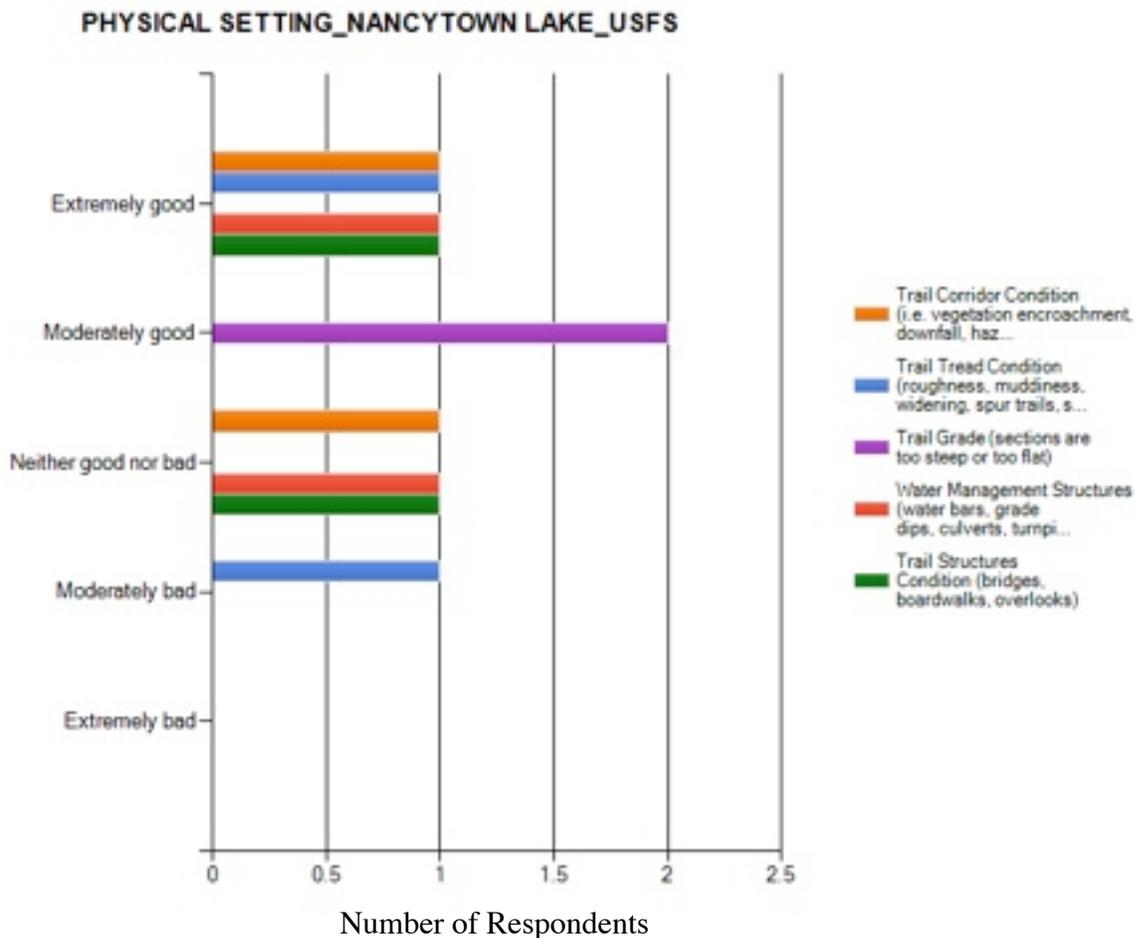
# TRAIL: NANCYTOWN LAKE LOOP

## Survey Results: Forest Service

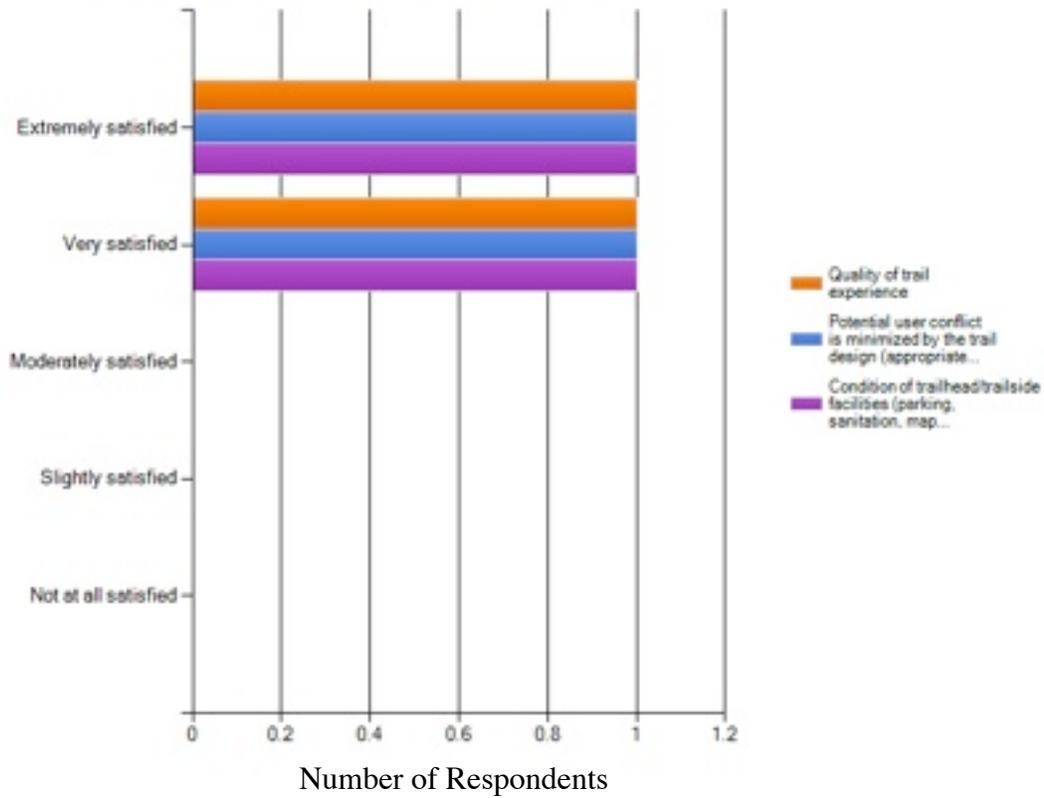
**History:** User-created trail

**Maintenance Providers:** USFS

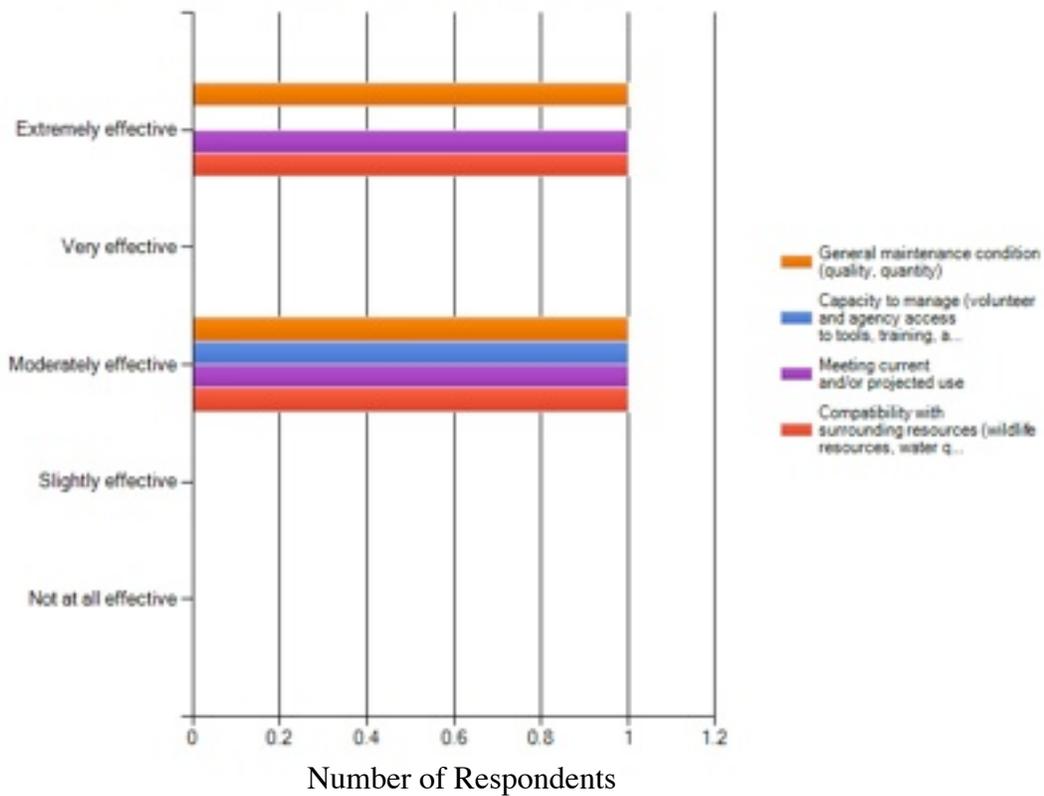
**Reasons Included In Assessment:** None provided



### SOCIAL SETTING\_NANCYTOWN LAKE\_USFS

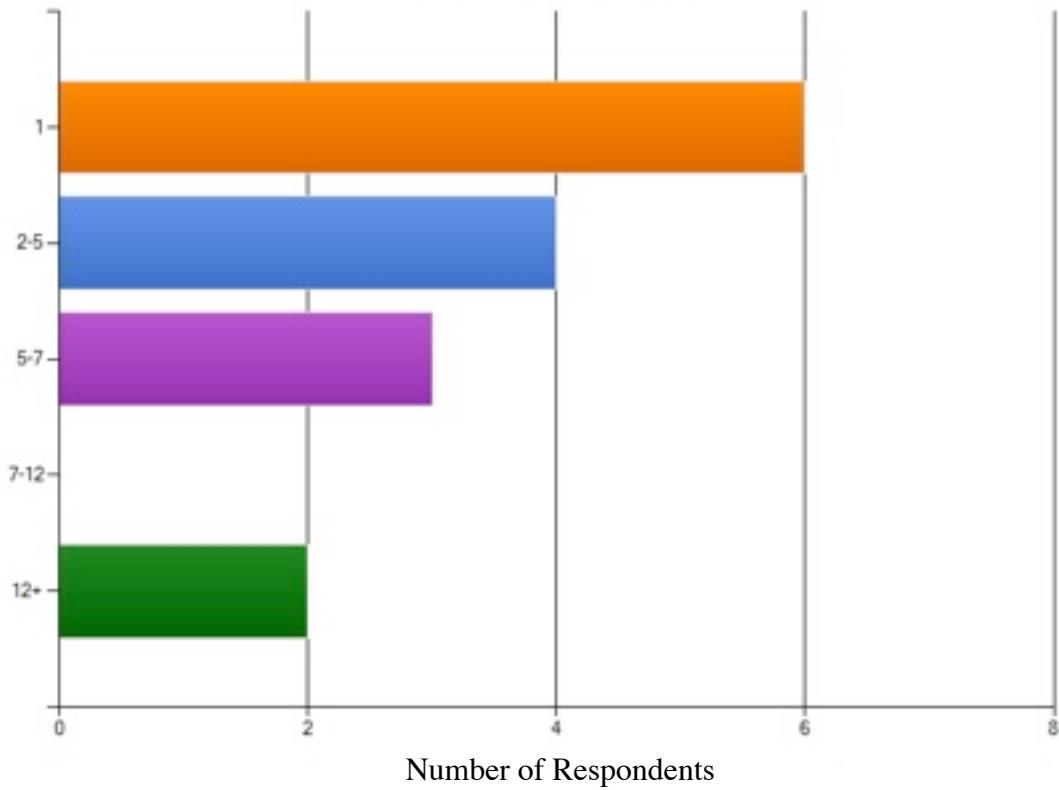


### MANAGERIAL SETTING\_NANCYTOWN LAKE\_USFS

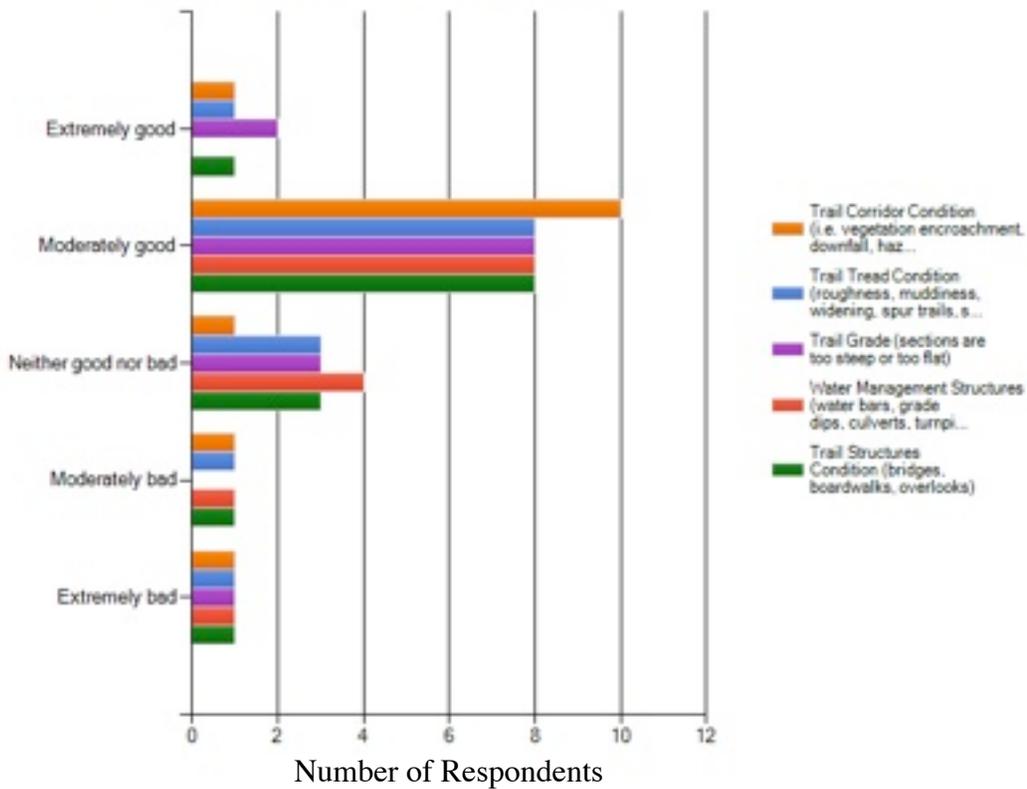


# Survey Results: Volunteers

TRAIL USE\_NANCYTOWN LAKE\_VOL

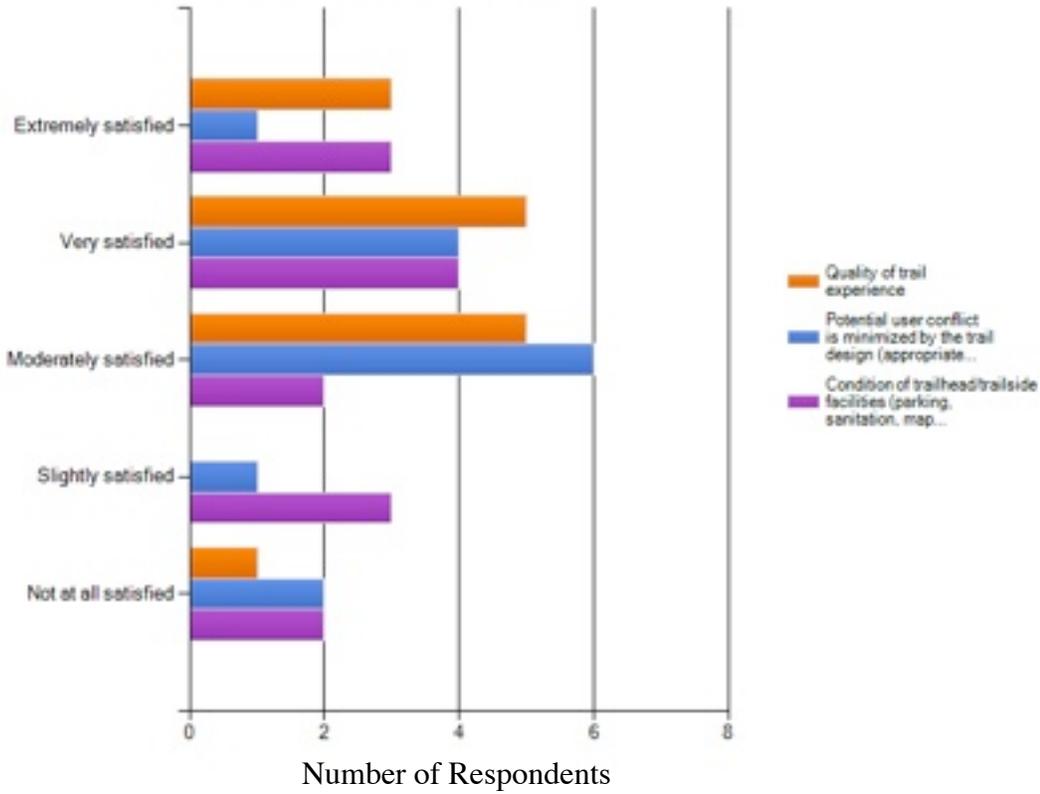


PHYSICAL SETTING\_NANCYTOWN LAKE\_VOL

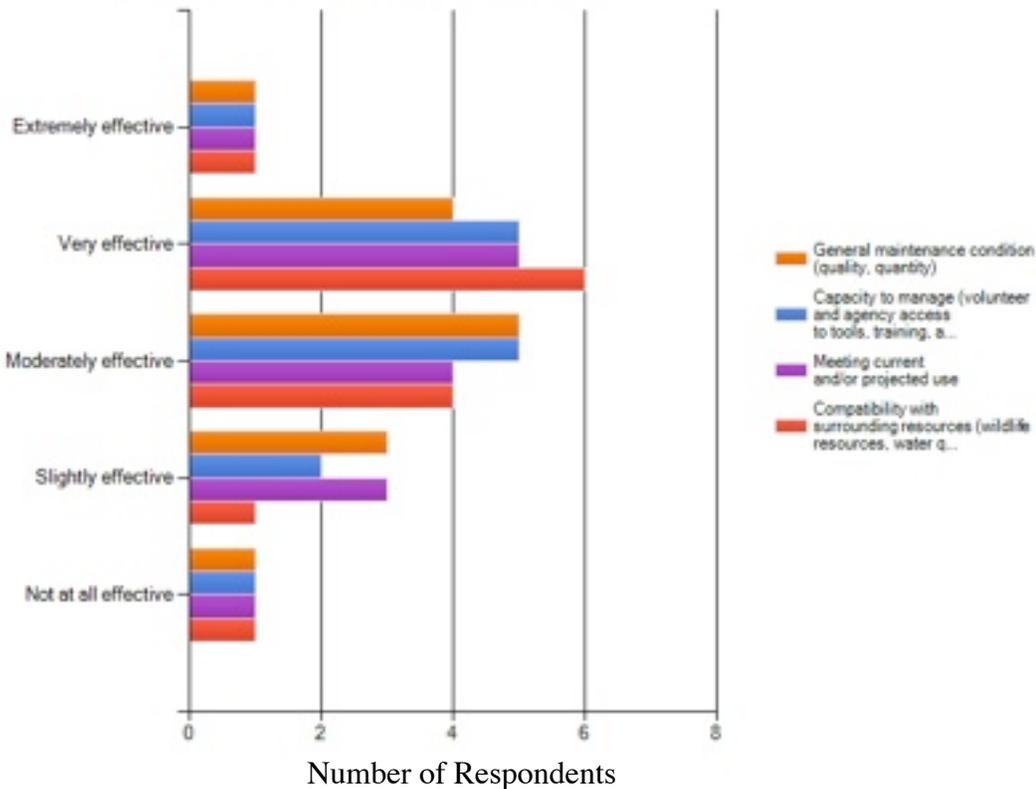


# Survey Results: Volunteers

SOCIAL SETTING\_NANCYTOWN LAKE\_VOL



MANAGERIAL SETTING\_NANCYTOWN LAKE\_VOL



## Volunteer Group Comments:

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: Primarily used by people fishing.

Issues: None provided

# TRAIL: PANTHER CREEK

## Survey Results: Forest Service

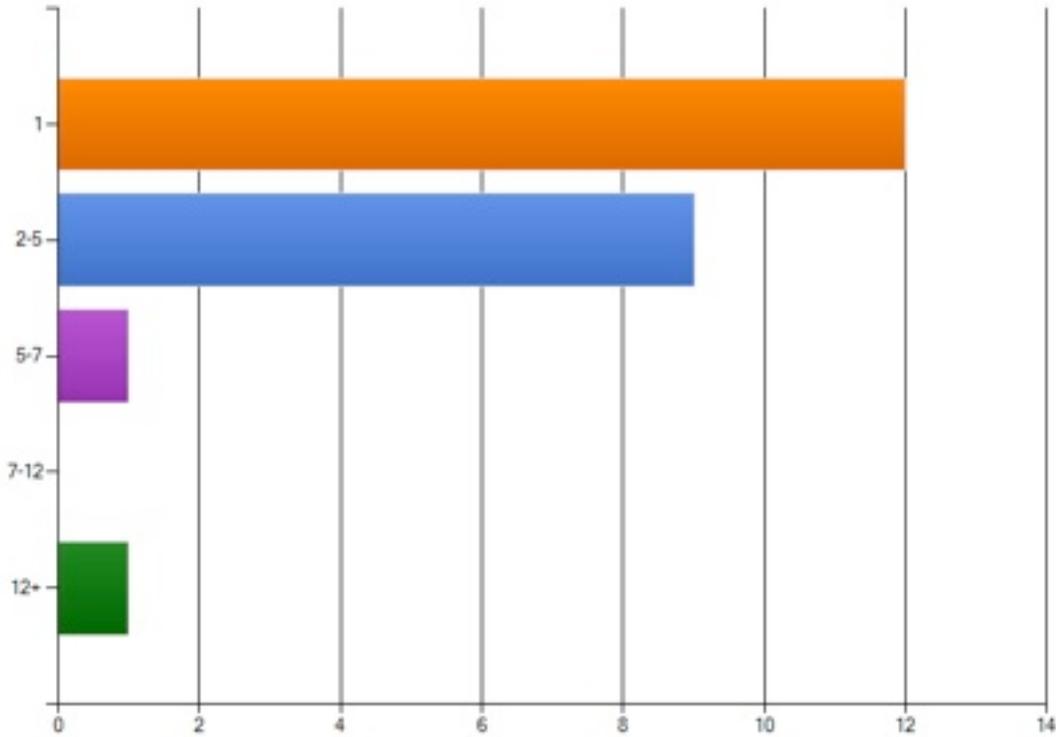
**History:** None provided

**Maintenance Providers:** USFS, last maintenance session in 2008

**Reasons Included In Assessment:** None provided

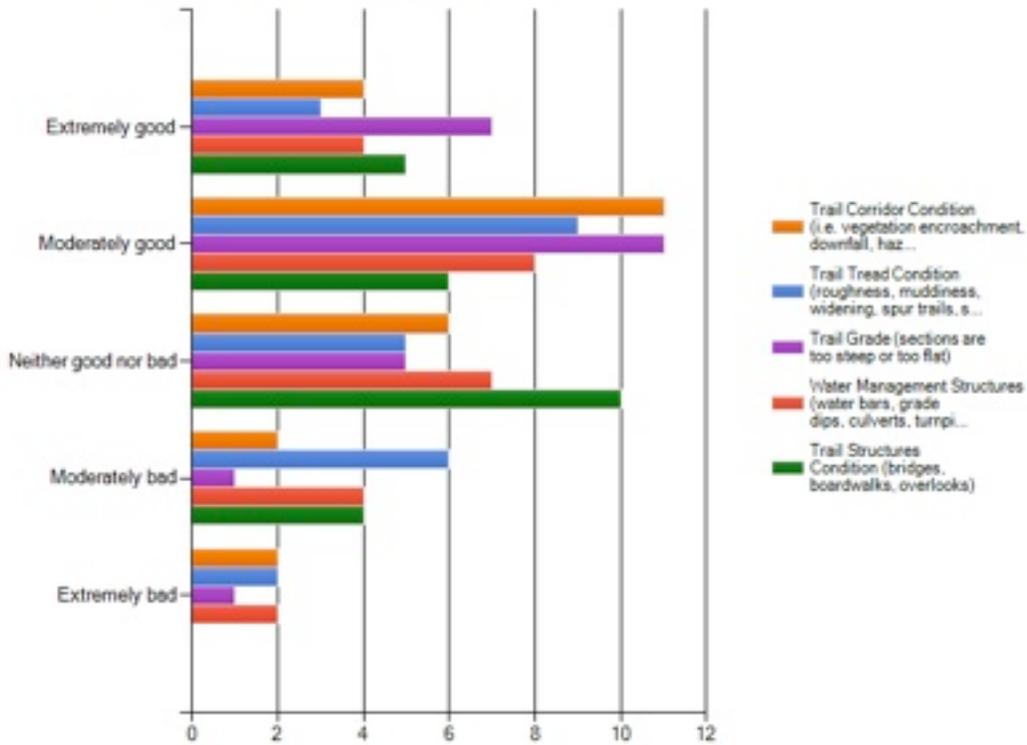
# Survey Results: Volunteers

TRAIL USE\_PANTHER CREEK\_VOL



Number of Respondents

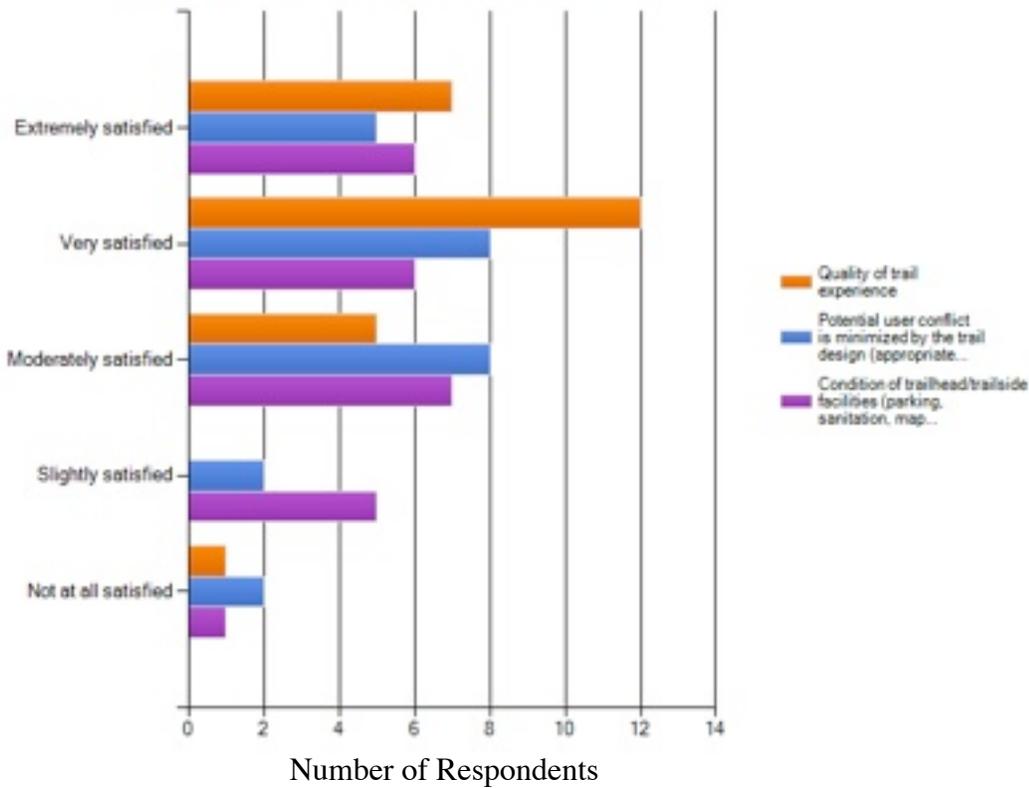
PHYSICAL SETTING\_PANTHER CREEK\_VOL



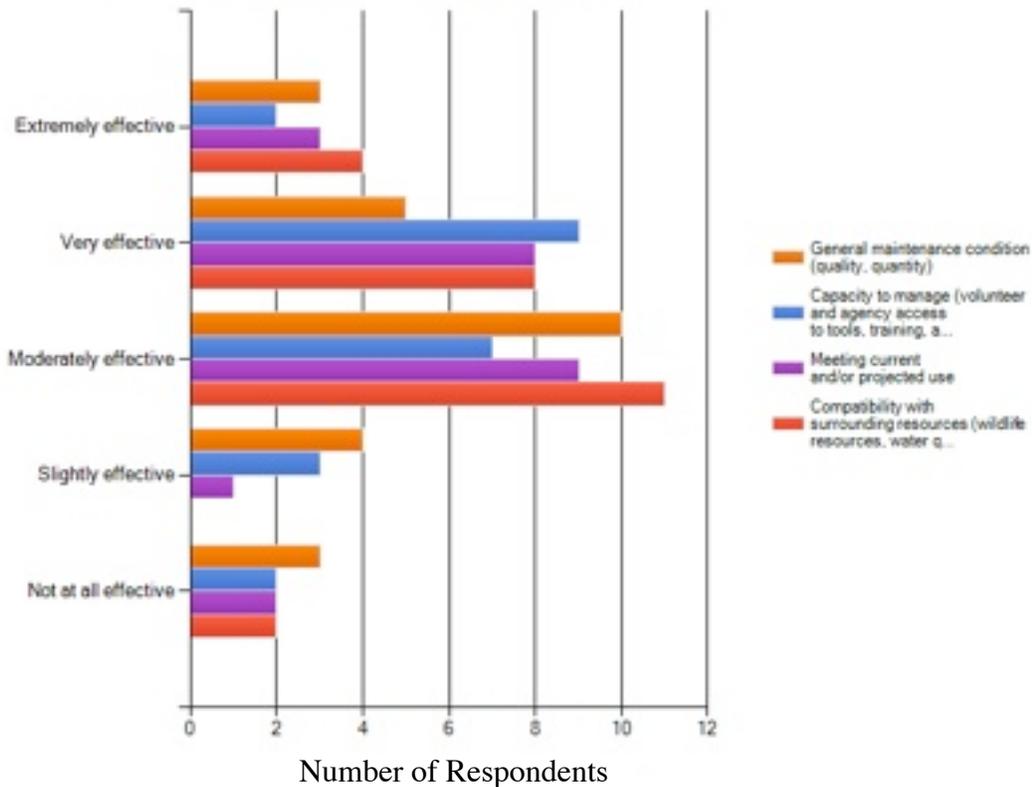
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_PANTHER CREEK\_VOL



MANAGERIAL SETTING\_PANTHER CREEK\_VOL



## **Volunteer Group Comments:**

### **Mountain High Hikers:**

Don't know the history or who maintains it. Trail gets moderate to Heavy usage, Beautiful falls that people want to see, our group hikes it 2-3 times a year. Trail had a reroute in the last 5 or 6 years in the first mile or so around a bad spot along the river which required climbing over some boulders. The major issue now is the area near the falls, there is very rickety guard wires up that need to be redone, and a steep descent at the base of the waterfall that needs rock work or reroute. This trail should be fixed and NOT closed, it is to pretty a spot, and people will keep going even on a closed trail

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: We believe that the northern 3.5 miles receives much greater use from people wanting to see the falls. The northern parking access receives greater use because it is easier to access and feels safer than the lower parking area which is often used by campers.

Issues: High use, erosion, social/user created side trails.

# TRAIL: PINNACLE

## Survey Results: Forest Service

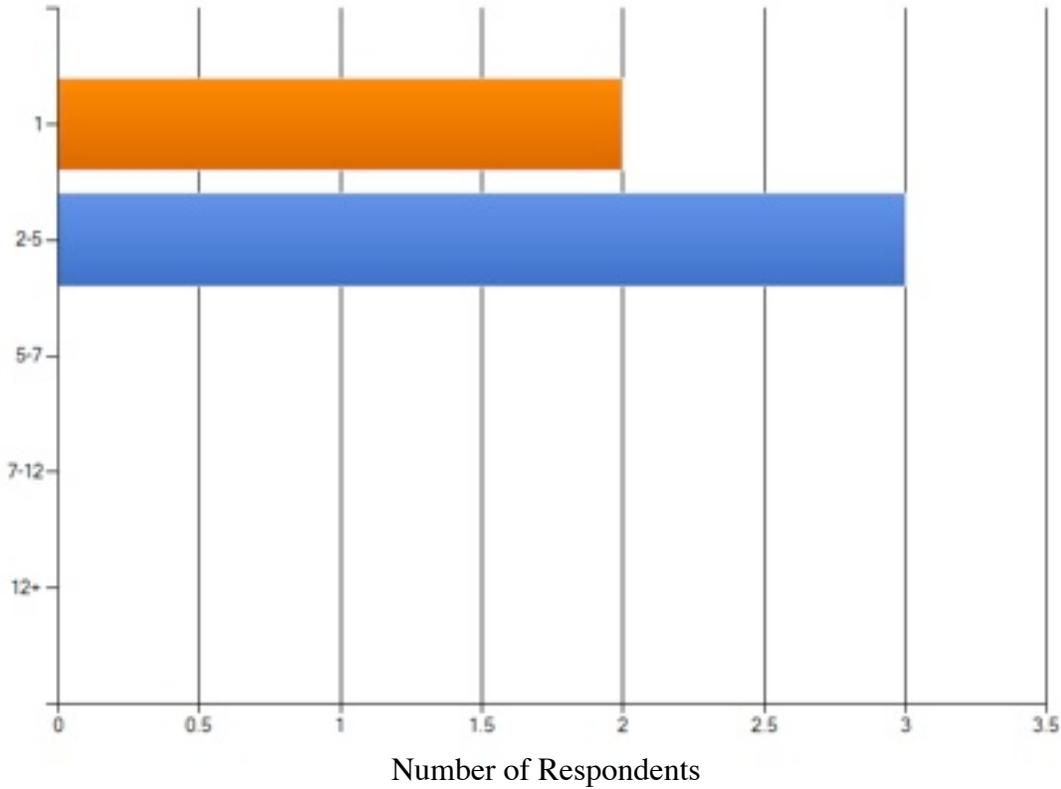
**History:** None provided

**Maintenance Providers:** USFS, in planning for relocation

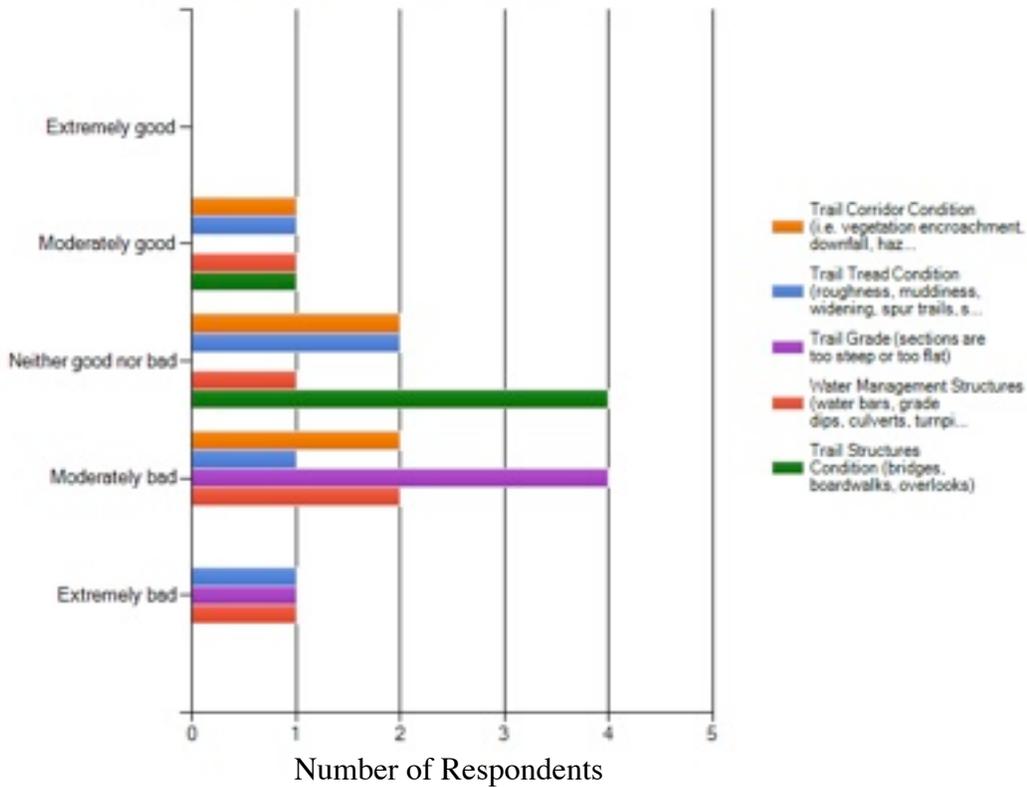
**Reasons Included In Assessment:** None provided

# Survey Results: Volunteers

TRAIL USE\_PINNACLE\_VOL

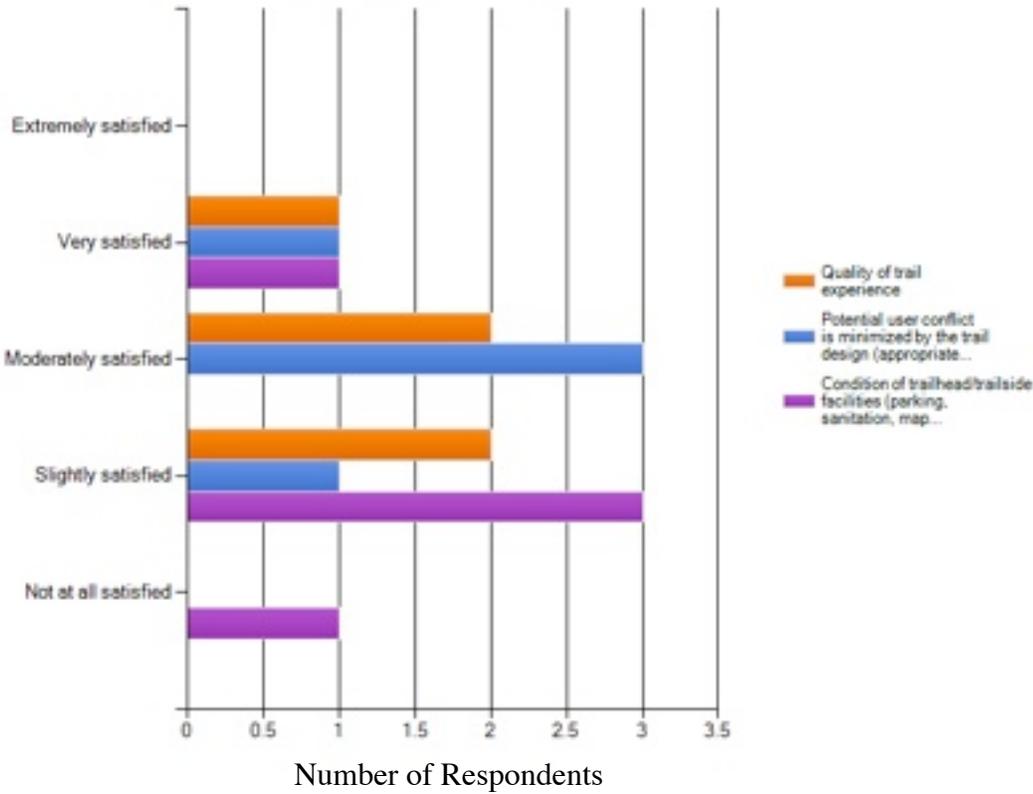


PHYSICAL SETTING\_PINNACLE\_VOL

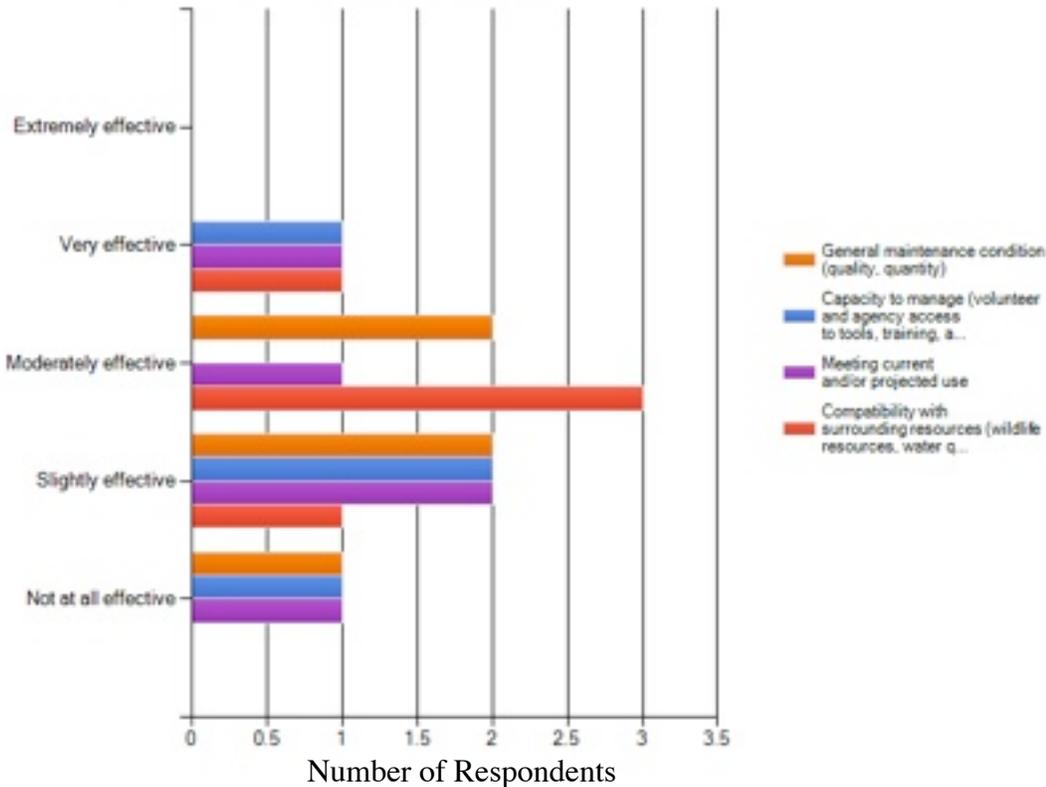


# Survey Results: Volunteers

SOCIAL SETTING\_PINNACLE\_VOL



MANAGERIAL SETTING\_PINNACLE\_VOL



## **Volunteer Group Comments:**

### **Mountain High Hikers:**

Don't know history or who maintains this. Trail is a disaster, but VERY popular, moderate usage all times of the years. Beautiful overlook that people will travel to no matter what the trail is like. Present trail is NOT sustainable, very steep and heavily eroded. Needs a reroute VERY high priority

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: None provided

Issues: Ranger district is proposing a relocation here, we were unable to acquire specific on this relocation prior to the comment deadline, but encourage contractors to check with Chattooga River Ranger District staff to “compare notes” about this trail and said reroute. The current route is inappropriately steep both to hike and to maintain.

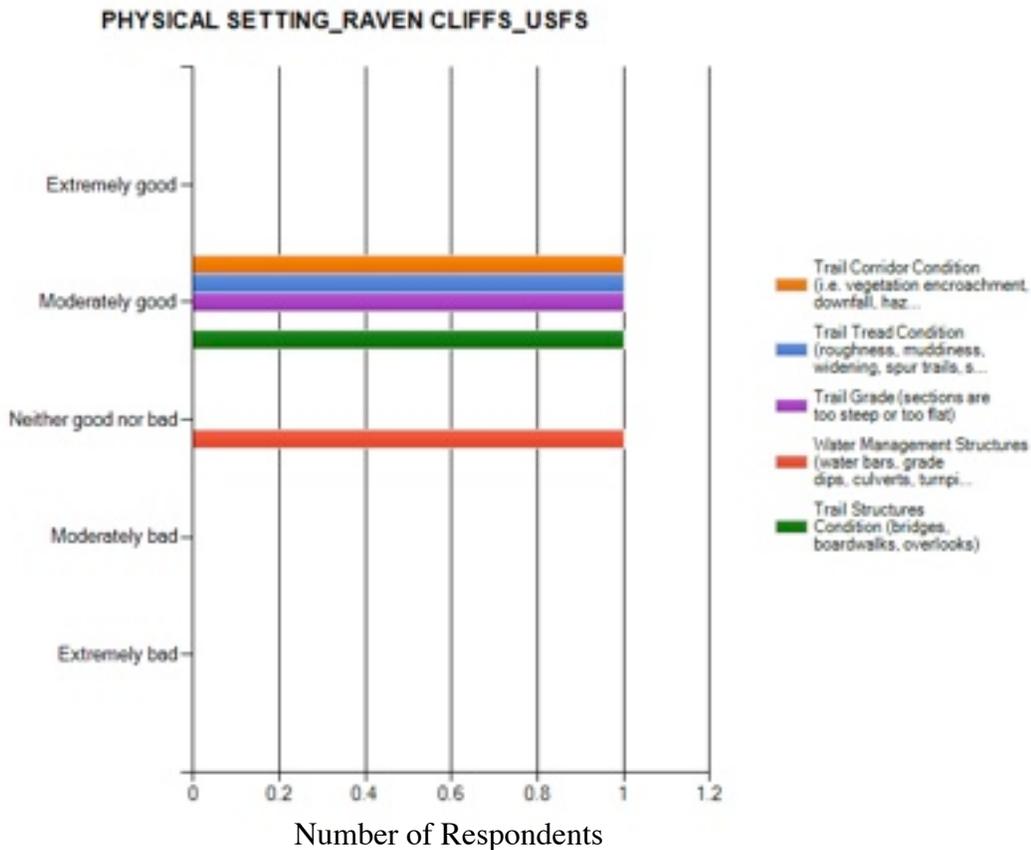
# TRAIL: RAVEN CLIFFS

## Survey Results: Forest Service

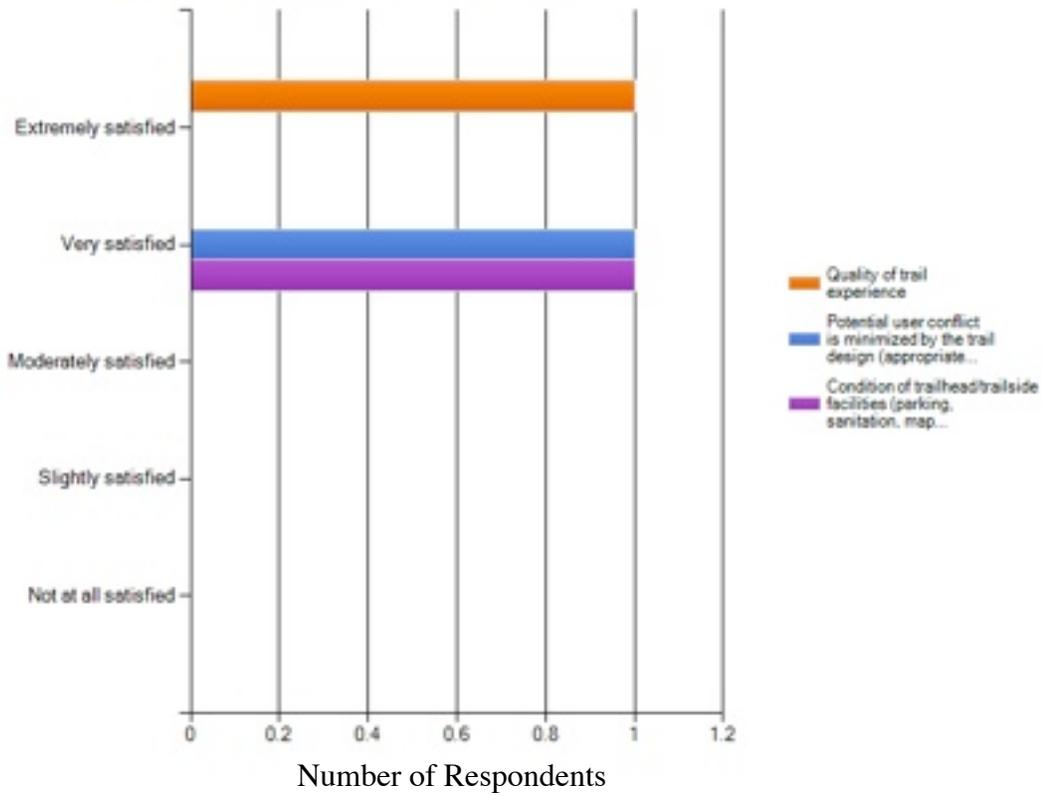
**History:** None provided

**Maintenance Providers:** USFS and Mountain High Hikers. Last session in 2006.

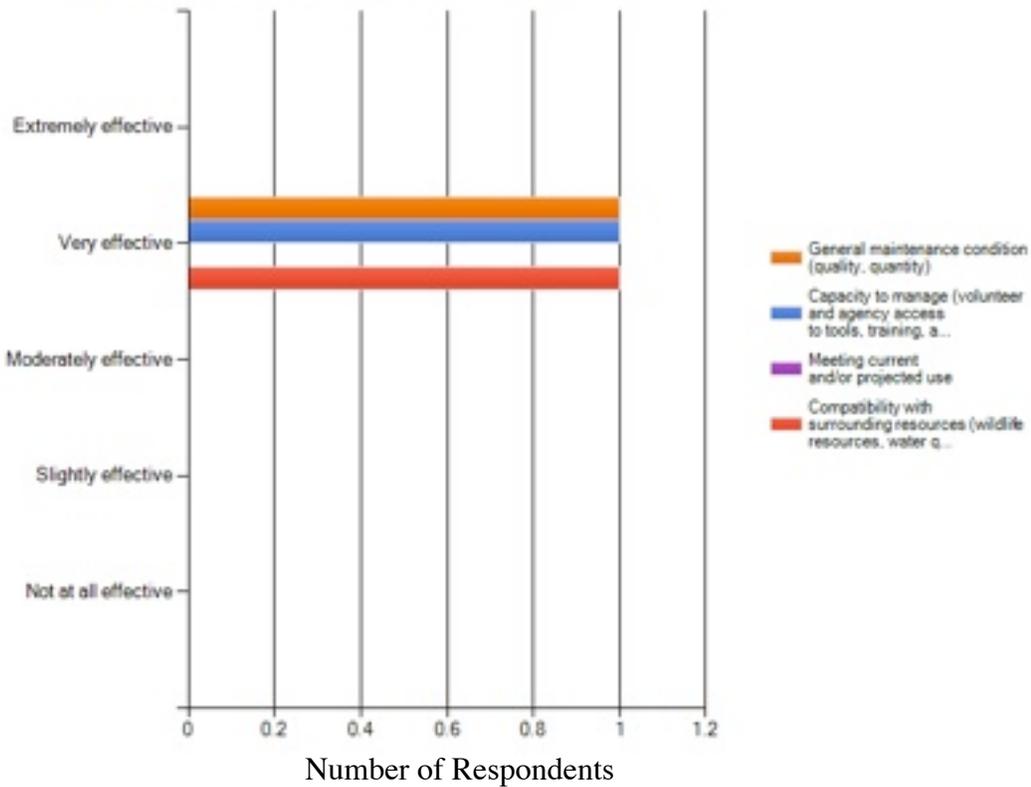
**Reasons Included In Assessment:** None provided



### SOCIAL SETTING\_RAVEN CLIFFS\_USFS

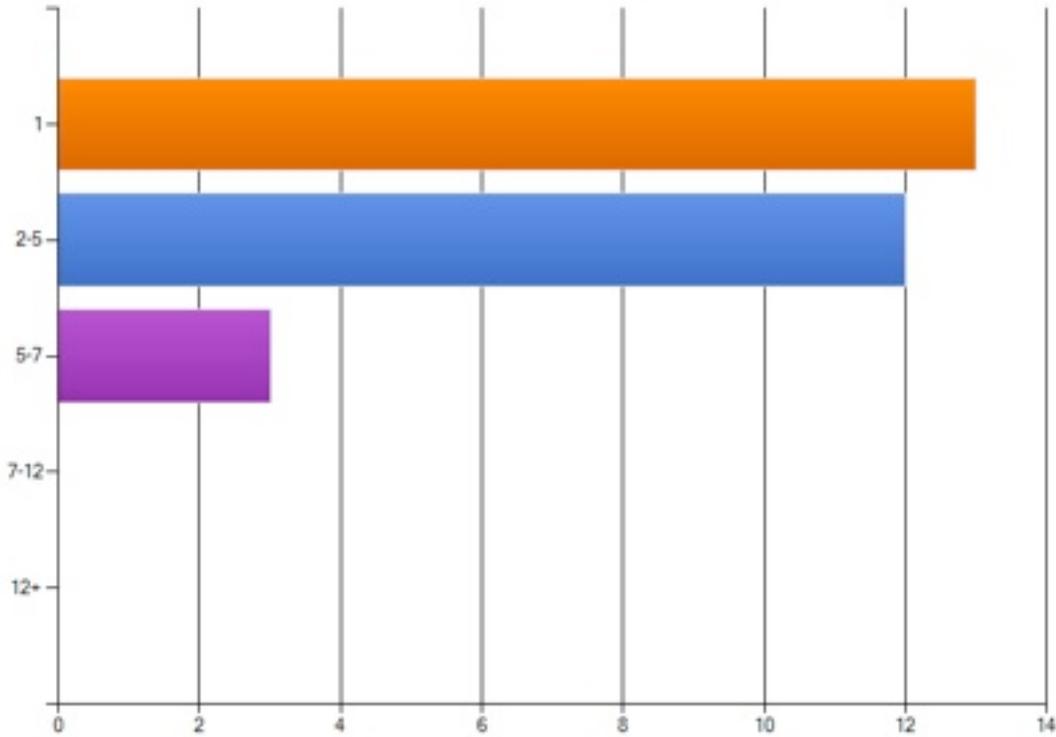


### MANAGERIAL SETTING\_RAVEN CLIFFS\_USFS



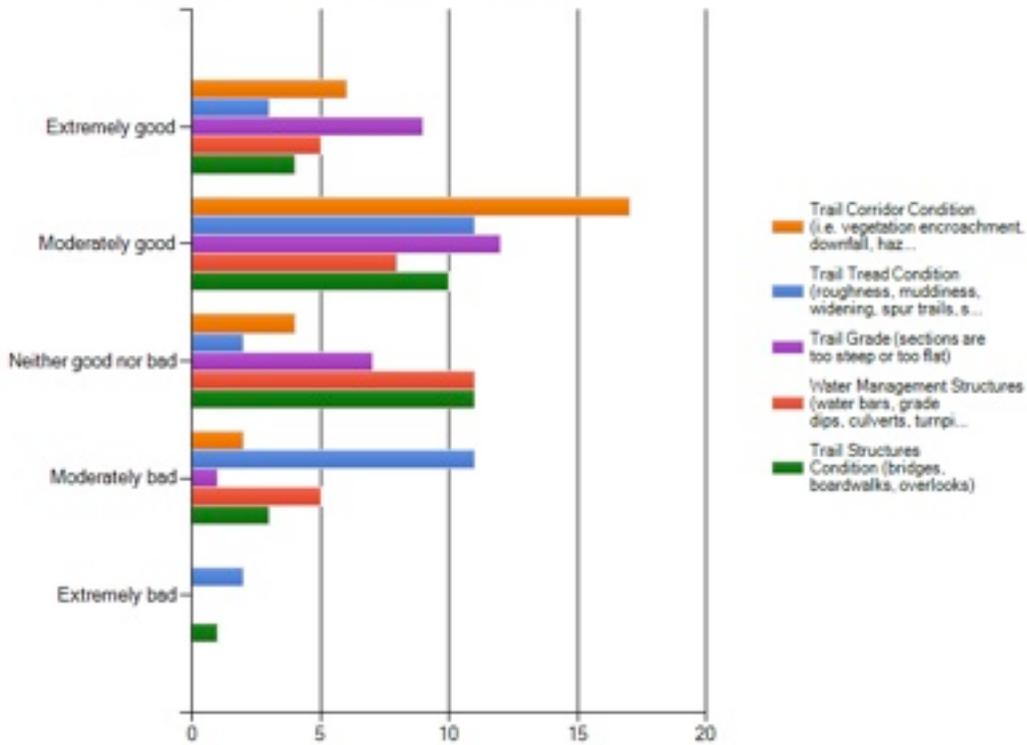
# Survey Results: Volunteers

TRAIL USE\_RAVEN CLIFFS\_VOL



Number of Respondents

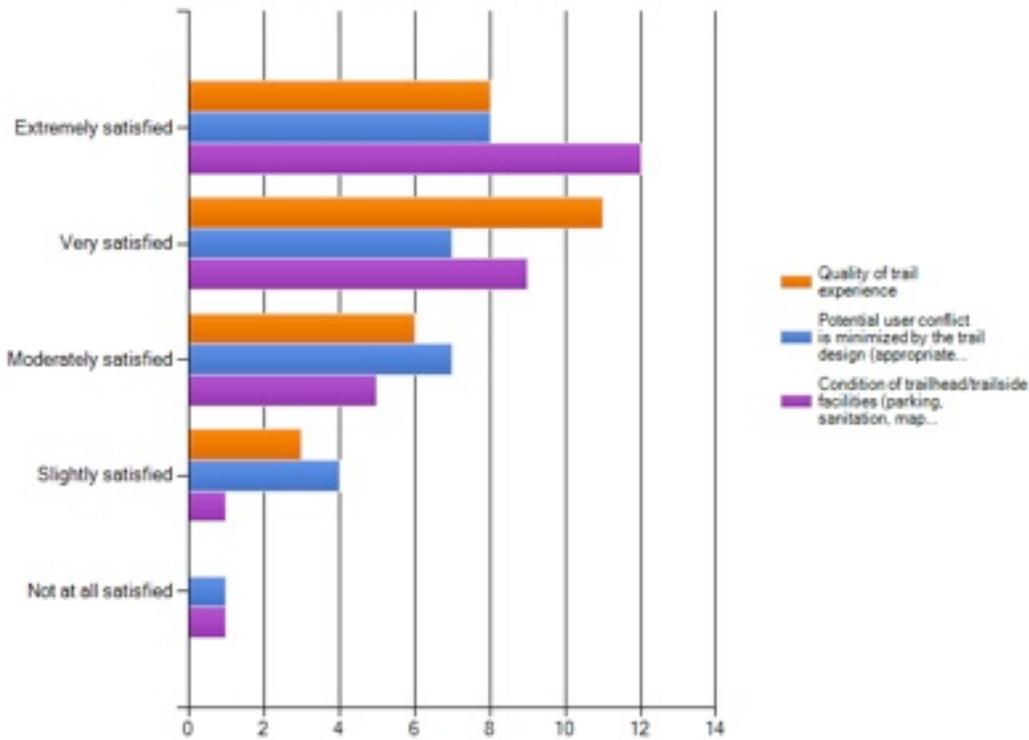
PHYSICAL SETTING\_RAVEN CLIFFS\_VOL



Number of Respondents

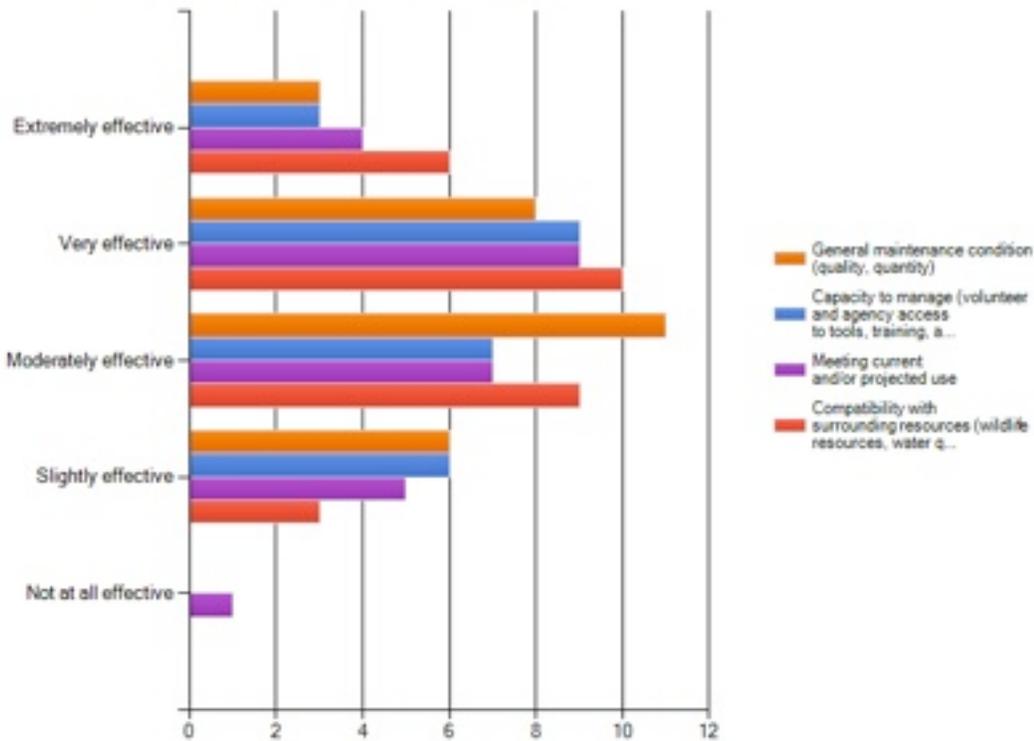
# Survey Results: Volunteers

SOCIAL SETTING\_RAVEN CLIFFS\_VOL



Number of Respondents

MANAGERIAL SETTING\_RAVEN CLIFFS\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Mountain High Hikers:**

Don't know the history, the trail is maintained by our club (MHH) for the last 4 years. We put in about 50 hours per year on the trail doing lopping, brushcutting, deadfall removal and trash pickup. The trail gets Moderate to Heavy usage all year around. A very popular trail for people coming up from Atlanta. Lots of problems with this trail. The FS closes the pit toilets in the parking lot in the winter, so people will defecate in the parking lot. The camping areas along the trail get HEAVY usage by people who are not regular backpackers and they leave lots of garbage that needs to be picked up often. There are a few spots on the trail that are in low lying areas and stay wet all the time. Parts of the trail are falling off into the river with very narrow tread. There are a few rustic footbridges that need to be repaired. At the far end of the trail, there is not a good way to get up the last steep hill to get to the waterfall (that's why people walk in the 2.5 miles to see the falls). This area is getting eroded badly and is not sustainable. There needs to be a stairway with a wooden platform constructed, or the trail rerouted up the hill before you get to the falls and this eroded area fenced off. I have spoken with FS a few times about fixing the areas of the trail that are eroding or wet, but they don't seem interested in getting this done. We have the manpower, we just need the supplies and plan in place.

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: None provided

Issues: Bridge missing, erosion.

# TRAIL: RHODODENDRON

## Survey Results: Forest Service

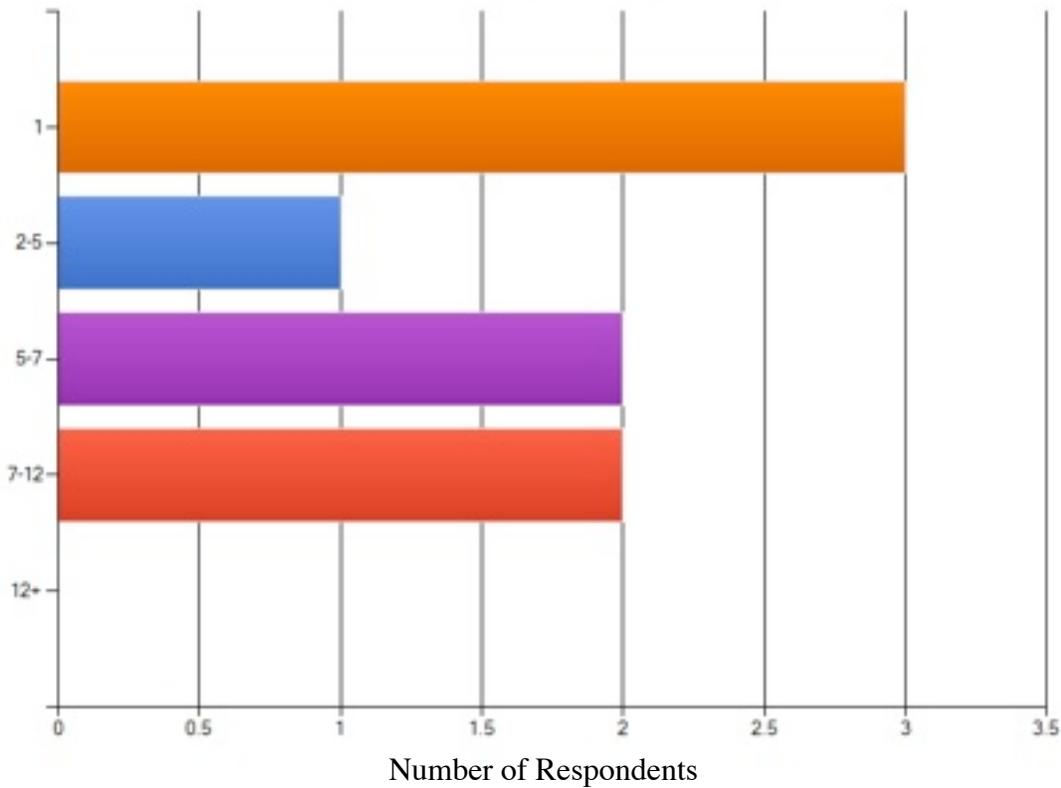
**History:** Constructed by Boy Scout Troop 24 in 1984.

**Maintenance Providers:** USFS

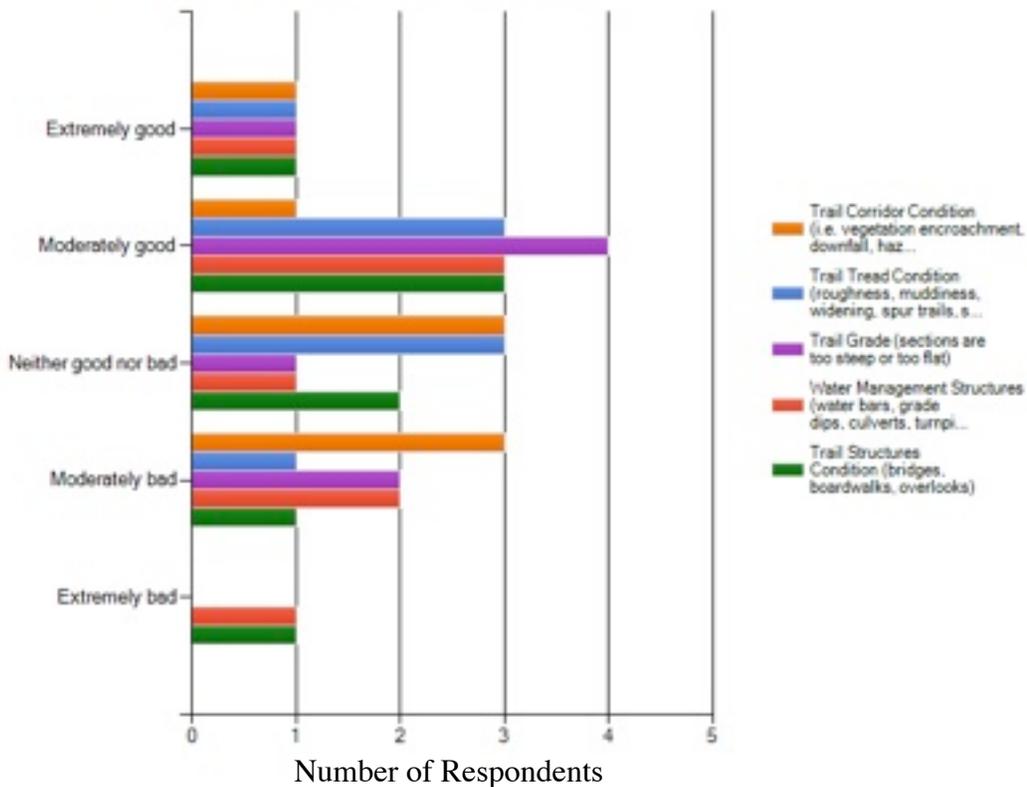
**Reasons Included In Assessment:** None provided

# Survey Results: Volunteers

TRAIL USE\_RHODODENDRON\_VOL

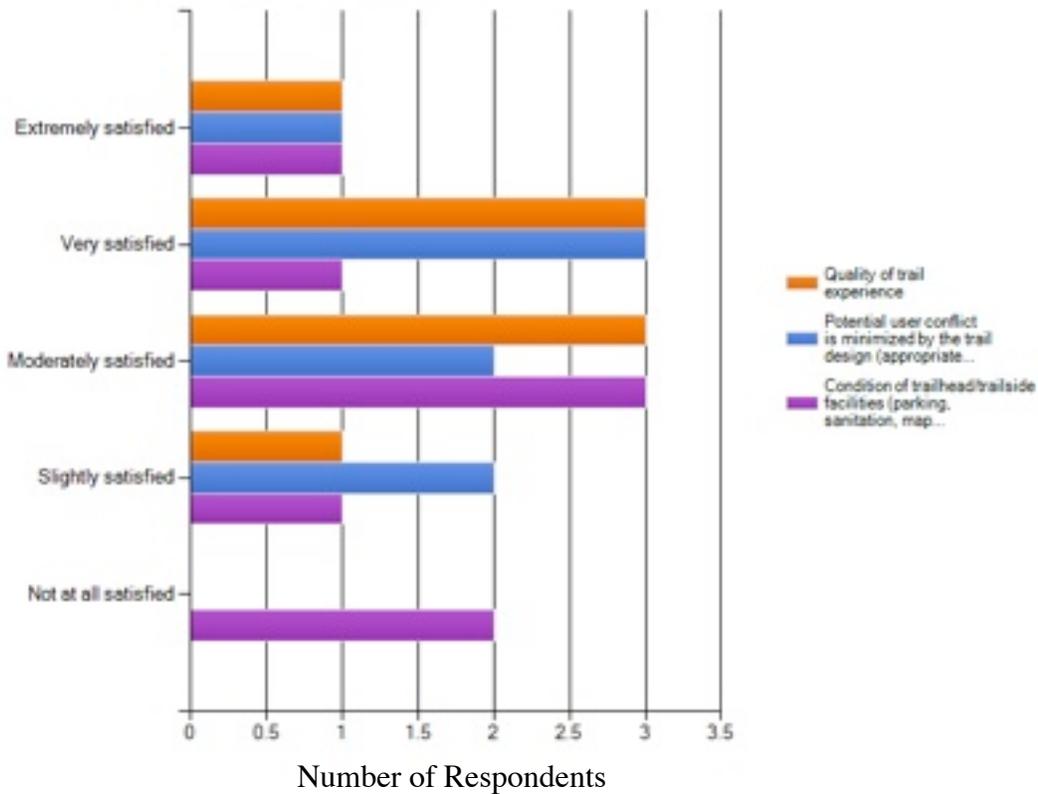


PHYSICAL SETTING\_RHODODENDRON\_VOL

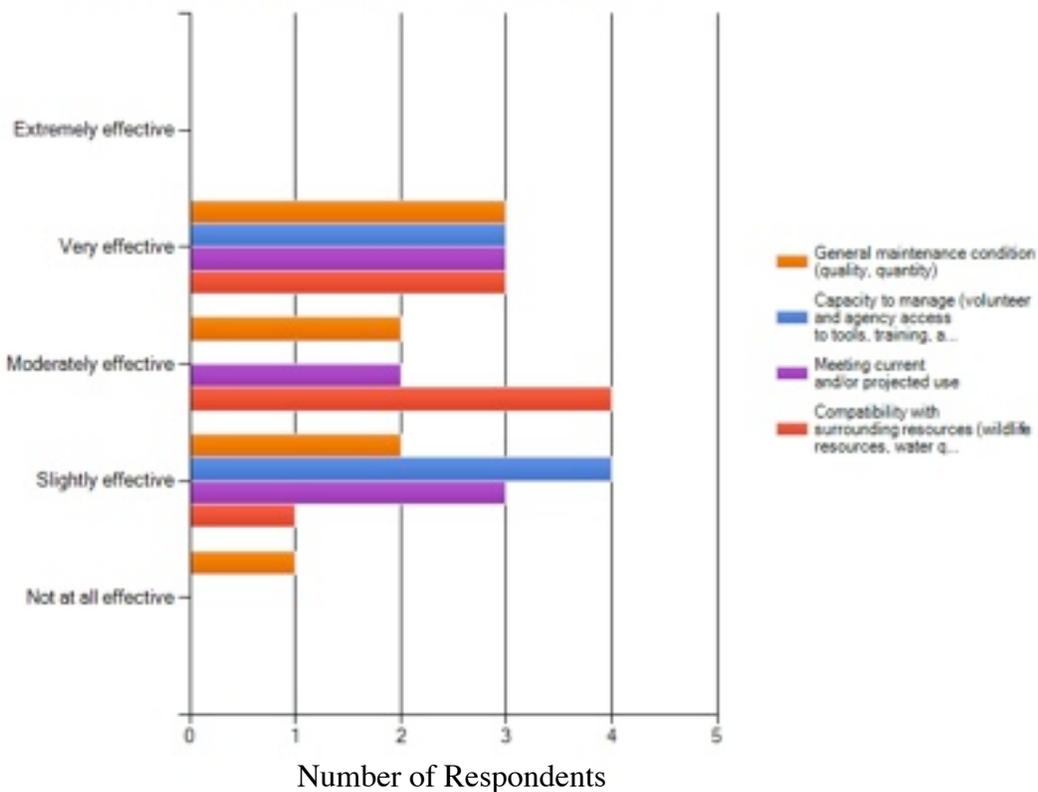


# Survey Results: Volunteers

SOCIAL SETTING\_RHODODENDRON\_VOL



MANAGERIAL SETTING\_RHODODENDRON\_VOL



## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: None provided

Issues: Parking is a major issue both along Lake Russell Rd. and on Chenocetah Mt.

# TRAIL: RHODODENDRON LAKE ACCESS

## Survey Results: Forest Service

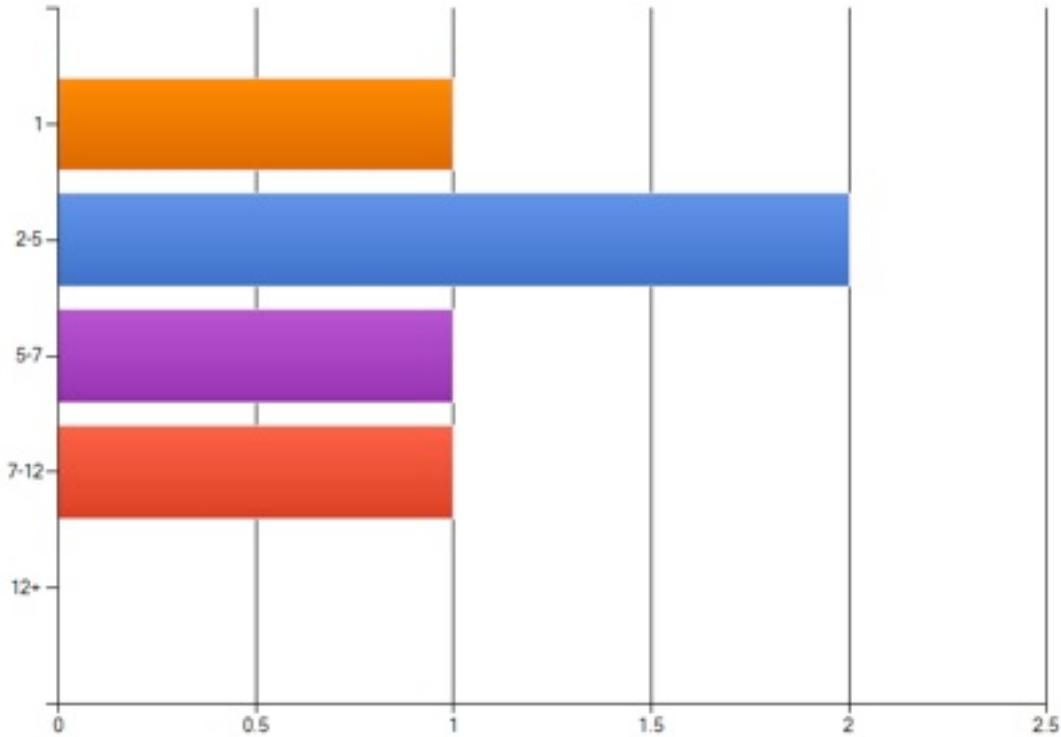
**History:** Constructed by Boy Scout Troop 24 in 1984.

**Maintenance Providers:** USFS

**Reasons Included In Assessment:** None provided

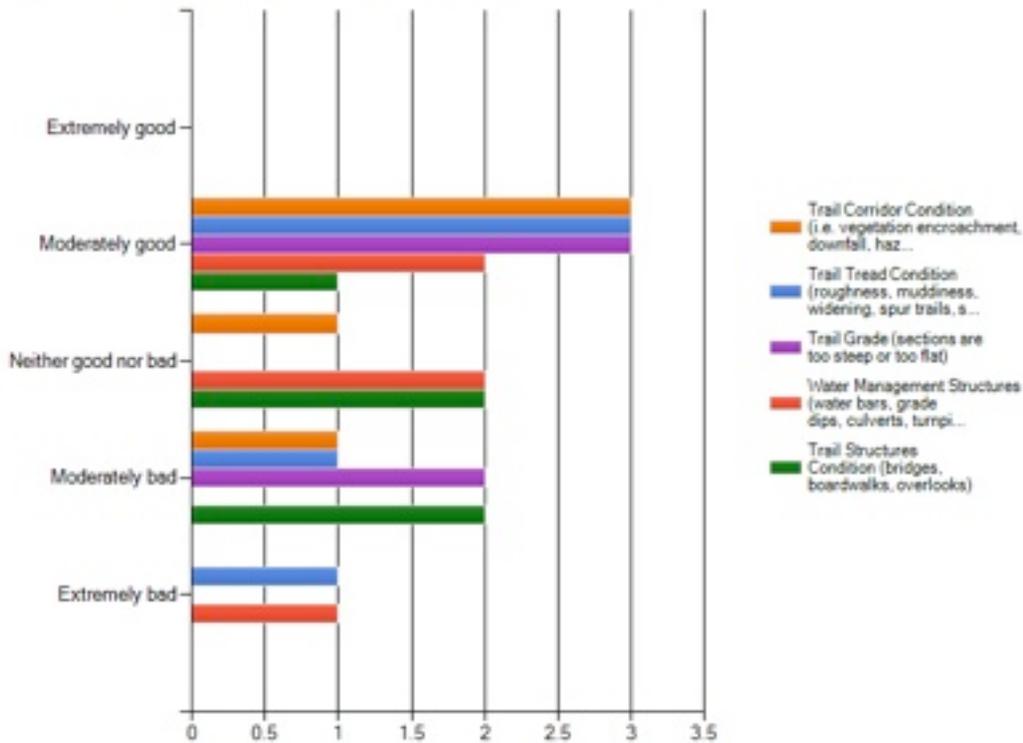
# Survey Results: Volunteers

TRAIL USE\_RHODODENDRON LAKE ACCESS\_VOL



Number of Respondents

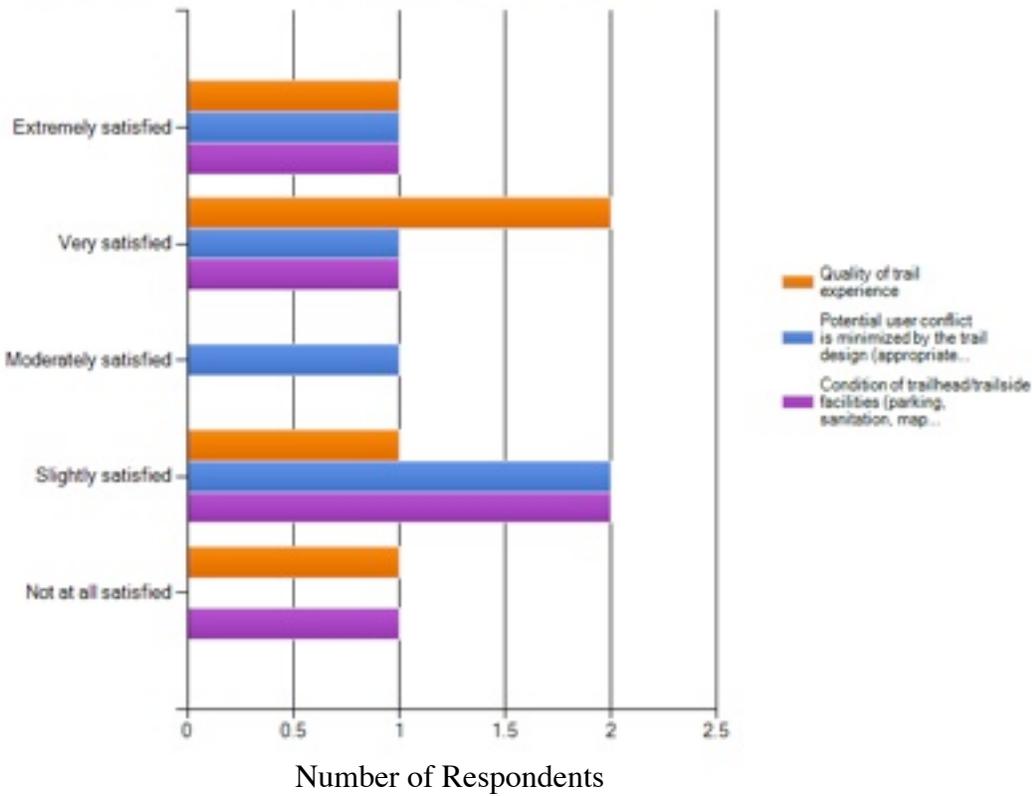
PHYSICAL SETTING\_RHODODENDRON LAKE ACCESS\_VOL



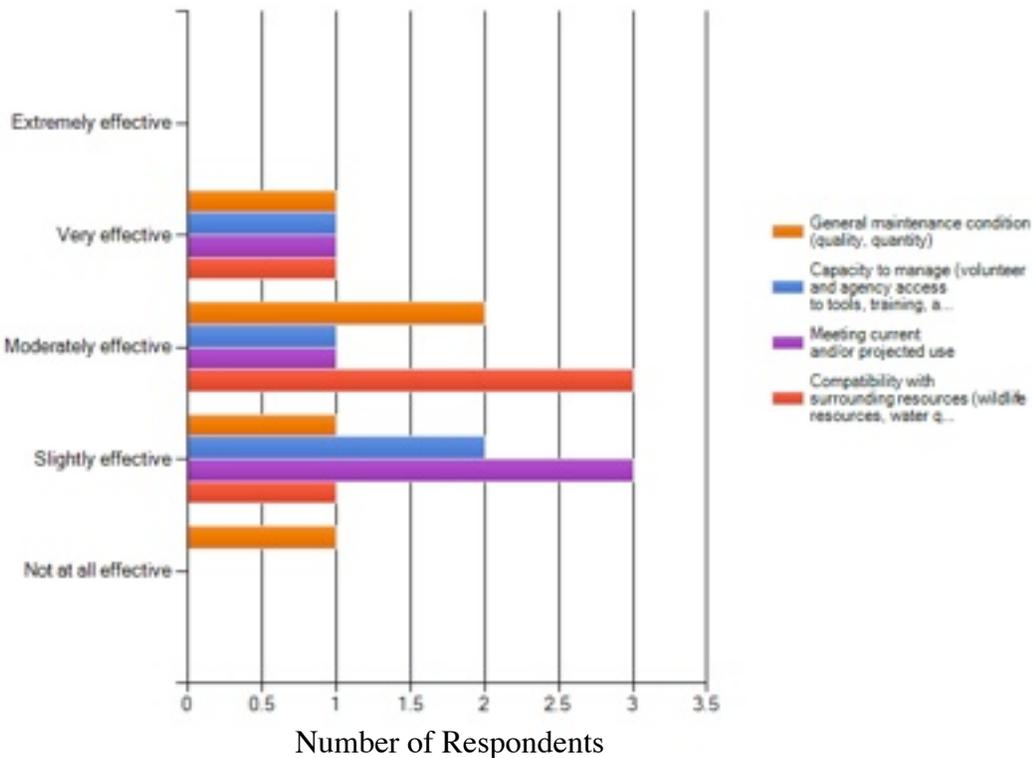
Number of Respondents

# Survey Results: Volunteers

SOCIAL SETTING\_RHODODENDRON LAKE ACCESS\_VOL



MANAGERIAL SETTING\_RHODODENDRON LAKE ACCESS\_VOL



# TRAIL: STONEWALL FALLS TRAIL SYSTEM

## Survey Results: Forest Service

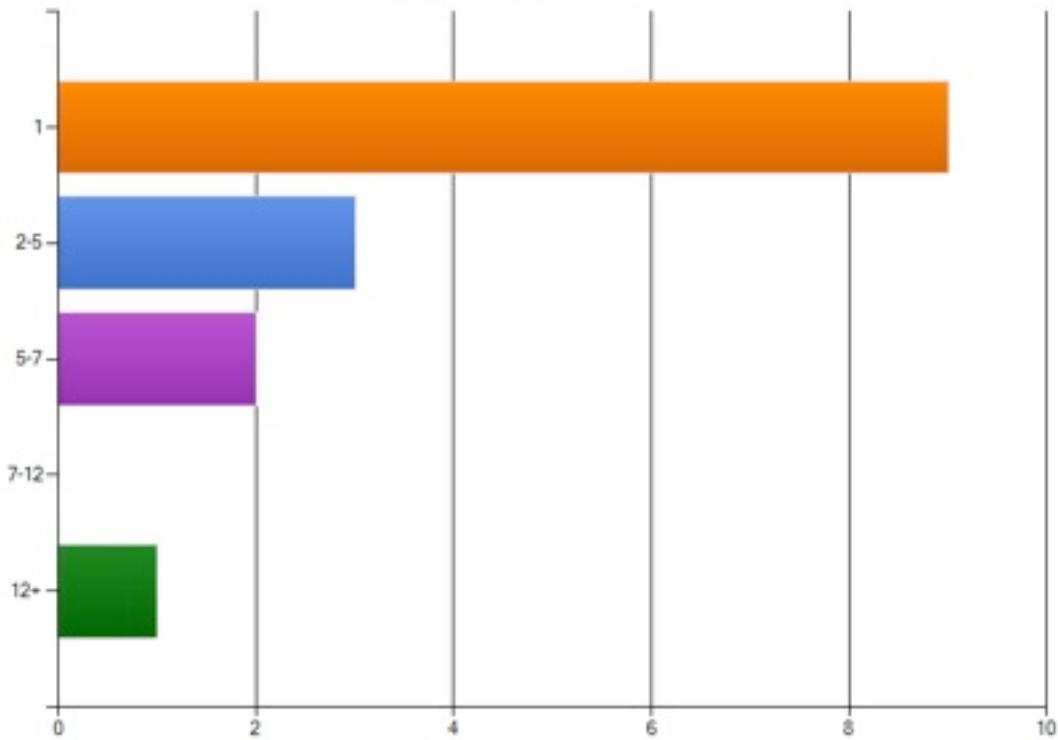
**History:** Constructed in early 1990's.

**Maintenance Providers:** USFS and SORBA. Last maintenance contract done in 2008.

**Reasons Included In Assessment:** None provided

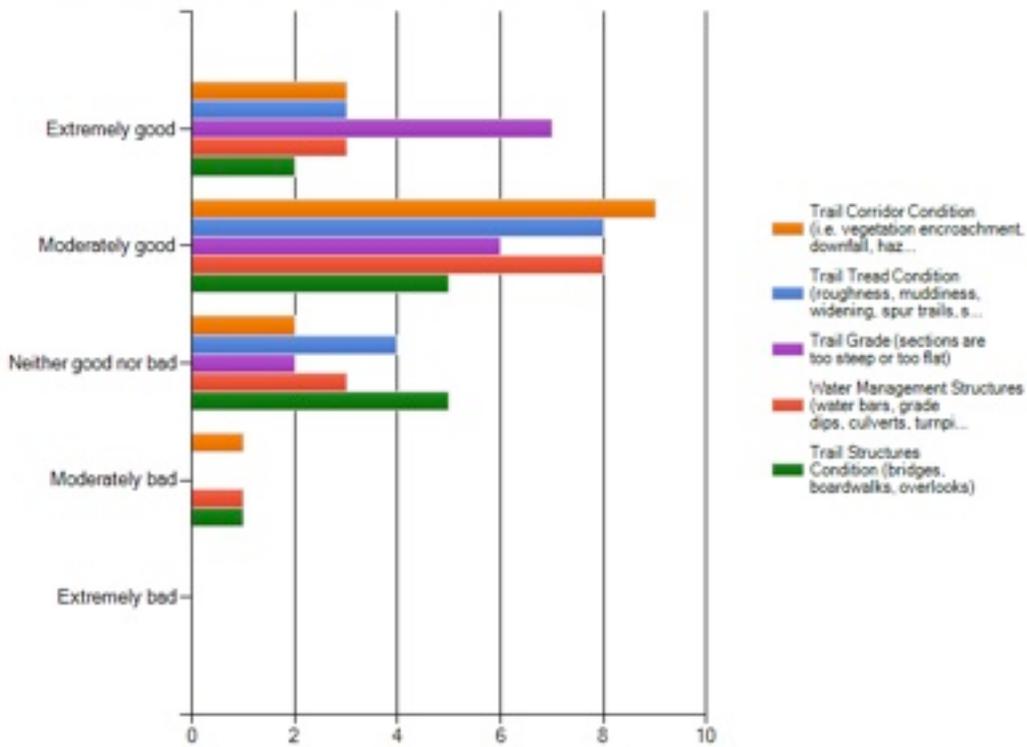
# Survey Results: Volunteers

TRAIL USE\_STONEWALL FALLS\_VOL



Number of Respondents

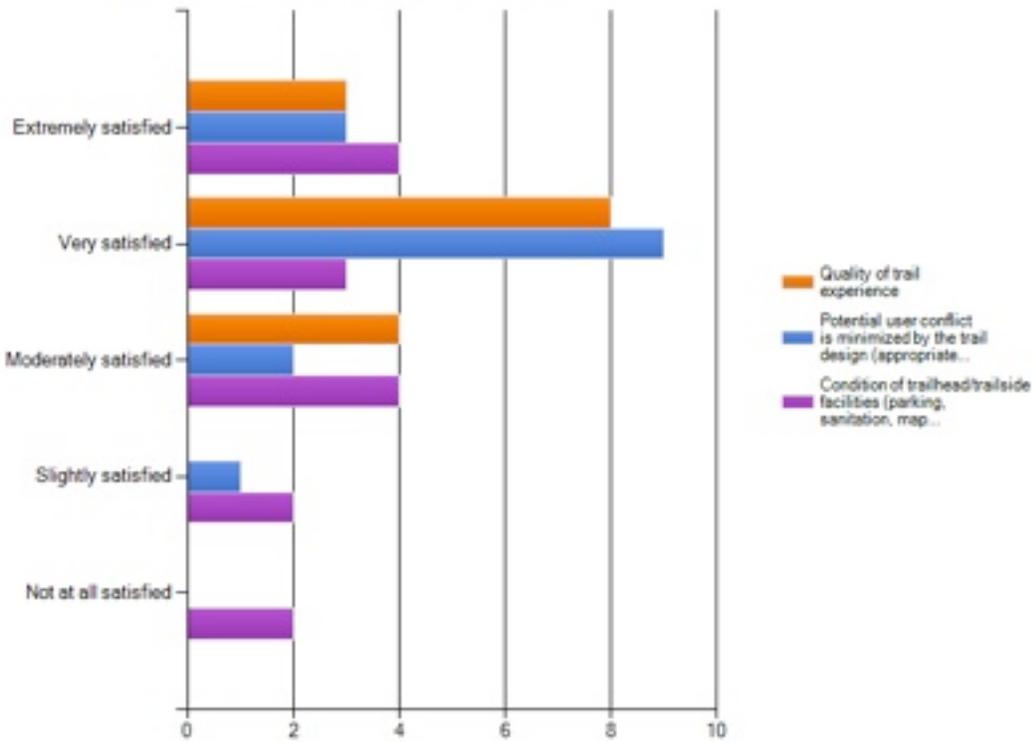
PHYSICAL SETTING\_STONEWALL FALLS\_VOL



Number of Respondents

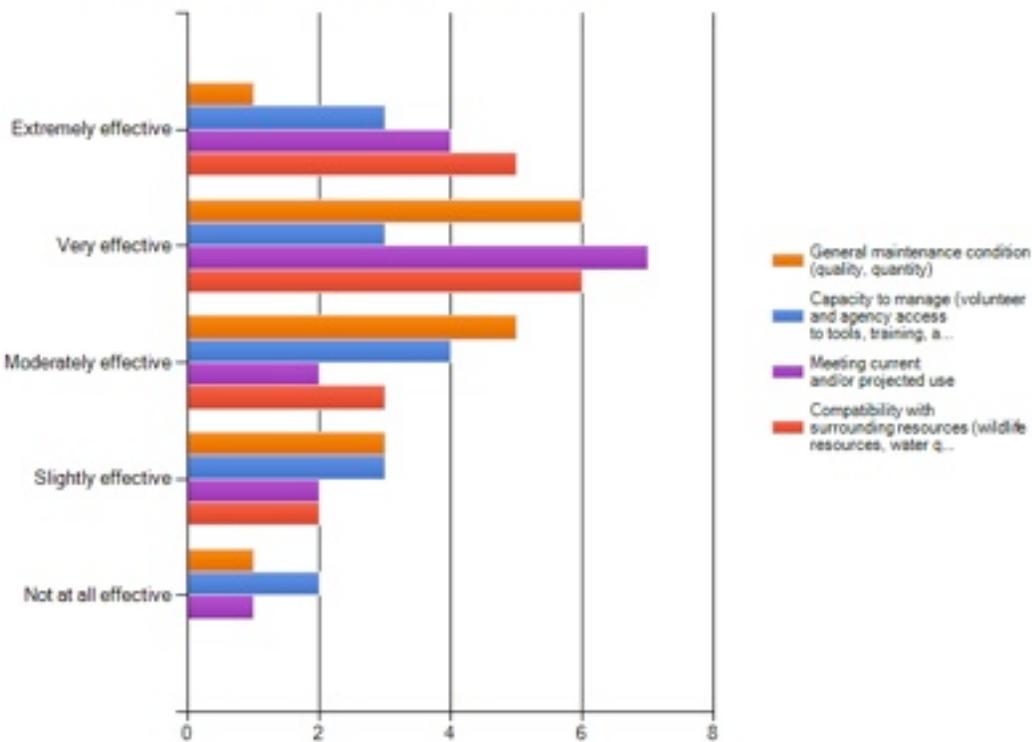
# Survey Results: Volunteers

SOCIAL SETTING\_STONEWALL FALLS\_VOL



Number of Respondents

MANAGERIAL SETTING\_STONEWALL FALLS\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: None provided

Use: None provided

Issues: Recent contract work along the Stonewall Trail adjacent to Stonewall Creek looks like the contractors have exceeded the 24-inch tread width currently listed as the designated tread width under Forest Service Trail Management Objectives (TMOs); it looks like they used a dozer or something to widen it out to 5 or 6 feet of tread. Additionally the Agency should take steps to curb the trashing that goes on at adjacent dispersed campsites along the creek and Stonewall Falls, one volunteer filled 12 bags of trash! There is widespread evidence, too, of continuing illegal ATV traffic crossing the creek to access Worley Mountain area to the West, which was the subject of a Chattooga River Ranger District "soil and water" rehabilitation project in recent years. Maybe the FS should block the access road higher up and require bike/pedestrian access only?

### **IMBA/SORBA:**

History: Opened early 1990's. Major reroute done 5-7 years to accommodate power transmission line.

Maintenance: Assistance by small group of local SORBA volunteers. Estimate 50 hours per year.

Use: Receives light to moderate mountain bike traffic year round. Very light hiking traffic.

Issues: Deep creek crossings. Old road bed holds water and remains muddy much of the year.

# TRAIL: WHITE TWISTER

## Survey Results: Forest Service

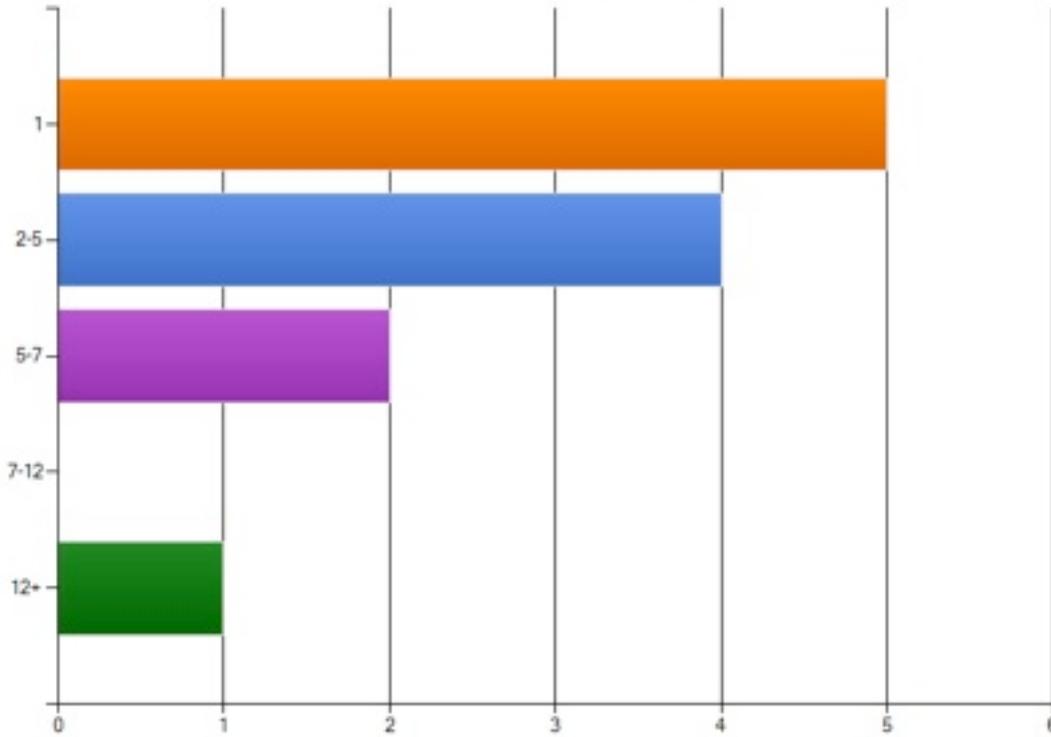
**History:** Laid out by <Volunteers> in 2000

**Maintenance Providers:** USFS and SORBA. Last maintenance contract was done in 2011 on parts of the trail.

**Reasons Included In Assessment:**

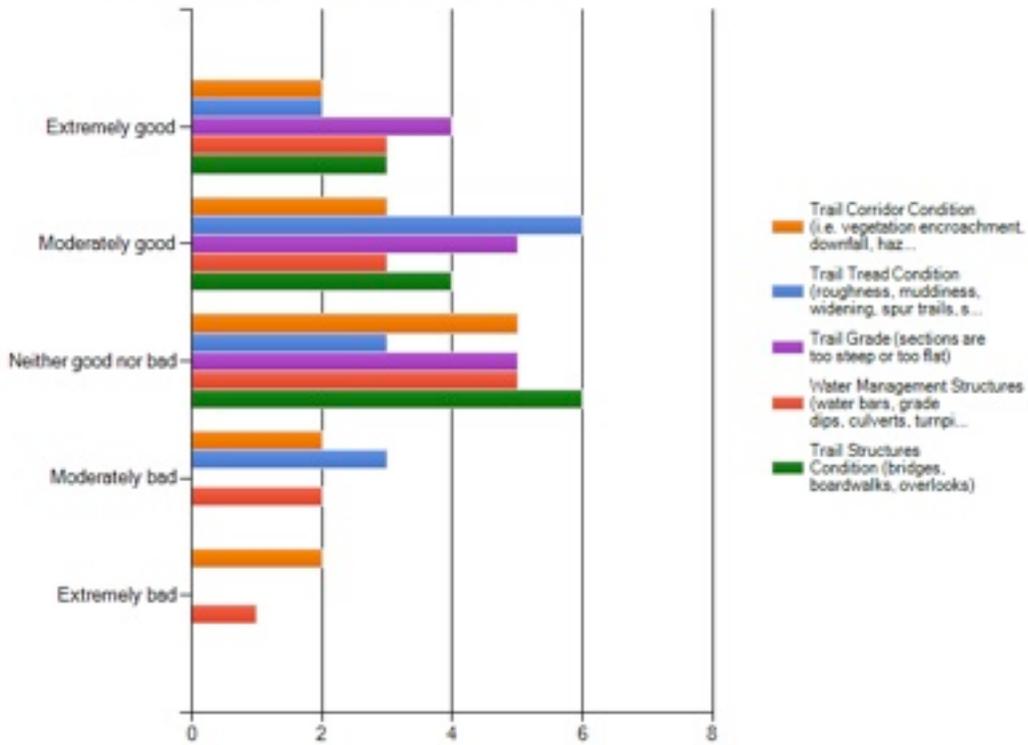
# Survey Results: Volunteers

TRAIL USE\_WHITE TWISTER\_VOL



Number of Respondents

PHYSICAL SETTING\_WHITE TWISTER\_VOL

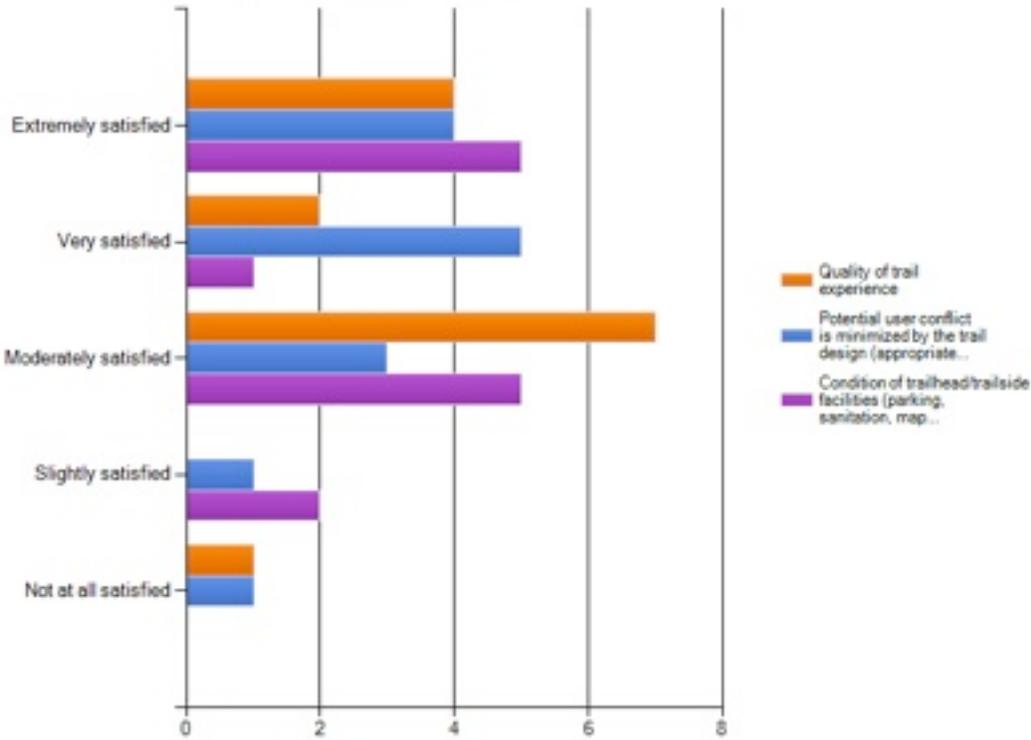


Number of Respondents

- Trail Corridor Condition (i.e. vegetation encroachment, downfall, haz...
- Trail Tread Condition (roughness, muddiness, widening, spur trails, s...
- Trail Grade (sections are too steep or too flat)
- Water Management Structures (water bars, grade dips, culverts, tumpi...
- Trail Structures Condition (bridges, boardwalks, overlooks)

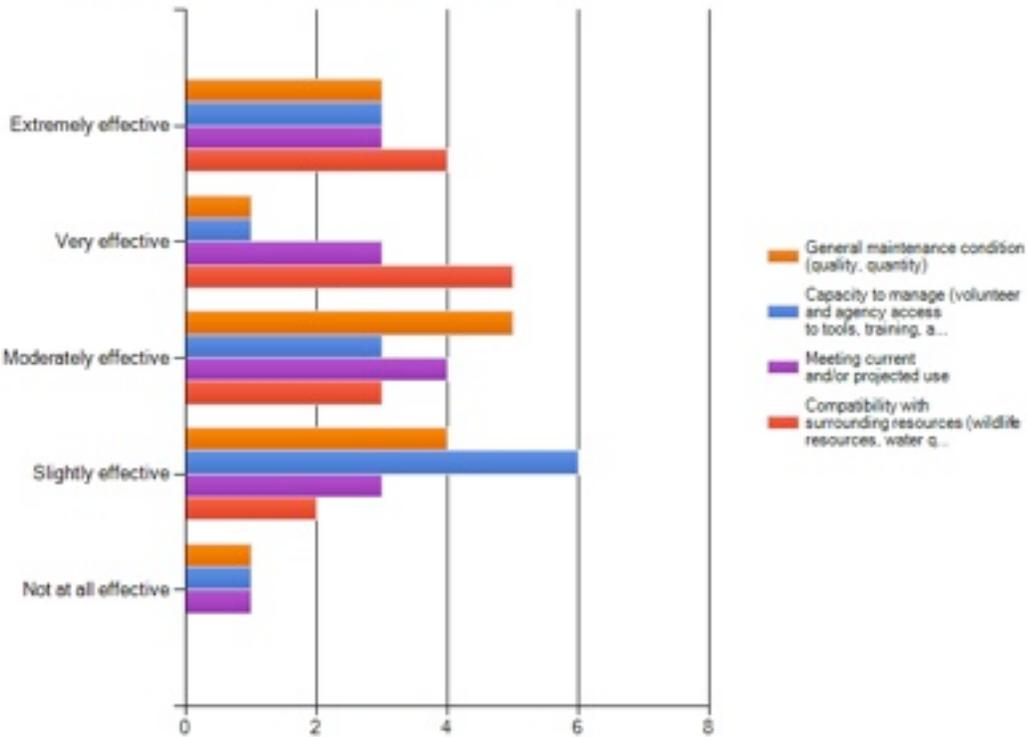
# Survey Results: Volunteers

SOCIAL SETTING\_WHITE TWISTER\_VOL



Number of Respondents

MANAGERIAL SETTING\_WHITE TWISTER\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Georgia Forest Watch:**

History: None provided

Maintenance: Maintained in part by SORBA volunteers (we think), and FS contractors

Use: None provided

Issues: None provided

### **IMBA/SORBA:**

History: Constructed roughly late 90's. Major reroute 4-5 years ago to eliminate fall-line section.

Maintenance: Assistance by small group of local SORBA volunteers. Estimate 50 hours per year. Recent contractor work done.

Use: Receives light to moderate mountain bike traffic year round. Very light hiking traffic.

Issues: Some sections violating 50% rule with resultant erosion. One or two badly eroded areas.

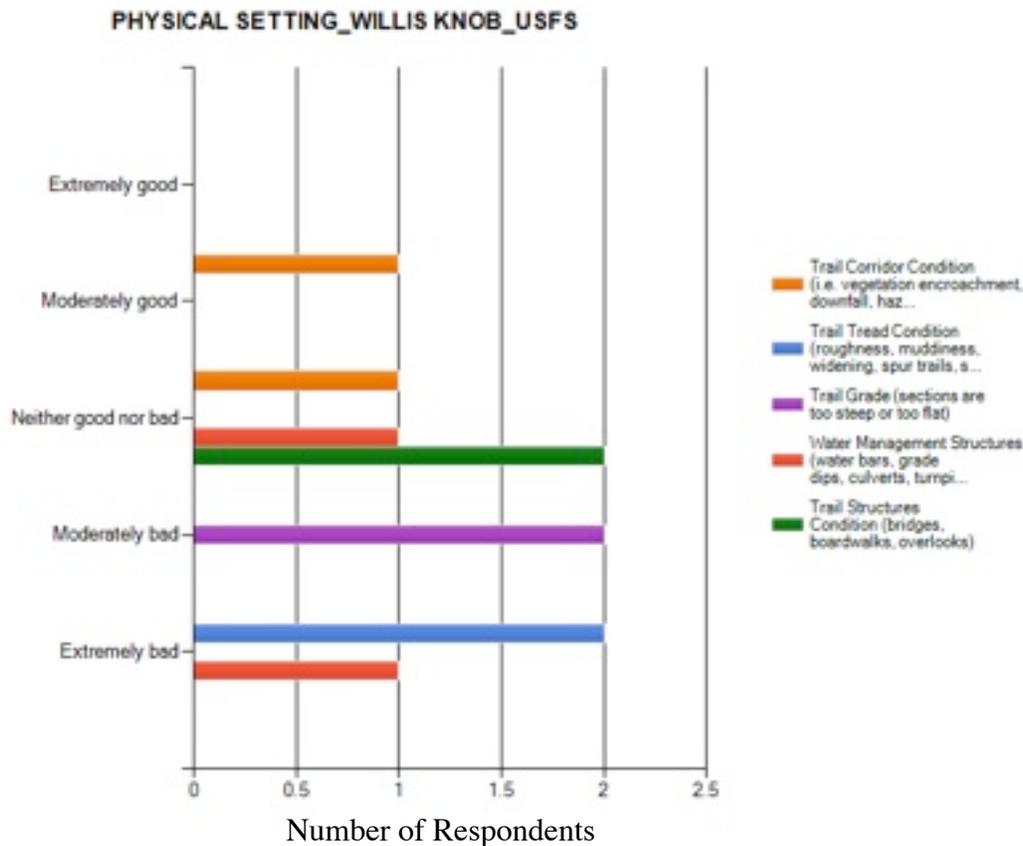
# TRAIL: WILLIS KNOB TRAIL SYSTEM

## Survey Results: Forest Service

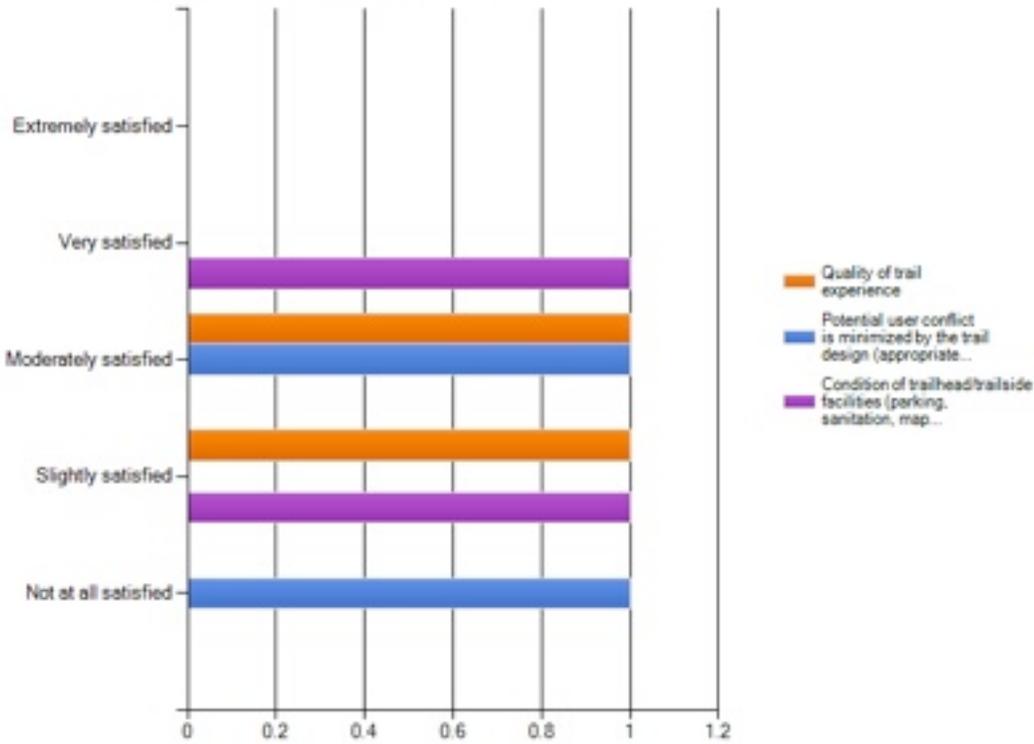
**History:** None provided

**Maintenance Providers:** Trail maintenance contract 2010. First time trails have had grading and repair of water diversion in 15 years. Prior maintenance done using District Dozer.

**Reasons Included In Assessment:** None provided

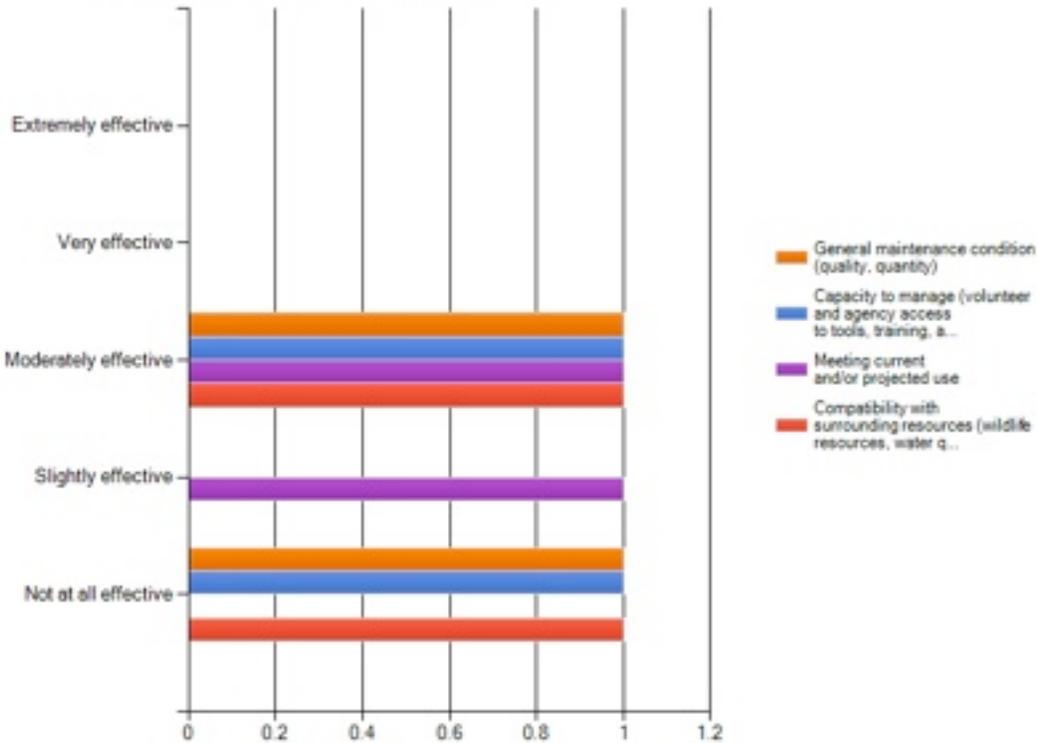


### SOCIAL SETTING\_WILLIS KNOB\_USFS



Number of Respondents

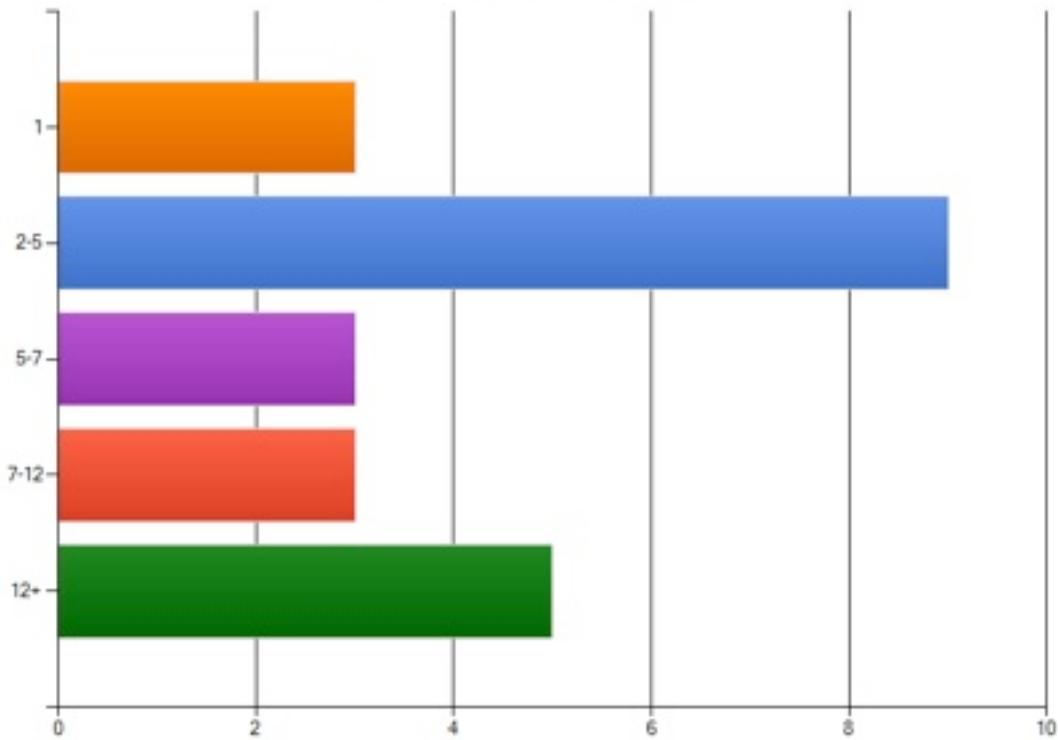
### MANAGERIAL SETTING\_WILLIS KNOB\_USFS



Number of Respondents

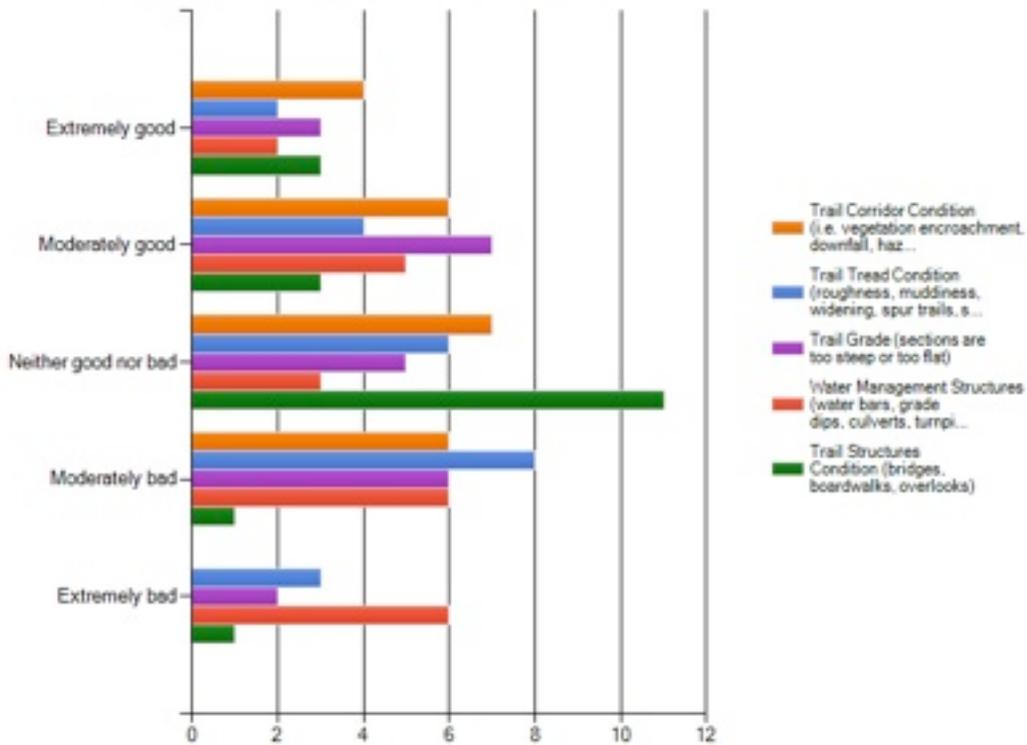
# Survey Results: Volunteers

TRAIL USE\_WILLIS KNOB\_VOL



Number of Respondents

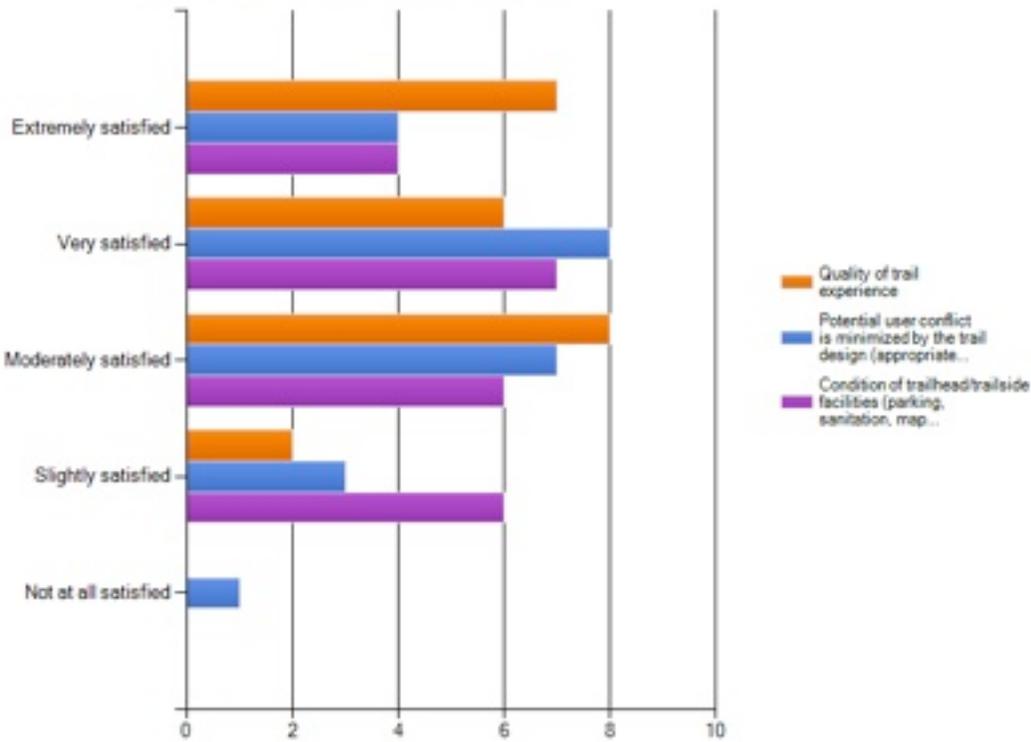
PHYSICAL SETTING\_WILLIS KNOB\_VOL



Number of Respondents

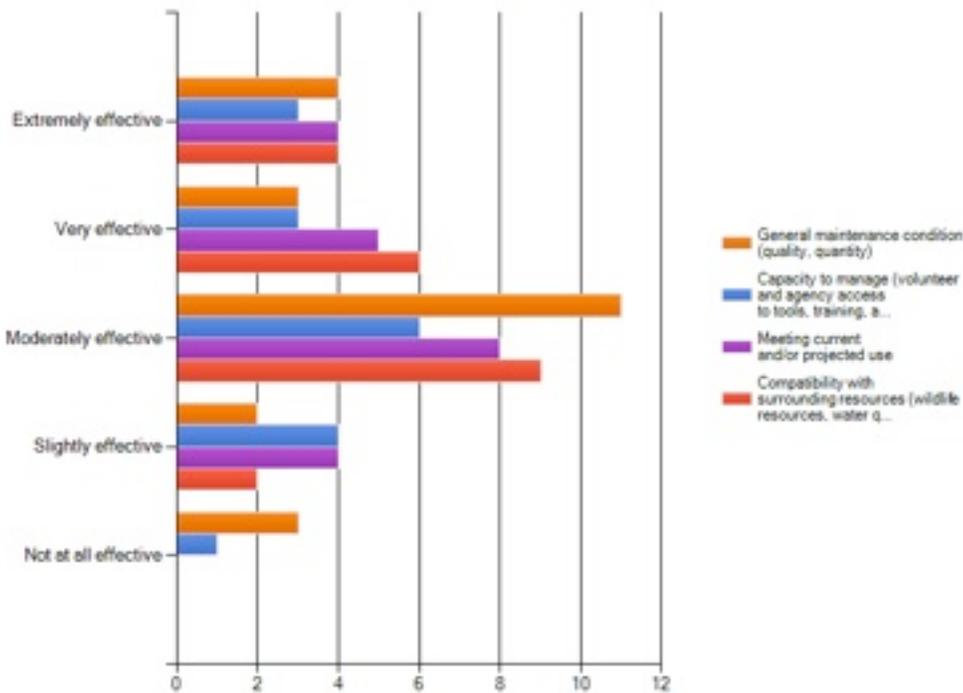
# Survey Results: Volunteers

SOCIAL SETTING\_WILLIS KNOB\_VOL



Number of Respondents

MANAGERIAL SETTING\_WILLIS KNOB\_VOL



Number of Respondents

## **Volunteer Group Comments:**

### **Back Country Horsemen, North Georgia**

FS and BCH of NE Georgia have provided maintenance on this trail. Virtually all the volunteer repairs and maintenance that have been done by BCH volunteers have been at the direction of and under supervision by FS Ranger District Staff. Willis Knob Horse Camp provides nice overnight accommodations for equestrians with horse trailers which makes it a popular equestrian destination. However, recent FS-contracted repairs & maintenance on this trail has had the unintended effect of contributing to making critical sections of this trail more difficult to maintain.

### **Georgia Forest Watch:**

**History:** Several years ago, the Chattooga River Ranger District proposed a NEPA scoping to create a new transect equestrian trail through the middle of the loop complex, as well as relocating/improvements to the riverine areas, but am told they abandoned the project (and never issued a decision one way or the other) after DNR required permits for some of the work, which crossed known trout streams. Instead, the district went ahead with heavy maintenance of the existing horse trails, with the recent unsatisfactory results.

**Maintenance:** None provided

**Use:** Primarily equestrian use and recently reshaped incorrectly by contractor.

**Issues:** Problem areas here involve the tracks leading up from and down to the Wild and Scenic River and where it bumps into the Bartram Trail (horses get on the Bartram fairly frequently). Maybe better signage would help. Marginal results from contractor work suggests the Chattahoochee-Oconee might wish to review all of its trail maintenance contract specifications and awards and post-work review to make sure, at a minimum, that trail TMOs are followed in these contracts. Willis Knob basic tread width is supposed to be 48 inches, but the contractor's dozer blade easily was 80 inches wide.