

Moving Forward:

Opportunities for Reconsidering Roads in the George Washington National Forest



EXECUTIVE SUMMARY

Wild Virginia is committed to protecting critical habitats in Virginia's national forests. Our national forests are important public resources that support the health of our communities. Intact forests provide habitat for thousands of species and protect drinking water, purify and cool the air and provide diverse recreational opportunities.

In 2011, Wild Virginia produced a study entitled *"The State of Our Water: Managing and Protecting the Drinking Water Resources of the George Washington National Forest"* that analyzed the protection of drinking water resources in the George Washington National Forest. It found that many sources were impaired or at risk, and it identified roads and forest fragmentation as major factors in the quality of watersheds and individual streams. Consequently, roads in George Washington National Forest (GWNF), especially those with an effect on the drinking water of Virginians, are of particular interest to Wild Virginia.

This study summarizes the effects of roads on forest habitats, discusses budget implications and opportunities for road closings, and presents data on the intersection of roads, drinking water resources and critical habitat in the Shenandoah Mountain area of George Washington National Forest.

Road closings and decommissionings are currently being planned for the George Washington National Forest. Road maintenance costs comprise a large portion of the Forest Service budget. The road maintenance budget in the GWNF has been cut more than 50% in the last 4 years *with more budget cuts on the horizon*. The Forest Service cannot afford to maintain the road systems currently in place amidst its other priorities. National forests have been directed to produce plans for a minimum road system and to reduce the mileage of forest service roads through proposed road closings and decommissionings. To that end, the GWNF produced a 2011 Travel Analysis Process (TAP) Report that studied potential road issues (Vandegrift, 2013).

The April 2011 Draft Land and Resource Management Plan for the George Washington National Forest ("GWNF Forest Plan") incorporates the findings of the 2011 TAP Report with a stated goal of decommissioning 1 – 1.5 miles of road per year.

Money was directed to the US Forest Service (USFS) for watershed restoration (including road maintenance and decommissioning) in the federal economic stimulus bill signed in February 2009 and appropriated by Congress for FY 2010. Additional money for these efforts is becoming available from other sources, including the federal budget for the current fiscal year, making the closure and decommissioning of roads a reality.

It is important that strategic choices are made when selecting roads to be closed or decommissioned, so as to maximize long term benefits to forest and watershed health and to utilize limited funds most effectively.

Wild Virginia has therefore assessed the roads in the Shenandoah Mountain area of the GWNF and identified examples of particular watershed and ecological concerns presented by forest roads. Detailed information about roads in the area, such as their maintenance level, closure status (open year round, seasonally, administratively closed, etc.), surface type, and ownership (i.e., who is responsible for maintaining the road) was analyzed using GIS, in concert with field surveys and discussions with U.S. Forest Service staff, natural resource professionals, and knowledgeable individuals.

This report illustrates the importance of thoughtful road policies on watershed health and ecological integrity, and creates a body of data to inform the critical decisions that must be made.



Flagpole Road

I. INTRODUCTION

Large, connected habitats are critical to sustaining ecological processes, to conserving biological diversity, and to protecting drinking water quality and watershed health. They provide essential ecosystem services, filter and slow the movement of water, purify and humidify the air and mitigate climate change. While national forests and other public lands create many important access and recreational opportunities they can also cause significant ecological and management problems.

Scientific literature abounds with information on the impacts of forest fragmentation and associated edge effects created by roads. Among the widely recognized impacts are the isolation of wildlife populations, changes to plant communities and structure due to altered physical conditions, and increased predation on forest-breeding birds. Recent research reveals that even small dirt roads in Virginia's national forests can fragment and negatively affect woodland salamander populations (Marsh et al., 2005). Roads are also a known avenue for the spread of non-native invasive plant species (Semlitsch et al., 2007).

Roads are also a significant source of surface water sedimentation. In the mountain regions of Virginia excess sediment is a grave threat to water quality and aquatic species. Environmental documents written by the U.S. Forest Service (USFS) for proposed projects in the George Washington National Forest (GWNF) state "On National Forest System land, sedimentation is the primary factor in water quality degradation" (USDA Forest Service, 2007, pg. 19).

These problems can be minimized by implementing a dual strategy of effective maintenance on the most vital and important forest service roads, and proper closing and decommissioning of roads deemed unnecessary or ecologically or hydrologically problematic.

Currently, there is a multi-billion dollar backlog in maintenance of National Forest Roads (Wildlands CPR and The Wilderness Society, 2010).

The Forest Service issued a Memorandum on November 2010 directing all National Forests "to identify, through science-based analysis, an ecologically and fiscally sustainable road system by 2015" (USDA Forest Service, 2010). To identify the minimum road system necessary to meet forest objectives, a Travel Analysis Policy (TAP) Report was produced for the George Washington National Forest in 2011. This working document seeks to balance access while minimizing risks.

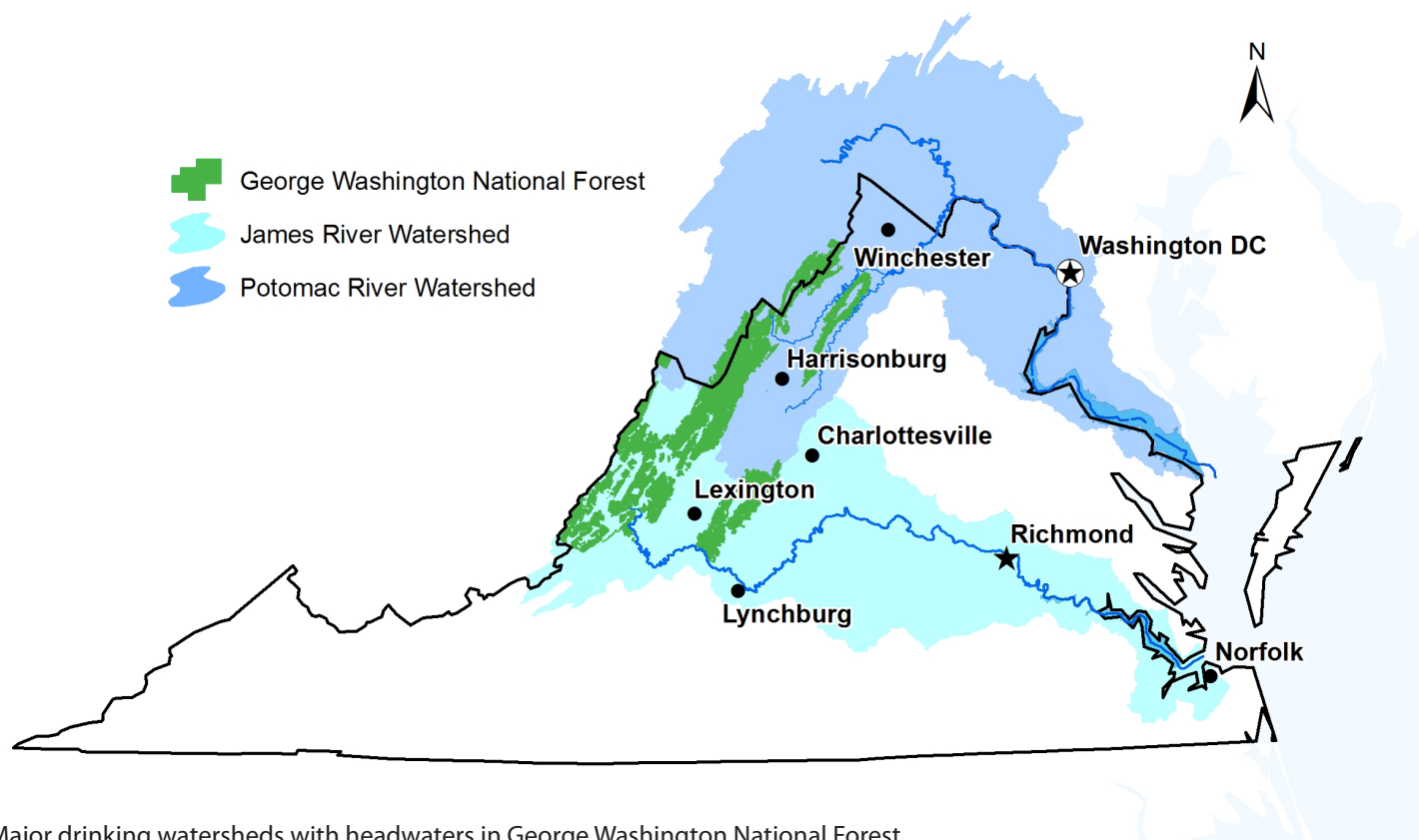
To assist in this effort, **Wild Virginia assessed 561 roads in the Shenandoah Mountain Region** of the George Washington National Forest, and identified the watershed and ecological connectivity impacts of the existing road system. The data collected can help identify the risks of different roads to terrestrial and aquatic habitat and inform strategic actions to improve water quality in the watersheds whose headwaters are Shenandoah Mountain.

The roads in the Shenandoah Mountain Region of the GWNF were chosen for review because this area has one of the most significant concentrations of wildlands and the largest inventoried roadless area (Little River RA) in the Southern

Appalachians. The area has exceptionally high biodiversity, many sensitive and rare species and a relatively high concentration of old growth forests. It is an important area for species such as black bear and migratory songbirds that require large, unfragmented habitat for survival - habitat that is scarce in the Eastern US (The Wilderness Society, 1999).

Both the James and Potomac Rivers have headwaters in the Shenandoah Mountain range - providing drinking water to downstream communities, and the North River and Cowpasture Rivers within this region are being evaluated for Wild and Scenic Status.

Decisions about the future of forest roads on Shenandoah Mountain can be made that protect Virginia's drinking water quality, forest habitats and mountain treasures.



Major drinking watersheds with headwaters in George Washington National Forest.

II. GEORGE WASHINGTON NATIONAL FOREST

On May 16, 1918 Shenandoah National Forest was created. The forest was renamed named George Washington National Forest in 1932. Natural Bridge National Forest was added to it on July 22, 1933.

The National Forests were created following the Weeks Act of 1911, which allowed deforested land in the eastern United States to be acquired and protected as National Forests. The express purpose of the Weeks Act was to protect the headwaters of rivers and watersheds in the eastern United States. It was not until the 1960 Multiple-use Sustained-Yield Act that the mission of national forest management was expanded to include outdoor recreation, watershed, range, timber and wildlife purposes.

SHENANDOAH MOUNTAIN



A very important part of the GWNF is Shenandoah Mountain, stretching 60 miles in length and approximately 390,000 acres in size. Shenandoah Mountain is composed of contiguous George Washington National Forest lands in the North River Ranger District of Augusta, Bath, Highland, Rockbridge, and Rockingham Counties in Virginia and Pendleton County, West Virginia. The area is generally bounded on the east by US Route 42; on the north by VA Routes 820 and 826 and the Pendleton/Hardy county line; on the west by WV Routes 3 and 21 and VA Route 614; and on the south by VA Route 627. The core of Shenandoah Mountain lies within the areas south of VA Route 33 and north of VA Route 250.

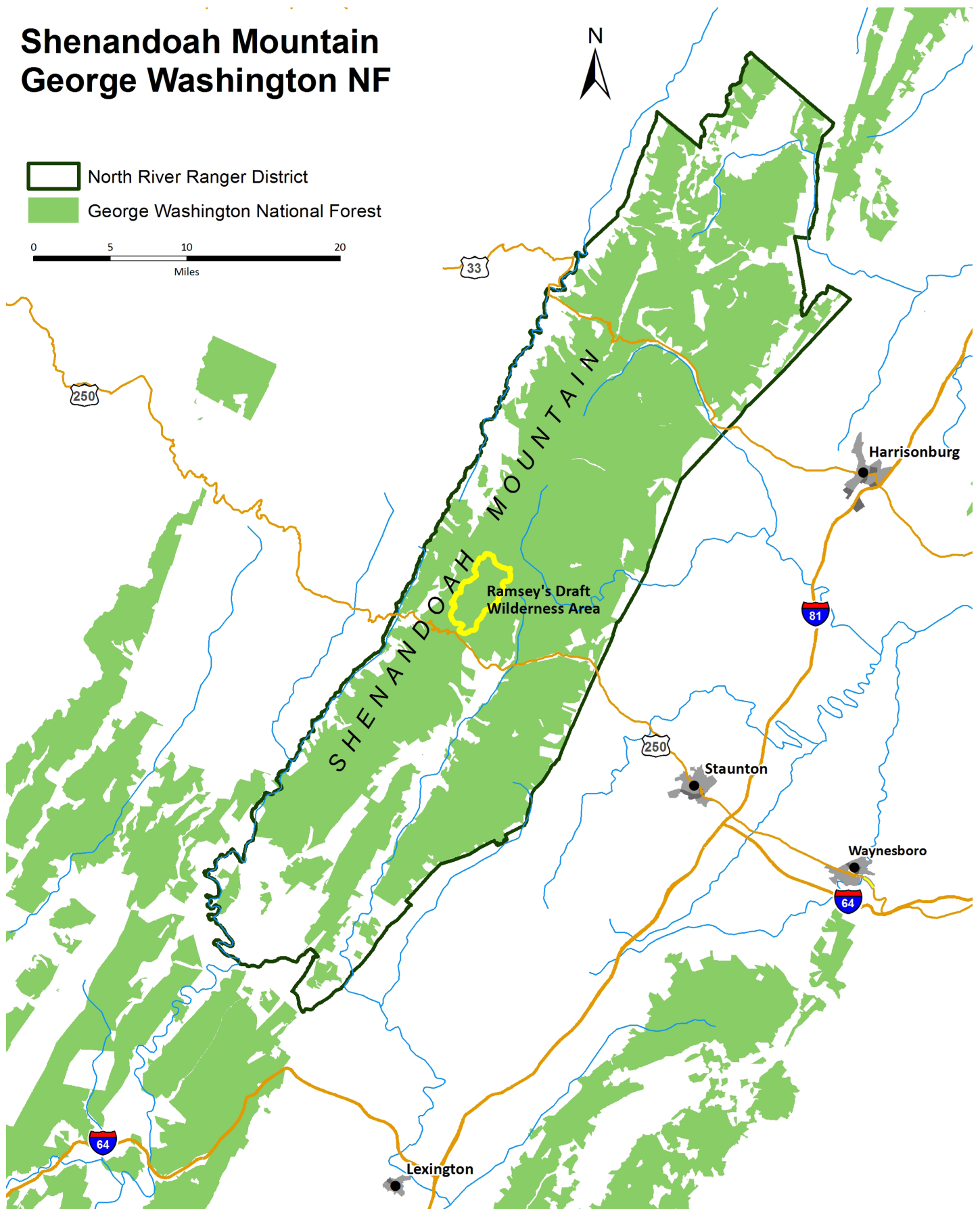
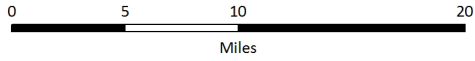
Shenandoah Mountain is a prominent part of the largest and most intact temperate deciduous forest left in the world. It is a vital remnant of a land continuously vegetated for over 50 million years, providing unglaciated refugia during times of ice-sheet advance and population source areas during the glacier's icy retreat (World Wildlife Fund, n.d.).

Shenandoah Mountain contains wild trout streams and old-growth forest. It is important breeding ground for migratory songbirds and home for black bear, the largest megafauna species left in the Appalachians. Its multitude of species, communities, elevations, and moisture regimes contain salamander, millipede, and herb species found nowhere else in the world.

Shenandoah Mountain contains the largest and least fragmented block of contiguous wildlands remaining in the Central Appalachians and the greatest amount of roadless areas and back-country recreational lands between the Great Smoky Mountains National Park and the Adirondacks. It contains a single wilderness area - the 6,500 acre Ramsey's Draft Wilderness. Although designated wilderness comprises less 2% of Shenandoah Mountain, the United States Forest service estimates that Shenandoah Mountain contains more than 180,000 additional acres of *potential* wilderness (USDA Forest Service, 2011d).

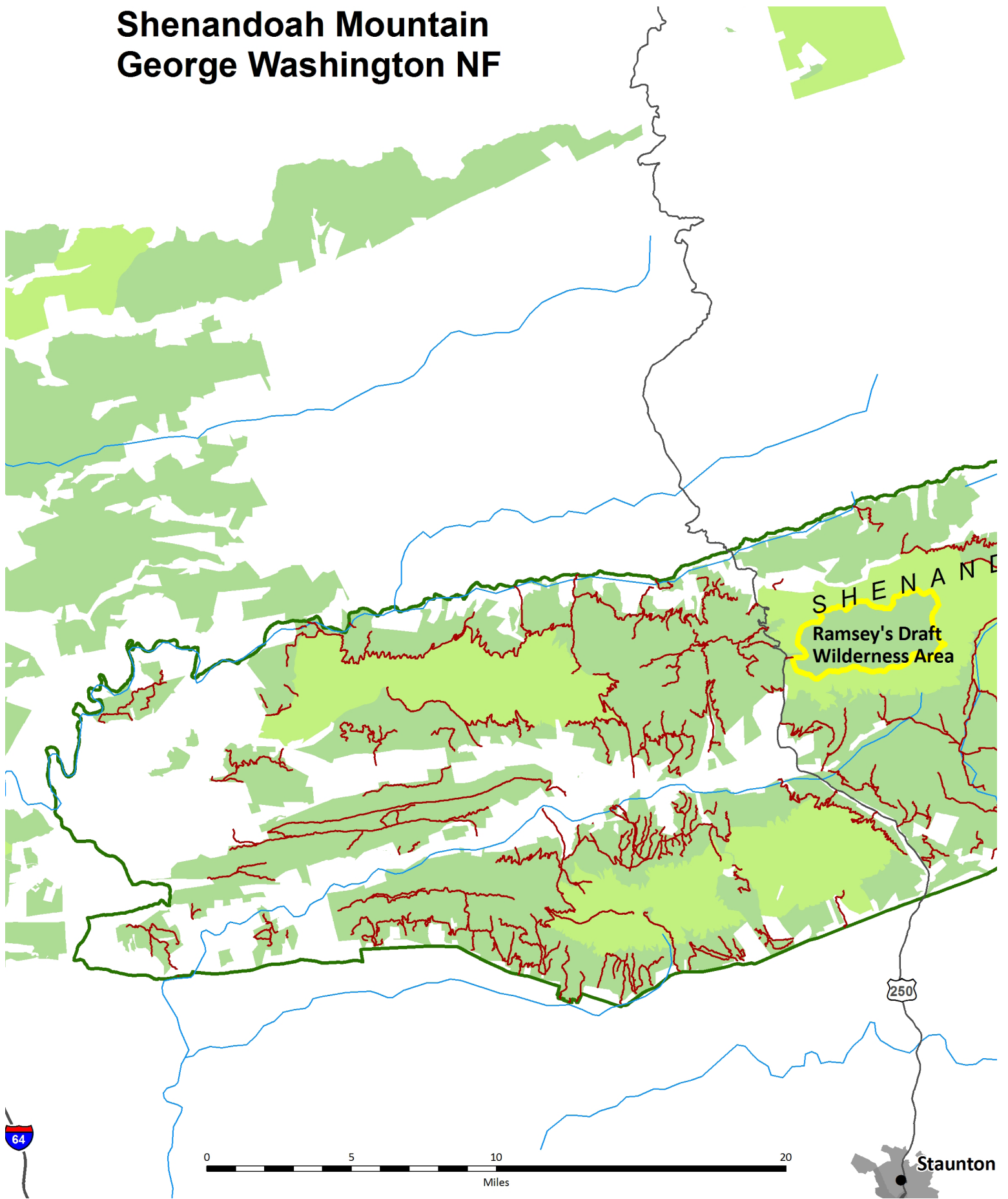
Shenandoah Mountain George Washington NF

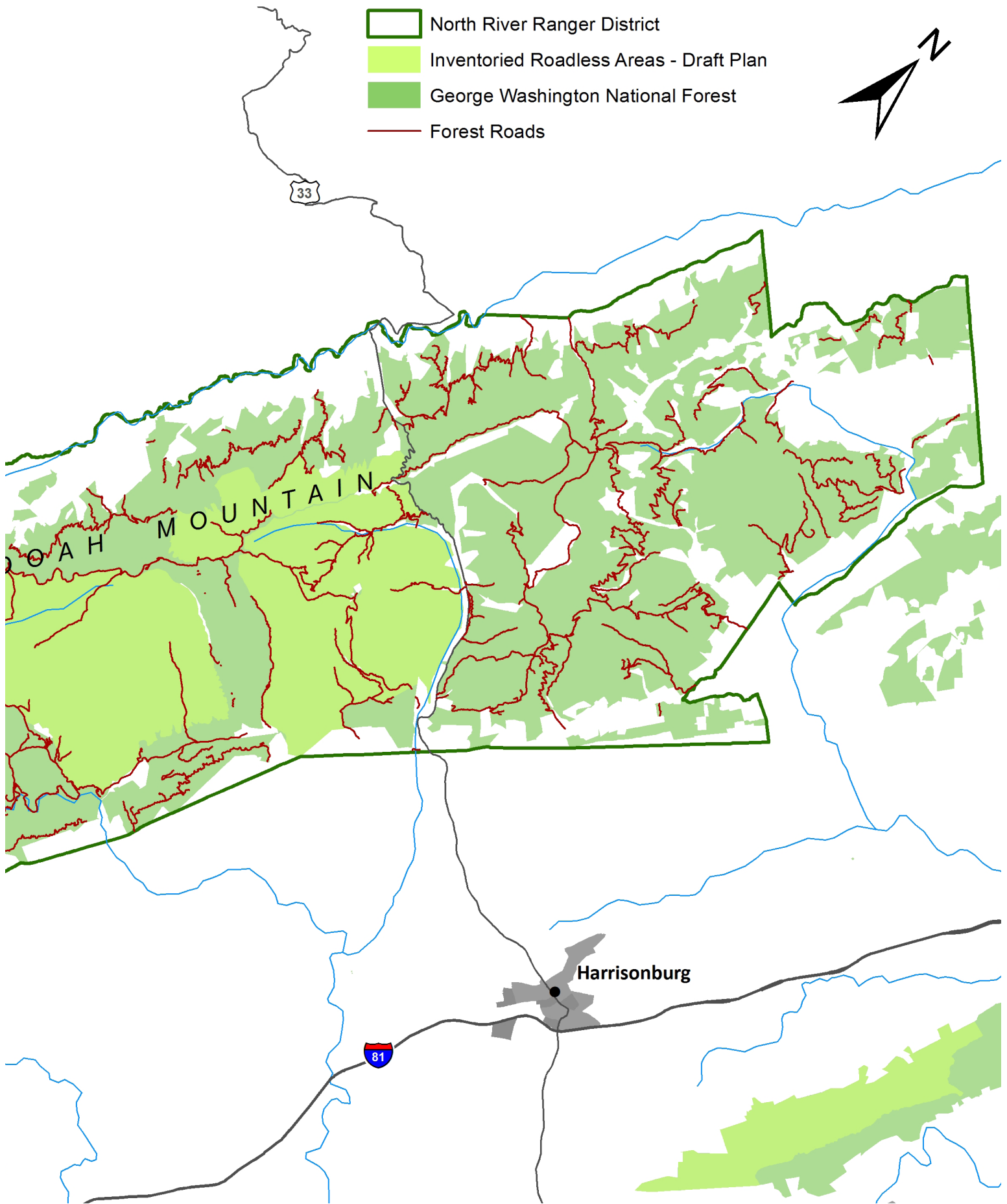
-  North River Ranger District
-  George Washington National Forest



Map showing location of Shenandoah Mountain and Ramsey's Draft Wilderness Area in the George Washington National Forest.

Shenandoah Mountain George Washington NF





III. ROAD PLANNING IN THE GWNF

The USFS estimates that there are 2,635 total miles of roads in the George Washington National Forest. This includes more than 1,825 miles of Forest Service "system" roads (the maintenance of which is the responsibility of the GWNF), and 810 miles of state and federally maintained roads. In addition there are an unspecified number of other old logging roads, unauthorized or decommissioned roads that are not included in the USFS roads inventory (USDA Forest Service, 2011c).

TRAVEL ANALYSIS PROCESS (TAP) REPORT

In 2005, in response to declining budgets and increased road maintenance costs, increased public usage and access demands, deteriorating infrastructure (bridges / culverts / surfacing), resource protection concerns, and public safety concerns, the Forest Service issued its Travel Management Rule. This rule directed all National Forests to identify the minimum road system and identify roads, trails, and areas for motor vehicle use. The goal was to provide better targeted access for the Forest Service and public visitors, while bringing future costs and budgets into better focus for more responsible budget planning (USDA Forest Service, 2012).

In order to implement this rule, the George Washington National Forest issued in April 2011 its Travel Analysis Process (TAP) Report for the North River, Lee, James River, Pedlar and Warm Springs Ranger Districts. For each road in the forest, the TAP Report analyzes the existing use and design characteristics; the need based on Forest Plan direction, including administrative and public access; the risks from the road, including wildlife, sediment delivery, invasive plants, aquatic passage, public safety and law enforcement; the benefits of the road, including resource access, recreation access, fire and emergency access; wildlife and plants; and maintenance costs.

Strategies identified in the TAP Report to mitigate risks and reduce maintenance costs include temporary closures, seasonal restrictions, maintenance level reductions, route closures that can be maintained for future use, changes from passenger car standards to high clearance vehicle standards, increased maintenance levels, maintenance responsibility transfers, long term special uses, cooperative road agreements with private property owners and road decommissions (USDA Forest Service, 2012).

The TAP Report 2011 assessed the roads in the North River Ranger District (which includes Shenandoah Mountain) and recommended decommissioning 82 miles of nonessential roads in the North River Ranger District specifically, saving \$18,474 in road maintenance costs.

CLOSING VS. DECOMMISSIONING ROADS

In a road closure, access is controlled or regulated for a short or long period. The road may be used again in the future and remains part of the official road inventory. The USFS classifies different levels of road closure as: Administrative Use Only, Closed Year Round, Open Seasonally, Unauthorized, or Decommissioned.

When a road is decommissioned, the road will no longer be used and attempts are made to return the area to a more natural state. The USFS identifies five levels of treatments for road decommissioning: 1) Block entrance; 2) Revegetate

“Stream-crossing remediation offers one of the greatest reductions in risks to watershed and aquatic resources.”

(USDA Forest Service, 2012)

and waterbar; 3) Remove fills and culverts; 4) Establish drainageways and remove unstable road shoulders; and 5) Full obliteration, including recontouring and restoring natural slopes.

Although the purpose of road decommissioning is to make the roadbed hydrologically inert, this goal is often unrealized. Based on climate, geology, topography, soil, and road design and construction some, or all, of these techniques may be used. Research shows that fully recontouring a decommissioned road is in the best interest of aquatic ecosystems and water quality, although the process itself may have its own short-term environmental impacts. Recontouring rehabilitates key hydrologic dynamics and increases the ability of the soil to store carbon and nitrogen. Runoff from storm events is also significantly decreased (Lloyd, Lohse, Ferre, 2013).



Remains of a bridge on White Sulphur Spring Road.

IV. ECONOMIC COSTS

There is inadequate and decreasing funding to maintain the current forest road system nationally and in the GWNF and JNF. According to the President’s budget 2015, national annual road appropriations for Forest Service Roads have decreased 7% between 2013 and 2015, and operations and maintenance allocations decreased by 10%. This follows a long trend of declining funding for forest roads. The Forest Service has reduced the total number of road miles in the national forests by approximately 7,000 miles over the last 10 years (USDA Forest Service, 2014). The current 2015 budget funds maintenance for only 9,200 out of 204,600 miles of high clearance and 102,000 miles of closed roads. (USDA Forest Service, 2014). As of 2003, the road maintenance backlog nationwide for the USFS was more than \$10 billion (USDA Forest Service, 2003).

Many roads in Virginia’s national forests no longer serve a specific purpose, yet still require maintenance funds. Depending on the maintenance level, forest roads cost anywhere from \$30 to 4,500 per mile/yr to maintain (USDA Forest Service, 2011c). To keep the current road system “in commission” for the GWNF and JNF it will cost approximately \$3,039,637 annually (USDA Forest Service, 2011c, pg. 12). According to the USDA Forest Service TAP report, the current road system is only “funded at 39% of the total maintenance funds needed to fully maintain to objective standards” (USDA Forest Service, 2011c, pg. 7).

In light of these financial challenges, of the 1,823 miles of inventoried and classified National Forest System (NFS) roads currently in the GWNF, the USDA TAP report recommends decreasing this number to 1,523 miles (USDA Forest Service, 2011c). It is clearly critical to execute a plan for a minimum road system. It makes both economic and ecological sense to effectively maintain essential and well-travelled roads. Spreading limited energy across a large road system results in a forest full of problematic roads continually contributing to soil and water degradation.

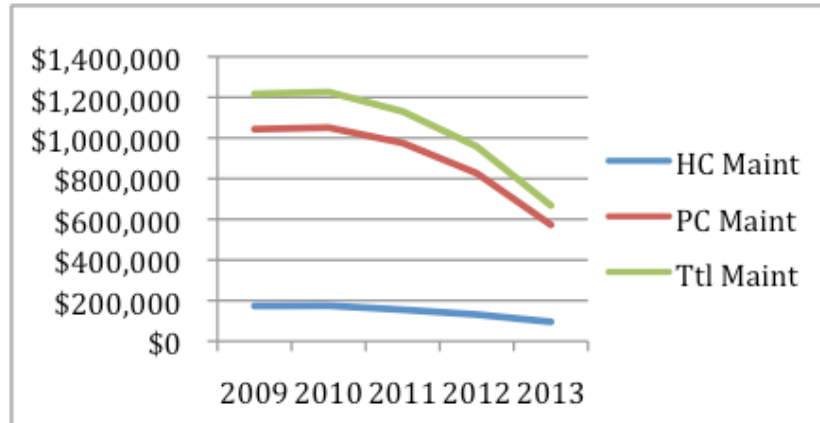
If roads are properly maintained or decommissioned there is less runoff in storms and consequently less sediment delivered into drinking water supplies. Because of reduced sediment passing through inflow intakes, water treatment at drinking water facilities is quicker, easier and cheaper, requires less plant maintenance and can extend the life of these facilities. Studies show that it is more cost effective to reduce erosion and sedimentation than treat the damages to habitat, streams, and species (Bagley, 1998). “Although road removal treatments do not completely eliminate erosion associated with forest roads, they do substantially reduce sediment yields” (Madej, 2001).

TAP 2010 BUDGET (Excerpt)			
GW National Forest District	% of Forest	CMRD Budget*	Target Budget
Lee	11.44	\$ 171,600	\$ 217,932
Deerfield	10.53	\$ 157,950	\$ 200,597
Dry River	12.87	\$ 193,050	\$ 245,174
Warm Springs	9.89	\$ 148,350	\$ 188,405
James River	9.58	\$ 143,700	\$ 182,499
Pedlar	7.21	\$ 108,150	\$137,351
		TOTAL \$ 922,800	TOTAL \$ 1,171,958

*Represents portion of total forest road maintenance budget that accomplishes maintenance on that District. Does not compare directly with District allocations. See Budget Data for District sizes and actual budget allocations for 2010. (USDA Forest Service, 2011c, pg. 2)

Annual Road Maintenance Budget GWJ National Forest

HC = High Clearance
PC = Passenger Car
Ttl = Total Maintenance



Vandegrift, 2013



Drinking water supplies like the James River (left) are adversely affected by sedimentation. (Photo: Deirdre Skogen). Skidmore Fork shows signs of erosion (right). Erosion and sedimentation can cause higher upkeep costs for roads and water treatment facilities.

V. ROAD EFFECTS ON FOREST HABITAT

Roads lead to significant changes in hydrology, geomorphology, and ecosystem processes in the forest. Properly maintaining or removing roads can improve habitat, reduce fragmentation and reduce the erosive effects of runoff. *“Wild lands are immensely important for their high-quality undisturbed soil, water and air”* (Dombeck, 2002, pg.11).

WATER QUALITY DEGRADATION

Maintaining the roads in the system is a significant challenge in the GWNF.

The USFS estimates that the total average annual sediment delivered to streams is 22,900 thousand tons from the GW - 2.8 thousand tons more than natural sediment averages (USDA Forest Service, 2013).

Forests provide clean water as a free ecosystem service. Virginians rely on watershed quality and the water produced in the George Washington National Forest. Water flowing from the GWNF is the primary source of drinking water for more than 260,000 residents of Western Virginia in 22 communities (Wild Virginia, 2008). An additional four million people in cities including Washington D.C., Richmond and Norfolk receive drinking water from the Potomac and James Rivers, which have their headwaters in the GWNF (Wild Virginia, 2008).




It is critical to reduce the impacts roads have on water quality for both the health of our ecosystems and for Virginia communities. However, there has been a lack of attention to these important drinking water resources in the GWNF. A report from the Department of Environmental Quality lists 6 reservoirs and 50 streams in the GWNF as impaired, including over 154 miles of impaired rivers (DEQ, 2006). Water quality should be the overarching goal of all current forest management, as it was at the time the GWNF was created. We must manage the GWNF directly and explicitly for the highest quality water resources.

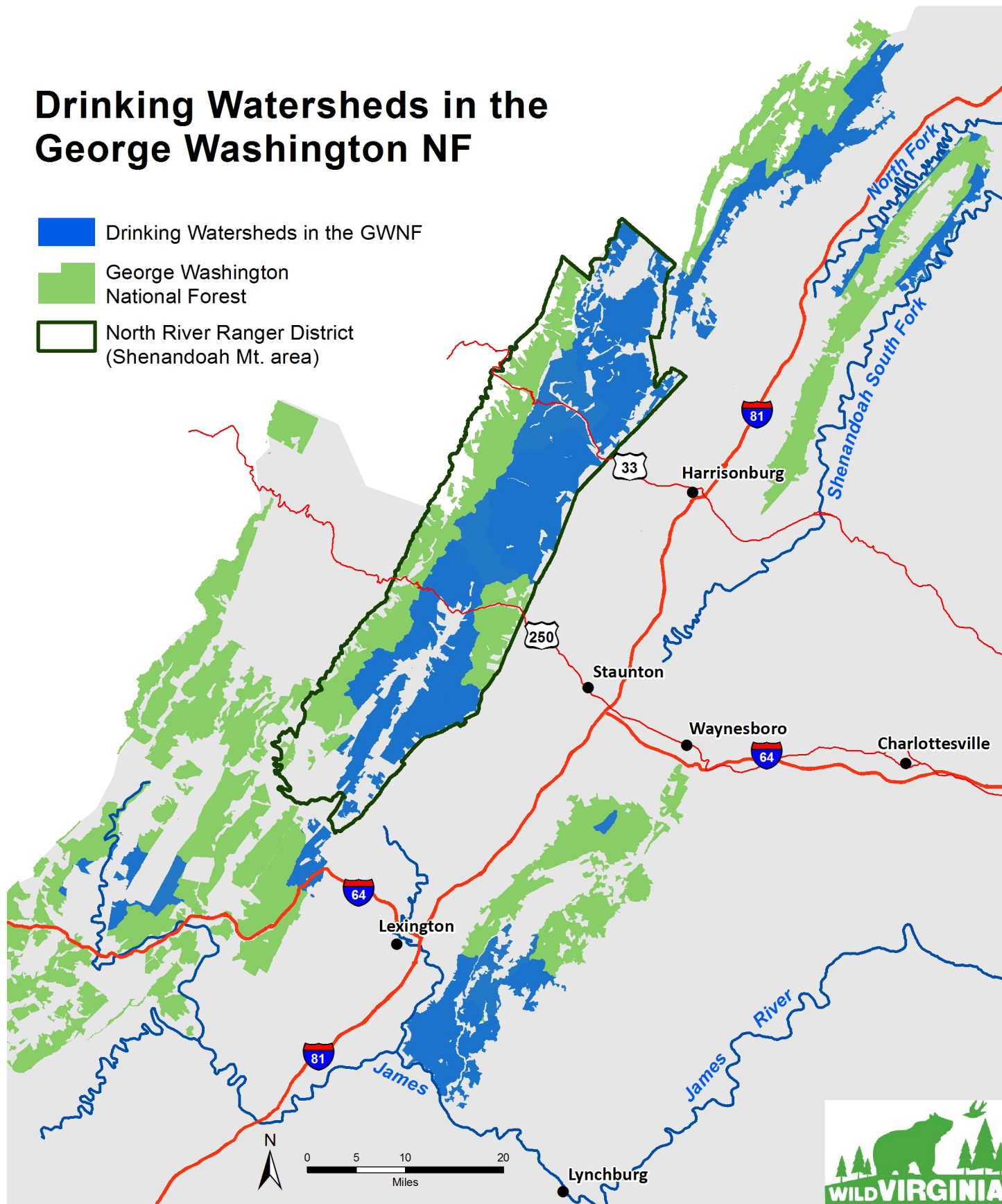
Healthy wild lands provide the following ecosystem services:

- “Catch, store and release water,
- Replenish groundwater tables and aquifers,
- Reduce downstream effects of flooding,
- Provide clean water for domestic, agricultural and industrial uses,
- Maintain healthy wildlife and fish populations,
- Serve as biological strongholds for threatened and endangered species.”

(Dombeck, 2002, pg.11)

Drinking Watersheds in the George Washington NF

-  Drinking Watersheds in the GWNF
-  George Washington National Forest
-  North River Ranger District (Shenandoah Mt. area)



A large percentage of the GWNF drains into rivers which serve as drinking water sources for major cities such as Richmond and Washington, DC.

EROSION AND SEDIMENTATION

By altering the hydrological patterns of an area, roads lead to runoff changes and erosion of hillsides (Trombulak & Frissell, 2000). This erosion does not end when the road is built, but may continue to occur throughout the lifecycle of a road. By destabilizing the slope, roads lead to increased risk of erosion and the frequency and magnitude of landslide events. Proper road maintenance and decommissioning work has been shown to reduce the risk of chronic erosion and landslides (Switalski et al., 2004).

Erosion and sedimentation impact stream structure and function. Roads can increase both the amount of water flowing to and the timing of peak flows to streams by intercepting, concentrating, and rerouting the flow. This can lead to increased turbidity of streams from both runoff and instream erosion, with detrimental effects to aquatic life such as native brook trout (USDA Forest Service, 2012).

Roads compact soil, change its porosity and temperature, and intercept surface water flow making roads a significant source of sedimentation, particularly when they are not adequately maintained. Several environmental documents written by the U.S. Forest Service for projects in the GWNF state “On National Forest system land, sedimentation is the primary factor in water quality degradation”(USDA Forest Service, 2007). In the mountain regions of Virginia, excess sediment is a grave threat to water quality and aquatic species like macroinvertebrates, freshwater mussels, salamanders and native brook trout (*Salvelinus fontinalis*) (Bamford, 2012).

“Areas will be more stable and contribute less sediment when properly decommissioned and natural drainage is restored”.

(USDA Forest Service, 2012)



A stream crossing on Little Skidmore Road, where natural drainage is reasserting itself.



Even the low to moderate erosion shown here (left: Narrowback Road, and right: Skidmore Road) contributes heavily to sedimentation and degradation of water quality, as well as high maintenance costs where roads are kept open.

“Sediment is probably the most pervasive nonpoint pollution that affects streams on national forests.

*Sedimentation is caused by soil erosion from ground-disturbing activities such as **roads**, poorly designed or nonbuffered land use activities, mining and construction. Many historic roads on national forests were built in poor locations (i.e. along streams), many of which are still in use today.*

Sedimentation can negatively affect aquatic ecosystems by reducing habitat complexity and diversity.” (McDougal, Leftwich, Russell, 2001, pg. 29)

FRAGMENTATION-CONNECTIVITY - EDGE EFFECTS

The presence of roads in national forests and other public lands creates many significant ecological and management problems. The scientific literature abounds with information on the negative impacts of forest fragmentation and associated edge effects created by roads and other disturbances. "While direct habitat loss has been identified as the most significant threat to species around the world, habitat fragmentation due to roads and related development is considered the principal threat to most species in the temperate zone" (Robinson, Dunker, Beazley, 2010, pg. 1).

There are direct and indirect impacts on the environment from the presence of roads. The term hyperfragmentation has been used to describe the 'true' footprint of a road by combining both the direct habitat alteration and associated hydrologic impacts that can spread far beyond the road itself (Trombulak & Frissell, 2000).

Roads alter the physical environment and create barriers to movement and gene flow, stressing and modifying the behavior of wildlife populations (Trombulak & Frissell, 2000). Even small dirt roads in Virginia's national forests can fragment and negatively impact woodland salamander populations.

On the other hand, large areas of connected habitat buffer populations of plants and animals, allowing them to remain stable even during natural disasters and the pressures of climate change. The eastern United States has few such areas large enough to serve this critical function. Shenandoah Mountain range is unique in that there is the potential for many large, unfragmented roadless areas (Bamford, 2012).



The Cow Knob salamander is endemic to Shenandoah Mountain and is endangered. The many threats to its habitat include habitat fragmentation from roads, as shown on Oak Creek Knob above, and exotic invasive species, including those on the next page.

NON-NATIVE INVASIVE SPECIES AND THE SPREAD OF EXOTICS

Roads provide a major opportunity for introduction of new species from other areas or nearby infestations (USDA Forest Service, 2011c). These invasives stress native plants and threaten rare species by altering habitat and the availability of food for wildlife, and are corridors along which other exotic species can move. In this way, roads become a “hot spot”, allowing for both intentional and unintentional introductions of invasive species (Trombulak & Frissell, 2000).

Wild Virginia did a survey of invasive species in the Shenandoah Mountain Region in 2011 and found a variety of invasive plants of concern such as Autumn Olive, Coltsfoot and Bush HoneySuckle. Japanese Stiltgrass was one of the most prevalent, crowding out native plants, and in many of the areas becoming the only ground cover (Wild Virginia, 2011).

WILDLIFE

Roads can have disastrous effects on wildlife populations, beyond the obvious mortality from interactions with humans and collisions with vehicles. Roads break up the connectivity of a forest and modify wildlife behaviors -- isolating populations and decreasing reproductive success. When forests become fragmented with roads, opportunities increase for creatures typically found on forest edges, like skunks and crows, to penetrate the inner forest where they prey on and compete with species that rely on the sanctuary of large, unfragmented forests (Trombulak & Frissell, 2000).



Exotic invasive species such as Japanese stiltgrass, *Microstegium vimineum* (left), and multiflora rose, *Rosa multiflora* (right) flourish in disturbed areas along roads.

ILLEGAL ACCESS

Roads provide access to isolated forest areas which can lead to increased illegal activities such as off road all-terrain and 4-wheel drive vehicle usage, rare plant and animal harvest, poaching, illegal firewood removal, and illegal waste disposal (Bagley, 1998). Past Forest Service Chief Dale Bosworth identified unmanaged off- road vehicle use as one of the four greatest threats to America’s National Forests (Bosworth, 2003).

Roads on Forest Service land are primarily constructed and used for industrial activities. At the national level only 17% of Forest Service roads are accessible to the public and the rest are closed or accessible only to high clearance vehicles (USDA Forest Service, 2010). These Administrative roads invite illegal use, and the Forest Service has scant and insufficient funding for any meaningful monitoring and law enforcement.



An illegal ATV rider on Flagpole Road (right). Erosion and a new path, caused by illegal ATV activity, can be seen to the left of the gate on Sand Springs Trail (left).



Clockwise from top: Erosion on Hamilton Draft Road; a sign on Murph Hollow Road shows one type of road closure; erosion on Benson Run Road; and erosion on Narrowback Road.

V. WILD VIRGINIA ROADS ANALYSIS

It is critical that strategic choices are made when applying road treatments to maximize long term benefits to forest and watershed health and to utilize limited funds most effectively.

Wild Virginia assessed 561 roads (and road segments) in the Shenandoah Mountain region of the GWNF, exploring the impacts of forest roads through a set of ecological and water quality factors.

The watershed data was informed by the 2011 report by Wild Virginia, *The State of our Water: Managing and Protecting the Drinking Water Resources of the George Washington National Forest* which identifies and discusses the location of public drinking watersheds, native brook trout streams, and “impaired waters” as identified by the Virginia Department of Environmental Quality.

METHODOLOGY

Detailed USFS information about roads in the North River Ranger District of the GWNF, such as their maintenance level, closure status (open year round, seasonally, administratively closed, etc.), surface type, and ownership (i.e., who is responsible for maintaining the road) was overlaid with slope, watershed and habitat information using GIS.

GIS analysis was then used to evaluate the different roads in relation to a set of ecological factors, as shown on the following page. First a raw value was produced, and then the raw value was transformed into a point value that can be easily understood and compared. The point values for the 11 environmental factors were then added together to produce an overall number that indicated the potential severity of ecological impact from the road. A high point value indicated a greater potential impact.

Wild Virginia further refined the analysis through reviewing the GIS data with U.S. Forest Service staff, natural resource professionals, and knowledgeable individuals; comparing it with TAP data; and conducting field surveys of key sites. Some roads were eliminated from consideration, such as those that provide access to private land or critical management such as the only access to a reservoir or other important site. Regularly highly travelled roads were also eliminated.

The resulting data can be used to begin identifying the roads that have the most damaging influence on our natural resources and could be mitigated.

This data will aid future efforts to protect drinking watersheds and ecological integrity by informing decisions about road maintenance or when road closures do occur as a result of the USFS processes.

Data on all 561 roads can be found in Appendix #1.

SET OF FACTORS WILD VIRGINIA USED IN EVALUATING ROADS

The most important factors were given a maximum value of 10, and secondary factors, a maximum value of 5. A sum of the values for each factor is the score for each road. The higher the score, the greater the potential negative ecological impact and the threat to drinking water resources.

FACTOR	DESCRIPTION	POINT VALUES
Factor 1	Number of stream crossings per mile, includes both perennial & intermittent streams	0 -10
Factor 2	Percentage of the road's total length that occurs within 100 feet of a perennial stream	0 -10
Factor 3	Percentage of the road's total length that occurs within 100 feet of an intermittent stream	0 - 5
Factor 4	Percentage of the road's total length that falls within a local drinking watershed (as defined in Wild Virginia's <i>The State of Our Water</i> report)	0 -10
Factor 5	Percentage of the road's total length that falls within an Inventoried Roadless Area (IRA)	0 -10
Factor 6	Percentage of the road's total length that falls within a newly defined roadless area (in the forest planning process, the areas within Potential Wilderness Areas but outside of IRAs)	0 -10
Factor 7	Percentage of the road's total length that falls within a Special Biological Area (identified in draft forest plan)	0 -10
Factor 8	Percentage of the road's total length that falls within a Virginia Mountain Treasure	0 - 5
Factor 9	Percentage of the road's total length that falls within an Old Age Stand (based on FS data, the forest stand meets the minimum age criteria to be considered Old Growth)	0 - 5
Factor 10	Percentage of the road's total length that occurs on ground with 10% to 45% slope	0 - 5
Factor 11	Percentage of the road's total length that occurs on ground with slope greater than 45%	0 -10

VI. CONCLUSIONS AND NEXT STEPS

There are large ecological and economic benefits of reducing the size and scope of roads in the George Washington National Forest.

Road closures and decommissionings are the most important and effective actions for active forest restoration and budget reduction.

The April 2011 Draft George Washington Land and Forest Management Plan, which would set the direction of forest management for the next 10-15 years, fails to adequately set a systematic process for expediting road closures.

It is problematic for the Forest Service to only consider road closures as part of projects with conflicting resource objectives. Because projects are driven by management priorities that emphasize vegetation management and resource extraction they are dependent upon roads for their implementation. Project planners consider existing roads, in whatever form they exist, critical in project proposal and planning. Land managers are driven to actively explore possibilities for road redevelopment and new road construction whether temporary or permanent in order to implement the project. This poses a strong disincentive to adequately assess the benefits and possibilities of road closure in the project area.

Furthermore, as the Wild Virginia Road Analysis demonstrates, some of the most ecologically harmful and abused roads lie outside of areas that prioritize vegetation management and resource extraction. Roads continue to be problematic in roadless areas, potential wilderness areas, special biological areas and in areas that might create buffer areas around and linkages between these areas. Road closures and decommissionings must be directed by aggressive long-range forest planning in the Forest Plan.

“The presence of roads is highly correlated with changes in species composition, population sizes, and hydrologic and geomorphic processes that shape aquatic and riparian systems.”

(Trombulak & Frissell, 2000)

WILD VIRGINIA RECOMMENDS:

- 1.** The GWNF Forest Plan should include detailed road closure and decommissioning directives that would set a goal of reducing the current road inventory to a minimum level that could be sustainably maintained and monitored.
- 2.** Each ranger district should implement no less than one road closing/decommissioning project yearly, focusing on a project area that is not linked to any vegetation management or resource extraction.
- 3.** The project areas should be prioritized by both economic and ecological benefits and the highest combination of both should be implemented first.
- 4.** All road closures should be evaluated for additions to the trail system. The directive to add no net miles to the trail system runs contrary to the best interests of the forest and needs to be reversed.
- 5.** All roads in special biologic, roadless, potential wilderness and wilderness study areas should be closed and decommissioned and considered to revert to trails and be added to the existing trail system.
- 6.** All projects should contain analysis for road closures in the project area.
- 7.** Road closures should be prioritized at the project level along with other resource objectives.
- 8.** Resource management should be limited to those areas accessible by the minimum road system.
- 9.** New road construction should not be allowed under the Forest Plan.
- 10.** The results of these recommendations should be actively monitored as implemented.
- 11.** An effective roads monitoring program should include analysis on a) Meeting restoration objectives, b) Invasive species, and c) Illegal use.
- 12.** Subsequent forest plans should contain the results of this monitoring and the resulting condition of the forest be evaluated as part of the subsequent planning and ecological evaluations under the new 2012 Forest Planning Regulations.
- 13.** The GWNF staff should request and actively lobby for sufficient funding to implement these suggestions. Wild Virginia is committed to seeing that the recommendations contained in this report are revisited regularly and to collaborating when possible to see that they are.
- 14.** Wherever possible, fully decommission closed roads using methods to restore natural hydrology above and below ground eliminating the need for ongoing maintenance funds and illegal access.
- 15.** Data (Appendix 1) generated by this report should be utilized by GWNF staff to prioritize strategic road closings in the Shenandoah Mountain region.

A minimal road system will benefit human, plant and animal communities, and save money.

Wild Virginia encourages, supports and advocates for the work of the Forest Service to scale back to a minimum road system in the GWNF. Wild Virginia will continue to work with the USFS in the GWNF, particularly the critical habitat areas in the Shenandoah Mountain area of the North River Ranger District.

Virginians need large, unfragmented forest areas that protect our drinking water, sensitive species, and the places we all enjoy.



George Washington National Forest. (Photo: Deirdre Skogen)

REFERENCES

- Bagley, S. 1998. The Road-Rippers Guide to Wildland Road Removal. The Wildlands Center for Preventing Roads.
- Bosworth, B. 2003. San Francisco, CA. April 22 Speech <http://www.fs.fed.us/news/2003/speeches/04/issues.shtml>
- Bamford, S. 2012. A Review of the Virginia Mountain Treasures of the Jefferson National Forest. Report prepared for the New River Group of Sierra Club.
- Dombeck, M. 2002. Odes to Roads. Excerpted from No Place Distant by David G Havelick. Island Press.
- Lloyd, R.A. et al. 2013. Influence of road reclamation techniques on forest ecosystem recovery. *Frontiers in Ecology and the Environment* 11(2).
- McDougal, L.A., et al. 2001. A Conservation Assessment of Freshwater Fauna and Habitat in the Southern National Forests. U.S. Department of Agriculture Forest Service Southern Region, Atlanta, GA.
- Madej, M.A. 2001. Erosion and sediment delivery following removal of forest roads. *Earth Surface Processes and Landforms* 26: 175- 190. <http://www.werc.usgs.gov/redwood/esplroads.pdf>
- Marsh, D.M. et al. 2005. Forest Roads as Partial Barriers to Terrestrial Salamander Movement. *Conservation Biology* 19(6).
- Robinson, C. et al. 2010. A Conceptual Framework For Understanding, Assessing, And Mitigating Ecological Effects Of Forest Roads. *Environmental Reviews* 18(1).
- Semlitsch, R.D. et al. 2007. Salamander abundance along road edges and within abandoned logging roads in appalachian forests. *Conservation Biology* 21(1).
- Switalski, T.A. et. al. 2004. Benefits and Impacts of Road Removal. *Front Ecol Environ* 2(1).
- Trombulak, S. and C. Frissell. 2000. Review of Ecological Effects of Roads on Terrestrial and Aquatic Communities. *Conservation Biology* 14(1).
- USDA Forest Service. January 1993. Final Environmental Impact Statement for the Revised Land and Resource Management Plan.
- USDA Forest Service. 2007. Environmental Assessment Cubville Project. Warm Springs Ranger District, George Washington & Jefferson National Forests, Bath County, Virginia.
- USDA Forest Service Strategic Plan: FY 2007–2012. Accessed Online 5/30/2013 <http://www.fs.fed.us/publications/strategic/fs-sp-fy07-12.pdf>
- USDA Forest Service. 2010. Memorandum: Travel Management, Implementation of 36 CFR, Part 212, Subpart a 36 CFR 212.5 (b). November 10.
- USDA Forest Service. 2011a. Draft Environmental Impact Statement for the George Washington National Forest, Draft Revised Land and Resource Management Plan.
- USDA Forest Service. 2011b. Draft Revised Land and Resource Management Plan for the George Washington National Forest. Accessed Online 5/20/2014 <http://www.fs.usda.gov/detail/gwj/landmanagement/?cid=stelprdb5295538>
- USDA Forest Service. 2011c. George Washington National Forest Travel Analysis Process (TAP).
- USDA Forest Service. 2011d. Appendix C – Potential Wilderness Area Evaluations George Washington National Forest Draft EIS April. Accessed Online 6/6/2014 http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5297842.pdf
- USDA Forest Service. 2012. Road Decommissioning: George Washington & Jefferson National Forests March 29. USDA Forest Service Legacy Roads. Accessed Online 6/5/2013. http://www.fs.fed.us/restoration/Legacy_Roads_and_Trails/
- USDA Forest Service. 2014. Budget Justification: FY 2015. Accessed Online 5/20/2014 <http://www.fs.fed.us/aboutus/budget/2015/FS15-FS-Budget-Justification.pdf>
- USDA Forest Service Aquatic Organism Passage Project. Accessed Online 5/30/2013 http://www.fs.fed.us/restoration/Aquatic_Organism_Passage/overview.shtml
- Vandegrift, Scott. 2013. Who Manages the Roads on National Forests? PowerPoint Presentation. Eastern Divide Ranger District. Blacksburg, VA. February 26.
- Virginia Department of Environmental Quality. 2006. Final 305(b) / 303(d) Water Quality Assessment Integrated Report.
- Wild Virginia. 2008. The State of Our Water. <http://wildvirginia.org/wp-content/uploads/2009/01/state-of-our-water-full-report.pdf>
- Wild Virginia. 2011. Non-native Invasive Plant Survey: Ramsey's Draft Wilderness Area. <http://wildvirginia.org/wp-content/uploads/2011/06/nnip-report-final.pdf>
- Wilderness Society, The. 1999. Virginia's Mountain Treasures: the unprotected wildlands of the George Washington National Forest.
- Wildlands CPR & The Wilderness Society. 2010. Memorandum: Travel Management Rule Subpart A; FAQ. December 8. Vera Smith, National Forest Action Center, The Wilderness Society; Bethanie Walder, Executive Director, Wildlands CPR.
- World Wildlife Fund. Appalachian Blue Ridge Forests. Accessed online 8/29/2014. <http://www.worldwildlife.org/ecoregions/na0403>

All photos by Wild Virginia unless otherwise noted.

APPENDIX 1: SHENANDOAH MT.

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS	F2- PERENNIAL STREAM (%) POINTS	F3- INTERMITTENT STREAM (%) POINTS	F4- DRINKING WATERSHED (%) POINTS	F5- IRA (%)				
101	41499	O	5.90	1.70	0.7	4.92	0.5	0.72	0.0	73.23	7.3	2.42
101B		A	1.86	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
101B		O	0.13	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
102	Shenandoah Mt. Horse Camp	O	0.10	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1037	Broad Run	C	0.75	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1042	Augusta Springs Parking Lot	O	0.06	0.00	0.0	0.00	0.0	0.00	0.0	99.80	10.0	0.00
1042A	Ball Park	A	0.12	1.00	0.4	34.13	3.4	12.41	0.6	100.00	10.0	0.00
109	White Sulphur Springs	C	1.07	0.00	0.0	42.99	4.3	9.54	0.5	0.00	0.0	29.67
109A	White Sulphur Springs	C	0.38	0.00	0.0	5.56	0.6	0.00	0.0	0.00	0.0	0.47
110	Laurel North	C	0.39	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1117	Old Mans Run	O	4.06	0.99	0.4	18.90	1.9	2.99	0.1	99.37	9.9	0.00
1117A	Ritchie Spur	A	1.81	1.10	0.5	0.00	0.0	9.51	0.5	100.00	10.0	0.00
1117A	Ritchie Spur	O	0.35	0.00	0.0	0.00	0.0	21.68	1.1	100.00	10.0	0.00
1117B	Feliz Ridge	O	1.03	0.00	0.0	0.85	0.1	0.00	0.0	100.00	10.0	0.00
1117D	Old Road Hollow	A	0.77	6.49	2.7	79.60	8.0	6.01	0.3	100.00	10.0	0.00
1117E		A	0.53	0.00	0.0	0.00	0.0	0.00	0.0	76.13	7.6	0.00
1124	Mays Mountain	C	0.62	0.00	0.0	0.00	0.0	91.26	4.6	100.00	10.0	0.00
1124	Mays Mountain	O	0.16	1.00	0.4	20.07	2.0	59.77	3.0	100.00	10.0	0.00
1133	Davidson	R	2.44	0.41	0.2	0.38	0.0	1.71	0.1	100.00	10.0	0.00
1133A	Davidson	A	0.39	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1133B	Davidson	R	0.18	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1133F	Davidson	C	0.69	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1133G	Davidson	A	0.38	0.00	0.0	5.32	0.5	0.00	0.0	100.00	10.0	0.00
1134		D	1.69	8.87	3.7	92.23	9.2	2.44	0.1	99.93	10.0	0.00
1177	Little River	O	0.75	0.00	0.0	10.25	1.0	0.00	0.0	100.00	10.0	0.00
1197	N FK Skidmore	O	2.16	3.71	1.6	12.18	1.2	2.06	0.1	58.60	5.9	22.52
1199	North River Camp	R	0.14	0.00	0.0	20.10	2.0	0.00	0.0	100.00	10.0	0.00
1208	Dry Branch	C	0.53	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1209	Triumph	A	0.81	1.00	0.4	0.00	0.0	3.28	0.2	0.00	0.0	0.00
1209B	Triumph Spur	A	0.52	3.83	1.6	0.00	0.0	15.47	0.8	0.00	0.0	0.00
1218	Shaws Fork	A	0.27	7.50	3.2	14.74	1.5	17.92	0.9	0.00	0.0	0.00
122	Chandler	A	0.38	0.00	0.0	0.00	0.0	0.00	0.0	27.45	2.7	94.14
1269	South Fk McKittrick	R	1.74	1.15	0.5	0.00	0.0	6.05	0.3	0.00	0.0	22.43
1279	Hog Pen Run	A	1.55	0.00	0.0	12.97	1.3	0.00	0.0	100.00	10.0	0.00
1279	Hog Pen Run	R	1.07	0.94	0.4	24.27	2.4	0.00	0.0	100.00	10.0	0.00
1279A	Hogpen Spur	A	0.37	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1279B	Buck Run	A	0.81	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1279D	Buck Run	C	0.40	0.00	0.0	0.00	0.0	13.21	0.7	100.00	10.0	0.00
1280	Snake Hollow	A	0.95	2.10	0.9	0.00	0.0	5.25	0.3	100.00	10.0	0.00
1280	Snake Hollow	O	2.20	1.37	0.6	1.88	0.2	8.52	0.4	34.05	3.4	0.00
1303	Fox Grape	A	1.46	1.37	0.6	0.00	0.0	5.81	0.3	100.00	10.0	0.00
1303	Fox Grape	O	0.19	0.00	0.0	0.00	0.0	0.00	0.0	30.07	3.0	0.00
1303	Fox Grape	R	1.46	0.00	0.0	0.00	0.0	0.00	0.0	98.78	9.9	0.00
1303A	Fox Grape	C	0.79	0.00	0.0	0.00	0.0	10.60	0.5	97.50	9.8	0.00
1303B	Fox Draft	A	1.77	0.57	0.2	0.00	0.0	8.86	0.4	99.06	9.9	0.00
143	Dry Branch Spur	O	0.07	0.00	0.0	0.00	0.0	4.58	0.2	0.00	0.0	0.00

ROAD DATA

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% SLOPE (%) POINTS	F11- >45% SLOPE (%) POINTS	TOTAL POINTS
0.2	47.77	4.8	0.00	0.0	0.00	0.0	200.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	204.9
0.0	0.34	0.0	0.00	0.0	0.00	0.0	203.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	195.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	109.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	161.0
3.0	100.00	10.0	40.97	4.1	100.00	5.0	450.0
0.0	100.00	10.0	0.00	0.0	100.00	5.0	313.2
0.0	0.00	0.0	0.00	0.0	96.15	4.8	332.2
0.0	0.00	0.0	0.00	0.0	3.04	0.2	266.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	284.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	283.1
0.0	0.00	0.0	0.00	0.0	5.46	0.3	254.5
0.0	0.00	0.0	0.00	0.0	16.32	0.8	323.4
0.0	0.00	0.0	0.00	0.0	12.14	0.6	271.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	311.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	294.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	182.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	197.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	207.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	190.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	209.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	324.0
0.0	4.61	0.5	0.00	0.0	0.00	0.0	215.6
2.3	0.00	0.0	0.00	0.0	28.00	1.4	230.0
0.0	0.00	0.0	0.00	0.0	82.85	4.1	273.5
0.0	0.00	0.0	0.00	0.0	97.99	4.9	177.2
0.0	0.00	0.0	0.00	0.0	23.24	1.2	69.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	59.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	55.3
9.4	0.00	0.0	0.00	0.0	88.00	4.4	332.3
2.2	0.00	0.0	0.00	0.0	22.43	1.1	147.6
0.0	0.00	0.0	0.00	0.0	85.14	4.3	319.6
0.0	0.00	0.0	0.00	0.0	13.98	0.7	285.8
0.0	0.00	0.0	0.00	0.0	3.12	0.2	131.2
0.0	0.00	0.0	0.00	0.0	100.00	5.0	285.9
0.0	0.00	0.0	0.00	0.0	100.00	5.0	324.2
0.0	0.00	0.0	0.00	0.0	19.01	1.0	250.9
0.0	0.00	0.0	0.00	0.0	0.89	0.0	150.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	180.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	63.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	141.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	209.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	175.5
0.0	0.00	0.0	0.00	0.0	83.13	4.2	141.3

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS	F2- PERENNIAL STREAM (%) POINTS	F3- INTERMITTENT STREAM (%) POINTS	F4- DRINKING WATERSHED (%) POINTS	F5- IRA (%)				
1448	Elliott Knob	A	2.99	0.00	0.0	0.00	0.0	0.00	0.0	28.00	2.8	3.32
151	Westside	O	12.27	1.39	0.6	5.88	0.6	2.16	0.1	0.00	0.0	0.00
151A	Dice Run	A	1.26	2.37	1.0	11.71	1.2	4.47	0.2	0.00	0.0	0.00
151B	Stony Fork	O	0.42	4.72	2.0	31.55	3.2	6.65	0.3	0.00	0.0	0.00
151C	Wagner	A	0.03	0.00	0.0	34.01	3.4	0.00	0.0	0.00	0.0	0.00
151C	Wagner	D	0.44	4.59	1.9	71.34	7.1	5.41	0.3	0.00	0.0	0.00
151D	Dry Run Hollow	C	0.46	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151E	Road Run Drain	O	0.24	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151F	Old Dump	A	0.21	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151G	Road Run	R	3.04	0.33	0.1	0.00	0.0	2.27	0.1	0.00	0.0	0.00
151H	Dry River Hollow	A	1.75	0.57	0.2	0.74	0.1	4.48	0.2	0.00	0.0	0.00
151H	Dry River Hollow	C	0.52	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151K	Detimer	C	0.30	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151L	Stony Run	A	1.25	0.80	0.3	4.50	0.5	34.76	1.7	0.00	0.0	0.00
151M	Rifle Range	O	0.32	1.00	0.4	30.05	3.0	0.00	0.0	0.00	0.0	0.00
151N	Road Run Spur	A	0.63	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151P	Run Spur	C	0.99	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151Q	Stony Fork Spur	C	0.21	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
151R	Stony Swamp Sale	A	0.78	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
152	Mitchell Knob	R	7.54	1.33	0.6	1.22	0.1	2.74	0.1	0.00	0.0	0.00
152D	Wildlife Clearing	R	0.27	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
152F	Big Als Road	C	0.49	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
153	Buck Lick	O	0.76	1.00	0.4	17.83	1.8	22.86	1.1	0.00	0.0	0.00
1576	Betty's Hill	R	2.06	2.43	1.0	0.17	0.0	2.61	0.1	100.00	10.0	0.00
1581	Powder House	A	0.29	6.80	2.9	0.00	0.0	27.36	1.4	96.76	9.7	0.00
1584	Spic & Span	A	1.62	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1584A	Spick and Span Spur	C	0.31	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1587	Stamping Ground	D	1.23	0.00	0.0	19.66	2.0	9.31	0.5	100.00	10.0	0.00
1589	Marshall Tract	A	0.40	1.00	0.4	10.94	1.1	36.71	1.8	0.00	0.0	0.00
1591	Blue Knob	C	1.38	1.45	0.6	0.00	0.0	12.49	0.6	100.00	10.0	63.23
1594	Murph Hollow	A	0.66	1.00	0.4	0.00	0.0	36.77	1.8	0.00	0.0	26.34
1595	Hog Back	A	3.51	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	99.30
1596	Mill Mountain	A	0.56	0.00	0.0	0.00	0.0	0.00	0.0	74.88	7.5	0.00
1596A	Mill Mountain Trail	A	0.48	1.00	0.4	0.00	0.0	10.02	0.5	97.37	9.7	0.00
1623	Still Run	C	1.47	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1624	Still Run Spur	C	1.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
1625	Camp Road	A	0.18	0.00	0.0	0.00	0.0	0.00	0.0	66.42	6.6	0.00
1625A	Augusta Springs	A	2.06	0.49	0.2	4.54	0.5	0.00	0.0	100.00	10.0	0.00
173	Bensons Run	O	6.33	0.47	0.2	1.59	0.2	2.39	0.1	62.60	6.3	0.44
173.2	Benson Run-West	C	2.49	4.42	1.9	20.63	2.1	7.34	0.4	0.00	0.0	24.43
173.2	Benson Run-West	O	1.57	0.64	0.3	1.90	0.2	0.00	0.0	0.00	0.0	0.00
173E	Benson Run	C	0.55	3.62	1.5	8.90	0.9	25.15	1.3	0.00	0.0	8.88
173E	Benson Run	R	0.57	1.00	0.4	23.86	2.4	3.63	0.2	0.00	0.0	0.00
1753	Deerfield Work Center	A	0.34	8.84	3.7	0.00	0.0	51.29	2.6	0.00	0.0	0.00
1755	Jennings Branch	A	2.17	0.00	0.0	0.21	0.0	0.00	0.0	0.00	0.0	0.00
1755A	Jennings Branch	C	0.19	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1755B	Jennings Branch	C	0.10	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1757	White Way	C	0.64	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1758	Back Draft	C	1.73	0.58	0.2	0.00	0.0	2.54	0.1	100.00	10.0	0.00
1760	Montgomery Run	A	1.16	0.00	0.0	0.00	0.0	0.00	0.0	99.54	10.0	0.00
1761	Chimney Hollow	A	1.17	1.72	0.7	0.00	0.0	11.73	0.6	0.00	0.0	0.00
1761	Chimney Hollow	C	0.51	0.00	0.0	0.00	0.0	7.63	0.4	27.31	2.7	0.00
1761.1	Chimney Run	C	2.57	0.78	0.3	0.00	0.0	8.35	0.4	100.00	10.0	0.58
1762	Cowpasture River	A	1.09	0.00	0.0	1.42	0.1	0.00	0.0	0.00	0.0	0.00
1763	Upper Loop	A	0.99	0.00	0.0	0.00	0.0	3.58	0.2	2.12	0.2	0.00
1763A	Upper Loop Spur	A	0.16	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1764	Spruce Branch-no Row	A	0.37	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
1765	Upper Hodges	A	1.43	0.70	0.3	0.00	0.0	3.32	0.2	100.00	10.0	0.00
1766	Culvert Run	C	0.40	0.00	0.0	0.00	0.0	28.20	1.4	100.00	10.0	0.00

F5 POINTS		F6- NEW IRA (%) POINTS		F7-SBA (%) POINTS		F8-VMA (%) POINTS		F9-OAS (%) POINTS		F10-10-45% Slope (%) POINTS		F11- >45% Slope (%) POINTS		TOTAL POINTS
0.3	0.00	0.0	62.34	6.2	5.10	0.3	16.07	0.8	83.33	4.2	1.72	0.2	214.6	
0.0	0.00	0.0	2.50	0.2	1.13	0.1	28.46	1.4	70.70	3.5	18.82	1.9	138.1	
0.0	0.00	0.0	0.00	0.0	99.53	5.0	0.00	0.0	59.66	3.0	0.00	0.0	185.7	
0.0	0.00	0.0	0.00	0.0	97.75	4.9	12.31	0.6	40.75	2.0	2.03	0.2	204.3	
0.0	0.00	0.0	0.00	0.0	38.09	1.9	0.00	0.0	4.31	0.2	0.00	0.0	81.9	
0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	50.21	2.5	9.09	0.9	253.8	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	81.01	4.1	0.56	0.1	85.7	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	33.34	1.7	0.00	0.0	35.0	
0.0	0.00	0.0	0.00	0.0	92.17	4.6	5.05	0.3	80.19	4.0	0.00	0.0	186.3	
0.0	0.00	0.0	0.17	0.0	0.00	0.0	40.15	2.0	69.25	3.5	15.36	1.5	134.5	
0.0	0.00	0.0	32.70	3.3	0.00	0.0	0.00	0.0	63.91	3.2	34.72	3.5	147.0	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	82.98	4.1	1.41	0.1	88.7	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	15.35	0.8	83.79	4.2	7.16	0.7	112.0	
0.0	0.00	0.0	0.00	0.0	100.00	5.0	15.45	0.8	64.54	3.2	34.54	3.5	268.8	
0.0	0.00	0.0	0.00	0.0	96.27	4.8	0.00	0.0	63.66	3.2	0.00	0.0	201.4	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	77.22	3.9	0.00	0.0	81.1	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	26.06	1.3	81.23	4.1	1.37	0.1	114.2	
0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	73.35	3.7	5.85	0.6	188.5	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	99.75	5.0	81.03	4.1	2.70	0.3	192.8	
0.0	0.00	0.0	0.00	0.0	2.71	0.1	55.19	2.8	61.48	3.1	32.90	3.3	166.3	
0.0	0.00	0.0	0.00	0.0	95.72	4.8	75.70	3.8	97.51	4.9	0.06	0.0	282.4	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	4.44	0.2	54.02	2.7	45.98	4.6	112.0	
0.0	0.00	0.0	0.00	0.0	57.53	2.9	89.17	4.5	43.06	2.2	0.00	0.0	243.3	
0.0	0.00	0.0	1.19	0.1	97.02	4.9	0.00	0.0	73.97	3.7	23.51	2.4	320.7	
0.0	0.00	0.0	0.00	0.0	99.52	5.0	0.00	0.0	90.61	4.5	0.00	0.0	337.7	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	1.37	0.1	82.61	4.1	8.06	0.8	97.0	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	74.63	3.7	0.00	0.0	78.4	
0.0	0.00	0.0	0.00	0.0	97.05	4.9	0.29	0.0	69.34	3.5	30.66	3.1	350.2	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	3.88	0.2	0.00	0.0	55.1	
6.3	0.00	0.0	0.00	0.0	98.82	4.9	0.00	0.0	45.51	2.3	8.47	0.8	354.1	
2.6	70.74	7.1	7.29	0.7	96.72	4.8	0.00	0.0	56.15	2.8	10.66	1.1	326.1	
9.9	0.00	0.0	40.41	4.0	99.40	5.0	29.30	1.5	57.70	2.9	3.18	0.3	462.9	
0.0	0.00	0.0	0.00	0.0	98.79	4.9	0.00	0.0	72.60	3.6	0.00	0.0	262.3	
0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	75.89	3.8	3.66	0.4	306.8	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	52.24	2.6	0.00	0.0	164.9	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	61.80	3.1	0.48	0.0	175.4	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	48.22	2.4	8.23	0.8	132.8	
0.0	0.00	0.0	0.00	0.0	42.58	2.1	15.73	0.8	52.21	2.6	13.02	1.3	245.6	
0.0	0.00	0.0	0.00	0.0	1.93	0.1	26.61	1.3	67.93	3.4	13.33	1.3	189.8	
2.4	65.08	6.5	0.00	0.0	90.67	4.5	0.05	0.0	51.47	2.6	9.82	1.0	290.8	
0.0	0.00	0.0	0.00	0.0	49.49	2.5	9.83	0.5	51.68	2.6	13.40	1.3	133.7	
0.9	100.00	10.0	0.00	0.0	97.16	4.9	0.00	0.0	87.39	4.4	0.00	0.0	351.3	
0.0	98.64	9.9	0.00	0.0	86.44	4.3	32.67	1.6	71.78	3.6	21.59	2.2	363.2	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	20.06	1.0	0.00	0.0	78.6	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	74.71	3.7	5.42	0.5	84.6	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	85.14	4.3	13.17	1.3	103.9	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	33.94	1.7	66.06	6.6	108.3	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	51.77	2.6	7.34	0.7	62.4	
0.0	0.00	0.0	0.00	0.0	1.52	0.1	0.00	0.0	89.01	4.5	6.18	0.6	214.8	
0.0	0.00	0.0	0.00	0.0	19.69	1.0	8.05	0.4	53.18	2.7	0.00	0.0	194.5	
0.0	0.00	0.0	0.00	0.0	59.15	3.0	0.73	0.0	85.44	4.3	10.46	1.0	177.1	
0.0	0.00	0.0	0.00	0.0	8.50	0.4	32.38	1.6	58.78	2.9	38.17	3.8	184.7	
0.1	0.00	0.0	0.00	0.0	25.25	1.3	10.29	0.5	68.04	3.4	20.06	2.0	250.6	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	84.54	4.2	5.55	0.6	96.4	
0.0	0.00	0.0	0.00	0.0	19.99	1.0	62.21	3.1	34.65	1.7	61.40	6.1	196.3	
0.0	0.00	0.0	0.00	0.0	27.63	1.4	0.00	0.0	28.41	1.4	71.59	7.2	137.6	
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	93.57	4.7	0.00	0.0	98.3	
0.0	0.00	0.0	0.00	0.0	18.62	0.9	0.00	0.0	38.41	1.9	61.14	6.1	240.9	
0.0	95.51	9.6	0.00	0.0	97.56	4.9	98.37	4.9	93.94	4.7	0.00	0.0	549.0	

ROUTE # NAME

CLOSURE

LENGTH (MILES)

F1- STREAM CROSSINGS PER MILE
POINTS

F2- PERENNIAL STREAM (%)
POINTS

F3- INTERMITTENT STREAM (%)
POINTS

F4- DRINKING WATERSHED (%)
POINTS

F5- IRA (%)

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE	F2- PERENNIAL STREAM (%)	F3- INTERMITTENT STREAM (%)	F4- DRINKING WATERSHED (%)	F5- IRA (%)				
1767	Simmoms Hunter Road	A	0.60	4.99	2.1	27.60	2.8	0.00	0.0	0.00	0.0	0.89
1768	Old Metal Shed	A	0.69	0.00	0.0	0.00	0.0	1.89	0.1	100.00	10.0	0.00
1771	Smith Mountain	A	1.54	1.30	0.5	0.00	0.0	3.95	0.2	100.00	10.0	0.00
1773	Airstrip	A	0.89	1.00	0.4	0.00	0.0	4.80	0.2	100.00	10.0	97.13
1775A	Sailor Lady	A	1.06	0.94	0.4	0.00	0.0	8.90	0.4	0.00	0.0	0.00
1775B	Piggly Wiggly	O	0.31	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2000	Waggy	A	0.87	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
225	Union Springs	A	0.21	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
225	Union Springs	O	8.11	0.37	0.2	1.36	0.1	0.67	0.0	93.35	9.3	20.18
225A	Blacks Run	D	2.51	5.98	2.5	49.75	5.0	1.60	0.1	100.00	10.0	94.83
225B	Stone Gap	O	1.83	0.00	0.0	0.00	0.0	0.00	0.0	98.11	9.8	11.87
225C	Peach Pond	R	1.80	1.67	0.7	5.76	0.6	2.35	0.1	100.00	10.0	71.19
225D	Oak Knob	A	1.59	1.88	0.8	0.00	0.0	5.70	0.3	100.00	10.0	98.72
225D	Oak Knob	O	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
225E	Prospect	A	0.88	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
227	Skidmore Fork	O	8.33	1.68	0.7	14.97	1.5	1.28	0.1	97.99	9.8	18.58
227A	Skidmore Lake	A	0.50	1.00	0.4	9.57	1.0	0.00	0.0	69.50	6.9	3.36
227A	Skidmore Lake	O	0.31	1.00	0.4	0.00	0.0	15.36	0.8	100.00	10.0	0.01
227B	UN	D	1.16	4.31	1.8	69.42	6.9	0.00	0.0	100.00	10.0	99.09
227C	UN	D	1.81	0.55	0.2	0.00	0.0	3.15	0.2	100.00	10.0	100.00
227D	Timber Hollow	C	1.32	0.76	0.3	0.00	0.0	26.34	1.3	100.00	10.0	93.60
227H	Contour Line 2800	C	1.05	1.91	0.8	40.12	4.0	14.42	0.7	100.00	10.0	95.55
227I	Heatwole	O	0.08	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
230	Slate Lick Run	A	1.34	3.74	1.6	47.70	4.8	0.00	0.0	100.00	10.0	0.00
230	Slate Lick Run	D	1.77	2.25	1.0	27.49	2.7	0.00	0.0	100.00	10.0	0.00
230	Slate Lick Run	O	0.60	1.00	0.4	0.00	0.0	51.81	2.6	100.00	10.0	0.00
230	Slate Lick Run	R	1.07	1.87	0.8	8.67	0.9	8.52	0.4	100.00	10.0	0.00
232	German River	O	7.73	1.42	0.6	19.67	2.0	0.66	0.0	80.99	8.1	0.00
232A	Sumac Run	A	0.61	0.00	0.0	9.17	0.9	0.94	0.0	93.33	9.3	0.00
232A	Sumac Run	O	0.24	0.00	0.0	21.91	2.2	0.00	0.0	0.00	0.0	0.00
232B	Camp Rader Run	O	3.23	1.55	0.7	0.00	0.0	1.31	0.1	97.48	9.7	0.00
232C	Fulk Mountain	O	0.50	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
235	Marshall Run	A	3.44	0.87	0.4	12.00	1.2	0.00	0.0	100.00	10.0	0.00
235	Marshall Run	O	1.79	3.35	1.4	6.93	0.7	19.49	1.0	89.85	9.0	0.00
235A	Root Run	C	1.44	3.48	1.5	61.44	6.1	0.00	0.0	100.00	10.0	0.00
240	Veeco	O	3.60	0.56	0.2	5.27	0.5	0.00	0.0	97.42	9.7	0.00
240	Veeco	R	8.53	0.59	0.2	0.71	0.1	0.71	0.0	97.62	9.8	0.00
240A	Straight Hollow	O	0.55	1.00	0.4	15.77	1.6	0.00	0.0	100.00	10.0	0.00
240B	Spruce Lick	C	0.79	2.54	1.1	85.81	8.6	6.86	0.3	100.00	10.0	0.00
240C	Bible Run	A	3.26	3.38	1.4	34.01	3.4	1.18	0.1	53.79	5.4	0.00
240D	Hogpen Mountain	D	2.58	3.11	1.3	24.94	2.5	0.97	0.0	99.95	10.0	0.00
240E	Kritchie Mountain	A	1.77	1.13	0.5	0.00	0.0	4.88	0.2	100.00	10.0	0.00
240F	Power Tower	C	0.50	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
240G		A	0.28	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
253	Tims Draft	A	0.91	0.00	0.0	2.27	0.2	7.47	0.4	100.00	10.0	0.00
253	Tims Draft	C	0.26	1.00	0.4	19.86	2.0	0.00	0.0	83.49	8.3	0.00
253A	Tims Draft Spur	C	1.80	1.11	0.5	15.84	1.6	5.23	0.3	100.00	10.0	0.00
253E	Ruben Draft	C	1.17	0.86	0.4	5.32	0.5	1.26	0.1	100.00	10.0	0.00
253G	Tims Draft Spur	C	0.55	3.63	1.5	36.70	3.7	0.00	0.0	100.00	10.0	0.00
254	Brailey Branch	A	1.92	4.17	1.8	27.02	2.7	0.00	0.0	100.00	10.0	0.00
2543U		U	1.28	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2544U		U	2.15	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2545U		U	0.79	0.00	0.0	0.00	0.0	0.00	0.0	98.55	9.9	0.00
2546U		U	0.82	0.00	0.0	0.00	0.0	0.00	0.0	97.17	9.7	0.00
2547U		U	0.91	0.00	0.0	0.00	0.0	7.96	0.4	21.17	2.1	0.00
2548U		U	0.59	1.00	0.4	7.34	0.7	0.00	0.0	0.00	0.0	0.00
2549U		U	0.12	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	43.76
255	Alier Hollow	A	0.94	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
255	Alier Hollow	O	2.28	0.88	0.4	3.84	0.4	4.40	0.2	96.26	9.6	0.00

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% Slope (%) POINTS	F11- >45% Slope (%) POINTS	TOTAL POINTS						
0.1	0.00	0.0	0.00	0.0	1.03	0.1	0.00	0.0	41.77	2.1	10.72	1.1	90.2
0.0	0.00	0.0	0.00	0.0	98.96	4.9	0.00	0.0	82.53	4.1	7.61	0.8	310.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	48.97	2.4	80.01	4.0	17.27	1.7	269.1
9.7	0.00	0.0	0.00	0.0	98.88	4.9	0.00	0.0	47.55	2.4	0.36	0.0	376.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	85.84	4.3	8.77	0.9	109.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	70.62	3.5	0.00	0.0	74.2
0.0	100.00	10.0	0.00	0.0	100.00	5.0	0.00	0.0	47.74	2.4	0.00	0.0	375.1
0.0	0.00	0.0	100.00	10.0	0.00	0.0	0.00	0.0	64.69	3.2	0.00	0.0	287.9
2.0	0.00	0.0	19.72	2.0	7.32	0.4	41.71	2.1	75.66	3.8	12.47	1.2	293.6
9.5	2.83	0.3	0.00	0.0	95.10	4.8	44.18	2.2	77.31	3.9	5.53	0.6	509.8
1.2	0.00	0.0	100.00	10.0	0.92	0.0	30.88	1.5	68.98	3.4	2.93	0.3	340.0
7.1	0.00	0.0	0.00	0.0	97.58	4.9	32.90	1.6	79.22	4.0	4.88	0.5	423.4
9.9	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	62.65	3.1	0.00	0.0	396.2
0.0	0.00	0.0	0.00	0.0	28.19	1.4	0.00	0.0	37.41	1.9	0.00	0.0	178.9
0.0	98.07	9.8	0.00	0.0	99.32	5.0	26.83	1.3	90.11	4.5	0.00	0.0	444.9
1.9	0.00	0.0	33.30	3.3	24.66	1.2	12.80	0.6	66.69	3.3	20.80	2.1	315.6
0.3	0.00	0.0	0.00	0.0	3.26	0.2	3.02	0.2	49.85	2.5	14.99	1.5	166.5
0.0	0.00	0.0	0.00	0.0	1.98	0.1	12.83	0.6	77.23	3.9	22.77	2.3	248.2
9.9	0.00	0.0	0.00	0.0	98.80	4.9	0.00	0.0	87.63	4.4	8.16	0.8	501.9
10.0	0.00	0.0	30.18	3.0	99.90	5.0	24.22	1.2	44.99	2.2	55.01	5.5	494.8
9.4	0.00	0.0	34.86	3.5	100.00	5.0	22.01	1.1	35.23	1.8	60.94	6.1	511.4
9.6	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	63.07	3.2	21.81	2.2	470.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	76.34	3.8	0.00	0.0	190.2
0.0	0.00	0.0	0.00	0.0	71.70	3.6	5.39	0.3	61.57	3.1	6.15	0.6	316.4
0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	25.06	1.3	0.00	0.0	272.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	81.69	4.1	0.97	0.1	251.7
0.0	0.00	0.0	0.00	0.0	10.62	0.5	0.00	0.0	17.11	0.9	0.00	0.0	158.4
0.0	0.00	0.0	14.42	1.4	7.41	0.4	7.68	0.4	78.37	3.9	14.51	1.5	242.0
0.0	95.74	9.6	0.00	0.0	95.93	4.8	0.00	0.0	43.15	2.2	46.97	4.7	416.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	85.45	4.3	9.31	0.9	124.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	46.94	2.3	56.47	2.8	43.53	4.4	265.7
0.0	0.00	0.0	100.00	10.0	0.00	0.0	55.44	2.8	31.51	1.6	0.00	0.0	311.3
0.0	98.26	9.8	0.00	0.0	100.00	5.0	19.06	1.0	60.22	3.0	17.89	1.8	439.6
0.0	0.00	0.0	0.00	0.0	9.22	0.5	46.75	2.3	66.11	3.3	18.63	1.9	277.0
0.0	98.97	9.9	0.00	0.0	100.00	5.0	0.00	0.0	89.02	4.5	1.03	0.1	487.5
0.0	0.00	0.0	16.05	1.6	3.11	0.2	34.99	1.7	82.97	4.1	2.67	0.3	260.9
0.0	0.00	0.0	0.00	0.0	16.62	0.8	37.87	1.9	80.76	4.0	11.43	1.1	263.8
0.0	0.00	0.0	0.00	0.0	38.21	1.9	0.00	0.0	57.76	2.9	0.00	0.0	228.5
0.0	0.00	0.0	0.00	0.0	81.74	4.1	13.90	0.7	45.38	2.3	18.75	1.9	381.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	12.92	0.6	35.84	1.8	0.19	0.0	150.7
0.0	0.00	0.0	0.00	0.0	90.41	4.5	0.40	0.0	56.25	2.8	39.92	4.0	338.0
0.0	0.00	0.0	0.00	0.0	99.32	5.0	0.00	0.0	83.26	4.2	10.38	1.0	318.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	14.85	0.7	81.39	4.1	15.82	1.6	228.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	33.96	1.7	0.00	0.0	145.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	43.43	2.2	0.09	0.0	166.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	77.77	3.9	0.00	0.0	195.8
0.0	0.00	0.0	0.00	0.0	49.04	2.5	23.20	1.2	44.17	2.2	1.52	0.2	257.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	64.61	3.2	3.08	0.3	188.8
0.0	0.00	0.0	0.00	0.0	91.14	4.6	0.00	0.0	29.58	1.5	0.00	0.0	278.7
0.0	99.11	9.9	0.00	0.0	100.00	5.0	0.00	0.0	28.44	1.4	0.00	0.0	385.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	35.52	1.8	48.98	2.4	25.38	2.5	226.6
0.0	97.91	9.8	0.00	0.0	100.00	5.0	35.36	1.8	66.92	3.3	5.33	0.5	436.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	20.14	1.0	61.56	3.1	4.73	0.5	199.4
0.0	96.86	9.7	0.00	0.0	96.44	4.8	0.00	0.0	67.30	3.4	5.62	0.6	391.5
0.0	16.35	1.6	0.00	0.0	12.61	0.6	0.00	0.0	52.22	2.6	0.66	0.1	118.4
0.0	93.48	9.3	0.00	0.0	100.00	5.0	0.00	0.0	29.63	1.5	3.96	0.4	251.8
4.4	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	85.93	4.3	0.00	0.0	243.4
0.0	0.00	0.0	0.00	0.0	3.37	0.2	0.00	0.0	57.77	2.9	6.98	0.7	181.9
0.0	0.00	0.0	0.00	0.0	6.76	0.3	11.87	0.6	71.97	3.6	13.04	1.3	224.6

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS		F2- PERENNIAL STREAM (%) POINTS		F3- INTERMITTENT STREAM (%) POINTS		F4- DRINKING WATERSHED (%) POINTS		F5- IRA (%)
255	Alier Hollow	R	2.05	2.92	1.2	12.30	1.2	3.68	0.2	100.00	10.0	0.00
2550U		U	0.10	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2551U		U	0.34	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2552U		U	0.18	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2553U		U	0.06	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2554U		U	0.12	0.00	0.0	0.00	0.0	63.56	3.2	0.00	0.0	0.00
2555U		U	0.10	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2556U		U	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2557U		U	0.09	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2558U		U	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2559U		U	0.02	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
255A	Reuben Draft	A	0.30	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
255B	Reubens Draft	A	0.65	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
255C	Alier Spur	C	0.78	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2560U		U	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
2561U		U	0.82	1.00	0.4	5.02	0.5	0.00	0.0	100.00	10.0	0.00
2562U		U	0.30	6.60	2.8	35.23	3.5	0.00	0.0	100.00	10.0	0.00
2563U		U	0.41	0.00	0.0	0.00	0.0	20.77	1.0	0.00	0.0	0.00
2564U		U	0.06	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2565U		U	0.02	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2566U		U	0.57	1.00	0.4	3.71	0.4	14.94	0.7	0.00	0.0	0.00
2567U		U	0.02	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2568U		U	0.10	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2569U		U	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2570U		U	0.11	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2571U		U	0.09	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2572U		U	0.07	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2573U		U	0.08	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2574U		U	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	47.89
2577U		U	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	64.92
2578U		U	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	60.46
2579U		U	0.60	0.00	0.0	0.00	0.0	0.00	0.0	86.46	8.6	0.00
2580U		U	0.08	0.00	0.0	47.63	4.8	0.00	0.0	100.00	10.0	76.86
2581U		U	0.14	0.00	0.0	35.08	3.5	0.00	0.0	100.00	10.0	91.99
2582U		U	0.69	1.00	0.4	0.00	0.0	32.37	1.6	100.00	10.0	91.90
2583U		U	0.06	0.00	0.0	0.00	0.0	100.00	5.0	100.00	10.0	78.61
2584U		U	0.10	1.00	0.4	64.90	6.5	33.40	1.7	100.00	10.0	79.15
2585U		U	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	17.59
2586U		U	0.11	0.00	0.0	0.00	0.0	0.00	0.0	81.73	8.2	0.00
2587U		U	0.06	1.00	0.4	71.32	7.1	0.00	0.0	100.00	10.0	0.00
2588U		U	0.70	1.00	0.4	0.00	0.0	40.17	2.0	67.10	6.7	0.00
2589U		U	0.12	0.00	0.0	10.96	1.1	0.00	0.0	100.00	10.0	99.16
2591U		U	0.08	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2592U		U	1.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2593U		U	1.33	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
2594U		U	2.64	2.27	1.0	33.90	3.4	1.53	0.1	100.00	10.0	0.00
291	Buffalo Branch	R	0.95	1.00	0.4	0.00	0.0	13.43	0.7	0.00	0.0	0.00
300	Coal Pit Run	A	7.10	1.69	0.7	3.91	0.4	8.14	0.4	0.00	0.0	31.92
300	Coal Pit Run	O	0.15	13.45	5.7	25.65	2.6	26.88	1.3	0.00	0.0	0.00
300A	Coal Pit spur	O	0.06	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
302	Grove Hollow	O	1.81	1.66	0.7	30.40	3.0	4.62	0.2	51.24	5.1	0.00
302	Grove Hollow	R	6.43	0.16	0.1	3.21	0.3	0.00	0.0	100.00	10.0	0.00
302A	Blue Hole	A	0.49	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
302A	Blue Hole	R	2.29	1.31	0.6	0.00	0.0	4.22	0.2	95.94	9.6	0.00
302A1	Blue Hole Spur	C	0.84	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
302B	Grove Hollow	A	3.29	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
302C	Rocky Spur	C	1.58	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
302E	Martin's Lick	A	1.96	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
304	Dry Run	O	0.30	6.64	2.8	27.86	2.8	0.00	0.0	0.00	0.0	0.00

F5 POINTS		F6- NEW IRA (%) POINTS		F7-SBA (%) POINTS		F8-VMA (%) POINTS		F9-OAS (%) POINTS		F10-10-45% Slope (%) POINTS		F11- >45% Slope (%) POINTS		TOTAL POINTS
0.0	0.00	0.0	0.00	0.00	0.0	13.81	0.7	13.70	0.7	65.27	3.3	23.19	2.3	251.6
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	14.80	0.7	0.00	0.0	15.5
0.0	93.84	9.4	0.00	0.00	0.0	80.26	4.0	0.00	0.0	8.75	0.4	0.00	0.0	306.7
0.0	87.88	8.8	0.00	0.00	0.0	84.88	4.2	0.00	0.0	58.03	2.9	0.00	0.0	356.7
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	9.51	0.5	0.00	0.0	120.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	98.47	4.9	0.00	0.0	170.1
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.00	0.0	87.21	4.4	0.00	0.0	70.00	3.5	30.00	3.0	308.1
0.0	0.00	0.0	0.00	0.00	0.0	100.00	5.0	21.74	1.1	72.07	3.6	9.80	1.0	324.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	66.76	3.3	7.03	0.7	187.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	95.59	9.6	0.00	0.00	0.0	91.64	4.6	72.69	3.6	22.33	1.1	0.00	0.0	417.1
0.0	0.00	0.0	0.00	0.00	0.0	84.50	4.2	0.00	0.0	43.08	2.2	0.00	0.0	285.5
0.0	0.00	0.0	0.00	0.00	0.0	92.36	4.6	0.00	0.0	82.01	4.1	1.91	0.2	207.0
0.0	0.00	0.0	0.00	0.00	0.0	89.24	4.5	0.00	0.0	100.00	5.0	0.00	0.0	308.7
0.0	5.16	0.5	0.00	0.00	0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	220.7
0.0	0.00	0.0	0.00	0.00	0.0	96.87	4.8	0.00	0.0	73.70	3.7	0.00	0.0	199.3
0.0	0.00	0.0	100.00	10.0	0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	325.0
0.0	24.55	2.5	100.00	10.0	0.0	0.00	0.0	1.72	0.1	81.44	4.1	12.82	1.3	348.4
0.0	39.78	4.0	100.00	10.0	0.0	0.00	0.0	100.00	5.0	19.17	1.0	0.00	0.0	388.9
0.0	100.00	10.0	0.00	0.0	0.0	100.00	5.0	0.00	0.0	100.00	5.0	0.00	0.0	430.0
0.0	100.00	10.0	0.00	0.0	0.0	100.00	5.0	0.00	0.0	100.00	5.0	0.00	0.0	430.0
0.0	100.00	10.0	0.00	0.0	0.0	100.00	5.0	0.00	0.0	100.00	5.0	0.00	0.0	430.0
0.0	0.00	0.0	100.00	10.0	0.0	46.74	2.3	0.00	0.0	100.00	5.0	0.00	0.0	374.1
4.8	0.00	0.0	100.00	10.0	0.0	96.09	4.8	0.00	0.0	43.61	2.2	0.00	0.0	419.4
6.5	0.00	0.0	100.00	10.0	0.0	67.02	3.4	0.00	0.0	100.00	5.0	0.00	0.0	466.8
6.0	0.00	0.0	100.00	10.0	0.0	67.34	3.4	0.00	0.0	100.00	5.0	0.00	0.0	462.2
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	72.62	3.6	15.68	1.6	188.6
7.7	0.00	0.0	0.00	0.0	0.0	84.21	4.2	0.00	0.0	74.32	3.7	0.00	0.0	413.4
9.2	0.00	0.0	0.00	0.0	0.0	94.27	4.7	10.58	0.5	69.31	3.5	0.00	0.0	432.6
9.2	0.00	0.0	15.22	1.5	0.0	91.83	4.6	0.00	0.0	46.56	2.3	53.44	5.3	466.3
7.9	0.00	0.0	0.00	0.0	0.0	98.74	4.9	0.00	0.0	100.00	5.0	0.00	0.0	510.2
7.9	0.00	0.0	0.00	0.0	0.0	80.74	4.0	0.00	0.0	49.71	2.5	0.00	0.0	440.9
1.8	0.00	0.0	0.00	0.0	0.0	91.56	4.6	0.00	0.0	100.00	5.0	0.00	0.0	330.5
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	65.04	3.3	0.00	0.0	158.2
0.0	0.00	0.0	0.00	0.0	0.0	99.05	5.0	0.00	0.0	0.00	0.0	0.00	0.0	292.9
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	13.10	0.7	0.00	0.0	130.2
9.9	0.00	0.0	0.00	0.0	0.0	38.52	1.9	0.00	0.0	0.00	0.0	0.00	0.0	271.6
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	52.02	2.6	0.00	0.0	164.6
0.0	0.00	0.0	0.00	0.0	0.0	98.04	4.9	47.79	2.4	70.85	3.5	14.26	1.4	353.2
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	53.92	2.7	71.25	3.6	10.43	1.0	252.9
0.0	99.28	9.9	0.00	0.0	0.0	100.00	5.0	3.05	0.2	78.42	3.9	10.14	1.0	460.8
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	66.83	3.3	2.41	0.2	87.3
3.2	0.00	0.0	0.00	0.0	0.0	39.32	2.0	23.54	1.2	66.75	3.3	28.09	2.8	215.7
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	33.68	1.7	0.00	0.0	97.5
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.0	27.89	1.4	5.80	0.3	34.93	1.7	19.51	2.0	188.9
0.0	3.87	0.4	0.00	0.0	0.0	69.62	3.5	15.80	0.8	68.83	3.4	28.81	2.9	311.5
0.0	0.00	0.0	0.00	0.0	0.0	100.00	5.0	0.00	0.0	88.30	4.4	0.00	0.0	307.7
0.0	0.00	0.0	0.00	0.0	0.0	96.15	4.8	8.50	0.4	84.46	4.2	9.64	1.0	319.7
0.0	0.00	0.0	0.00	0.0	0.0	100.00	5.0	0.00	0.0	58.36	2.9	40.58	4.1	320.9
0.0	0.00	0.0	0.00	0.0	0.0	32.32	1.6	1.91	0.1	70.96	3.5	1.38	0.1	222.0
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	86.69	4.3	4.73	0.5	206.2
0.0	0.00	0.0	0.00	0.0	0.0	100.00	5.0	0.27	0.0	66.20	3.3	33.80	3.4	322.0
0.0	0.00	0.0	0.00	0.0	0.0	0.00	0.0	0.00	0.0	2.95	0.1	0.00	0.0	36.5

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS	F2- PERENNIAL STREAM (%) POINTS	F3- INTERMITTENT STREAM (%) POINTS	F4- DRINKING WATERSHED (%) POINTS	F5- IRA (%)				
304	Dry Run	R	2.99	3.01	1.3	7.27	0.7	10.91	0.5	87.86	8.8	87.16
308	Charlie Lick	A	1.39	0.72	0.3	0.57	0.1	4.53	0.2	100.00	10.0	0.00
309	Scotchtown Spur	C	0.52	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
31	Sugar Run	O	0.33	6.06	2.6	21.09	2.1	12.47	0.6	0.00	0.0	0.00
314	Laurel	A	0.93	2.14	0.9	0.00	0.0	8.36	0.4	100.00	10.0	0.00
314A	Laurel Spur	A	0.13	1.00	0.4	0.00	0.0	56.38	2.8	100.00	10.0	0.00
329	Darmont	A	1.47	0.00	0.0	0.00	0.0	1.95	0.1	100.00	10.0	0.00
329A	Darmont	A	1.13	0.00	0.0	0.00	0.0	0.00	0.0	96.98	9.7	0.00
33	Simpson Road	A	0.53	1.00	0.4	39.73	4.0	0.00	0.0	0.00	0.0	0.00
34	Walt's Paradise	A	9.08	0.99	0.4	4.72	0.5	0.44	0.0	0.00	0.0	0.00
34	Walt's Paradise	R	1.62	0.62	0.3	3.26	0.3	0.00	0.0	0.00	0.0	0.00
34-A	Seng Run Spur	C	0.51	3.91	1.7	62.86	6.3	0.00	0.0	0.00	0.0	0.00
343	Signal Corps Knob	A	2.38	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
347	Falls Hollow	A	1.81	1.11	0.5	9.48	0.9	3.42	0.2	0.00	0.0	0.00
347	Falls Hollow	O	0.24	0.00	0.0	100.00	10.0	0.00	0.0	0.00	0.0	0.00
347B	Caves	A	1.18	0.00	0.0	0.28	0.0	0.00	0.0	0.00	0.0	0.00
347C	Caves	A	1.03	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
347D	Caves	A	0.24	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
348	Hawes Run	A	0.32	1.00	0.4	18.86	1.9	0.00	0.0	0.00	0.0	0.00
348	Hawes Run	O	0.17	1.00	0.4	19.04	1.9	0.00	0.0	0.00	0.0	0.00
348	Hawes Run	R	0.92	1.00	0.4	8.07	0.8	0.00	0.0	0.00	0.0	0.00
348.1	Brandley Pond	O	0.96	2.09	0.9	33.73	3.4	0.00	0.0	81.57	8.2	0.00
348A	West Augusta	A	1.33	2.25	0.9	31.33	3.1	9.05	0.5	100.00	10.0	0.00
348A	West Augusta	R	2.35	0.43	0.2	7.58	0.8	1.77	0.1	99.26	9.9	0.00
348B	West Augusta	R	0.87	1.00	0.4	0.00	0.0	5.33	0.3	100.00	10.0	0.00
34B	Seng Run	A	0.59	1.00	0.4	64.49	6.4	0.00	0.0	0.00	0.0	0.00
34C	Seng Run Spur	C	0.38	23.69	10.0	85.94	8.6	0.00	0.0	0.00	0.0	0.00
379	Ingram Draft-Admin Row	A	2.60	0.38	0.2	0.00	0.0	13.60	0.7	97.17	9.7	0.00
379	Ingram Draft-Admin Row	C	0.02	0.00	0.0	0.00	0.0	0.00	0.0	45.54	4.6	0.00
379A	Ingram Draft	A	1.18	0.85	0.4	0.00	0.0	3.79	0.2	100.00	10.0	0.00
380	Hamtig	A	1.22	1.64	0.7	0.00	0.0	4.38	0.2	100.00	10.0	0.00
381	Phillips Lick	O	5.37	1.49	0.6	2.78	0.3	0.00	0.0	100.00	10.0	0.00
381A	Scott Hollow	A	0.61	0.00	0.0	0.00	0.0	38.35	1.9	98.89	9.9	0.00
381A	Scott Hollow	R	0.03	0.00	0.0	0.00	0.0	78.40	3.9	21.60	2.2	0.00
382	Archer	O	11.79	1.19	0.5	0.69	0.1	0.11	0.0	100.00	10.0	0.00
382A	Gum Lick	C	1.06	0.95	0.4	0.00	0.0	6.76	0.3	100.00	10.0	0.00
382B	Gum Lick	A	3.66	0.55	0.2	0.00	0.0	1.60	0.1	100.00	10.0	0.00
382C	Archer Run	C	0.49	0.00	0.0	0.00	0.0	0.00	0.0	99.93	10.0	0.00
382D	Archer Run	O	0.04	0.00	0.0	0.00	0.0	0.00	0.0	99.40	9.9	0.00
382E	McGregor Road	A	0.77	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
382G	Archer Run	C	0.63	1.00	0.4	19.26	1.9	0.00	0.0	100.00	10.0	0.00
382H	Stuples	C	0.10	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
382K	Archer Run	C	0.35	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
382L	Wallace Hollow	C	0.24	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
382M	Wallace Draft	C	0.38	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
382N	Archer Run	C	0.14	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
383	Daniel	A	1.38	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
383	Daniel	C	0.47	1.00	0.4	12.92	1.3	0.00	0.0	100.00	10.0	0.00
383	Daniel	R	0.12	16.38	6.9	63.42	6.3	0.00	0.0	100.00	10.0	0.00
383A	Daniel	A	0.32	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
383B	Trout Branch	A	1.42	0.70	0.3	5.43	0.5	0.00	0.0	100.00	10.0	0.00
383C	Elliott Springs	R	1.40	1.43	0.6	0.00	0.0	31.19	1.6	100.00	10.0	0.00
383D	Daniel	A	0.76	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
383E	Daniel	C	1.62	2.48	1.0	12.30	1.2	4.50	0.2	100.00	10.0	9.88
383F	Daniel	A	0.39	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
383H	Chapin Draft	A	1.99	0.50	0.2	2.60	0.3	0.00	0.0	100.00	10.0	0.00
383K	Daniel	C	0.09	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
384	Big Woods	A	3.73	4.03	1.7	2.57	0.3	1.03	0.1	100.00	10.0	0.00
384	Big Woods	O	0.10	0.00	0.0	0.00	0.0	2.07	0.1	100.00	10.0	0.00

F5 POINTS		F6- NEW IRA (%) POINTS		F7-SBA (%) POINTS		F8-VMA (%) POINTS		F9-OAS (%) POINTS		F10-10-45% Slope (%) POINTS		F11- >45% Slope (%) POINTS		TOTAL POINTS
8.7	0.00	0.0	0.00	0.00	0.0	87.13	4.4	8.84	0.4	75.99	3.8	6.37	0.6	400.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	57.73	2.9	0.34	0.0	176.7
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	63.20	3.2	3.43	0.3	70.1
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	82.41	4.1	13.86	0.7	0.39	0.0	140.4
0.0	0.00	0.0	0.00	0.00	0.0	99.38	5.0	0.00	0.0	46.05	2.3	0.75	0.1	273.2
0.0	0.00	0.0	0.00	0.00	0.0	100.00	5.0	0.00	0.0	24.74	1.2	0.00	0.0	300.6
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	16.12	0.8	32.61	1.6	0.00	0.0	163.2
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	29.15	1.5	0.43	0.0	137.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	51.05	2.6	64.02	3.2	0.04	0.0	165.0
0.0	0.00	0.0	0.00	0.00	0.0	41.91	2.1	43.11	2.2	75.73	3.8	17.54	1.8	194.2
0.0	0.00	0.0	0.00	0.00	0.0	43.83	2.2	6.25	0.3	65.31	3.3	2.80	0.3	128.1
0.0	97.30	9.7	0.00	0.00	0.0	100.00	5.0	100.00	5.0	45.93	2.3	0.64	0.1	436.8
0.0	0.00	0.0	0.00	0.00	0.0	98.86	4.9	18.64	0.9	72.26	3.6	26.18	2.6	338.0
0.0	0.00	0.0	0.00	0.00	0.0	13.42	0.7	19.53	1.0	29.81	1.5	0.00	0.0	80.4
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	19.49	1.0	0.00	0.0	130.5
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	39.66	2.0	0.50	0.1	42.5
0.0	98.03	9.8	0.00	0.00	0.0	61.29	3.1	0.00	0.0	57.99	2.9	0.57	0.1	233.7
0.0	0.00	0.0	0.00	0.00	0.0	100.00	5.0	7.10	0.4	44.24	2.2	0.00	0.0	158.9
0.0	95.29	9.5	0.00	0.00	0.0	7.15	0.4	4.94	0.2	31.34	1.6	0.00	0.0	171.6
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	17.13	0.9	0.00	0.0	39.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	78.37	3.9	27.35	1.4	0.00	0.0	120.3
0.0	0.00	0.0	0.00	0.00	0.0	81.88	4.1	0.00	0.0	19.17	1.0	0.00	0.0	233.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	2.61	0.1	64.58	3.2	0.00	0.0	225.5
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	1.87	0.1	39.69	2.0	0.22	0.0	163.4
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	81.47	4.1	2.05	0.2	203.8
0.0	65.94	6.6	0.00	0.00	0.0	98.30	4.9	100.00	5.0	49.41	2.5	25.35	2.5	431.9
0.0	0.00	0.0	0.00	0.00	0.0	31.79	1.6	100.00	5.0	26.64	1.3	7.53	0.8	279.2
0.0	0.00	0.0	0.00	0.00	0.0	97.82	4.9	0.00	0.0	70.83	3.5	0.79	0.1	299.3
0.0	0.00	0.0	0.00	0.00	0.0	2.82	0.1	0.00	0.0	100.00	5.0	0.00	0.0	158.1
0.0	0.00	0.0	0.00	0.00	0.0	100.00	5.0	0.00	0.0	88.88	4.4	0.51	0.1	313.2
0.0	0.00	0.0	0.00	0.00	0.0	97.35	4.9	0.00	0.0	94.24	4.7	2.66	0.3	319.4
0.0	0.00	0.0	0.00	0.00	0.0	1.49	0.1	45.36	2.3	66.11	3.3	20.89	2.1	255.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	56.76	2.8	0.00	0.0	208.6
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	73.75	3.7	0.00	0.0	183.5
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	11.73	0.6	78.78	3.9	3.98	0.4	210.8
0.0	0.00	0.0	0.00	0.00	0.0	99.14	5.0	0.00	0.0	80.27	4.0	1.99	0.2	308.1
0.0	0.00	0.0	0.00	0.00	0.0	67.67	3.4	3.34	0.2	78.48	3.9	16.58	1.7	287.1
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	77.96	3.9	2.25	0.2	194.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	109.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	61.94	3.1	12.76	1.3	189.1
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	16.09	0.8	67.50	3.4	0.00	0.0	219.4
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	92.93	4.6	0.00	0.0	207.6
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	50.74	2.5	5.51	0.6	169.3
0.0	0.00	0.0	0.00	0.00	0.0	94.88	4.7	0.00	0.0	21.76	1.1	71.39	7.1	311.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	50.52	2.5	8.41	0.8	172.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	76.73	3.8	0.00	0.0	190.6
0.0	0.00	0.0	0.00	0.00	0.0	17.91	0.9	1.05	0.1	59.15	3.0	0.00	0.0	192.0
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	62.31	3.1	0.00	0.0	190.1
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	16.36	0.8	0.00	0.0	203.9
0.0	0.00	0.0	0.00	0.00	0.0	97.09	4.9	0.00	0.0	83.66	4.2	0.00	0.0	299.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	36.44	1.8	0.00	0.0	154.5
0.0	0.00	0.0	0.00	0.00	0.0	35.70	1.8	0.00	0.0	65.33	3.3	3.14	0.3	252.9
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	1.07	0.1	45.34	2.3	0.00	0.0	158.7
1.0	0.00	0.0	0.00	0.00	0.0	100.00	5.0	0.00	0.0	62.69	3.1	1.10	0.1	312.2
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	37.82	1.9	0.00	0.0	149.7
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	9.51	0.5	55.16	2.8	1.22	0.1	182.3
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	21.99	1.1	0.00	0.0	133.1
0.0	0.00	0.0	0.00	0.00	0.0	1.19	0.1	3.51	0.2	77.87	3.9	1.39	0.1	203.8
0.0	0.00	0.0	0.00	0.00	0.0	0.00	0.0	0.00	0.0	57.92	2.9	0.00	0.0	173.0

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS	F2- PERENNIAL STREAM (%) POINTS	F3- INTERMITTENT STREAM (%) POINTS	F4- DRINKING WATERSHED (%) POINTS	F5- IRA (%)
385	Chestnut Ridge	R	1.58	0.00	0.0	0.00	0.0	0.00
385A	Chestnut Ridge	A	0.56	0.00	0.0	0.00	0.0	0.00
387	Walker Mountain	A	7.65	0.00	0.0	0.00	0.0	100.00
387	Walker Mountain	R	5.00	0.40	0.2	0.54	0.1	5.90
388	Crawford Mountain West	A	2.50	0.00	0.0	0.00	0.0	0.00
39	Hone Quarry Ridge	R	2.17	0.00	0.0	0.00	0.0	100.00
390	Georgia Camp	A	1.31	1.52	0.6	10.18	1.0	15.17
391	The Spurs	R	4.18	0.00	0.0	0.00	0.0	0.13
391B	Venable Hollow	C	1.32	0.00	0.0	0.00	0.0	0.00
391C	Bucklick	C	0.27	0.00	0.0	0.00	0.0	0.00
391D	Lawrence	R	0.59	0.00	0.0	0.00	0.0	0.00
392	Short Ridge	R	1.96	4.09	1.7	3.03	0.3	2.64
393	Tizzle	A	1.63	0.61	0.3	0.00	0.0	3.37
393	Tizzle	O	0.12	0.00	0.0	0.00	0.0	0.00
393	Tizzle	R	1.87	1.60	0.7	7.06	0.7	2.32
393A	Guy Hollow	C	0.16	0.00	0.0	0.00	0.0	0.00
393B	Tizzle Flat	C	1.75	0.57	0.2	0.00	0.0	4.96
394	Sugar Tree	O	18.30	1.75	0.7	0.85	0.1	0.32
394A	Wide Hollow	D	1.27	1.57	0.7	59.99	6.0	0.00
394B	Cabin Hollow	A	0.61	3.26	1.4	10.94	1.1	16.28
394B	Cabin Hollow	R	2.32	1.29	0.5	2.37	0.2	6.21
394F	Slaty Lick	A	0.85	0.00	0.0	0.00	0.0	0.00
394L	Brushy Fork	C	0.37	0.00	0.0	0.00	0.0	16.50
395	Liberty	A	2.32	0.86	0.4	0.00	0.0	6.15
395	Liberty	O	2.02	1.49	0.6	2.59	0.3	12.91
395	Liberty	R	4.16	1.20	0.5	3.72	0.4	1.78
395A	Clover Lick	R	1.11	1.81	0.8	5.23	0.5	69.18
395C	Liberty Spur	A	0.26	0.00	0.0	0.00	0.0	0.00
395E	Jerrys Hollow	R	0.20	0.00	0.0	8.33	0.8	0.00
395F	Jerrys Hollow 2	C	0.66	0.00	0.0	1.79	0.2	7.09
395H	Tower 133	C	0.24	0.00	0.0	0.00	0.0	0.00
395I	Tower 131/132	C	0.25	0.00	0.0	0.00	0.0	0.00
395J	Hamilton Draft	A	3.44	1.45	0.6	2.41	0.2	3.02
395J	Hamilton Draft	O	0.15	0.00	0.0	0.00	0.0	0.00
395K	Liberty Spur	A	0.63	0.00	0.0	0.00	0.0	0.00
395L	Liber Spur L	A	0.19	0.00	0.0	0.00	0.0	0.00
395L	Liber Spur L	C	0.00	0.00	0.0	0.00	0.0	0.00
395M	Liberty Spur M	A	0.57	0.00	0.0	0.00	0.0	0.00
395N	Liberty Spur	R	0.20	0.00	0.0	0.00	0.0	0.00
395P	Shanty	R	0.08	0.00	0.0	0.00	0.0	0.00
396	Shinault Shanty	A	1.98	0.00	0.0	0.00	0.0	6.75
396	Shinault Shanty	O	0.11	0.00	0.0	0.00	0.0	0.00
396	Shinault Shanty	R	3.47	0.00	0.0	0.00	0.0	100.00
396A	Shinault Shanty	A	1.85	2.16	0.9	17.68	1.8	29.98
396D	Shinault Shanty	R	0.21	0.00	0.0	0.00	0.0	0.00
396E	Shinault Shanty	A	0.46	0.00	0.0	0.00	0.0	3.15
396P	Shanty Spur	A	0.34	0.00	0.0	0.00	0.0	0.00
398	Rowland	O	2.58	0.00	0.0	0.32	0.0	0.45
398A	Rowland	A	0.30	6.61	2.8	22.44	2.2	8.86
398B	Rowland	A	1.68	0.00	0.0	0.00	0.0	8.86
398C	Rowland	C	0.73	0.00	0.0	0.00	0.0	0.00
398D	Rowland	A	1.32	0.00	0.0	0.00	0.0	0.00
398E	Rowland	A	0.13	0.00	0.0	0.00	0.0	0.00
398F	Rowland	A	1.04	0.00	0.0	0.00	0.0	0.00
398G	Rowland	A	0.88	2.26	1.0	8.63	0.9	35.96
398I	Rowland	O	0.18	0.00	0.0	23.41	2.3	0.00
398J	Rowland	A	0.34	0.00	0.0	0.00	0.0	3.72
399	Jerkemtight	A	3.62	2.76	1.2	21.11	2.1	40.85
399	Jerkemtight	O	1.18	0.85	0.4	19.79	2.0	0.00

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% Slope (%) POINTS	F11- >45% Slope (%) POINTS	TOTAL POINTS
0.0	0.00	0.0	0.00	0.0	0.00	0.0	101.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	90.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	223.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	167.3
1.4	94.87	9.5	0.00	0.0	0.00	0.0	480.4
0.0	92.48	9.2	100.00	10.0	0.00	0.0	425.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	332.8
0.0	0.00	0.0	94.39	9.4	0.00	0.0	214.4
0.0	0.00	0.0	100.00	10.0	0.00	0.0	205.1
0.0	0.00	0.0	100.00	10.0	0.00	0.0	178.9
0.0	0.00	0.0	99.98	10.0	0.00	0.0	228.5
0.0	19.53	2.0	0.00	0.0	0.00	0.0	238.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	230.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	206.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	268.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	113.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	184.6
1.5	0.00	0.0	8.38	0.8	0.00	0.0	155.5
0.0	0.00	0.0	16.47	1.6	0.00	0.0	179.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	219.1
1.6	0.00	0.0	66.26	6.6	0.00	0.0	250.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	102.3
0.0	0.00	0.0	100.00	10.0	0.00	0.0	295.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	168.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	63.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	136.8
0.0	94.66	9.5	0.00	0.0	0.00	0.0	393.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	11.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	48.7
0.0	96.81	9.7	0.00	0.0	0.00	0.0	285.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	210.4
0.0	46.26	4.6	0.00	0.0	0.00	0.0	240.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	141.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	53.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	4.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	189.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	210.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	174.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	213.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	93.4
0.0	7.72	0.8	0.00	0.0	0.00	0.0	275.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	219.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	197.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	322.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	215.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	188.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	315.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	149.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	240.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	122.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	124.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	132.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	120.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	121.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	194.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	235.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	119.4
2.8	100.00	10.0	0.00	0.0	0.00	0.0	517.0
0.0	6.90	0.7	0.00	0.0	0.00	0.0	191.7

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS		F2- PERENNIAL STREAM (%) POINTS		F3- INTERMITTENT STREAM (%) POINTS		F4- DRINKING WATERSHED (%) POINTS		F5- IRA (%)
399B	Tom Lee Draft	O	1.63	0.61	0.3	4.12	0.4	4.47	0.2	100.00	10.0	0.00
399B	Tom Lee Draft	R	3.43	0.87	0.4	7.01	0.7	1.92	0.1	100.00	10.0	0.00
399C	Fames Draft	C	0.13	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
399D	Mud Lick	C	0.65	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
399E	Stony Lick	C	0.21	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
400	Kennedy Drive	C	0.65	3.06	1.3	52.13	5.2	7.14	0.4	100.00	10.0	0.00
406	Archer Knob	A	6.15	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
406B	Taylor Hollow	C	1.34	0.00	0.0	0.00	0.0	3.59	0.2	100.00	10.0	0.00
422	Dictum Ridge	O	4.98	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
423	Gauley Ridge	O	1.12	0.00	0.0	0.00	0.0	16.98	0.8	12.92	1.3	0.00
423	Gauley Ridge	R	6.07	0.16	0.1	0.00	0.0	1.65	0.1	100.00	10.0	0.00
423A	Gate Mountain	R	0.40	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
423B	Turner Run	O	0.99	1.00	0.4	8.83	0.9	0.00	0.0	81.37	8.1	0.00
423P	Dave's Turnpike	A	0.90	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
423Q		A	0.68	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
424	Mongold Hollow Sp	O	0.34	0.00	0.0	83.75	8.4	0.00	0.0	0.00	0.0	0.00
425	Hankey Mountain	A	0.57	0.00	0.0	0.00	0.0	0.00	0.0	96.68	9.7	0.00
425	Hankey Mountain	R	4.20	0.00	0.0	0.00	0.0	0.00	0.0	74.06	7.4	0.00
425A	Lookout Mountain	R	0.30	0.00	0.0	0.00	0.0	0.00	0.0	32.17	3.2	0.00
427	Ltl Bald Knob Hunter Acc	A	1.82	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.07
427	Ltl Bald Knob Hunter Acc	R	2.56	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
430	Beason	C	0.81	0.00	0.0	0.00	0.0	0.00	0.0	90.85	9.1	0.00
430	Beason	O	0.28	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
430C	Farrow Hollow	A	0.33	0.00	0.0	0.00	0.0	0.00	0.0	99.91	10.0	0.00
430F	Farrow Hollow	C	0.38	0.00	0.0	0.00	0.0	0.00	0.0	96.42	9.6	0.00
430K	Farrow Hollow	C	0.98	4.09	1.7	0.00	0.0	40.33	2.0	90.08	9.0	0.00
430L	Farrow Hollow	C	0.42	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
431	Sand Spring	A	3.90	0.00	0.0	0.00	0.0	0.87	0.0	100.00	10.0	82.00
433	Beck Access	A	1.28	1.56	0.7	0.00	0.0	13.14	0.7	0.00	0.0	0.00
433	Beck Access	O	0.49	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
433	Beck Access	R	2.17	1.38	0.6	0.00	0.0	6.60	0.3	4.83	0.5	0.00
433A	Fowler Springs	C	0.86	3.47	1.5	0.00	0.0	23.99	1.2	88.34	8.8	0.00
433B	Fower Springs Spur	C	0.49	1.00	0.4	0.00	0.0	11.18	0.6	25.33	2.5	0.00
433C	Beck Access	A	1.07	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
433D	Buck Lick Run	C	0.55	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
435	Chapin Draft Spur	A	0.89	3.38	1.4	0.00	0.0	21.08	1.1	100.00	10.0	0.00
439	Cold Springs Hollow	O	5.41	1.11	0.5	22.05	2.2	0.37	0.0	64.55	6.5	0.00
439B	UN	A	0.25	0.00	0.0	0.00	0.0	0.00	0.0	98.91	9.9	0.00
443	Stoutamyer Branch	C	1.26	0.79	0.3	19.14	1.9	0.00	0.0	0.00	0.0	0.00
443A	Stroutamyer Branch	C	0.48	1.00	0.4	0.00	0.0	15.34	0.8	0.00	0.0	0.00
444	Shoo Fly	A	1.39	1.44	0.6	17.98	1.8	6.08	0.3	100.00	10.0	0.00
444A	Shoo Fly Spur	A	0.27	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
444B	Show Fly Spur	A	1.46	0.68	0.3	0.00	0.0	3.52	0.2	100.00	10.0	0.00
444C	Milam	O	0.50	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
449	Dowells Drive	A	1.02	0.98	0.4	4.41	0.4	2.58	0.1	97.20	9.7	0.00
449A	Dowell's Draft	A	3.20	0.31	0.1	0.00	0.0	3.96	0.2	23.87	2.4	0.00
449B	Dowells Draft	A	1.09	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
451	East Dry Branch	A	0.94	0.00	0.0	13.69	1.4	3.92	0.2	0.00	0.0	0.00
451	East Dry Branch	O	0.46	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
455	Rattlesnake Run	A	1.26	1.59	0.7	7.49	0.7	0.00	0.0	99.84	10.0	0.00
455A	Shingle Run	C	0.39	1.00	0.4	19.78	2.0	0.00	0.0	100.00	10.0	0.00
466	White Oak Dr.	O	0.80	1.00	0.4	21.00	2.1	12.13	0.6	0.00	0.0	0.00
466A	White Oak Draft	A	0.95	3.15	1.3	16.96	1.7	5.76	0.3	0.00	0.0	0.00
466B	White Oak Draft	A	0.56	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
468	Sprouse	A	3.17	1.89	0.8	0.00	0.0	3.41	0.2	0.00	0.0	0.00
468	Sprouse	R	1.06	0.00	0.0	0.28	0.0	9.64	0.5	0.00	0.0	0.00
468B	Sprouse	A	0.18	1.00	0.4	0.00	0.0	69.52	3.5	0.00	0.0	0.00
468B	Sprouse	C	0.56	1.00	0.4	0.00	0.0	22.98	1.1	0.00	0.0	0.00
472A	Foxtail	A	1.79	2.24	0.9	0.83	0.1	39.34	2.0	0.00	0.0	0.00

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% Slope (%) POINTS	F11- >45% Slope (%) POINTS	TOTAL POINTS
0.0	0.00	0.0	0.00	0.0	0.00	0.0	216.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	232.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	142.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	198.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	209.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	373.9
0.0	30.89	3.1	1.67	0.2	99.71	5.0	401.0
0.0	0.00	0.0	0.00	0.0	98.93	4.9	331.4
0.0	0.00	0.0	58.33	5.8	0.00	0.0	236.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	109.4
0.0	0.00	0.0	0.00	0.0	40.57	2.0	252.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	275.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	220.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	214.8
0.0	0.00	0.0	0.00	0.0	96.57	4.8	338.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	167.9
0.0	0.00	0.0	0.00	0.0	100.00	5.0	278.7
0.0	0.00	0.0	0.00	0.0	35.89	1.8	192.7
0.0	0.00	0.0	0.00	0.0	97.21	4.9	189.2
0.0	0.00	0.0	100.00	10.0	10.41	0.5	311.1
0.0	0.00	0.0	100.00	10.0	9.39	0.5	309.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	172.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	234.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	161.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	273.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	218.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	180.9
8.2	17.32	1.7	52.64	5.3	99.37	5.0	450.6
0.0	0.00	0.0	0.00	0.0	35.44	1.8	155.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	19.9
0.0	0.00	0.0	0.00	0.0	39.75	2.0	137.1
0.0	93.57	9.4	0.00	0.0	92.64	4.6	371.8
0.0	100.00	10.0	0.00	0.0	100.00	5.0	299.9
0.0	0.00	0.0	0.00	0.0	2.60	0.1	102.8
0.0	0.00	0.0	0.00	0.0	18.13	0.9	100.7
0.0	0.00	0.0	0.00	0.0	74.13	3.7	283.3
0.0	0.00	0.0	10.98	1.1	0.00	0.0	207.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	215.0
0.0	0.00	0.0	0.00	0.0	100.00	5.0	214.8
0.0	0.00	0.0	0.00	0.0	100.00	5.0	217.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	280.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	203.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	257.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	259.2
0.0	0.00	0.0	0.00	0.0	84.43	4.2	325.1
0.0	0.00	0.0	0.00	0.0	68.64	3.4	225.9
0.0	0.00	0.0	0.00	0.0	92.90	4.6	195.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	86.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	62.8
0.0	78.54	7.9	0.00	0.0	80.37	4.0	378.1
0.0	100.00	10.0	0.00	0.0	100.00	5.0	408.9
0.0	0.00	0.0	0.00	0.0	91.09	4.6	221.4
0.0	0.00	0.0	0.00	0.0	100.00	5.0	214.0
0.0	0.00	0.0	0.00	0.0	100.00	5.0	204.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	101.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	105.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	123.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	118.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	131.2

ROUTE # NAME

CLOSURE

LENGTH (MILES)

**F1- STREAM CROSSINGS PER MILE
POINTS**

**F2- PERENNIAL STREAM (%)
POINTS**

**F3- INTERMITTENT STREAM (%)
POINTS**

**F4- DRINKING WATERSHED (%)
POINTS**

F5- IRA (%)

484A	Leadoff	A	1.75	2.29	1.0	0.00	0.0	17.56	0.9	0.00	0.0	0.00
484B	Leadon	C	0.29	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
492	Gum Run	O	0.47	0.00	0.0	7.79	0.8	0.00	0.0	5.26	0.5	0.00
493	Sandy	R	1.24	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
501	Jones Access	R	1.59	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
501A	Jones Access	C	0.49	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
501B	Carrol Draft Spur	C	0.46	13.17	5.6	3.94	0.4	87.18	4.4	0.00	0.0	0.00
502	Second Mountain	O	4.61	0.00	0.0	0.00	0.0	0.00	0.0	99.66	10.0	0.00
502H	Clines Road	C	0.71	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
502I	Overlook	C	0.31	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
502J		C	0.22	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
502K	Mud Hole	C	0.25	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
502L		C	0.71	0.00	0.0	0.00	0.0	0.00	0.0	96.53	9.7	0.00
502LA		C	0.18	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
506	Dumpster Road	A	0.95	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	58.45
506	Dumpster Road	R	0.56	7.19	3.0	11.52	1.2	68.82	3.4	100.00	10.0	0.00
514	Little Skidmore	C	0.48	0.00	0.0	0.00	0.0	1.43	0.1	100.00	10.0	92.21
518	Hideaway	O	0.30	1.00	0.4	0.00	0.0	13.01	0.7	0.00	0.0	0.00
523	Todd Lake	O	0.18	0.00	0.0	0.00	0.0	2.19	0.1	100.00	10.0	0.00
523	Todd Lake	R	0.33	0.00	0.0	16.92	1.7	0.00	0.0	100.00	10.0	0.00
523A	Todd Lake Campground	R	0.37	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
523B		R	0.13	15.29	6.5	38.49	3.8	0.00	0.0	100.00	10.0	0.00
523C	Todd Lake Beach	R	0.15	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
526	Camp Run Recreation	O	0.14	0.00	0.0	1.44	0.1	0.00	0.0	0.00	0.0	0.00
528	Riverbank Wliffe C	A	1.32	2.28	1.0	14.63	1.5	11.18	0.6	100.00	10.0	0.00
528	Riverbank Wliffe C	O	0.04	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
530	Devrick	C	0.83	3.62	1.5	5.86	0.6	16.29	0.8	0.00	0.0	0.00
530	Devrick	O	0.08	1.00	0.4	0.00	0.0	100.00	5.0	0.00	0.0	0.00
533	Elkhorn	O	0.65	3.06	1.3	39.98	4.0	8.80	0.4	100.00	10.0	0.00
533A	Elkhorn Service	A	1.35	1.48	0.6	40.37	4.0	3.42	0.2	100.00	10.0	0.00
535	Stribbling Spr.	A	4.41	1.59	0.7	0.00	0.0	7.81	0.4	100.00	10.0	0.00
535	Stribbling Springs	O	0.61	0.00	0.0	15.05	1.5	0.00	0.0	6.03	0.6	0.00
536	Narrow Back	A	5.11	1.37	0.6	0.00	0.0	2.68	0.1	100.00	10.0	0.00
536	Narrow Back	R	3.99	2.25	1.0	0.00	0.0	3.39	0.2	100.00	10.0	0.00
536A	Cupp Low Place	C	0.55	0.00	0.0	0.00	0.0	14.39	0.7	100.00	10.0	0.00
536B	Narrowback Ext.	R	0.46	1.00	0.4	0.00	0.0	16.98	0.8	100.00	10.0	0.00
536C	White's Run	C	0.96	0.00	0.0	0.00	0.0	11.38	0.6	100.00	10.0	0.00
536D	WKCY	A	1.76	0.57	0.2	0.00	0.0	4.81	0.2	100.00	10.0	0.00
536E	Shank's Road	R	0.44	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
536F	Lick Run	C	0.40	1.00	0.4	0.00	0.0	10.10	0.5	100.00	10.0	0.00
536G	Narrowback	C	0.26	1.00	0.4	0.00	0.0	34.46	1.7	100.00	10.0	0.00
538	North River Gorge	A	4.61	2.60	1.1	35.10	3.5	0.93	0.0	100.00	10.0	0.00
543R		R	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
544R		R	0.01	0.00	0.0	0.00	0.0	0.00	0.0	72.80	7.3	0.00
545R		R	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
546	Rocky Run	O	0.43	0.00	0.0	36.75	3.7	0.00	0.0	38.48	3.8	0.00
546R		R	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
547	Kephart Run	C	0.39	0.00	0.0	70.39	7.0	0.00	0.0	100.00	10.0	0.00
547	Kephart Run	O	1.81	0.55	0.2	18.01	1.8	0.00	0.0	98.96	9.9	0.00
547R		R	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
548	Hopkins Run	A	1.16	0.86	0.4	21.52	2.2	0.00	0.0	65.47	6.5	0.00
548R		R	0.13	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
549	Old 33 Raccoon Run	O	1.89	1.59	0.7	3.93	0.4	3.58	0.2	85.72	8.6	0.00
549A	Old 33 Shackelford	O	0.44	1.00	0.4	0.00	0.0	48.29	2.4	100.00	10.0	0.00
5500		O	0.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
5510		O	0.05	0.00	0.0	8.46	0.8	0.00	0.0	100.00	10.0	0.00
5530		O	0.02	0.00	0.0	80.33	8.0	0.00	0.0	0.00	0.0	0.00
5540		O	0.02	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
555	Little Shoemaker	O	0.46	0.00	0.0	0.39	0.0	0.71	0.0	99.97	10.0	0.00

F5 POINTS	F6- NEW IRA (%) POINTS		F7-SBA (%) POINTS		F8-VMA (%) POINTS		F9-OAS (%) POINTS		F10-10-45% Slope (%) POINTS		F11- >45% Slope (%) POINTS		TOTAL POINTS
0.0	55.87	5.6	0.00	0.0	98.44	4.9	22.74	1.1	58.35	2.9	40.59	4.1	314.0
0.0	58.68	5.9	0.00	0.0	100.00	5.0	0.00	0.0	81.37	4.1	16.33	1.6	273.0
0.0	0.00	0.0	0.00	0.0	0.05	0.0	0.00	0.0	86.02	4.3	3.31	0.3	108.4
0.0	0.00	0.0	0.00	0.0	97.96	4.9	45.22	2.3	68.07	3.4	21.22	2.1	245.2
0.0	82.06	8.2	0.00	0.0	82.04	4.1	34.29	1.7	86.11	4.3	1.41	0.1	304.4
0.0	100.00	10.0	0.00	0.0	100.00	5.0	27.15	1.4	90.06	4.5	6.85	0.7	345.6
0.0	68.59	6.9	0.00	0.0	0.00	0.0	0.00	0.0	59.54	3.0	29.88	3.0	272.3
0.0	0.00	0.0	38.95	3.9	0.00	0.0	14.21	0.7	65.72	3.3	0.43	0.0	236.9
0.0	0.00	0.0	100.00	10.0	0.00	0.0	0.00	0.0	18.98	0.9	77.74	7.8	325.4
0.0	0.00	0.0	100.00	10.0	0.00	0.0	0.00	0.0	83.83	4.2	16.17	1.6	325.8
0.0	0.00	0.0	100.00	10.0	0.00	0.0	60.53	3.0	100.00	5.0	0.00	0.0	388.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	72.79	3.6	100.00	5.0	0.00	0.0	291.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	89.95	4.5	9.30	0.9	210.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	58.61	2.9	41.39	4.1	217.1
5.8	39.80	4.0	0.00	0.0	79.23	4.0	0.00	0.0	96.93	4.8	0.33	0.0	403.4
0.0	100.00	10.0	0.00	0.0	5.03	0.3	0.00	0.0	64.34	3.2	0.00	0.0	380.8
9.2	3.16	0.3	0.00	0.0	95.60	4.8	0.00	0.0	84.12	4.2	7.83	0.8	413.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	11.86	0.6	0.00	0.0	26.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	30.25	1.5	79.59	4.0	0.00	0.0	227.6
0.0	11.57	1.2	0.00	0.0	0.00	0.0	0.00	0.0	41.93	2.1	0.00	0.0	185.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	92.13	4.6	0.00	0.0	206.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	3.72	0.2	0.00	0.0	162.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	8.18	0.4	0.00	0.0	118.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	5.16	0.3	0.00	0.0	7.0
0.0	100.00	10.0	48.25	4.8	95.45	4.8	0.00	0.0	5.42	0.3	0.00	0.0	407.8
0.0	61.34	6.1	100.00	10.0	14.96	0.7	0.00	0.0	0.00	0.0	0.00	0.0	303.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	34.91	1.7	57.33	2.9	32.71	3.3	157.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	5.71	0.3	0.00	0.0	111.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	25.69	1.3	40.16	2.0	4.02	0.4	238.1
0.0	0.00	0.0	0.00	0.0	3.93	0.2	20.93	1.0	64.81	3.2	0.00	0.0	252.8
0.0	0.00	0.0	0.00	0.0	15.21	0.8	16.53	0.8	84.77	4.2	9.00	0.9	251.1
0.0	0.00	0.0	0.00	0.0	26.72	1.3	0.00	0.0	80.27	4.0	5.48	0.5	141.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	2.03	0.1	79.58	4.0	11.77	1.2	212.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	10.13	0.5	75.82	3.8	10.60	1.1	216.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	89.53	4.5	5.50	0.5	225.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	28.91	1.4	66.37	3.3	8.04	0.8	237.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	26.51	1.3	57.00	2.9	9.34	0.9	219.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	65.74	3.3	20.83	2.1	207.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	70.24	3.5	0.00	0.0	183.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	2.43	0.1	76.79	3.8	17.85	1.8	223.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	73.50	3.7	11.65	1.2	236.6
0.0	0.00	0.0	0.00	0.0	99.44	5.0	0.00	0.0	56.20	2.8	1.10	0.1	315.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	80.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	40.60	2.0	18.33	0.9	0.00	0.0	144.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	88.98	4.4	10.10	1.0	292.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	79.40	4.0	0.93	0.1	213.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	65.42	3.3	34.58	3.5	106.7
0.0	0.00	0.0	0.00	0.0	66.97	3.3	0.00	0.0	69.45	3.5	7.26	0.7	247.3
0.0	0.00	0.0	0.00	0.0	100.00	5.0	83.71	4.2	85.73	4.3	14.27	1.4	408.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	74.82	3.7	19.09	1.9	202.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	70.81	3.5	27.11	2.7	265.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	110.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	18.86	0.9	0.00	0.0	139.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	96.78	4.8	0.00	0.0	190.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	100.00	5.0	0.00	0.0	105.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	41.94	2.1	0.00	0.0	155.2

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS	F2- PERENNIAL STREAM (%) POINTS	F3- INTERMITTENT STREAM (%) POINTS	F4- DRINKING WATERSHED (%) POINTS	F5- IRA (%)				
555O		O	0.01	0.00	0.0	0.00	0.0	41.84	2.1	100.00	10.0	0.00
556O		O	0.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
557O		O	0.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
559C		C	0.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
560C		C	0.04	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
561A		A	0.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
562A		A	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
563A		A	0.07	0.00	0.0	84.50	8.4	0.00	0.0	100.00	10.0	0.00
597	Radar Mountain	D	1.58	0.00	0.0	0.00	0.0	0.00	0.0	73.61	7.4	0.00
597	Rader Mountain	R	3.05	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
61	Clayton Mill Cr.	O	9.53	1.99	0.8	14.12	1.4	0.43	0.0	83.27	8.3	0.00
61A	Walker Mountain	C	0.51	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
61K	Clayton Mill Creek Spur	C	0.90	2.22	0.9	0.00	0.0	5.80	0.3	100.00	10.0	0.00
62	Hone Quarry	O	2.66	1.50	0.6	18.46	1.8	1.54	0.1	86.68	8.7	4.22
62	Hone Quarry	R	2.61	3.83	1.6	10.91	1.1	1.96	0.1	100.00	10.0	30.53
6282	Wallace	A	0.27	0.00	0.0	4.57	0.5	0.00	0.0	0.00	0.0	0.00
62A	Hone Quarry Camp	O	0.28	0.00	0.0	3.16	0.3	0.00	0.0	100.00	10.0	0.00
64	Shaws Fork	O	5.27	0.95	0.4	1.50	0.1	0.58	0.0	0.00	0.0	11.96
64	Shaws Fork	R	1.09	1.84	0.8	12.69	1.3	22.78	1.1	0.00	0.0	13.55
64A	Wildcat Hollow	C	0.79	0.00	0.0	0.43	0.0	60.65	3.0	0.00	0.0	0.00
68	Ramsey Draft	O	0.24	1.00	0.4	34.73	3.5	5.06	0.3	100.00	10.0	0.00
68A	Ramsey Draft Park	O	0.03	0.00	0.0	100.00	10.0	0.00	0.0	100.00	10.0	0.00
7000	Bells Valley	C	0.47	0.00	0.0	0.00	0.0	0.00	0.0	93.87	9.4	0.00
7004	Scotch Flat	A	0.71	0.00	0.0	10.84	1.1	0.00	0.0	0.00	0.0	0.00
7005	Church Hollow	A	1.51	1.98	0.8	0.00	0.0	5.74	0.3	0.00	0.0	0.00
7005	Church Hollow	O	0.10	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
7020	Conf Brestworks	O	0.03	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
72	Long Run	O	15.77	0.44	0.2	0.00	0.0	1.19	0.1	69.99	7.0	0.00
72B	Chestnut Ridge	O	0.28	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
72C	Feedstone Mountain	O	4.66	0.21	0.1	5.80	0.6	0.00	0.0	100.00	10.0	0.00
72D	Oak Flat	C	0.37	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
731	Cloverlick Branch	O	0.60	11.68	4.9	0.00	0.0	29.43	1.5	96.86	9.7	0.00
77	Cold Springs	O	7.31	1.78	0.8	0.00	0.0	0.55	0.0	96.37	9.6	0.00
77A	Cold Springs	A	0.86	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
77C	Cold Springs	A	1.07	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
77E	Cold Springs	A	0.67	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
77F	Cold Springs	C	0.31	1.00	0.4	0.00	0.0	17.55	0.9	100.00	10.0	0.00
77G	Cold Springs	A	0.50	8.07	3.4	0.00	0.0	47.24	2.4	97.71	9.8	0.00
77G	Cold Springs	O	0.23	0.00	0.0	0.00	0.0	66.20	3.3	100.00	10.0	0.00
77H	Cold Springs	O	0.13	0.00	0.0	0.00	0.0	0.00	0.0	82.80	8.3	0.00
77J	Cold Springs	C	0.29	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
77K	Cold Springs	O	0.15	0.00	0.0	20.04	2.0	0.00	0.0	100.00	10.0	0.00
77L	Cold Springs	O	0.61	1.00	0.4	0.00	0.0	6.50	0.3	100.00	10.0	0.00
77M	Cold Springs	A	0.40	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
77N	Daddys Run	O	0.42	0.00	0.0	1.91	0.2	0.00	0.0	98.46	9.8	0.00
81	Hodges Draft	A	3.09	0.97	0.4	6.87	0.7	1.57	0.1	100.00	10.0	0.00
81	Hodges Draft	O	0.11	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
81	Hodges Draft	R	2.23	1.35	0.6	9.94	1.0	2.84	0.1	46.85	4.7	0.00
81A	Hodges Draft	C	0.50	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
81B	Reubens	C	1.44	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
81D	Bakers Draft	A	0.71	0.00	0.0	0.00	0.0	0.00	0.0	65.77	6.6	0.00
82	Hite Hollow	O	9.60	1.04	0.4	11.89	1.2	0.39	0.0	79.28	7.9	0.00
820A	Switchboard	O	0.76	0.00	0.0	0.00	0.0	0.00	0.0	95.57	9.6	0.00
820B	Switchboard	A	0.66	0.00	0.0	0.00	0.0	0.00	0.0	98.57	9.9	0.00
82A	Rifle Hollow	O	0.17	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
82B	Hite Hollow	C	0.85	0.00	0.0	28.74	2.9	44.76	2.2	100.00	10.0	0.00
82C	Hite Hollow	C	1.29	3.89	1.6	25.20	2.5	26.57	1.3	100.00	10.0	24.70
82D	Hite Hollow	C	0.71	2.80	1.2	13.38	1.3	46.54	2.3	100.00	10.0	50.15
82E	Hite Hollow	C	0.53	1.00	0.4	5.74	0.6	0.00	0.0	100.00	10.0	0.00

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% Slope (%) POINTS	F11- >45% Slope (%) POINTS	TOTAL POINTS
0.0	0.00	0.0	0.00	0.0	0.00	0.0	193.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	215.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	126.9
0.0	0.00	0.0	0.00	0.0	0.00	0.0	202.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	110.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	363.5
0.0	0.00	0.0	74.43	7.4	74.53	3.7	340.1
0.0	0.00	0.0	100.00	10.0	99.35	5.0	346.5
0.0	0.00	0.0	0.34	0.0	0.35	0.0	193.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	202.1
0.0	0.00	0.0	0.00	0.0	99.10	5.0	310.6
0.4	1.15	0.1	0.00	0.0	0.00	0.0	188.3
3.1	91.72	9.2	0.00	0.0	12.41	0.6	360.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	5.0
0.0	14.84	1.5	0.00	0.0	0.00	0.0	145.2
1.2	0.00	0.0	0.00	0.0	44.12	2.2	196.2
1.4	0.00	0.0	0.00	0.0	4.32	0.2	146.0
0.0	97.67	9.8	0.00	0.0	96.62	4.8	379.2
0.0	0.00	0.0	0.00	0.0	90.53	4.5	394.0
0.0	0.00	0.0	0.00	0.0	100.00	5.0	325.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	195.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	52.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	125.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	7.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	198.6
0.0	0.00	0.0	45.95	4.6	2.73	0.1	215.9
0.0	0.00	0.0	99.97	10.0	0.00	0.0	421.7
0.0	0.00	0.0	66.59	6.7	28.52	1.4	363.0
0.0	0.00	0.0	100.00	10.0	0.00	0.0	321.3
0.0	0.00	0.0	0.00	0.0	34.51	1.7	244.0
0.0	0.00	0.0	0.00	0.0	0.39	0.0	152.3
0.0	0.00	0.0	0.00	0.0	74.62	3.7	275.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	122.3
0.0	34.00	3.4	0.00	0.0	97.27	4.9	264.0
0.0	28.41	2.8	0.00	0.0	100.00	5.0	305.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	236.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	282.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	91.1
0.0	0.00	0.0	0.00	0.0	92.36	4.6	236.3
0.0	0.00	0.0	0.00	0.0	78.02	3.9	263.4
0.0	0.00	0.0	0.00	0.0	0.00	0.0	132.8
0.0	0.00	0.0	0.00	0.0	88.90	4.4	225.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	137.9
0.0	0.00	0.0	0.00	0.0	5.36	0.3	229.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	1.0
0.0	0.00	0.0	0.00	0.0	11.26	0.6	117.8
0.0	0.00	0.0	0.00	0.0	92.87	4.6	314.6
0.0	0.00	0.0	0.00	0.0	94.24	4.7	315.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	160.0
0.0	0.00	0.0	0.00	0.0	1.24	0.1	180.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	212.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	214.6
0.0	0.00	0.0	0.00	0.0	87.50	4.4	276.2
0.0	0.00	0.0	0.00	0.0	98.74	4.9	419.6
2.5	73.71	7.4	0.00	0.0	98.86	4.9	460.9
5.0	49.86	5.0	0.00	0.0	100.00	5.0	493.2
0.0	0.00	0.0	0.00	0.0	15.85	0.8	236.9

ROUTE #	NAME	CLOSURE	LENGTH (MILES)	F1- STREAM CROSSINGS PER MILE POINTS		F2- PERENNIAL STREAM (%) POINTS		F3- INTERMITTENT STREAM (%) POINTS		F4- DRINKING WATERSHED (%) POINTS		F5- IRA (%)
85-1	Cow Knob	O	1.28	0.00	0.0	0.00	0.0	0.00	0.0	5.40	0.5	0.00
85-2	Hall Spring	O	3.04	0.00	0.0	0.00	0.0	0.00	0.0	57.30	5.7	0.00
85-2	Hall Spring	R	6.56	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
85-3	High Knob	A	1.17	0.00	0.0	0.00	0.0	0.00	0.0	20.93	2.1	0.00
85-4	Bother Knob	O	2.50	0.00	0.0	0.00	0.0	0.00	0.0	0.03	0.0	3.93
85-5	Reddish Knob	O	10.82	0.09	0.0	0.32	0.0	0.38	0.0	56.75	5.7	0.00
85-6	Bother Ridge	O	1.27	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	99.08
85A	Flagpole	O	3.42	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	3.97
85B	Reddish Knob Tower	O	0.36	0.00	0.0	0.00	0.0	0.00	0.0	37.28	3.7	0.00
85C	Puffenbarger Pond	O	0.97	0.00	0.0	0.10	0.0	0.00	0.0	85.28	8.5	0.00
85D	Pitt Road	A	0.15	0.00	0.0	0.00	0.0	0.00	0.0	14.56	1.5	0.00
87	Fort Seybert	O	10.55	1.04	0.4	11.70	1.2	0.51	0.0	29.83	3.0	0.00
924	Briery Branch	O	0.85	3.54	1.5	7.90	0.8	6.60	0.3	100.00	10.0	0.00
924A		A	0.33	0.00	0.0	23.84	2.4	0.00	0.0	100.00	10.0	0.00
95	North River	O	14.05	1.78	0.8	22.71	2.3	4.96	0.2	100.00	10.0	0.01
95A	Leading Ridge	R	3.50	0.86	0.4	0.00	0.0	1.52	0.1	100.00	10.0	0.00
95B	Staunton	O	1.94	0.52	0.2	53.37	5.3	0.65	0.0	100.00	10.0	0.00
95D		A	0.41	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
96	Calf Pasture	O	2.93	2.39	1.0	1.48	0.1	9.23	0.5	100.00	10.0	0.00
O	Veppo	R	0.01	0.00	0.0	0.00	0.0	0.00	0.0	100.00	10.0	0.00
WV166	School Road	O	0.93	1.00	0.4	5.03	0.5	6.48	0.3	0.00	0.0	0.00
WV220		A	2.03	0.49	0.2	5.44	0.5	2.88	0.1	0.00	0.0	0.00
WV33	Wolf Run	O	0.38	1.00	0.4	16.78	1.7	0.00	0.0	0.00	0.0	0.00
WV379	Annabell	O	0.24	1.00	0.4	78.78	7.9	28.96	1.4	0.00	0.0	0.00
WV532	Broad Run	A	2.22	2.25	0.9	15.33	1.5	1.11	0.1	0.00	0.0	0.00
WV532	Broad Run	R	0.92	0.00	0.0	0.00	0.0	3.81	0.2	0.00	0.0	0.00
WV61	Stony Run	O	11.35	2.03	0.9	2.84	0.3	0.80	0.0	0.00	0.0	0.00
WV61F	Little Stony Spur	O	0.94	3.19	1.3	13.78	1.4	8.59	0.4	0.00	0.0	0.00
WV61G	Panther Run	O	0.69	1.00	0.4	0.00	0.0	6.19	0.3	0.00	0.0	0.00
WV61H	Flesher Run	A	0.24	1.00	0.4	0.00	0.0	16.90	0.8	0.00	0.0	0.00
WV61K	Panther Run Spur	A	1.01	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
WV68	Miller Run	A	3.17	1.89	0.8	9.84	1.0	1.59	0.1	0.00	0.0	0.00
WV68	Miller Run	O	0.20	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00
WV68	Miller Run	R	2.54	0.00	0.0	0.00	0.0	1.87	0.1	0.00	0.0	0.00
WV68A	Miller Run Spur	A	1.36	2.95	1.2	14.19	1.4	0.00	0.0	0.00	0.0	0.00

F5 POINTS	F6- NEW IRA (%) POINTS	F7-SBA (%) POINTS	F8-VMA (%) POINTS	F9-OAS (%) POINTS	F10-10-45% Slope (%) POINTS	F11- >45% Slope (%) POINTS	TOTAL POINTS						
0.0	0.00	0.0	100.00	10.0	0.73	0.0	80.89	4.0	34.39	1.7	0.00	0.0	237.8
0.0	0.00	0.0	100.00	10.0	6.99	0.3	8.49	0.4	46.49	2.3	9.15	0.9	248.2
0.0	0.00	0.0	100.00	10.0	3.08	0.2	40.81	2.0	47.56	2.4	52.31	5.2	263.6
0.0	0.00	0.0	100.00	10.0	18.21	0.9	11.64	0.6	76.27	3.8	17.86	1.8	264.1
0.4	97.19	9.7	100.00	10.0	97.08	4.9	43.94	2.2	46.05	2.3	53.36	5.3	476.4
0.0	0.00	0.0	100.00	10.0	8.93	0.4	25.83	1.3	76.11	3.8	9.89	1.0	300.5
9.9	1.05	0.1	100.00	10.0	100.00	5.0	100.00	5.0	74.77	3.7	11.88	1.2	521.7
0.4	0.00	0.0	100.00	10.0	4.98	0.2	0.88	0.0	57.50	2.9	30.60	3.1	324.5
0.0	0.00	0.0	100.00	10.0	20.14	1.0	21.81	1.1	79.95	4.0	2.95	0.3	282.3
0.0	97.98	9.8	1.11	0.1	100.00	5.0	4.06	0.2	86.24	4.3	0.00	0.0	402.7
0.0	0.00	0.0	100.00	10.0	91.06	4.6	66.03	3.3	41.39	2.1	33.28	3.3	371.0
0.0	0.00	0.0	37.15	3.7	7.15	0.4	46.48	2.3	57.89	2.9	24.61	2.5	231.7
0.0	83.40	8.3	0.00	0.0	15.68	0.8	0.00	0.0	67.03	3.4	0.00	0.0	305.7
0.0	89.52	9.0	0.00	0.0	98.44	4.9	0.00	0.0	7.15	0.4	4.21	0.4	350.2
0.0	0.83	0.1	39.84	4.0	22.49	1.1	8.69	0.4	53.60	2.7	0.32	0.0	275.1
0.0	3.16	0.3	4.68	0.5	2.40	0.1	14.45	0.7	52.87	2.6	0.86	0.1	194.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	67.64	3.4	0.94	0.1	241.7
0.0	0.00	0.0	0.00	0.0	97.36	4.9	0.00	0.0	39.52	2.0	0.00	0.0	253.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	19.58	1.0	56.21	2.8	0.00	0.0	201.9
0.0	0.00	0.0	100.00	10.0	0.00	0.0	0.00	0.0	47.88	2.4	0.00	0.0	270.3
0.0	0.00	0.0	0.00	0.0	0.00	0.0	3.19	0.2	52.35	2.6	0.00	0.0	71.1
0.0	0.00	0.0	0.00	0.0	0.00	0.0	41.52	2.1	33.86	1.7	64.41	6.4	159.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	24.68	1.2	0.00	0.0	44.8
0.0	0.00	0.0	0.00	0.0	0.00	0.0	16.37	0.8	81.58	4.1	0.00	0.0	220.3
0.0	45.90	4.6	0.00	0.0	25.98	1.3	24.46	1.2	72.58	3.6	14.76	1.5	214.9
0.0	0.00	0.0	0.00	0.0	34.14	1.7	81.95	4.1	73.65	3.7	25.35	2.5	231.1
0.0	0.00	0.0	0.00	0.0	3.22	0.2	31.14	1.6	75.77	3.8	16.45	1.6	138.5
0.0	0.00	0.0	0.00	0.0	0.00	0.0	34.36	1.7	87.07	4.4	7.90	0.8	161.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	66.17	3.3	70.63	3.5	0.00	0.0	150.6
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	66.66	3.3	0.00	0.0	88.2
0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	76.42	3.8	0.87	0.1	81.2
0.0	62.11	6.2	0.00	0.0	71.36	3.6	13.57	0.7	79.69	4.0	8.72	0.9	264.0
0.0	0.00	0.0	0.00	0.0	0.00	0.0	79.51	4.0	95.46	4.8	0.00	0.0	183.7
0.0	0.00	0.0	0.00	0.0	0.00	0.0	77.16	3.9	85.02	4.3	3.17	0.3	175.7
0.0	0.00	0.0	0.00	0.0	100.00	5.0	2.07	0.1	77.41	3.9	19.59	2.0	226.8

THANK YOU

We are proud to acknowledge support from the Agua Fund, an Anonymous Foundation, WestWind Foundation, Patagonia, Fund for Wild Nature, Environmental Systems Research Institute (ESRI), the Charlottesville Albemarle Community Foundation, the J & E Berkley Foundation, the Norcross Foundation, and Wildlands CPR. We are grateful for the contributions of David Hannah, Steve Krichbaum, Sherman Bamford, Allegra Churchill, Jeff Owen and David Carey.

ABOUT WILD VIRGINIA

Wild Virginia is a grassroots non-profit organization dedicated to preserving wild forest ecosystems in Virginia's national forests. Since 1995 we have worked to protect one of the last large wild forests remaining in eastern North America, the Shenandoah Mountain area of the George Washington National Forest (GWNF). Through education and outreach, Wild Virginia informs and mobilizes citizens about issues, threats, and opportunities for the GWNF. Wild Virginia is also a "watchdog" in the forest, monitoring all proposed projects (e.g., timber sales, road construction). Financial support for our work comes from our members, individual donors and grants from private foundations.

CONTACT INFORMATION:

Wild Virginia
P.O. Box 1065
Charlottesville, VA 22902
(434)-971-1553

www.wildvirginia.org

