

The Laurel Ridge Trails Assessment Ohiopyle to Johnstown



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Prepared for the Pennsylvania Environmental Council by:

*FisherWorks Consulting
1281 Roxbury Avenue
Johnstown, PA 15905
cafisher@atlanticbb.net
814-242-5023*

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Executive Summary

FisherWorks Consulting considers it a great honor and pleasure exploring the feasibility of expanding the multiuse trail network on Laurel Ridge, including “The Ridgeback” - a conceptual multiuse trail system in the Laurel Highlands of Southwestern Pennsylvania from Ohiopyle State Park in Fayette County running northeast along Laurel Ridge through Somerset County and Westmoreland County to Johnstown in Cambria County.

The intent of this document is to map existing trails (both legal and illegal), explore connections between communities, recommend illegal and/or unsustainable trails for removal or remediation, and recommend new trail segments with the end goal of a multiuse trail network with loops for various skill levels stretching from Ohiopyle to Johnstown. The proposed network will serve local and regional recreation, economic development, and environmental planning needs within the Laurel Highlands Conservation Landscape Initiative. Any trail development proposed as a result of this study will adhere to sound trail design standards adopted by the International Mountain Biking Association to minimize environmental impact and maintenance while maximizing user experience.

The entire Ridgeback concept encompasses the ridge from Morgantown, WV in the south to Johnstown, PA in the north. This study focuses on the section from Ohiopyle, PA to Johnstown, PA. This corridor has been used for recreation for decades with the Laurel Highlands Hiking Trail being completed in 1976 winding 70 miles between Ohiopyle and Seward (near Johnstown).

Laurel Ridge is home to several connected public managed lands which total 209.5 square miles. Forbes State Forest near US Route 30 has the largest existing multiuse trail system (including the PW&S trail network) in the area and is situated in the heart of Laurel Ridge. Adjacent to Forbes State Forest is Hidden Valley Resort and Seven Springs Mountain Resort that has recently made a large investment in mountain bike trails including a downhill course.

With its river, trails and nature, Ohiopyle draws 1.5 million recreation and heritage tourism visitors every year. Significant investment has been made in and around Johnstown, which, with the Path of the Flood Trail, the proposed Conemaugh Gap Trail through Laurel Ridge, and expanding whitewater opportunities, is becoming an appealing heritage and recreation-tourism destination.

Linking these amenities via a multiuse trail network with connected opportunities for easy family oriented trails, moderate trails and challenging trails can make the Ridgeback a world class destination.

Spending a week vacation hiking, biking and rafting along and through Laurel Ridge – while discovering many first class amenities the Laurel Highlands has to offer – could certainly be a reality in years to come.

1. Introduction and Overview

To understand the Allegheny region of southwestern Pennsylvania, one must first get through it. Ridge after ridge, these mountains formed a formidable barrier to all who attempted their crossing. Whether ancient buffalo, American Indian, early explorer and settler, canal builder, railroad builder, or highway builder, all who would cross these ridges had to find their own best way (Heritage Trails - U.S. Department of the Interior, 1995).

Once seen as a major barrier to transportation, commerce and sound economic stimulation, the Laurel Highlands are now seen in a much different light. With 209.5 square miles of public land stretching over 70 miles, Laurel Ridge is currently an impressive regional recreation and cultural destination – with potential to become a first class national and international destination.

a. Acknowledgements

This report and associated mapping were managed by by the Pennsylvania Environmental Council as part of the Laurel Highlands Conservation Landscape Initiative, which was financed in part by a grant from the Community Conservation Partnership Program, Environmental Stewardship Fund, under the administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation. Additional funding was provided by the Richard King Mellon Foundation and the Katherine Mabis McKenna Foundation.

Special thanks to the following organizations: DCNR's Bureau of Parks and Forestry and Bureau of Recreation and Conservation; and the Pennsylvania Game Commission.

Special thanks also to: Laurel Highlands On & Off Road Bicycling Association (LHORBA), Pittsburgh Off Road Cyclists (PORC), and the Pittsburgh Trails Advocacy Group (PTAG).

b. How the Project Evolved

One could easily argue that the start of the Ridgeback concept came in the 1970's with the completion of the 70-mile Laurel Highlands Hiking Trail, though not referred to as 'Ridgeback' until 2003. Long distance linear overnight trails with day-hike loops off of them have been popular for decades. The Ridgeback idea is simply a modern-day adaptation of the same concept of decades ago. So similar that the users are even the very same – just decades apart.

Eric and Kasia Martin of Wilderness Voyageurs Outfitters in Ohiopyle, PA came up with the current Ridgeback concept in the early 2000's after attempting to go on a vacation and bike directly from overnight accommodations to the trails. After not being able to find such a trail network in the U.S. and using their extensive knowledge of existing trails and amenities along Laurel Ridge, the current Ridgeback concept came to exist.

c. Value to the Community

The Laurel Ridge community connections and the Ridgeback have potential to tie together several existing businesses that service users who the trail system will attract. Many different types of recreation seekers are already coming to the Laurel Highlands including whitewater rafting, kayaking, walking or biking on the Great Allegheny Passage Rail Trail, cross country skiing, horseback riding and snowmobiling.

A survey of 71 economists rated factors for Arizona's attractiveness as a place to live, work, vacation, retire, and locate future plants and corporate headquarters. The strongest factors contributing to Arizona's positive image were climate, job opportunities, and open space including abundant outdoor recreation opportunities. Seventy firms relocated or expanded their businesses in Arizona, creating 27,800 jobs and \$970 million in indirect salaries and wages. Chief executive officers of these firms said they chose Arizona for its "outdoor lifestyle and recreation opportunities" (Valley National Bank, 1980).

A study was conducted on close proximity real estate values pertaining to the Monon Trail by the Center for Urban Policy and the Environment. The study concluded that proximity to greenways and trails has significant positive effects on property values – potentially in the millions of dollars from the Monon Trail alone.

A benefit to residents around the trail network could be increased real estate value. A March 7, 2004 article in the Indianapolis Star states, *“In our landlocked state, the scenic views and recreation fun provided by this and other greenways make homes near or on the Monon Trail, and to a lesser extent other trail systems, hot commodities.”* (Witt 2004). A quote from a realtor in the same article, *“I will sell six or seven homes a year to buyers who are excited about the prospects of using the Monon Trail. When time permits, I try to take a walk with the client to get a feel for the trail. On a nice day, it has finalized a few sales.”*

According to an economic impact study for the Allegheny Trail Alliance on the Great Allegheny Passage Trail (Pennsylvania Economy League, Inc Western Division, 1999):

- *Mean local trip spending estimates ranged from \$12.01 to \$15.33 per person per trip.*
- *Total estimated 1998 spending in trailhead communities by trail users ranged from \$5.4 to \$14.1 million.*
- *Non-Pennsylvania Residents comprised 9.1% of the users.*
- *Trail users are spending almost \$873,715 at Somerset County businesses that are near the trail.*
- *The 89 businesses responding to the survey had a total of \$4,555,401 in receipts and paid a total of \$564,324 in wages as a result of trail-related activities.*

Below in italics is a specific example of the economic impact of mountain biking in Moab, Utah cited from the website:
http://bikeadironracks.org/mtbike/econ_impact_of_mtnbiking.htm

Moab, a small town located in Southeastern Utah, has over twenty mountain biking trails, including the infamous Slickrock Trail, which is visited by approximately 80% all of mountain bikers. A survey was conducted the week of March 9th – 16th, 1996, to every fifth visitor who completed a ride on the Slickrock Trail. 345 people were approached to complete the questionnaire, 35 refused, with a result of 310 responses (response rate of 90%). Out of the 310 visitors who filled out the survey, 64 were on a multi-destination trip, resulting in a single-destination sample of 238 visitors. The survey was screened for multi-purpose visits, resulting in a final sample of 194 visits.

Travel time as well as travel costs are taken into consideration when measuring the independent variables. Only variable costs are included, separated into two categories: costs to travel to Moab and expenses incurred while visiting in Moab.

Conclusion

The results of the survey showed the average length of a trip was 5 days, 4 days spent in Moab, 525 miles traveled, group size 3.74, and average age of 27. The per-trip value, received per-person from an average trip is estimated at \$197 - \$205. This value multiplied by the yearly visitors at Slickrock, which was 158,681 in 1995 (Bigler, 1996) results in an annual economic impact of \$8,422,800 - \$8,770,300 (Journal of Leisure Research, 1997, Vol. 29, pp.342-352).

It is particularly important to note the average age of bikers that visit Moab is 27 since the combined counties that make up the Ridgeback corridor lost 16% of the population 18-44 years old between 1990 and 2000. See the ***Population and Income in PA Counties Relating to Ridgeback Potential*** chart on page 8.

d. Proposed Corridor and Scope of Work

The main goal of the Laurel Highlands Trails Assessment is to lay the groundwork for potential sustainable multiuse trail development along Laurel Ridge connecting existing recreation, economic and cultural centers. Any new trail suggested from this assessment will adhere to sound trail planning standards and include opportunities for easy, moderate and challenging experiences.

For study purposes, the Ridgeback corridor is comprised of a ten-mile buffer around the ridge centerline from Ohiopyle to Johnstown. The centerline is roughly the existing Laurel Highlands Hiking Trail. The ten-mile buffer is necessary to show a snapshot of different geographic, topographic and socioeconomic features relating to the proposed trail network corridor.

Discussions with DCNR land managers made clear their concerns that an assessment of the feasibility of the Ridgeback Trail need to consider management issues, including law-enforcement issues, not just whether it was physically possible to build such a trail. Therefore, this report includes discussion of management options, which was beyond the original scope.

Detailed information pertaining to land cover, soils, surficial geology, and percentage of public land can be found in ***Section 2a: Physical Description***.

The original Scope of Work generally follows the table of contents in this document and summarized as follows:

Task	Month 1,2&3	Month 4,5&6	Month 7,8&9
Research and Field Work	XX	XX	XX
Data Gathering	XX	XX	
Data Compilation		XX	
Mapping / GPS	XX	XX	XX
Support / Document Prep	XX	XX	XX

- Map all existing trails and roads on public lands, including legal hiking, mountain-biking, ski and other trails; legal roads; illegal ATV trails; old logging or other roads; pipelines or similar cleared rights of way.
- Map public rights-of-way from public lands on Laurel Ridge to major communities near the ridge.
- Enter this information into a GIS-layered map.
- Recommend a feasible, sustainable conceptual route for a proposed Ohiopyle-to-Johnstown mountain-biking trail – the Ridgeback Trail.
- Recommend some additional feasible, sustainable conceptual stacked-loop mountain-bike trails to supplement existing mountain-biking trails, such as the PW&S or Pittsburgh, Westmoreland & Somerset Railroad Trail.
- Recommend feasible, sustainable conceptual routes from the ridge top to nearby communities, which may include Johnstown via the Inclined Plane and/or Conemaugh Gap, Ligonier and New Florence.
- Provide printed maps illustrating the recommended conceptual routes listed above.

e. Corridor Demographics

The Pennsylvania portion of the proposed Ridgeback trail network touches five counties including: Cambria, Fayette, Indiana, Somerset and Westmoreland. According to 1990 and 2000 census data, the population in the proposed trail network corridor has decreased by 0.7% over ten years. Most notably, the counties together saw a decrease by 16% in the population from 18-44 years old. This comes on the heels of even more significant drops from the 1980's. See the *Population and Income in PA Counties Relating to Ridgeback Potential* chart on page 8.

In a recent report, the governors of five New England states officially recognized open space as a key element in the quality of life in their region. It is a characteristic responsible for bringing rapid economic growth to the region, as well as providing the foundation of a multi-billion dollar tourism industry (Governor's Committee on the Environment, 1988).

In a 1989 annual survey of chief executive officers, conducted by Cushman and Wakefield, the third most important factor in choosing a location for a new company or organization was "quality of life" for employees. Access to domestic markets and availability of skilled labor were the two most important factors.

Pueblo, Colorado, once known mainly as an industrial city, made an early decision in its highly successful economic revitalization effort. The decision was made to improve its appearance and amenities in order to attract new businesses. The resulting investment in trails and parks along the Arkansas River and Fountain Creek is now credited by city fathers as one of the most important components in turning around economic decline (Denver Post, January 27, 1990).

**Population and Income in PA Counties
Relating to Ridgeback Potential**

County	1990	2000	% Change
Cambria County			
Per Cap Inc	10,460	16,058	34.9
Pop < 18	37,970	36,575	-3.4
18 - 44	61,092	49,137	-19.6
45 - 64	33,385	36,799	9.3
65+	30,582	30,087	-1.6
Total Population	163,029	152,598	-6.4%
Fayette County			
Per Cap Inc	9,791	15,274	35.9
Pop < 18	35,083	37,258	5.8
18 - 44	54,199	48,419	-10.7
45 - 64	29,993	36,037	16.7
65+	26,076	26,930	3.2
Total Population	145,351	148,644	2.2%
Indiana County			
Per Cap Inc	10,260	15,312	33.0
Pop < 18	20,993	23,527	12.1
18 - 44	40,545	32,549	-19.7
45 - 64	13,049	20,256	35.6
65+	12,407	13,323	6.9
Total Population	89,994	89,605	-0.4%

* Source – PA State Data Center at Penn State University
http://pasdc.hbg.psu.edu/pasdc/census_2000/index.html

County	1990	2000	% Change
Somerset County			
Per Cap Inc	10,422	15,178	31.3
Pop < 18	19,553	19,628	0.4
19 - 44	29,336	26,544	-9.5
45 - 64	16,077	19,415	17.2
65+	13,252	14,436	8.2
Total Population	78,218	80,023	2.3%
Westmoreland County			
Per Cap Inc	12,612	19,674	35.9
Pop < 18	83,120	89,542	7.2
18 - 44	142,556	118,592	-16.8
45 - 64	81,173	94,078	13.7
65+	63,472	67,781	6.4
Total Population	370,321	369,993	-0.1%
Total For All Five Counties			
Ave Per Cap Inc	10,709	16,299	34.3
Pop < 18	196,719	206,530	4.8
18 - 44	327,728	275,241	-16.0
45 - 64	173,677	206,585	15.9
65+	145,789	152,557	4.4
Total Population	846,913	840,863	-0.7%

f. Advisory Participation

Several meetings were facilitated by the Pennsylvania Environmental Council which outlined the Ridgeback idea and garnered response.

A meeting on February 14, 2008 at the PA Game Commission's Southwest Regional Office outside of Ligonier was attended by officials from the Western Pennsylvania Conservancy, PA Department of Conservation and Natural Resources (including Bureau of Forestry and Bureau of State Parks land managers), PA Environmental Council, Allegheny Ridge Corporation and the PA Game Commission. Separate discussions took place with representatives of the Laurel Highlands On & Off Road Bicycle Association (LHORBA), Pittsburgh Trail Advocacy Group (PTAG) and Pittsburgh Off Road Cyclists (PORC).

The Ridgeback concept was also a major part of four regional Laurel Highlands Landscape Conservation Initiative meetings held on May 12th and 13th of 2008 in Cambria, Fayette, Somerset and Westmoreland Counties.

To obtain feedback on the initial draft, a series of meetings was held with land managers on the Ridge: Oct. 9 with Ohiopyle State Park, Oct. 10 with the Game Commission, Oct. 23 with the Laurel Hill State Park Complex, and Oct. 24 with both the Linn Run State Park Complex and Forbes State Forest.

2. Project Findings

For many decades, the Allegheny region of Western Pennsylvania has been solving transportation challenges with resolve and creativity in response to natural features such as abundant hills and streams, as well as cultural challenges including tight-knit communities and reluctant landowners (United States Department of the Interior, 1992).

a. Physical Description

A primary goal of this feasibility study is to document existing dirt roads and trails along Laurel Ridge. Several supporting data sets can be useful in decision making functions relating to potential trail network development. Most of the data below is derived by

computer based Geographic Information Systems. Dirt road and illegal trail data was gathered over the last several months utilizing a GPS unit and GIS software. A graphic representation of existing dirt roads and trails can be found on a north section poster and a south section poster accompanying this document.

Ohiopyle and Johnstown are approximately 45 miles apart using a direct straight line, or “as the crow flies.” Public land and public rights of way along Laurel Ridge nearly connect Johnstown and Ohiopyle, with the single exception of a 1,500 foot section near PA Route 271 owned by the Greater Johnstown Water Authority.

Forbes State Forest, which is over 25% of the study area, is already developed with enough multiuse trails to sustain regional use and is in the heart of Laurel Ridge between Ohiopyle and Johnstown. The Roaring Run Natural Area within Forbes State Forest is open to foot traffic only, per Pennsylvania Bureau of Forestry policy, which excludes the Natural Area from Ridgeback planning. A Ridgeback route through Forbes State Forest on existing trails could be designated working with Forbes State Forest staff. Several identified potential challenges for Forbes State Forest to accommodate increased use include: Increased facilities (latrines, parking, etc.), rehabilitation of existing trails, improved signage and additional staff. Ridgeback trail markings will need further discussion. The remaining 75% of the project area has limited designated multiuse existing trails.

The existing PW&S trail and dirt road network makes up over 26 miles of the 200+ miles of multiuse trails and dirt roads in and around the Laurel Mountain Division of Forbes State Forest.

Ohiopyle State Park currently has a limited amount of multiuse trails as their trail designations are currently under review. There are no existing trails, other than the Laurel Highlands Trail, on the north side of the Youghiogheny River in Ohiopyle State Park. If Ohiopyle State Park is to become a part of the Ridgeback concept, a sustainable multiuse connection must be made coming into Ohiopyle from the ridge on the north side of the Youghiogheny River, as demonstrated by the Laurel Highlands Hiking single use trail. Features of the current Laurel Highlands Hiking Trail include:

- Winds 70 miles between Ohiopyle State Park to the south and Seward to the north.
- Minimum elevation = 1,837 feet
- Maximum elevation = 2,595 feet
- Cumulative elevation change = 2,988 feet

- Mixed soil composition (as demonstrated by *Map# 3 in Appendix b*) is usually not conducive to a trail tread slope over 15% without armoring.

The entire study corridor from Ohiopyle to Johnstown is 1,157 square miles. Of the 1,157 square mile corridor, 771 square miles are forested, 360 square miles are agricultural, 54 square miles are developed and 11 square miles are coal mines or quarries. *See Map# 1 in Appendix b.*

Laurel Ridge contains a large amount of public land, totaling 209.5 square miles, which is the main drive behind this project. Included in the project study area are: Two state forests, seven state parks, National Park Service land, five State Game Lands, Western Pennsylvania Conservancy, Carnegie Museum and two local parks.

State Game Lands = 70 square miles (State Game Lands 42, 51, 111, 138, 265)

PA State Forests = 69 square miles (Forbes and Gallitzin)

PA State Parks = 59 square miles (Kooser, Laurel Hill, Laurel Mountain, Laurel Ridge, Laurel Summit, Linn Run and Ohiopyle)

Western Pennsylvania Conservancy = 6 square miles (Bear Run Nature Preserve)

Carnegie Museum = 3 square miles (Buffalo Nut Sanctuary, Furnace Woods Natural Area and Powdermill Nature Reserve)

National Park Service = 2 square miles (Fort Necessity National Battlefield)

Local Parks = 0.5 square miles (Chestnut Ridge and Great Meadows Amphitheatre)

Several factors will influence whether a multiuse trail system is physically feasible, what types of uses should be accommodated, and an associated cost, from Ohiopyle State Park to Johnstown along the Laurel Ridge:

- Physical barriers such as steep slopes.
- Potential use of existing trails and dirt roads.
- Agency planning.
- Available funding.
- Development.
- Need for bridges and culverts.
- Need for additional parking, water, and related infrastructure.
- Environmental planning considerations such as soil types, wetlands and other sensitive areas.

- Cultural Resources Management planning in conjunction with Pennsylvania Historical and Museum Commission and the National Park Service.
- Discussions with PennDOT at key road crossings.

b. Connections

The Ridgeback has potential to accommodate a spine trail of approximately 70 miles parallel to the Laurel Highlands Hiking Trail, along with several stacked loop trails to accommodate a variety of skill levels. The Ridgeback also has potential to connect many recreation centers, lodging, food, and cultural centers. Priorities include:

- Assuring user needs and expectations are met to ensure utilization.
- Suggesting sustainable connections that fit into land managers' management action plans.
- Environmental due diligence.

Once expectations are met with a quality recreation experience that will be the main draw of the Ridgeback to the region, connections should be made to enhance user experience and economic impact.

The heart of the Ridgeback is already developed as an existing mountain biking regional destination within Forbes State Forest including easy, moderate and challenging trail loops. The challenge is connecting Ohiopyle State Park to Forbes State Forest from the south and Johnstown to Forbes State Forest from the north.

From the south, Ohiopyle State Park already allows mountain biking on certain trails and additional mountain-biking trails would be consistent with its management plan. State Game Lands policy would allow for the possibility of a connecting trail between Ohiopyle State Park and Forbes State Forest. However, Laurel Ridge State Park is a special-designation park developed to create a wilderness hiking experience. Historically, Laurel Ridge has denied requests for other uses. The State Park would need to approve this new use to allow completion of the Ridgeback north of Forbes State Forest toward Johnstown and in a few other smaller areas. Although developed to provide a wilderness experience, the current level of illegal ATV use greatly diminishes this value in Laurel Ridge State Park. Arguably, allowing mountain biking would discourage illegal ATV use and create a more quiet, wilderness experience for hikers – more consistent with the original purpose.

The entire corridor, which is traversed by the Laurel Highlands Trail, is connected by State Parks, Forbes State Forest, State Game Lands, Seven Springs Mountain Resort, and Greater Johnstown Water Authority property. Several large tracts of land are scattered along the ridge top including several timber companies and Outdoor Odyssey Camp just north of US Route 30. In addition, connections to specific communities and amenities such as the Trillium Lodge near Ohiopyle and Seven Springs / Hidden Valley are important to the sustainability and economic and community impact of the trail network.

Preliminary meetings were held with land managers and other interested parties early in the process, and follow-up meetings were held with the land managers in October 2008, including managers of the State Parks, Forbes State Forest and the PA Game Commission. All managers made helpful suggestions and recommendations regarding sustainable routing of the Ridgeback. Based on these and other discussions, and on preliminary assessments of slopes and other issues, the multi-use trail connections proposed in this plan will be limited to hiking, mountain-biking and cross-country skiing. No land suitable for sustainable ATV or other motorized uses was identified. Although a few sections of the ridge might accommodate equestrian use without significant environmental issues, a more detailed assessment of soils, slopes and other issues would be required, and land managers agreed that equestrian use would require more significant infrastructure, such as parking for trailers and water. In addition, the more uses accommodated, the more potential for user conflicts. Therefore, only hiking, mountain-biking and cross-country ski uses are proposed in all further discussion of the multi-use trail development.

1. Johnstown

Connecting the Laurel Highlands Hiking Trail and proposed Ridgeback trail network to Johnstown in a way that makes sense to users may be no simple, quick or easy task. Recreation and cultural resources in the Johnstown area make this a high priority connection. Much effort has been put into finding a route into the city that will compliment user experience. Several options have been explored over the last few years. A multiuse trail connection may be accomplished by a combination of existing trail and new trail as shown on the northern section poster map accompanying this document.

The Laurel Highlands Hiking Trail comes within three miles of the city at one point. Below are seven options for connecting the Laurel Highlands trailhead near Seward to Johnstown that vary in implementation readiness and user experience.

a. Mill Creek Trail

The former Westsylvania Heritage Corporation completed a study in 2006 outlining potential to connect the Jim Mayer Riverwalk in Johnstown generally following Mill Creek to the Laurel Highlands Hiking Trail on top of Laurel Mountain. The plan did not move to design because of several challenges. This connection is not an option in the near future.

b. Pa Route 271 From the top of Laurel Mountain to the top of the Inclined Plane

An existing trailhead at the top of Laurel Mountain on Pa Route 271 could serve as a portal into Westmont Borough and the City of Johnstown via the Inclined Plane. Though this nine-mile paved connection along PA Route 271 physically exists there is little or no incentive for trail users walk with high speed traffic. The trailhead is there so trail users do not have to walk on roads not designed or suitable for foot travel. This route is not recommended.

c. Laurel Highlands Hiking Trail Terminus to Johnstown via Pa Route 56

An existing trailhead at the northern terminus of the Laurel Highlands Hiking Trail is situated on Pa Route 56 a mile east of Seward and five miles west of Johnstown. The very same stretch of road was used extensively for recreation because of its mainly flat nature through the Conemaugh Gorge in the mid 1990's when the freshly paved roadway was closed to motorized vehicles because of a rock slide. Though this eight-mile paved connection between the Laurel Highlands Trailhead and the Inclined Plane physically exists there is little or no incentive for trail users walk with high speed traffic with little or no road shoulder in places. The trailhead is there so trail users do not have to walk on roads not designed or suitable for foot travel. This route is not recommended.

d. Decker Avenue out of the West End of Johnstown

Decker Avenue and the continuing dirt road into Laurel Ridge State Park is an existing physical and public connection between low lying city streets of Johnstown and the Laurel Highlands Hiking Trail on top of the ridge. An advantage to this connection is it exists and can be used with little more than signage. Another advantage is it could connect the City of Johnstown, including the Inclined Plane and other amenities/attractions, with the Laurel Highlands Hiking Trail and potential future Ridgeback trails.

The state park maintained dirt road that connects to Decker Avenue crosses the Hiking Trail at an elevation of 2800 feet, not far from the WJAC radio tower. This intersection is approximately four miles on the hiking trail from the trailhead near Seward. From this dirt road / hiking trail intersection on top of the mountain, it is approximately three miles down hill on the dirt and paved roads to get to west end city streets at an elevation of 1200 feet. Average grade = 10% for three solid miles with short sections approaching 30%.

The main challenge with this route is it is not appealing for any user group to want to utilize it. There is no “net pay off.” Road bikes can not utilize the dirt road portion. The elevation gain is much too harsh for recreational trail bikers. Fit mountain bikers overwhelmingly will not ride paved or dirt roads if they can be avoided. The Laurel Highlands Hiking Trail is not long enough to force hikers to abandon the portion of the hiking trail down the mountain toward Seward in order to walk on dirt and paved roads for supplies. Users are mainly there for the on-trail experience.

e. Gray Run Reclamation Area

Potential exists to come out of Laurel Ridge State Park from the Laurel Highlands Hiking Trail on a jeep trail heading down the mountain connecting with Sons of Italy Road near the Gray Run Reclamation Area. There is one parcel that the jeep trail goes through between the state park and Sons of Italy Rd. The parcel lists two owners: Piney Run Mining Company and John Griffith. Sons of Italy Rd is believed to be a local public road. The jeep trail / dirt road that becomes Sons of Italy Rd runs 2.5 miles from the hiking trail to St. Clair Road. The elevation of the jeep trail and the hiking trail intersection is approximately 2,440 feet. The intersection with St. Clair Rd is approximately 1,380 feet. Average grade = 10% for 2.5 miles with short sections approaching 30%.

A pathway continuing to the Inclined Plane uphill along St. Clair Rd is not recommended due to blind curves and little or no road shoulder.

Potential may exist to cross St. Clair Road at the intersection with Sons of Italy Rd with the goal of traversing the hillside toward the old Westwood School and enter Stackhouse Park at a higher elevation. This route would be the safest and most appealing to user groups, but would require permission from at least three landowners and require approximately a mile of new trail.

Potential may also exist to go downhill on St. Clair Road from the intersection with Sons of Italy Rd toward the West End and use city streets to connect into Norton Street and an entrance to Stackhouse Park (approximately 2.5 miles). A skateboard park and a community park are along the way to Stackhouse Park. A dirt road or trails can be taken

approximately one mile within Stackhouse Park to one of several trailheads in Westmont, the closest to the Inclined Plane being Venango Street. The top of the Inclined Plane is approximately a half - mile from the Stackhouse Park entrance on Venango Street. The total distance from the Laurel Highlands Hiking Trail to the top of the Inclined Plane is 6.5 miles utilizing this mainly public route.

Yet another option would be to explore the feasibility of connecting to the James Wolfe Sculpture Trail at the bottom of the Inclined Plane. This route would require permission from at least four different landowners on the north and east edge of Brownstown Borough.

f. Mountain Road

Though not the best overall option, this route may hold the best promise of connecting the Laurel Highlands Hiking Trail to the Johnstown Inclined Plane in the shortest amount of time. The route is similar to the Gray Run Reclamation Area route as it comes off of the Laurel Highland Hiking Trail and drops 2.2 miles on a jeep trail that turns into Mountain Rd down to St. Clair Rd. The main difference is it intersects St. Clair Road closer to Stackhouse Park, eliminating 0.7 miles of St. Clair Rd.

As with one of the Gray Run Reclamation Area routes, potential exists to go downhill on St. Clair Road from the intersection with Mountain Rd toward the West End and use city streets to connect into Norton Street and an entrance to Stackhouse Park (approximately 1.8 miles). A skateboard park and a community park are along the way to Stackhouse Park. A dirt road or trails can be taken approximately one mile within Stackhouse Park to one of several trailheads in Westmont, the closest to the Inclined Plane being Venango Street. The top of the Inclined Plane is approximately a half - mile from the Stackhouse Park entrance on Venango Street. The total distance from the Laurel Highlands Hiking Trail to the top of the Inclined Plane is 5.5 miles utilizing this entirely public route.

Yet another option would be to explore the feasibility of connecting to the James Wolfe Sculpture Trail at the bottom of the Inclined Plane. This route would require permission from at least four different landowners on the north and east edge of Brownstown Borough.

Options d, e and f could also utilize a connection from the West End of Johnstown to the Cambria Iron Trail and the bottom of the Inclined Plane as part of a potential connection from Johnstown to Seward through the Conemaugh Gap that is currently under study.

g. Conemaugh Gorge Feasibility Study

It is FisherWorks Consulting's opinion that the best route for safety and user experience is going to be connecting a trail from the northern terminus of the Laurel Highlands Hiking Trail into Johnstown, which is currently under study. Phase I will recommend connecting the Laurel Highlands Hiking trailhead to the scenic overlook on PA Route 56 just west of Johnstown. This route is entirely on Laurel Ridge State Park land between the PA Rt 56 right of way and the Norfolk Southern Rail right of way. The route has been scouted and awaiting leaf-off conditions to do engineering cost estimates. The plan should be published in winter 2008-2009.

Phase II will give options to connect the scenic overlook to the City of Johnstown. Several scenarios are possible.

Phase III will give options to connect the Laurel Highlands Hiking trailhead to Seward.

See map #5 in Appendix b and poster maps accompanying this document.

Another possibility could be connecting a new trail from the Laurel Highlands Trail to the scenic overlook on PA Route 56 just west of Johnstown. Further assessment is necessary to determine if the route is physically feasible and if it meets Laurel Ridge State Park planning and management requirements as well as PennDOT safety standards at the PA Route 56 crossing.

2. Ridgeback from Johnstown to Forbes State Forest (US Route 30)

The northernmost section of the proposed Ridgeback Trail covers a linear distance of approximately 20 miles from Johnstown to Forbes State Forest near U.S. Route 30. This can be one of the more challenging sections because of terrain and land ownership. That being said, a physical connection does exist. Existing paved roads, dirt roads, logging roads, illegal ATV trails, and a pipeline could physically make the connection. This connection is not entirely sustainable in its current form. Continued discussions with the PA Game Commission, DCNR Bureau of State Parks, and the Greater Johnstown Water Authority will be necessary if this option is pursued.

Another option is to design and construct a sustainable trail that is suitable for continued use and will cater to user experience. The hiking trail was constructed through this section instead of using existing dirt roads for a reason – which is desired user experience.

Outdoor Odyssey, an outdoor youth camp, has also expressed interest in mountain bike trails and is situated along the way. A potential loop off of the main trail could be mutually beneficial for Outdoor Odyssey and the trail system.

Additional loop trails could be developed on Laurel Ridge State Park land just south of the hiking trail, and by utilizing Mountain Road and or Decker Avenue, as well as the proposed new trail through Conemaugh Gap (described in Section 1 above).

The spine of Ridgeback trail from the existing Laurel Highlands trailhead near Seward to Forbes State Forest would require approximately 25 miles of new trail, and the loops would involve approximately 15 to 20 miles of new trail.

See poster maps accompanying this document.

3. Ridgeback Forbes State Forest Section (US Route 30 to Near Seven Springs)

The Forbes State Forest section spans approximately 12 linear miles along Laurel Ridge and is roughly between US Route 30 to the north and Seven Springs Mountain Resort to the south.

Within this section of the Ridgeback is an impressive existing trail and dirt road network traversing over 200 miles.

A large continuing effort has gone into making Forbes State Forest's trails sustainable to reduce environmental damage and high maintenance costs that had resulted from unsustainable trail design in the past. Forbes State Forest staff is doing an amazing job of bringing together several user groups that leverage thousands of volunteer hours to improve trails.

Approximately seven miles of new trails have been designed and constructed by Forbes State Forest staff and volunteers from the mountain biking community in the last seven years to accommodate mountain bikers' needs, specifically to connect existing trails, increase user experience, and get bikers (with their dogs) off of dirt roads shared with automobiles.

No additional trail construction is needed in this section to create the Ridgeback – other areas of the Ridge can be linked to this existing hub to increase the regional attraction and impact.

See poster maps accompanying this document.

4. Ligonier, Jones Mills and Resort Spurs

Connecting the Ridgeback trail network to Ligonier in a way that makes sense to a certain group of users could be a simple task utilizing paved roads and signage into Linn Run State Park, then on to Forbes State Forest dirt roads and trails via Linn Run Road.

From Ligonier, this route would utilize the paved roads of Old Lincoln Highway for 1.8 miles, US Route 30 for 0.07 miles (Speedgoat Bicycle Shop is one mile east of this intersection on US Route 30), PA Route 381 for 2.9 miles, and Linn Run Road approximately seven miles to the top of the mountain. Mountain bikers and hybrid bikers could get on the PW&S trail network a third of the way up the mountain near the border of Linn Run State Park and Forbes State Forest.

Cross bikes or hybrid bikes, which are growing in popularity, could utilize this variety route from Ligonier to the top of the mountain for an enjoyable and challenging experience through the valley roads and mountain trails. Elevation change from Ligonier to the top of the ridge is approximately 1,500 feet.

Road bikes could use this connection as it is a very scenic ride, though road bikes would obviously have to stop short of trails in Forbes State Forest. Mountain bikers can drive this route and start riding at one of several trailheads in Forbes State Forest, but would not likely ride on paved roads from Ligonier. *See map #6 in Appendix b* and poster maps accompanying this document.

The Ridgeback Trail can also be linked to Jones Mills, a community with a hotel (Log Cabin Motel) and Bed and Breakfast (Friendship Inn), as well as other visitor services located at the intersection of Routes 31 and 381, about two miles from the Donegal Turnpike Interchange. This connection has been mapped in the Mountain Watershed Association feasibility study for the Indian Creek Valley Trail, which then also will link to the communities of Champion and Indian Head along Route 381.

The existing Indian Creek Valley Trail is approximately six miles long with its northern terminus near Route 381 in Champion. The MWA already has done some drainage and re-grading on 1.5 miles of trail heading north to Jones Mills, although a bridge is needed to cross Indian Creek and reach Route 31.

North of Route 31, the trail would follow the Blair Brothers Railroad right-of-way, an existing part of the Forbes State Forest trail system, for 1.4 miles. Two options are being examined for the next 0.5 mile, including an option of following Route 381. Approximately 0.8 mile of new trail needs to be built on an abandoned railroad grade in Section 2. Section 1 would follow Route 381 for less than 2 miles toward Kreiger to pass under the Pennsylvania Turnpike, then head east on Felgar Road (gravel) for nearly 3 miles. There it connects to the PW&S Trail in Forbes, which connects to the trail network that will be used for part of the Ridgeback spine trail.

The full plan for Indian Creek Valley Trail includes an extension south to the Youghiogheny River, where it would follow the river to near Connellsville and link to the Great Allegheny Passage, creating a huge loop back through Ohiopyle to the Ridgeback Trail. *See map #7 (provided by Mountain Watershed Association and created by Skelly and Loy, Inc.) in Appendix b* and poster maps accompanying this document.

Both Seven Springs Mountain Resort and Hidden Valley Resort are all season resorts best known for their wintertime downhill ski experiences. Both resorts have mountain bike trail systems and year-round amenities. Seven Springs has made a large investment in mountain bike trails and particularly a downhill course professionally designed and constructed which has been open for the last year.

Both resorts could be connected into the Ridgeback trail system, though connecting Seven Springs to Forbes State Forest to the north could be more of a challenge. Trail connections should be coordinated with each resort.

Potential also exists to connect to Trent House Bed and Breakfast adjacent to Laurel Hill State Park in Trent, PA. Kings Mountain Resort, adjacent to Forbes State Forest at Kings Mountain, offers cabins to rent and a 9-hole golf course.

An on-road network of bicycle routes also could offer a low-cost, high-value opportunity to link many communities across the Laurel Highlands.

5. Ridgeback from Forbes State Forest to Ohiopyle State Park Border

Ridgeback Trail from Forbes State Forest near Seven Springs Mountain Resort to the northeast border of Ohiopyle State Park is 11 miles “as the crow flies” (linear distance).

A Ridgeback spine trail connection from Forbes State Forest near Seven Springs Mountain Resort to the border of Ohiopyle State Park can be challenging mainly because of a narrow swath of Laurel Ridge State Park and large section of State Game Land 111. The only existing trail connections are the Laurel Highlands Hiking Trail or approximately 15 miles of paved road, which would be unattractive to mountain bikers.

A sustainable new trail connection would traverse approximately 20 miles from Seven Springs Resort property through a small section of Forbes State Forest, Laurel Ridge State Park, and State Game Land 111, to Ohiopyle State Park. In addition to the 20 miles of “spine” trail, it may be possible to construct 12 miles of new trail loops on Laurel Ridge State Park land and the fairly recently acquired section of Forbes State Forest adjacent to State Game Land 111. Depending on trail alignment, it may be feasible to include parts of existing dirt road or trail.

See poster maps accompanying this document.

6. Ohiopyle State Park into Ohiopyle Borough

The section through Ohiopyle State Park and on into the town of Ohiopyle is approximately four miles linear distance. A physical connection could be challenging because there is no physical existing connection other than paved / dirt roads and the Laurel Highlands Trail.

Depending on the management action plan for this section of Ohiopyle State Park, an exciting opportunity could exist to connect via new and sustainable trail. There is enough suitable land from a recreation point of view to have at least two different loops off of the main trail. Total new trail distance could be approximately 12 miles mainly following contours, with the main trail through the state park being approximately eight miles.

The connection out of Ohiopyle Borough could be feasible by passing Wilderness Voyageurs Outfitters to the end of Garrett Street and continuing on a dirt road alongside the CSX right of way. A trail with a series of switchbacks could come off of the dirt road at the State Park boundary and climb the hillside. Several steep areas and rock outcroppings could be avoided.

More than 14 miles of existing trails in Ohiopyle State Park south of the Youghiogheny River were recently redesignated or recommended for redesignation as multiuse trails, and more than two miles of new connecting trails were recently constructed there. These trails along with the proposed new loop system north of the Yough River would create another hub of mountain-biking activity.

Connecting to the Trillium Lodge 0.75 miles north of the Ohiopyle State Park boundary via trail would require at least one private land owner's permission. A four-mile connection exists down a steep hill dirt road onto PA Route 381, then 0.25 miles into Ohiopyle Borough.

There are four outfitters in Ohiopyle offering bike and boat rentals. Laurel Highlands River Tours, Ohiopyle Trading Post, White Water Adventurers, and Wilderness Voyageurs Outfitters. In addition, Ohiopyle Borough has a number of accommodations and other services.

Western Pennsylvania Conservancy is examining the feasibility of linking the Laurel Highlands Hiking Trail to Bear Run Nature Reserve adjacent to Frank Lloyd Wright's Fallingwater, and this trail potentially could be designated as multipurpose if WPC would consent.

See map #8 in Appendix b and poster maps accompanying this document.

c. Design and Construction Cost Estimates

A primary purpose of this study was to develop a conceptual design for the Ridgeback Trail. A detailed design and cost estimate could not be fully completed because it is out of the scope of this project.

New trails such as what are proposed are typically constructed with a mini-excavator or by hand. A general cost estimate from design through construction including permitting, route flagging, structures, excavation and finishing as of 2008 is approximately \$15,000 -

\$25,000 per mile if constructed professionally. Several factors will determine final cost such as: Width of the trail, surface, drainage crossings, property owner requirements, environmental and cultural permitting, length, obstacles and interpretive opportunities to name a few.

Costs of additional access areas, signage and other infrastructural also need to be assessed (see next section).

Several cost reduction alternatives could be utilized to significantly reduce final costs as noted in ***Section 2d: Potential Cost Reduction Alternatives***. Typical cross sections can be found in ***Appendix c***.

d. Access, Infrastructure and Emergency Access

Laurel Ridge is bisected by US Route 30 and several PA Routes (403, 56, 271, 31, 653). Laurel Highland Trailheads exist at most of these intersections. The PA Turnpike also bisects Laurel Ridge but there is no potential access to trails. Several trailheads exist on DCNR lands as well.

Despite this extensive existing infrastructure, additional infrastructure will be needed, including in some areas additional parking, water, rest rooms and signage. Current multi-purpose trails in Forbes State Forest, which will be incorporated into the Ridgeback Trail, generally have sufficient infrastructure. Elsewhere, existing access and parking for the hiking trail might also service users of the Ridgeback. However, the Laurel Highlands Hiking Trail has always been for hiking only. Land managers are concerned that hikers might get the impression that bicyclists are using the hiking trail unless separate access/parking areas and, possibly, other infrastructure are developed. At the very least, additional signage will be required to properly direct the different user groups. An assessment of which access areas could be utilized by both user groups and where new infrastructure is needed, along with the costs of such infrastructure, is beyond the scope of this study. An assessment of where additional emergency access areas may be needed is also suggested.

e. Potential Cost Reduction Alternatives

Several cost reduction strategies could be employed throughout design and construction of the proposed trail and related infrastructure. These cost-saving suggestions will also apply to maintenance, which is discussed below. Cost saving alternatives include:

- Volunteer labor from local groups, such as the Laurel Highlands Off Road Bicycling Association, who volunteer thousands of hours toward trail development on several DCNR lands every year.
- The 12th District Regional Equipment Center in Blairsville offers heavy equipment and operators at significantly reduced costs for projects such as trail development. The 12th REC may also offer reduced cost design and engineering services.
- Several Universities offer certain design and engineering services as class projects.
- Municipal equipment and operators might assist with maintenance and/or construction.
- The federally sponsored Welfare to Work Program is active in all 67 counties in Pennsylvania according to the PA Department of Labor and Industry. The Welfare to Work Program could be utilized to employ workers from low income and high unemployment areas to perform trail maintenance and some construction duties.
- DWI offenders and other prisoner labor may be utilized in certain areas. Prisoner work areas usually must have adequate cell phone coverage. Most of the corridor is covered by at least one cell phone carrier.
- Community service hours from Juvenile Probation and youth forestry camps.
- Boy Scouts of America and Girl Scouts may help with signage and marking the trail.
- Many high school students are required to do a senior year community service project.

3. Administration

Administration of the trail right-of-way has not been decided as it is early in the planning process. Ultimate ownership should lie with a stable organization or organizations having resources necessary for continued and coordinated trail support. Funding avenues may also dictate what kind of organization must administer the trails.

Several major trails, such as the Appalachian Trail and the Great Allegheny Passage, are maintained by private, non-profit groups. To establish such a system for the Ridgeback Trail is certainly an option, although it would take considerable planning, time and effort to build this capacity from surrounding communities. Organizations such as Laurel Highlands On & Off Road Bicycle Association, Pittsburgh Off Road Cyclists (PORC) and Pittsburgh Trails Advocacy Group (PTAG), could be instrumental in developing such a capacity. If private groups take on responsibility for maintenance, law enforcement likely would have to remain the responsibility of the state land managers.

The more obvious option would be for DCNR's Bureau of Parks and/or Bureau of Forestry to handle administration, including maintenance and law-enforcement. Perhaps the Pennsylvania Game Commission could take on administrative responsibility for trail sections on its land, although they currently have no such responsibility on the LHHT and do not consider such a trail to be within their core mission.

Options for administration need to be assessed further, but should be assessed in the context of maintenance options and law enforcement as discussed below. These options include:

- Forbes State Forest currently handles all administration, including maintenance and law enforcement, on its multiuse trails. Forbes could continue to handle these responsibilities on its trails that become part of the Ridgeback complex. Ohiopyle State Park could then be assigned administrative duties on the southern end of the Ridgeback while either Linn Run or Laurel Hill Complex takes on administration and law enforcement on the northern end.
- The current administrative pattern for the LHHT could be used also on the Ridgeback, specifically, the Laurel Hill SP complex would share maintenance with the Linn Run SP complex, with Laurel Hill complex continuing to handle administration and law enforcement for the entire 70-mile corridor.

- The Laurel Hill and Linn Run complexes could share responsibility for administration and law enforcement along the same lines as they currently share maintenance, which, if staffed adequately, could significantly help to address illegal activity in the northern end of Laurel Ridge.
- Forbes State Forest has a larger ranger staff than the state parks and potentially could be assigned additional law-enforcement duties in the northern end of the Ridge.
- A non-profit private organization could be developed to manage and maintain all or parts of the trail, with DCNR being responsible only for law-enforcement.

An assessment of these options is needed and should include consideration of a Johnstown-area outpost at least on a temporary basis during remediation of illegal trails and/or a stepped-up law-enforcement effort to reduce illegal ATV use. Administration of the current LHHT could also be re-assessed at the same time.

Further, the Pennsylvania Game Commission personnel interviewed for this study recommended that the potential for a land swap with DCNR should be undertaken. Some lands currently managed by the Game Commission may be better managed as State Park or Forest, and vice versa. DCNR land managers agreed that such an assessment would be worth exploring.

a. Trail Maintenance

A properly maintained trail will help ensure user safety and promote good will and trust in the communities it passes.

An improperly designed or constructed trail usually creates a whole host of different maintenance challenges that are currently associated with many trails in the Commonwealth. The biggest challenge due to improperly designed or constructed trails is erosion from water run-off. Land managers spend an enormous amount of time and resources dealing with improperly designed trails.

If designed properly, average yearly maintenance of a minimally invasive trail ribbon will consist of cutting back vegetation in areas on which it encroaches. Other sporadic maintenance includes cutting deadfall trees that cross the trail and inspecting drainage crossings.

Properly designed trails mainly follow contours and have frequent turns and ups and downs, which force ATVs to go slow and constantly work hard to maneuver. Such trails are uninviting to ATV users and do not create additional maintenance problems.

The PENNDOT Highway Occupancy Agreement and Highway Occupancy Permits will identify the trail management organization's responsibility and PENNDOT's responsibility regarding maintenance in areas touching PENNDOT rights-of-way.

A list of Cost Saving Alternatives for construction is included above, and most of those alternatives would also apply for maintenance. In addition, volunteers bring significant potential for addressing maintenance needs.

Volunteers could accomplish much of the ongoing trail maintenance. The Laurel Highlands ON & Off Road Bicycling Association (LHORBA), Pittsburgh Off Road Cyclists (PORC), and the Pittsburgh Trails Advocacy Group (PTAG) have all agreed to help maintain such a trail network. All three clubs currently are heavily involved in maintenance and sustainable trail development in Forbes State Forest.

Volunteers have already played a crucial role in the development and maintenance of trails in Forbes State Forest with thousands of hours of documented service over the last few years.

In any community, there are some individuals who have the respect of almost everyone. These insiders have immediate access to community leaders and know the ins and outs of the local scene. You can learn a lot simply from listening to an insider, getting his or her perspective on how conservation fits into the community as a whole (Organizing Outdoor Volunteers, 1992).

Volunteer partnerships between the trail owning organization and other groups can be a strong catalyst for getting work done. Several related volunteer groups in the area have demonstrated volunteer partnerships in recent years such as Laurel Highlands Off Road Bicycling Association partnering with DCNR (Forbes State Forest and Blue Knob State Park) for trail building and maintenance.

Perhaps the most sophisticated form a grassroots organization can take is that of the "volunteer partnership." This is a group of organized volunteers (often a nonprofit organization) that works in cooperation with a government agency to achieve conservation goals (Organizing Outdoor Volunteers, 1992)

b. Law Enforcement

In undertaking the mapping portion of this study, some illegal activity of ATVs was evident throughout the Ridge, but was particularly onerous in the northern end of Laurel Ridge near Johnstown. Land managers concurred that law enforcement is a significant challenge on the Johnstown end of Laurel Ridge State Park, where the park has suffered significant environmental degradation from illegal ATV use. Land managers are concerned that attracting a new user group (mountain bikers) will create additional conflicts with illegal ATV users, creating risks to legal users and a substantial enforcement burden.

Many mountain biking advocates contend that increased legal use of the Ridge would help to significantly discourage the illegal ATV use and therefore reduce the burden on staff. In addition, construction of new multiuse (mountain biking) trails would not create an additional law-enforcement burden by opening new areas to illegal ATV use. Properly designed mountain-bike trails mainly follow contours and have frequent turns and ups and down, which force an ATV to go slow and constantly work hard to maneuver. ATV users are not attracted to properly designed mountain-bike trails.

Nonetheless, law enforcement alternatives need to be addressed before new development occurs on the northern end of the Ridge. State Park personnel feel that development of new trails there is prudent only if done in the context of an assessment of how to address current illegal activity, including a plan for how to remove and remediate environmental damage caused by the illegal activity. Currently, although maintenance responsibilities are shared between the Laurel Hill and Linn Run complexes, administration and law enforcement responsibilities rest solely with the Laurel Hill complex staff, which is located more than 40 minutes away from the Johnstown end of the trail. Options suggested for consideration include development of a northern outpost for ranger staff or providing additional ranger staff for Linn Run complex and/or Forbes State Forest to patrol this area; both Linn Run and Forbes offices are only 20 or 25 minutes away.

4. Recommendations

1. Work with land managers, other agencies and trail advocate groups to explore the feasibility of potential trail development as outlined in this concept study that is referred to as “The Ridgeback.” Included in trail development should be opportunities for easy family oriented trails, moderate trails and challenging trails arranged into a “stacked loop” system connected by a main trail, or spine, from Ohiopyle to Johnstown. This effort should include an assessment of administrative and law-enforcement options as outlined, and

redesignation of Laurel Ridge State Park near Johnstown to allow a separate but parallel mountain-bike trail that arguably would discourage illegal ATV use and create a quieter, wilderness-like experience for hikers.

- Recognizing Forbes State Forest (including Seven Springs Mountain Resort and Hidden Valley Resort) as an existing cluster within the heart of the Ridgeback, explore developing Ohiopyle State Park and Laurel Ridge State Park (near Johnstown) as new multiuse trail clusters with a longer term goal of connecting them.
- Construct new sustainable trail within Ohiopyle State Park that switchbacks up the mountain on the north side of the CSX rail line and generally follows the Laurel Highlands Trail corridor.
- Construct new trail, as a longer term goal, where no connection exists between Ohiopyle State Park and Forbes State Forest to the north. Within this connection is the possibility for several loops created off of the main multiuse trail. This trail would utilize state park and state game lands.
- Connect Forbes State Forest north to Johnstown via a series of existing trails and new trail utilizing state parks, possibly state game lands, possibly Outdoor Odyssey Camp, possibly Greater Johnstown Water Authority, and possibly Brookville Timber Company land atop the ridge. The Johnstown connection could be accomplished via the Conemaugh Gap or one of the other options outlined in *Section 2b1 - Johnstown Connection*.
- Try to limit the amount of linear trail that does not make some sort of a loop. Though several sections will most likely have to be linear in nature which will serve as “out and back” trails from certain starting points, or could be point to point with a shuttle service taking riders back to their starting point. This has been done successfully in other trail networks, such as the Huckleberry Trail in West Virginia.
- Explore use of the Laurel Highlands Trail as multiuse in small sections where suited and there are limited options to connect the Ridgeback otherwise. One such area that will be a necessity is the PA Turnpike bridge crossing.

2. Connect to Johnstown and the Johnstown Inclined Plane via the Conemaugh Gap from the existing Laurel Highlands Trailhead near Seward, if found feasible. Also consider connecting the Laurel Highlands Hiking Trail to Johnstown using the public roads as

outlined in *Section f* of this report, and consider a loop or a series of loops into Johnstown utilizing two or more of options d, e, f, and g in *Section 2b1*.

3. Even though there are many miles of existing dirt road and illegal trails along the project area, the overwhelming majority is not suitable for continued trail use. Much of this existing illegal trail goes through sensitive areas and is not routed in a sustainable manner. Existing connections should be utilized where possible, and new, sustainable trail should be constructed where needed. Significant unsustainable trail, especially illegal ATV trail on the northern end of the ridge, should be closed and remediated.
4. Sign an on road connection via Linn Run State Park and Forbes State Forest to the ridge from Ligonier; this route can be utilized by cross hybrid bikes that are designed for road riding and light trail riding, such as parts of the PW&S network. Extend the Indian Creek Valley Trail, especially the northern end linking the ridge to Jones Mills/Donegal, if found to be feasible. And link the multiuse trails in Forbes State Forest to Seven Springs and Hidden Valley resorts.
5. Develop on road bicycle routes (where wooded trails are not feasible) connecting key communities throughout the Laurel Highlands similar to The Alleghenies On Road Bicycle Network.
6. Hold several public meetings throughout the project area outlining different options and garner public feedback.

5. Funding Sources

- **Pennsylvania Department of Conservation and Natural Resources**

- DCNR – Community Conservation Partnerships Grant Program

- Community Grant Program – awarded for local recreation, park and conservation projects. These include the rehabilitation of and the development of parks and recreation facilities; acquisition of land for park and conservation purposes; and technical assistance for feasibility studies, trails studies, and site development planning. Grants require a 50% match except for some technical assistance grants and projects eligible as small community projects. Applicants may submit one application per project type per funding period. Rails-to-Trails Grant Program – provide up to 50% funding for the planning, acquisition or development of rail-trail corridors. Applicants may submit one application per project type per funding period. Municipalities, municipal agencies, appropriate / authorized organizations and pre-qualified land trust organizations interested in applying for a

grant may obtain a copy of the new grant application manual and forms by: (1) completing an order form and returning it to the Bureau; (2) by going to www.DCNR.State.PA.US/Grants on the web; or, (3) by emailing the Bureau at rec&con@state.pa.us. Applications are due October 13, 2004.

Contact Information:

DCNR Southcentral Regional Office

P.O. Box 1554

Harrisburg, PA 17105-1554

Phone: (717) 772-4362 Fax: (717) 705-2943

DCNR – Pennsylvania Recreational Trails Program

Pennsylvania Recreational Trails Program (PRTTP) - provides funds to develop and maintain recreational trails and trail related facilities for motorized and non-motorized recreational trail use. Federal funding for the program is through the Federal Highway Administration (FHWA) and the Transportation Equity Act for the 21st Century (TEA 21). In Pennsylvania, the RTP is administered by the DCNR, Bureau of Recreation & Conservation (BRC) in consultation with the Pennsylvania Recreational Trails Advisory Board (PARTAB), which is composed of both motorized and non-motorized recreational trail users. The Department has approximately \$1 million available for grants. This funding is distributed as follows: 40% minimum for diverse trail use; 30% minimum for motorized recreation; and 30% minimum for nonmotorized recreation. Match requirements for Pennsylvania Recreational Trails Program Grants are 80% grant money, up to a maximum of \$100,000, and 20% project applicant money. "Soft match" (credit for donations of funds, materials, services, or new right-of- way) is permitted from any project sponsor, whether a private organization or public agency. Eligible applicants include federal and state agencies, local governments and private organizations. Eligible project categories are: maintenance and restoration of existing recreational trails; development and rehabilitation of trailside and trailhead facilities and trail linkages; purchase and lease of recreational trail construction and maintenance equipment; construction of new recreational trails (with restrictions on new trails on Federal land); and the acquisition of easements or property for recreational trails or recreational trail corridors. The Commonwealth may also use up to 5 percent of its funds for the operation of educational programs to promote safety and environmental protection related to the use of recreational trails. The Department will also give consideration to projects that provide for the redesign, reconstruction, non-routine maintenance, or relocation of recreational trails to benefit the natural environment. Project sponsors are encouraged to enter into contracts and cooperative agreements with qualified youth conservation or service corps to perform trail construction and maintenance.

Contact Information:
DCNR Southwest Regional Office
1405 State Office Building
300 Liberty Avenue
Pittsburgh, PA 15222-1210
Phone: (412) 880-0486

- **Pennsylvania Department of Community and Economic Development (DCED)**
Community Revitalization Program (CRP)

Provides grant funds to support local initiatives that promote community stability and quality of life.

Eligibility: Local Government, municipal and redevelopment authorities and agencies, industrial development authorities and agencies, non-profit organizations incorporated under the laws of the Commonwealth, community organizations engaged in activities consistent with the program guidelines.

Uses: Construction or rehabilitation of infrastructure, building rehabilitation, acquisition and demolition of structures/land, revitalization or construction of community facilities, purchase or upgrade of machinery and equipment, planning of community assets, public safety, crime prevention, recreation, and training.
866-GO-NEWPA (866-466-3972)

Emergency Responders Resources and Training Program (ERRTP)

ERRTP funds may be used for emergency responder improvement projects. These projects must demonstrate a benefit to community activities associated with police, fire, ambulance or related public safety services.

Eligibility: General purpose units of local government, including, but not limited to, counties, cities, boroughs, townships and home rule municipalities; nonprofit corporations incorporated under the laws of the Commonwealth who demonstrate a direct benefit to the applicant organization; any single entity or partner authorized to act on behalf of two or more municipalities; community organizations engaged in activities consistent with the provisions of the program guidelines as determined by the DCED.
866-GO-NEWPA (866-466-3972)

- **Transportation Equity Act for the Twenty-First Century (TEA-21)**
 There are 12 funding programs for trails, bicycle and pedestrian facilities under TEA-21 including Transportation Enhancement Activities (TEAs) and the Recreational Trails Program (Rec. Trails). The Enhancements program is not a grant program. It is a reimbursement program where the project sponsor provides a minimum of 20 percent of the project's total cost and the remaining 80 percent is paid out of Federal Highway Trust Funds.
 Contact Information:
 Pennsylvania Enhancements Program PENNDOT Central Office
 400 North Street
 Harrisburg, PA 17120
 General Information: 717-787-2838

- **Somerset County 3% Hotel Tax Program**
 Annual grant providing capital and marketing assistance to not-for-profits and businesses relating to economic development and tourism in Somerset County.
 LAUREL HIGHLANDS VISITORS BUREAU
 120 East Main Street
 Ligonier, PA 15658
 Phone - (724) 238-5661

- **Westmoreland County Tourism Grant Program**
 Annual grant providing capital and marketing assistance to not-for-profits and businesses relating to economic development and tourism in Westmoreland County.
 LAUREL HIGHLANDS VISITORS BUREAU
 120 East Main Street
 Ligonier, PA 15658
 Phone - (724) 238-5661

- **Fayette County 3% Hotel Tax Grant Program (if adopted by Fayette County)**
 If adopted by Fayette County, this annual grant could provide capital and marketing assistance to not-for-profits relating to tourism in Fayette County.

Contact Information:
LAUREL HIGHLANDS VISITORS BUREAU
120 East Main Street
Ligonier, PA 15658
Phone - (724) 238-5661
<http://www.laurelhighlands.org/>

- **National Road Heritage Corridor**

The National Road Heritage Corridor is a potential funding source through the DCNR Heritage Area program.

Contact Information:
65 West Main Street, 2nd Floor
Uniontown, PA 15401
Phone: 724-437-9877
Fax: 724-437-6550
Email: info@nationalroadpa.org
Web Site: <http://www.nationalroadpa.org/>

- **Grantmakers of Western Pennsylvania (GWP)**

Grantmakers of Western Pennsylvania (GWP) is a professional membership association formed in 1985 by leaders who wanted to create an organized mechanism for grantmakers to learn and work together. The “Resources for Grantseekers” section lists over 60 philanthropic foundations.

Contact Information:
650 Smithfield St, Suite 210
Pittsburgh, PA, 15222
412-471-6488
412-232-3115 fax
Email: info@gwpa.org
Web Site: <http://web.gwpa.org>

- **The Appalachian Regional Commission (ARC)**

The Appalachian Regional Commission awards grants and contracts from funds appropriated to the Commission annually by Congress. ARC awards program grants for projects that further the four goals identified by the Commission in its strategic plan. Typically, ARC grants are awarded to state and local agencies and governmental entities (such as economic development authorities), local governing boards (such as county councils), and nonprofit organizations (such as schools and organizations that build low-cost housing). Program grants are made to nonprofit organizations.

Contact Information:

1666 Connecticut Avenue, NW

Suite 700

Washington, DC 20009-1068

202-884-7700

Email: info@arc.gov

Web Site: <http://www.arc.gov>

- **Direct Impact on Rivers and Trails Program (D.I.R.T.)**

PowerBar created the D.I.R.T. Program to help grassroots groups across the country make a difference at the local level. Projects should endeavor to increase or maintain access to the outdoors or increase the size of an outdoor recreational resource, have a regional or local focus, identify a specific land area or waterway that it will benefit, have real potential for success or significant measurable progress over a short term, and be quantifiable (i.e. have specific goals, objectives, and action plans) and include a measure for evaluating success. Applications should include a one-page executive summary of your project. A copy of your organization's Internal Revenue Service determination letter (or equivalent), the project budget, and a letter that outlines the threat to your area, your campaign strategy, proposed action steps and a brief description of your organization. PowerBar D.I.R.T. Program grants range from \$1,000 - \$5,000 and are only available for US-based projects.

Contact Information:

PowerBar

Attn.: D.I.R.T. Program

2150 Shattuck Avenue

Berkeley, CA 94704

- **Public Utilities**

Generally speaking, many public utilities realize that an economically healthy region with increased quality of life is good for business. Some utilities have established grant or loan programs to assist in project development.

- **Private Sources**

Local Banks – Community Reinvestment Act

Federal law requires banks to reinvest a certain percentage of their income into the community they serve.

Foundations

More than 12,000 charitable foundations with assets in excess of \$71 billion are located in Pennsylvania.

Identified local foundations with an interest in the Braddock's Trace Trail are:

the Community Foundation for the Alleghenies, the Community Foundation of Fayette County, Heinz Endowments, The Laurel Foundation, McKenna Foundation, and Richard King Mellon Foundation to name a few.

Fund Raising

Income producing property, sale of products, sponsorships, business partnerships, etc.

6. Appendices

a. References

b. Maps

1. Overall Project Area Including Snapshot of Regional Trails
2. Study Area With Parcels
3. Land Cover
4. Elevation
5. General Soils
6. Surficial Geology

c. US Forest Service Typical Trail Drawings

a. References

American Association of State Highway and Transportation Officials (AASHTO) (1999)
Guide for the Development of Bicycle Facilities
444 North Capitol Street, NW
Washington, DC 20001
www.aashto.org

Beck, Nancy and Higgins, Lindley, Ph.D. (2001)
Building Neighborhoods of Choice: A Workbook on Marketing Neighborhoods and Affordable Ownership Housing

Governors Committee on the Environment (June 14, 1988)
“Report of the Committee on the Environment.” New England Governors Conference, Inc.

Hylton, Thomas (1995)

Save Our Land Save Our Towns

RB Books Sietz and Sietz, Inc.

1006 N. Second Street

Harrisburg, PA 17102

More, Lafarge, and Tracy (1992)

Organizing Outdoor Volunteers

Distributed by the Talman Company

National Park Service (1990)

Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors

Rivers, Trails, and Conservation Assistance Program

202-343-3780

National Park Service (1998)

NPS- 28: Cultural Resource Management Guideline

National Park Service (1996)

Floods, Floodplains, and Folks (Gilbert White)

Rivers, Trails, and Conservation Assistance Program

202-343-3780

Pennsylvania Department of Conservation and Natural Resources website: Online: <http://www.dcnr.state.pa.us/railtrails/default.asp>

Pennsylvania Department of Labor and Industry Web Site (2004)

<http://www.dli.state.pa.us/landi/cwp/view.asp?a=129&Q=61050&landiNavDLTEST=%7C853%7C900%7C2506%7C>

PA Department of Transportation, PA Department of Community and Economic Development, PA Department of Environmental Protection, PA Department of Conservation and Natural Resources (2003)

2003 Conference on Transportation and Land Use for Economic Development

Hershey Lodge and Convention Center, Hershey, PA

Pennsylvania Department of Transportation District 9-0 (1999)

Bicycle Strategic Plan
1620 N. Juniata Street
Hollidaysburg, PA 16648

Pennsylvania Department of Transportation (2002)
Report of Achievements 2002: Pennsylvania Statewide Long Range Transportation Plan * 2000-2005
Center for Program Development and Management
PO Box 3365
Harrisburg, Pennsylvania 17105
717-787-2862
www.dot.state.pa.us

Pennsylvania Department of Transportation Website: www.dot.state.pa.us

Pennsylvania Economy League, Inc., Western Division (1999)
An Economic Impact Study for the Allegheny Trail Alliance
425 6th Ave 10th Floor
Pittsburgh, PA 15219
412-471-7080

Pennsylvania State Data Center at Penn State University Web Site: http://pasdc.hbg.psu.edu/pasdc/census_2000/index.html

Rails to Trails Conservancy Web Site: <http://www.railtrails.org/default.asp>

The Center For Rural Pennsylvania
Welcome Back to Downtown: A Guide to Revitalizing Pennsylvania's Small Towns
200 North Third Street Suite 600
Harrisburg, PA 17101
717-787-9555
www.ruralpa.org

United States Census Bureau Web Site: Retrieved 05/12/04. Online: <http://www.census.gov>

United States Department of the Interior (1992)

Comprehensive Management Plan for the Southwestern Pennsylvania Heritage Preservation Commission

United States Department of the Interior (1995)

Heritage Trails Strengthening A Regional Community

Valley National Bank. (November 1980). "Arizona's Favorable Image Spurs Economic Growth."

Arizona Progress. Phoenix, AZ: Valley National Bank, Economic Research Department.

Witt, Erin (March 7, 2004)

The Indianapolis Star

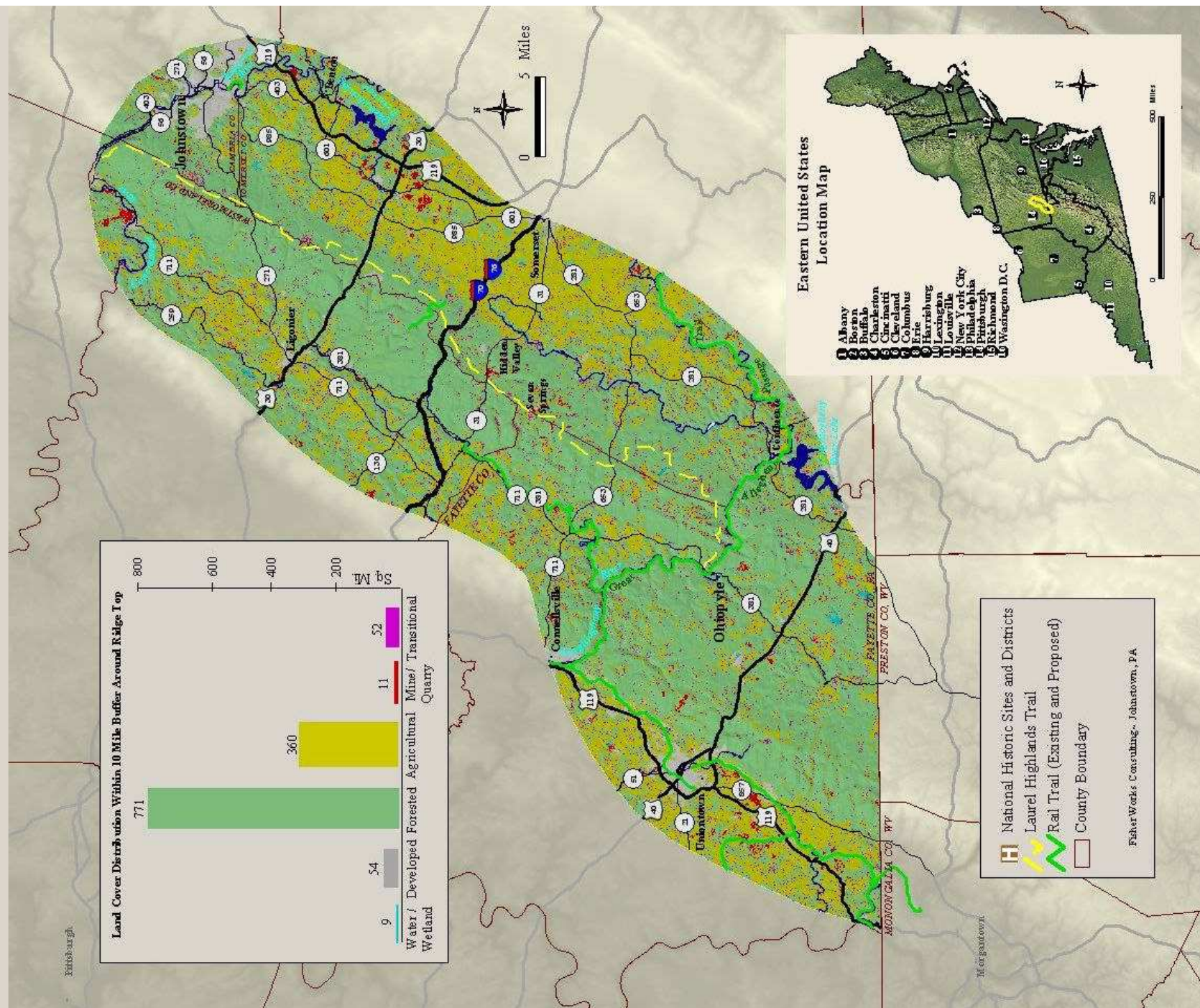
More than just a walk in the park: The Monon Trail and its impact on property values

The Laurel Ridge Trails Assessment
Appendix b
Maps

1. Land Cover
2. Elevation and Steep Slopes
3. General Soils
4. Surficial Geology
5. Johnstown Connection
6. Ligonier Connection
7. Indian Creek Valley Trail (map provided by Mountain Watershed Association, created by Skelly and Loy, Inc.)
8. Ohiopyle Connection

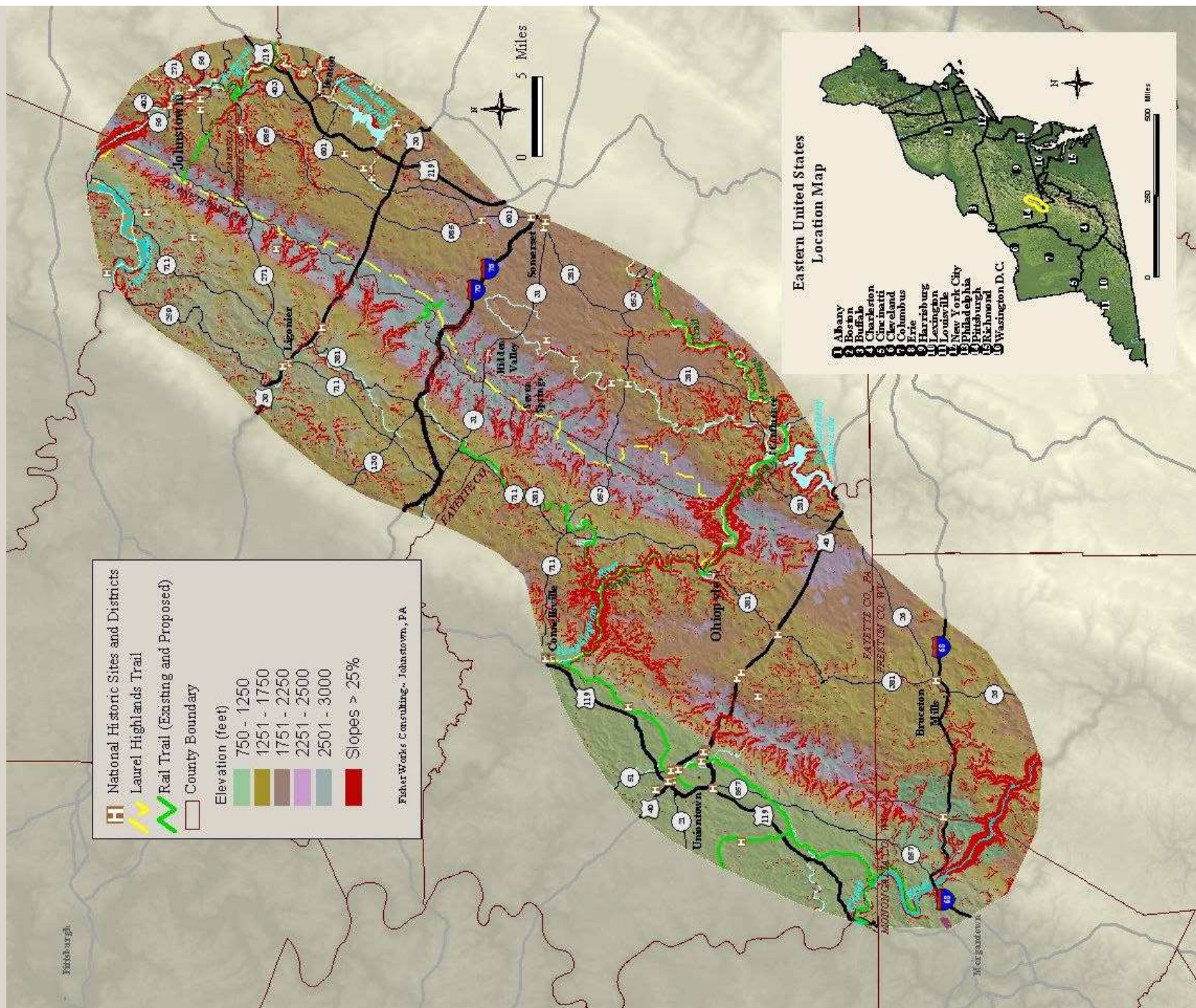
The Laurel Ridge Trails Assessment

Land Cover



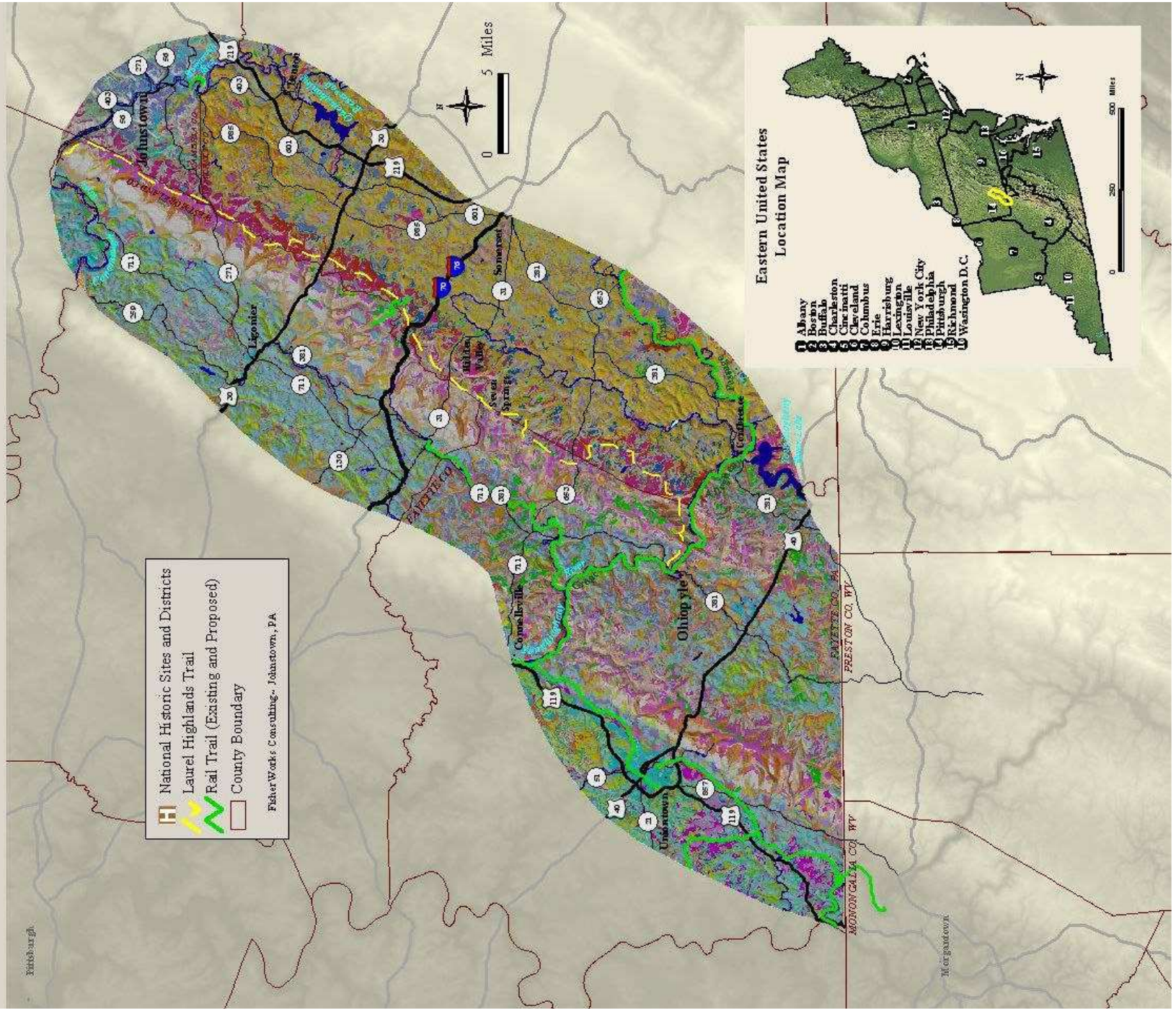
The Laurel Ridge Trails Assessment

Elevation And Steep Slopes



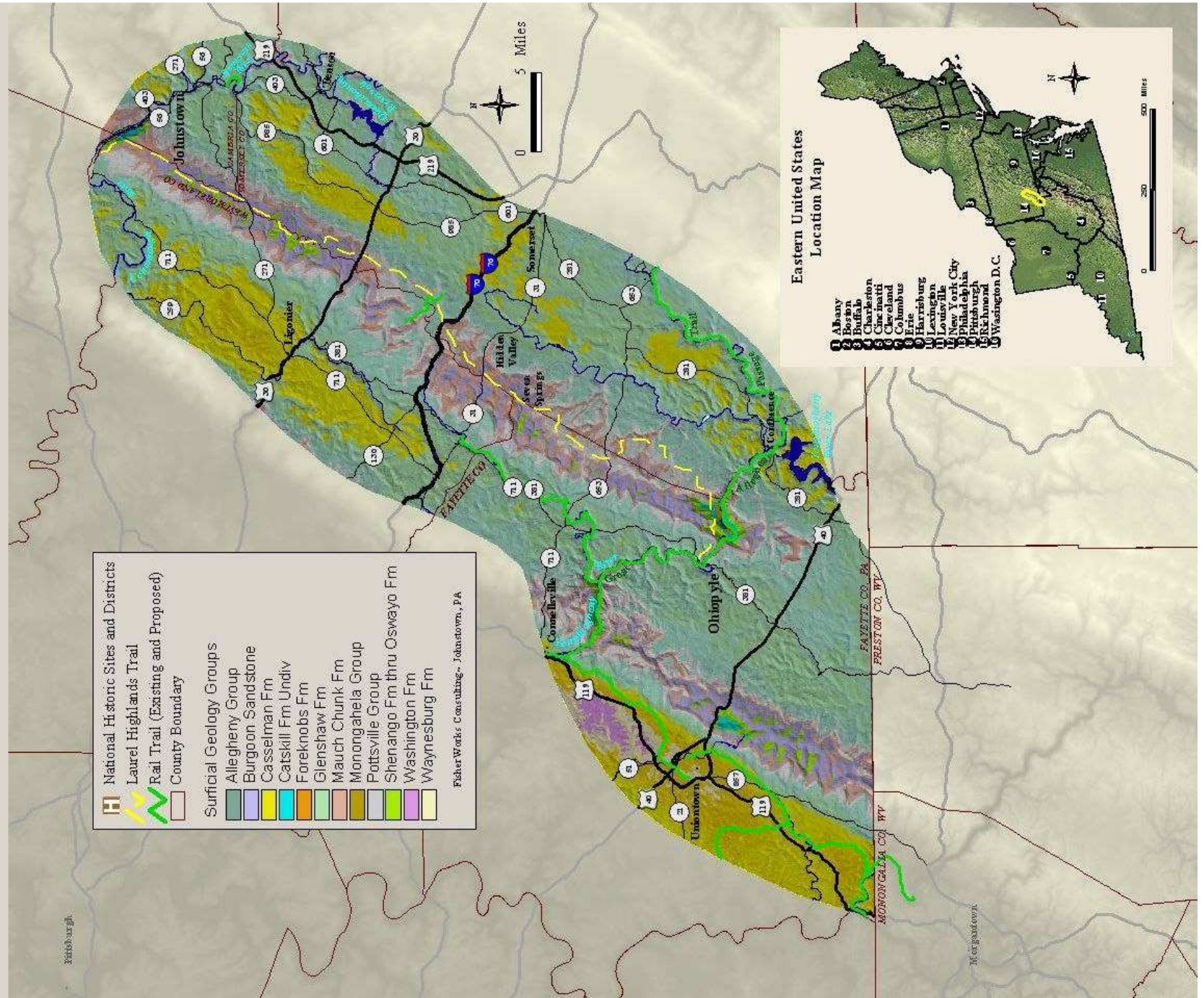
The Laurel Ridge Trails Assessment

General Soils Distribution
Graphic Representation Showing 135 different Soil Classifications

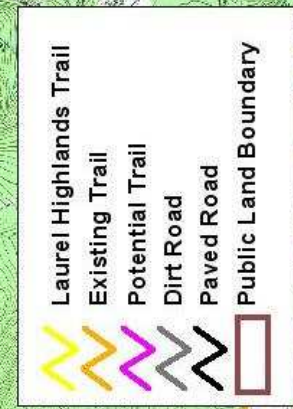
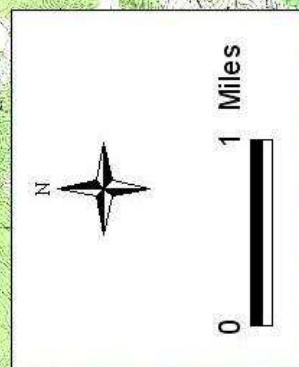


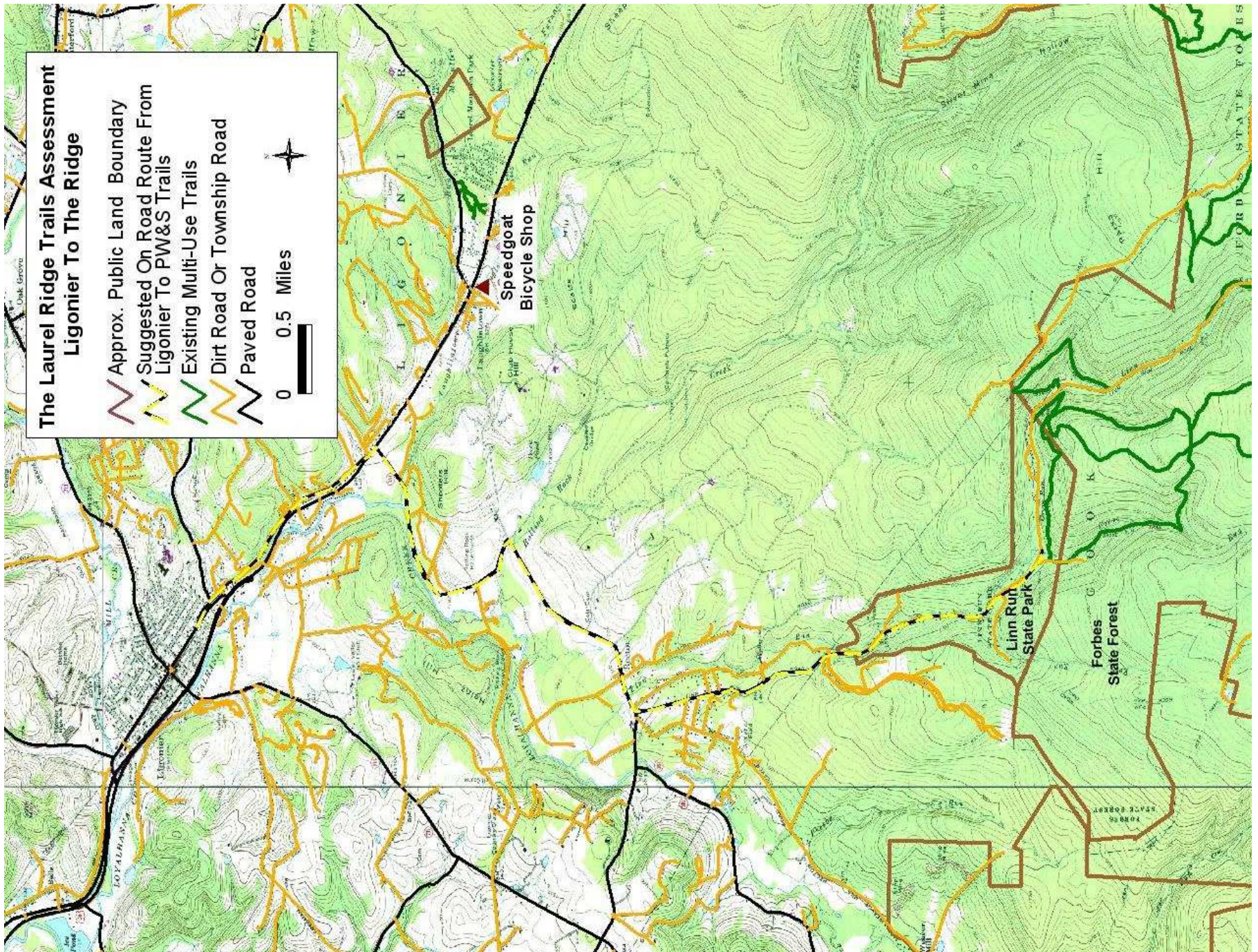
The Laurel Ridge Trails Assessment

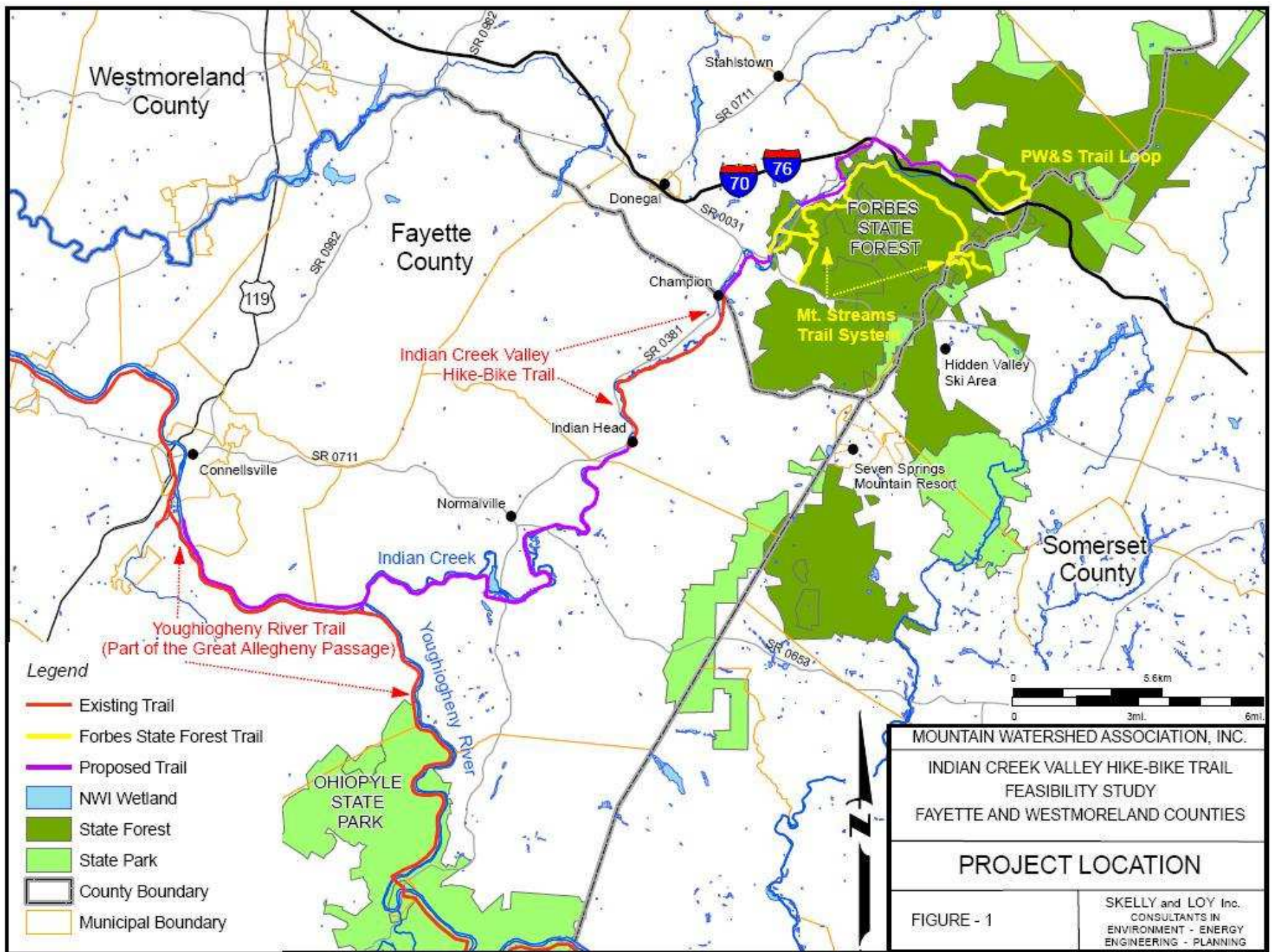
General Surficial Geology

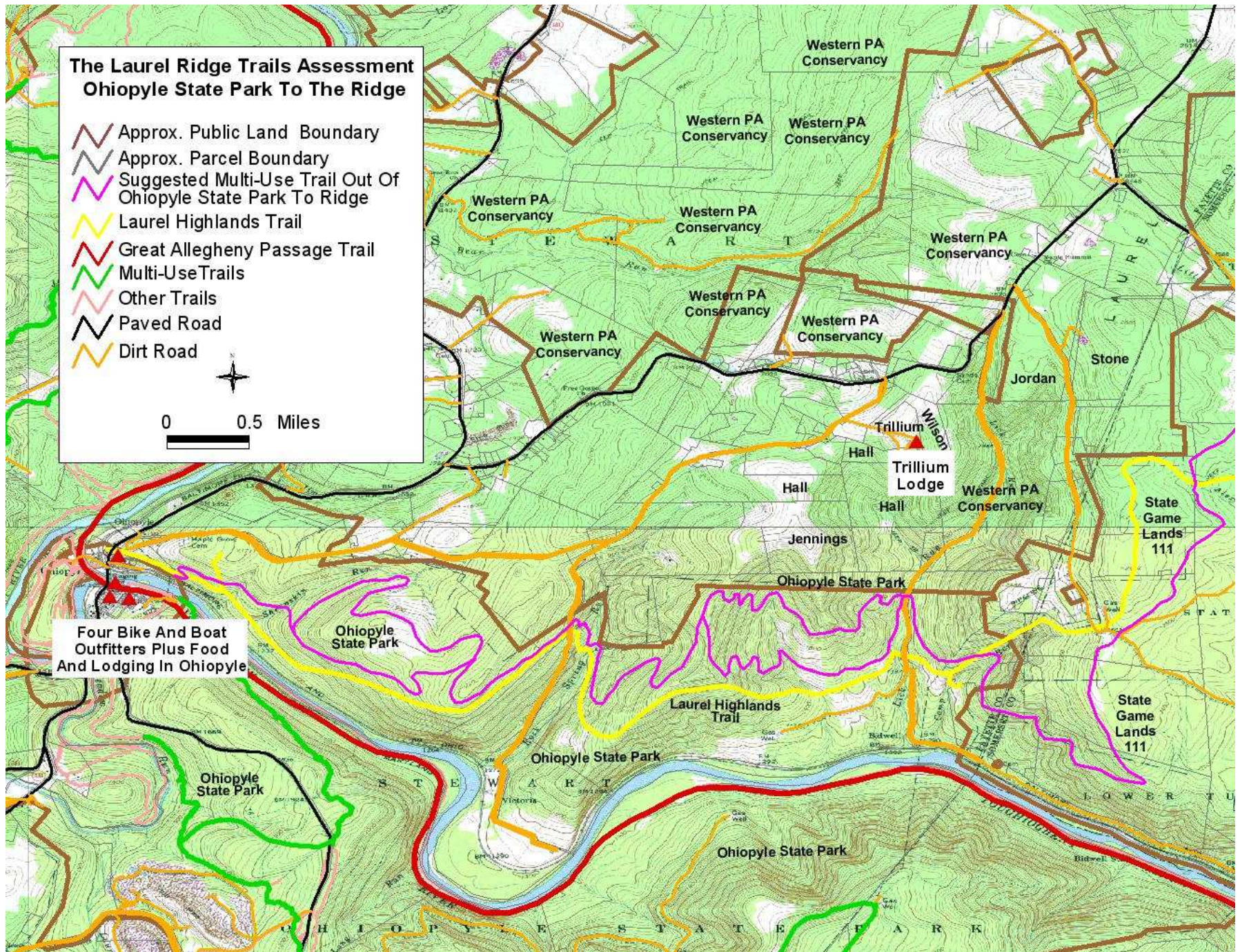


**Laurel Highlands Trail
Northern Terminus**







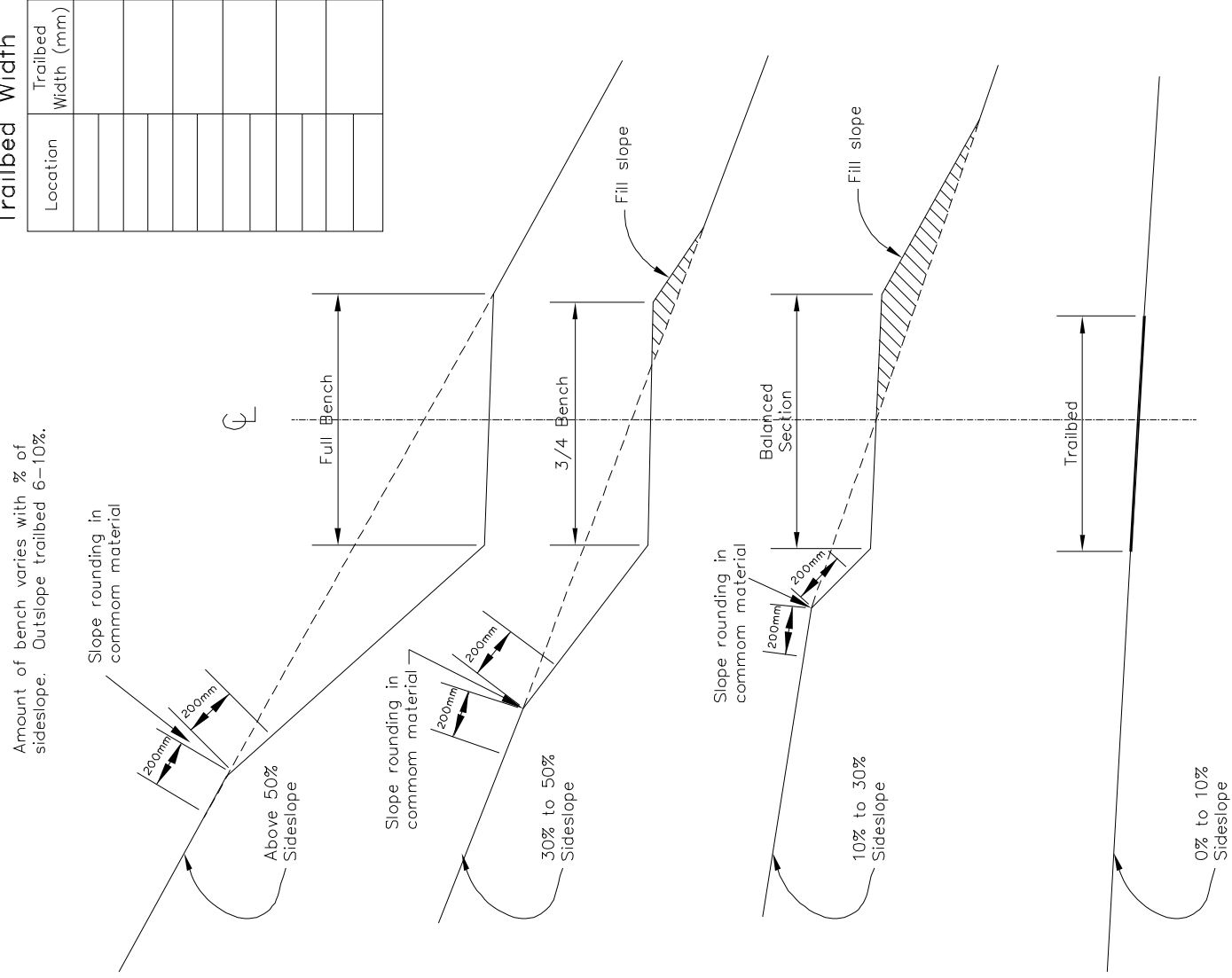


Appendix c
US Forest Service Typical Trail Drawings
Common Used Trail Building Techniques

- Typical Trail Cross Sections
- Outsloped Climbing Turn
- Grade Dip
- Rolling Dip
- Switchback
- Existing Trail Restoration
- Rock Culvert
- Rock Stairways

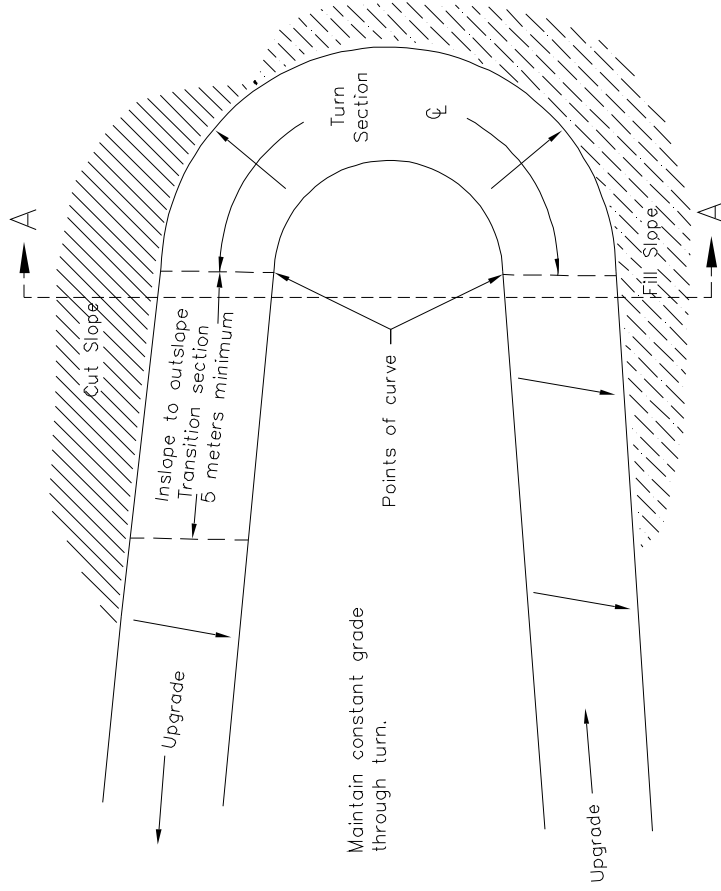
TYPICAL TRAIL CROSS SECTIONS

NOT TO SCALE

[illegible]

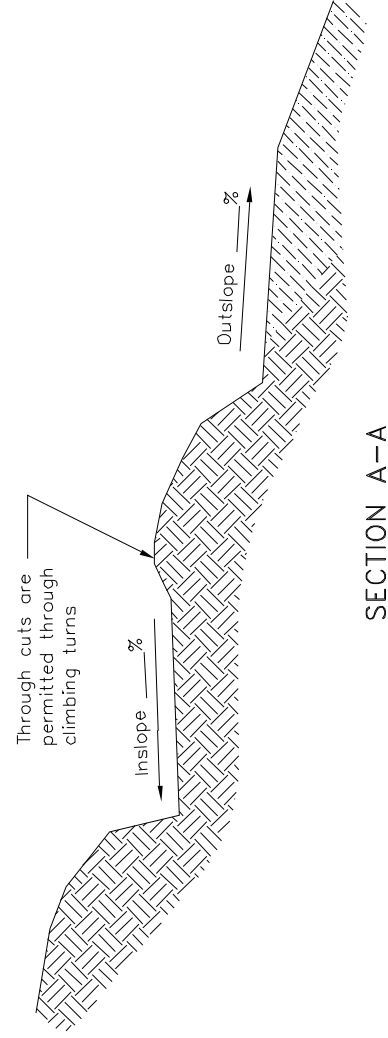
OUTSLOPED CLIMBING TURN

NOT TO SCALE



Centerline of climbing turn
will be FLAGGED or STAKED
ON THE GROUND.

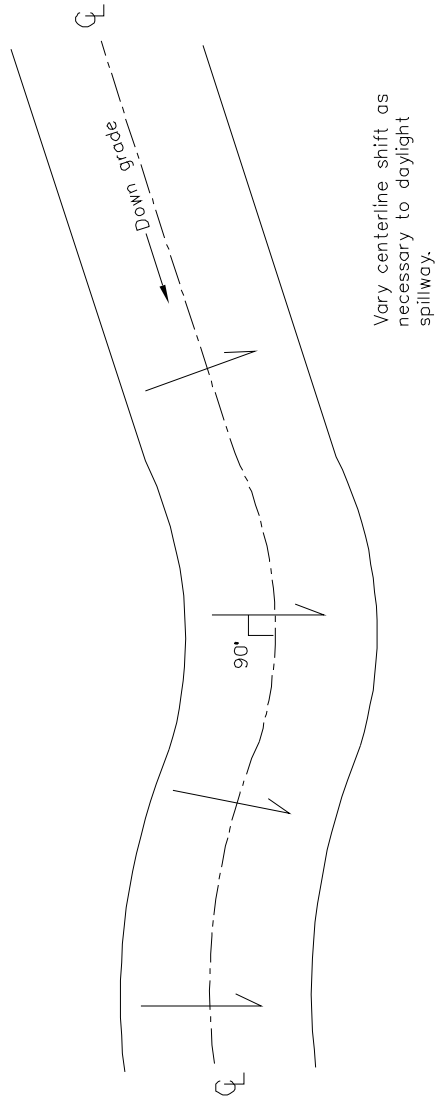
PLAN VIEW



SECTION A-A

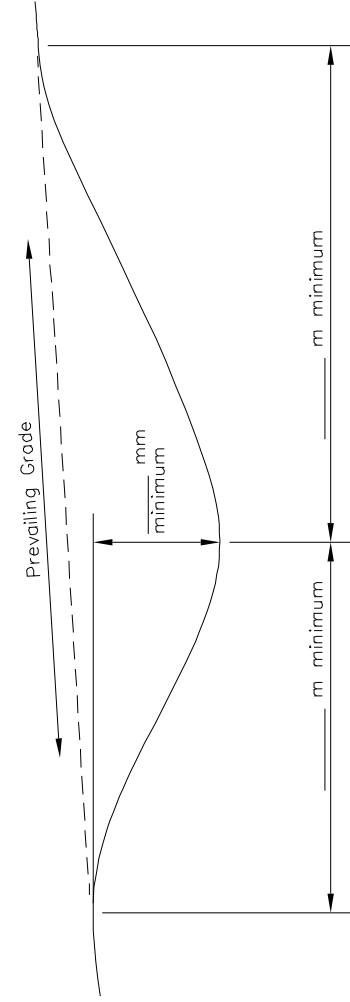
GRADE DIP

NOT TO SCALE



Maintain outslope
and trailbed width.

PLAN VIEW



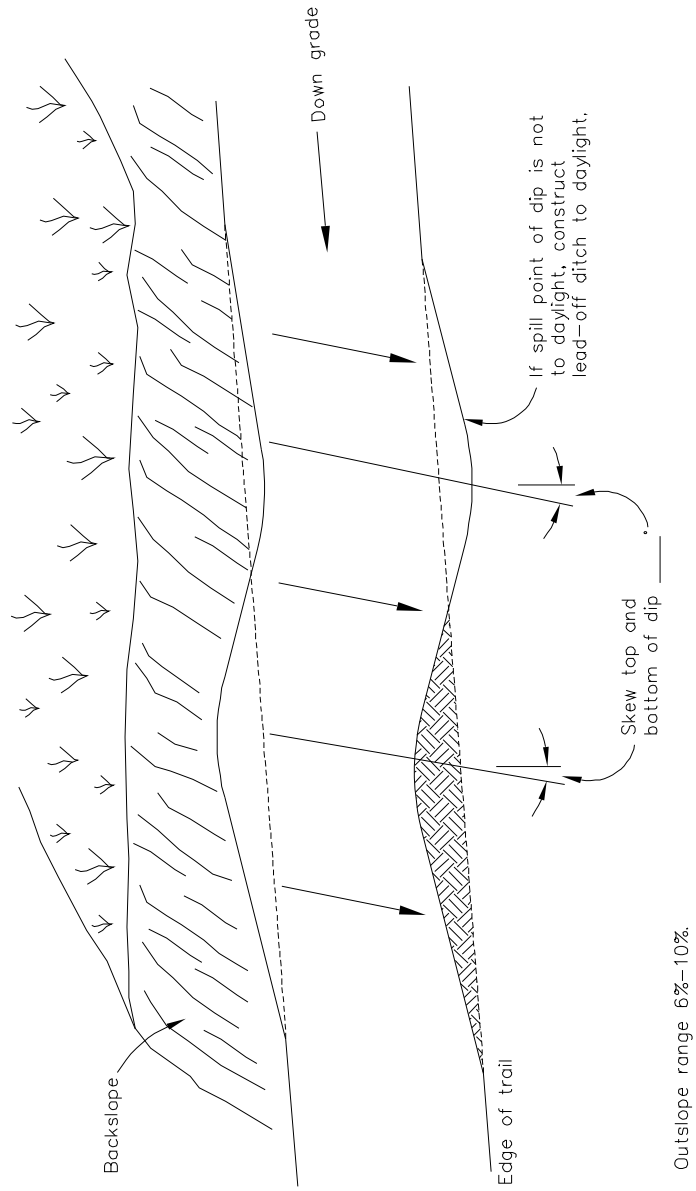
PROFILE

4/96

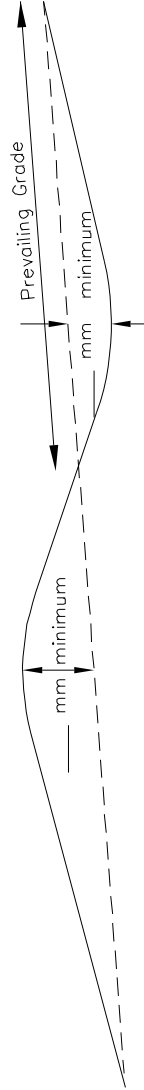
912-4

ROLLING DIP

NOT TO SCALE



PLAN VIEW



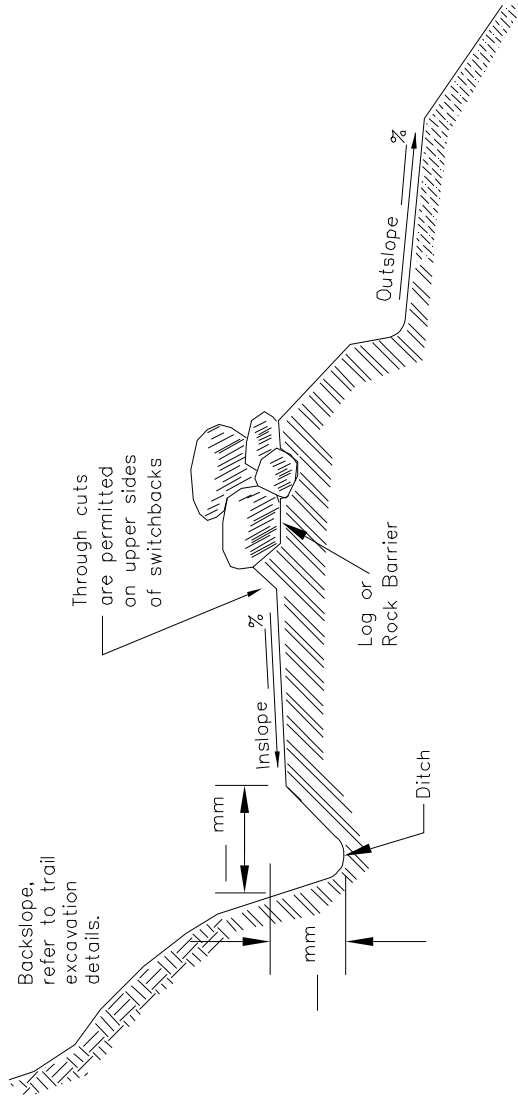
PROFILE

4/96

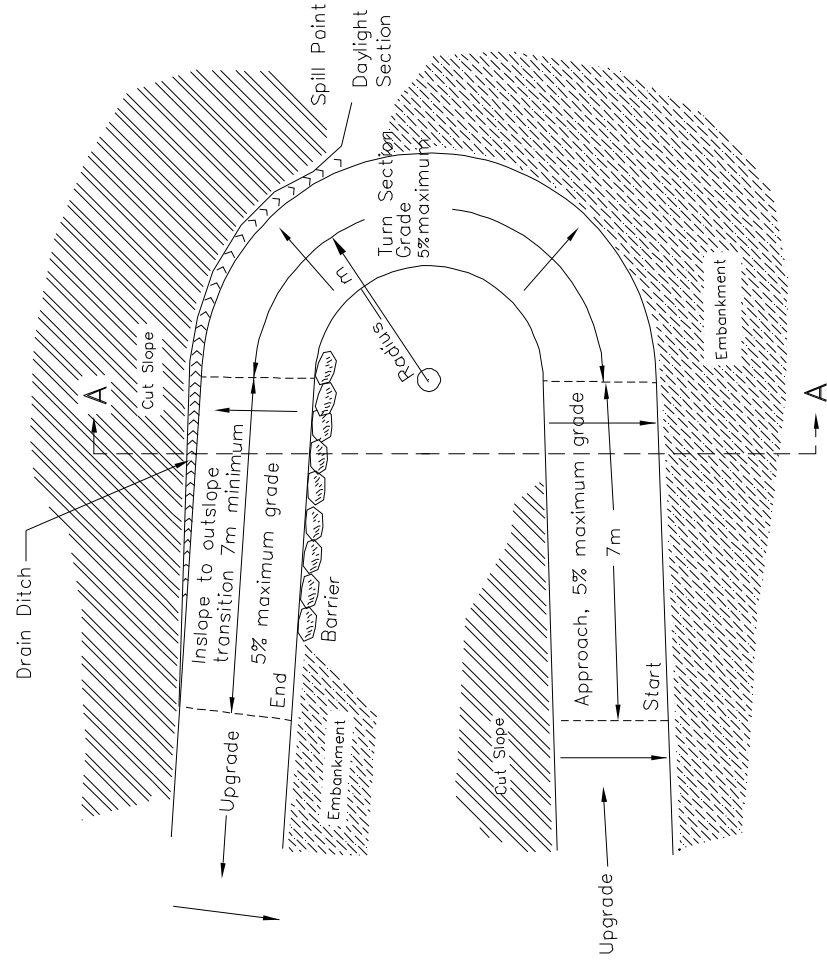
912-5

SWITCHBACK – TYPE I

NOT TO SCALE



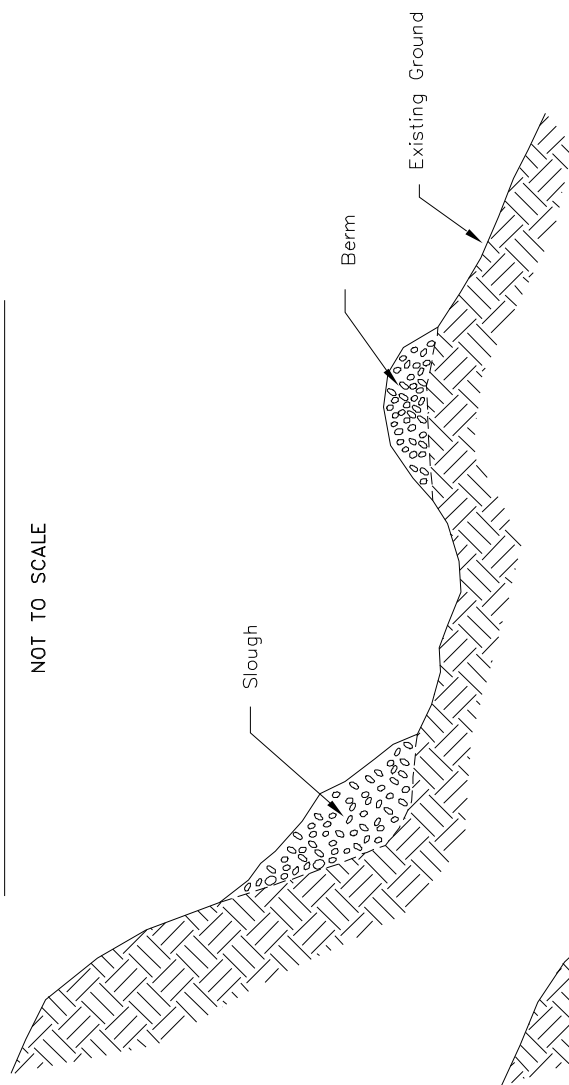
SECTION A-A



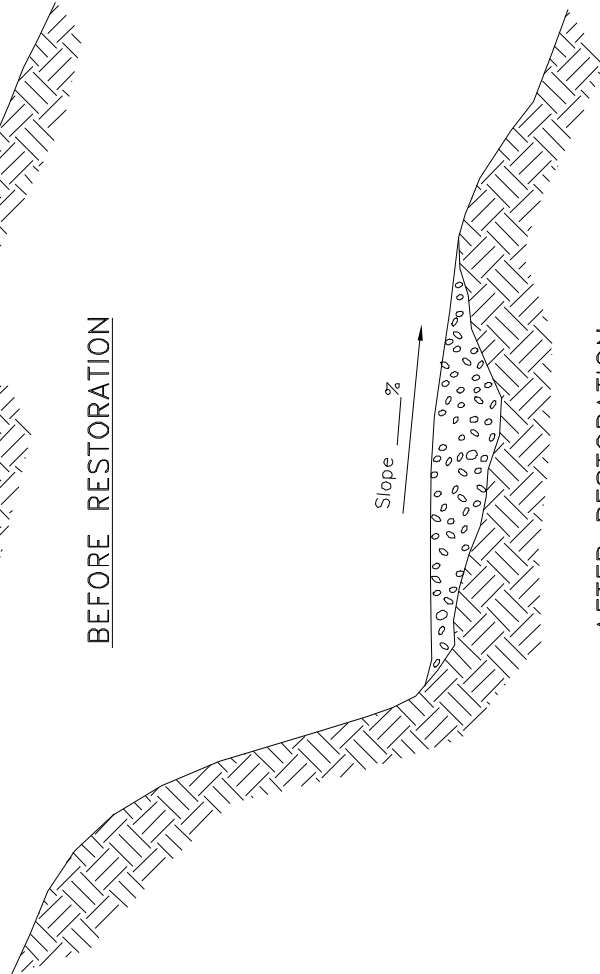
PLAN VIEW

EXISTING TRAIL RESTORATION

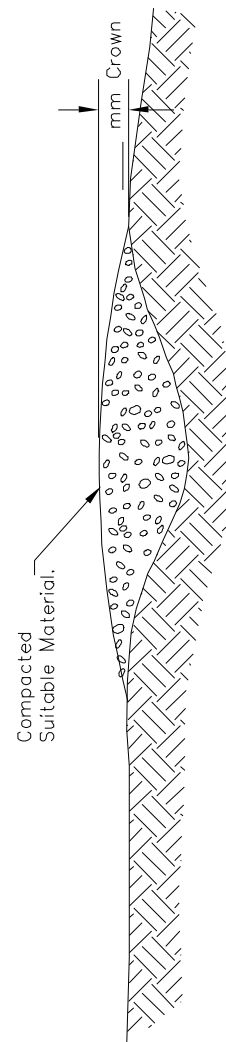
NOT TO SCALE



BEFORE RESTORATION



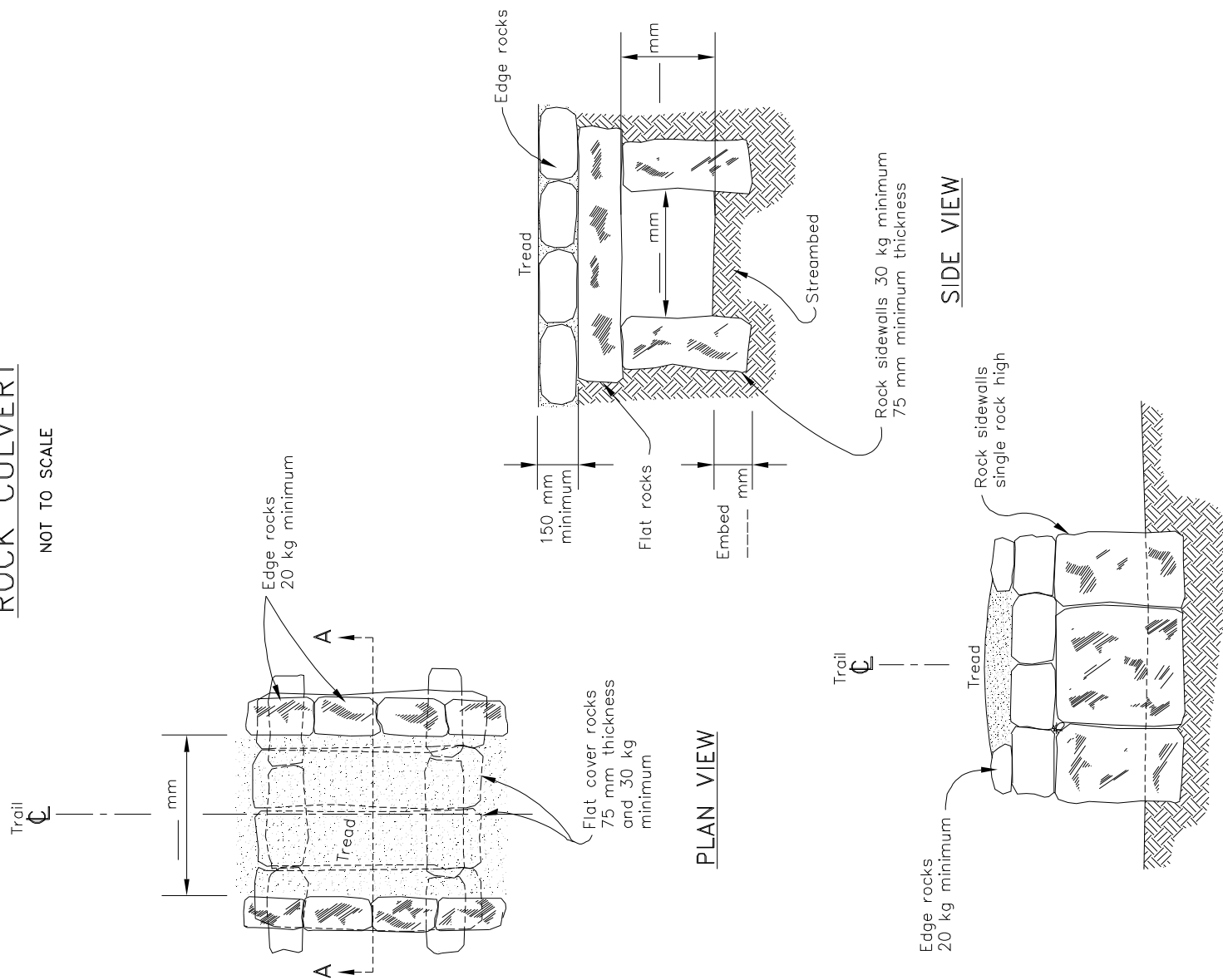
AFTER RESTORATION



FLAT SLOPES

ROCK CULVERT

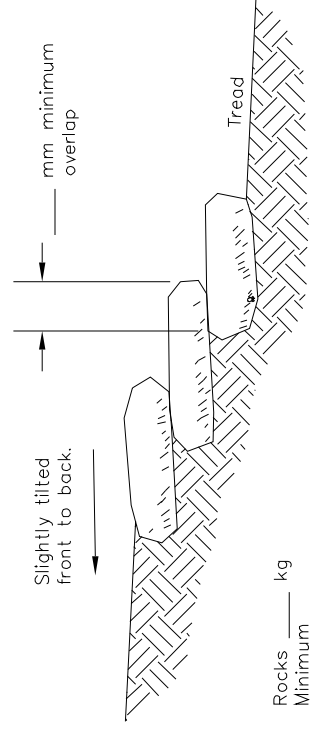
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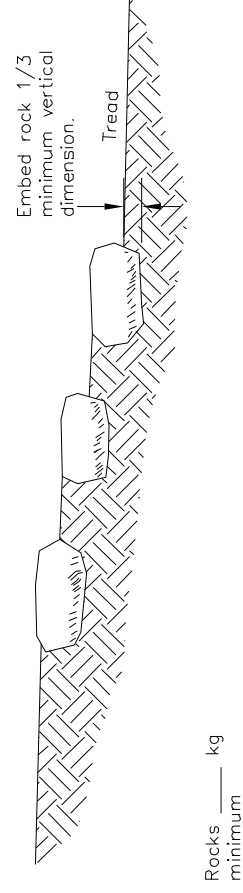
SECTION A-A

ROCK STAIRWAYS

NOT TO SCALE



OVERLAPPING ROCK STAIRWAY



ROCK RISER STAIRWAY

Location	Type	Maximum Step Rise	Maximum Step Run	Width