

**REPORT OF THE
DEPARTMENT OF CONSERVATION AND RECREATION**

**The Recreational Development
Potential of the Clinch River Valley
in Russell County**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 106

**COMMONWEALTH OF VIRGINIA
RICHMOND
2005**

W. Tayloe Murphy, Jr.
Secretary of Natural
Resources



Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

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December 12, 2005

The Honorable Mark R. Warner
Governor, Commonwealth of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, Virginia 23219

The Honorable John H. Chichester
Chairman, Senate Finance Committee
Post Office Box 904
Fredericksburg, Virginia 22404

The Honorable Vincent F. Callahan, Jr.
Chairman, House Appropriations Committee
Post Office Box 1173
McLean, Virginia 22101

Re: Report regarding the recreational development potential of the Clinch River Valley in Russell County

Dear Sirs:

Oh behalf of the Virginia Department of Conservation and Recreation, I am pleased to submit the attached final report in accordance with the 2005 Virginia Acts of Assembly Chapter 951 Item 383 N.

- Item 383 N requires the Department of Conservation and Recreation to “conduct a study to address the feasibility of establishing day use recreational access and sites along the Clinch River in the vicinity of Pinnacles Natural Area Preserve in Russell County”.

The study found that the Clinch River Valley in Russell County contains a unique combination of natural, scenic, and recreational assets that would make it an attractive eco-tourism destination. The report identifies several alternative approaches for capitalizing on that potential. Several of the alternatives include development of park sites that could be managed by local or regional governments or as state parks. If the alternative that is selected includes development of a new state park, it is important that the decision be made within the context of our present situation.

Currently DCR is aggressively constructing new campgrounds, cabins, lodges, and other park facilities funded under the 2002 Parks and Recreational Facilities General Obligation Bond. These facilities will need additional staff and operational funds to open them to the public. Additionally, land for potentially six new state parks have recently been acquired or soon may be acquired. As these parks are developed and opened to the public, additional staff and operational funds will be required. As a result of the support provided by Governor Warner and the 2005 General Assembly, DCR received a significant increase in staffing and operating funds for Virginia’s state parks. However, the amount received represented only a third of the resources identified at that time. For the Commonwealth to continue to operate the best managed state park system in the country, it is imperative that staffing and operations funding of our park system keep up with the rate of facility and new park growth.

***State Parks • Soil and Water Conservation • Natural Heritage • Outdoor Recreation Planning
Chesapeake Bay Local Assistance • Dam Safety and Floodplain Management • Land Conservation***

A new park on the Clinch River in Russell County could be a great enhancement to the local economy and an attractive place for Virginians and our guests to enjoy an exciting outdoor recreation experience and to learn about the region's incomparable natural history. We at DCR look forward to assisting you, the General Assembly and the leaders and citizens of Russell County and the region to help implement the study alternative that best meets the needs and of the region and the citizens of Virginia.

Sincerely,

A handwritten signature in black ink that reads "Joseph H. Maroon". The signature is written in a cursive style with a large, prominent initial "J".

Joseph H. Maroon
Director

cc: The Honorable Clarence E. "Bud" Phillips
Mr. Neal Menkes
Mr. Paul Van Lenten

PREFACE

The following study was directed by the 2005 General Assembly under Chapter 951: Item 383: Line N, requested the Department of Conservation and Recreation (DCR) study "... the feasibility of establishing day use recreational access sites along the Clinch River in the vicinity of Pinnacle Natural Area Preserve in Russell County."

The Department of Conservation and Recreation wishes to thank representatives of the Department of Game and Inland Fisheries, Virginia Tourism Corporation, The Nature Conservancy, and Tennessee Valley Authority for their input on the sensitive habitats along the corridor, water quality issues and overall perspectives as to the validity of such an endeavor.

TABLE OF CONTENTS

PREFACE.....
TABLE OF CONTENTS.....
EXECUTIVE SUMMARY.....	i
PURPOSE OF THE STUDY.....	1
The Study Area.....	1
Map of the Study Area.....	2
DESCRIPTION OF THE STUDY AREA	3
Geology.....	3
Topography and Land Use.....	3
Significant Natural Resources	4
Preserves	5
Demographics	6
Recreational Assessment	6
Historical and Cultural Resources	8
Programs of Other Agencies and Organizations	8
ECO-TOURISM POTENTIAL OF THE STUDY AREA	10
Visiting Natural Areas and Birding and Wildlife Viewing.....	10
Visiting Scenic Attractions.....	10
Outdoor Recreation Attractions	10
ALTERNATIVE PARK DEVELOPMENT SCENARIOS	11
Park Development Tenets	11

Alternative 1: Improved Access to Natural Area Preserves	12
Alternative 2: Local Day Use Park Near the Pinnacle Natural Area Preserves	12
Alternative 3: Commercially Provided Recreation.....	13
Alternative 4: Clinch River Welcome Center.....	14
Alternative 5: Full Service Park Near Pinnacle Natural Area Preserve	16
Alternative 6: Limited or No Action	17
SELECTION OF THE PREFERRED ALTERNATIVE.....	18
CONCLUSIONS AND RECOMMENDATIONS	19
APPENDICES	20
Appendix A.....	21
Appendix B	22
Appendix C.....	23

EXECUTIVE SUMMARY

The 2005 General Assembly requested that the Department of Conservation and Recreation (DCR) conduct a study to determine the feasibility of establishing day use recreational access sites along the Clinch River in the vicinity of the Pinnacle Natural Area Preserve in Russell County. The study area considered in this report ran from the Route 80 bridge at Blackford to the DGIF boat landing at Carterton, a distance of 32 river miles. While the charge of this report was to identify day-use recreation enhancements near the Pinnacle Natural Area Preserve, the significance of the region led the study team to expand the study to the consideration of a more comprehensive range of recreational development options encompassing the entire study area.

It was apparent to the study team that the region has many assets that, when considered together, create the critical mass of special features required for development of a destination eco-tourism economy. The Clinch River Valley in Russell County offers spectacular scenery, challenging hiking and whitewater paddling opportunities, a productive fishery, and a diversity of special habitats with unique populations of flora and fauna of national and international significance. To realize this potential, improvements will need to be made in visitor services, educational media, and in marketing.

First, the Clinch River Valley supports one of the world's most significant concentrations of natural heritage resources. If a coordinated effort was made to provide access, educational materials, and a successful way to communicate with and attract the right audience, the Clinch River Valley could become a major destination for nature study enthusiasts. The Virginia Outdoors Plan reports that 34% of the population of Virginia enjoys visiting natural areas. The number of participants in natural resource based educational and interpretive programs offered in Virginia State Parks in 2004 exceeded 238,000 persons. Furthermore, the popularity of the Virginia Birding and Wildlife Trail also suggests that there is a ready population of potential visitors for a Clinch River Valley natural heritage area.

The Pinnacle Natural Area Preserve was established in 1989 following the donation by Russell County of a parcel of land lying at the confluence of Big Cedar Creek and the Clinch River. Since 1989 DCR has acquired other properties adjacent to the Pinnacle that have important natural heritage values and they have been incorporated into the Natural Area Preserve. Another Natural Area Preserve has been recently acquired downstream near Cleveland that is called the Cleveland Barrens Natural Area Preserve. These two state Natural Area Preserves and other important lands being protected by The Nature Conservancy and other entities are protecting some of the more unique and special lands in the Clinch River Valley. These lands can form the base for the nature study component of the eco-tourism economy in the Valley.

Second, the Clinch River Valley offers incomparable scenery as the ancient river runs through an ever-changing landscape. In many places high cliffs dominate and the river plunges through a narrow gorge, in other sections the Valley widens and farms dot the shoreline. The Clinch River is a designated State Scenic River and well deserving of its status.

Designated scenic byways and bicycle routes provide access to the most scenic views in the region. As a scenic attraction it has few equals. However, its beauty is a well-kept secret, for few tourists visit the Valley.

The third major attraction of the Clinch River Valley is its outstanding river recreational offerings. The Clinch River is a superior canoeing, kayaking, and fishing river. For many miles the river offers premiere whitewater. In other sections it slows down and offers ideal trips for novice paddlers. In all areas the fishing is excellent. Public access to the river has been provided by the Tennessee Valley Authority in partnership with the Department of Game and Inland Fisheries and is adequate in most stretches of the river. What is missing from a comprehensive recreational delivery system is a hospitality industry to provide food and accommodations for overnight stays, outfitter services to rent canoes, kayaks, rafts, and to provide shuttle services, and an adequate system of managed public use areas along the river to provide rest stops, picnic areas, and camping grounds needed to support a popular destination recreation area. The Clinch River in Russell County is more than four hours away from most potential markets. Overnight accommodations and suitable food service offerings will be needed if the Valley is to realize its potential as an eco-tourism destination.

The range of alternatives considered begins with development of a local park and expands through a commercial park scenario all the way to the full service state park level. Projected costs for development of each alternative are presented. At the lowest level, a local park, the expected visitation will be relatively low and the impacts to the sensitive natural resources and the current social and recreational carrying capacity of the current infrastructure will be minimal. Those alternatives that propose higher levels of development assume that a decision is made to develop an eco-tourism industry in Russell County to capitalize on the unique confluence of resources and opportunities within the study area.

This report identifies several locations that could be utilized to provide core support and service needs while other sites are identified that can offer educational or interpretive services but which are too ecologically sensitive to support heavy recreational use. In preparation of a master plan for the Valley, careful balancing will be required to ensure that the sensitive natural resources of the Valley are protected from impacts caused by visitors coming to enjoy them. Less sensitive areas can accommodate the development of campgrounds, picnic areas, nature centers, cabins, maintenance and administrative buildings, and park staff residences. Hiking and bicycle trails can provide access to remote backcountry areas. Opportunities are extraordinary for partnering with other agencies and the private sector in the development and operations of the park and in the provision of services and activities for visitors.

Specifically, DCR's Divisions of Planning and Recreation Resources, State Parks, and Natural Heritage in consultation with the Department of Game and Inland Fisheries, the Tennessee Valley Authority, and The Nature Conservancy have reached the following conclusions:

1. The Clinch River Valley in Russell County has the unique combination of scenic, natural, and recreational resources to function successfully as a destination eco-tourism destination. A range of options exist for the locality, region, state and private sectors to take greater advantage of these resources.
2. For this potential to be realized, facilities for overnight accommodations will be needed and a marketing plan must be developed and implemented.
3. A master plan that specifically identifies each node or development site that will be needed to provide access, education and interpretation, rest stops, overnight facilities, and administrative and support facilities in order to identify and promote the region's natural assets.
4. Funding would need to be earmarked for the acquisition and development of the areas and facilities identified in the master plan and for staffing and operating the option selected.
5. Canoe liveries, outfitter and guide services, bicycle rentals and other support services will be necessary to fully facilitate recreational use of the Valley.
6. The Clinch River Valley rates among the Commonwealth's most important natural areas. Certain aspects of the Clinch River Valley flora and fauna are recognized as state and globally rare and some of those species are federally listed or endangered and threatened. These sensitive resources are, in part, protected by DCR at its Pinnacle Natural Area Preserve in the northern end of the study areas and at its Cleveland Barrens Natural Area Preserve in the southern end. The Nature Conservancy also has land holdings in the study area. Future development of recreational opportunities in the Valley should not be accomplished in a manner that would have detrimental affects on those natural heritage resources.

DCR has not made a recommendation for a preferred alternative. The findings of this study are that the Clinch River Valley in Russell County is an attractive area that would support an eco-tourism industry. Good marketing and the development of visitor support services could be needed for the region to capitalize on this opportunity. However, the sensitive nature of the environment in the Valley suggests that a government presence may be needed to properly accommodate visitor use in a manner that will protect the sensitive species and habitats from visitor impacts. A full service state park near Nash Ford would provide the most comprehensive framework for fully realizing the eco-tourism potential of the Valley, but lesser levels of development (outlined in this report) could greatly enhance the region's recreational opportunities.

PURPOSE OF THE STUDY

The 2005 Appropriations Act in Chapter 951, Item 387 N., charges the Department of Conservation and Recreation with conducting a study to address the feasibility of establishing day use recreational access and sites along the Clinch River in the vicinity of Pinnacle Natural Area Preserve in Russell County. The Department was charged with reporting their findings to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees by no later than December 1, 2005. The study is to evaluate “the feasibility of establishing day use, environmental education and recreational activities, recreational access and park sites along the river, establishing a state or regional park, an examination of the resources that would be necessary to operate the facilities and sites, the availability of land for such facilities and sites and for the addition of land to the existing Pinnacle Natural Area Preserve, and any other conditions that may require review. The study shall recognize the value of maintaining and enhancing the existing Pinnacle Natural Area Preserve and develop recommendations that shall be compatible with it.”

An analysis of the potential for the development of a recreational area in Russell County was published in 1989 in response to the House Joint Resolution No. 130 and the Appropriation Act, Item 487, Chapter 668, of the 1989 Virginia Acts Assembly. That report focused on the Clinch River corridor area between the confluence of the Clinch and Little Rivers to Nash’s Ford and then along Big Cedar Creek from its confluence with the Clinch to the Route 19 crossing. The study looked particularly at using the 90-acre Pinnacle Natural Area Preserve as the focus for a state park. The conclusion of the analysis was that “the topography was too rugged and the development potential too limited on the 90 acre site owned by the County to be suitable for the construction of a state park. However, the resource and recreation values of the greater study area would support a state park if enough developable land around the sensitive core area were acquired.”

This report builds on the above-mentioned study as well as recent field evaluations, input from various local and state resource agencies, the Tennessee Valley Authority and The Nature Conservancy.

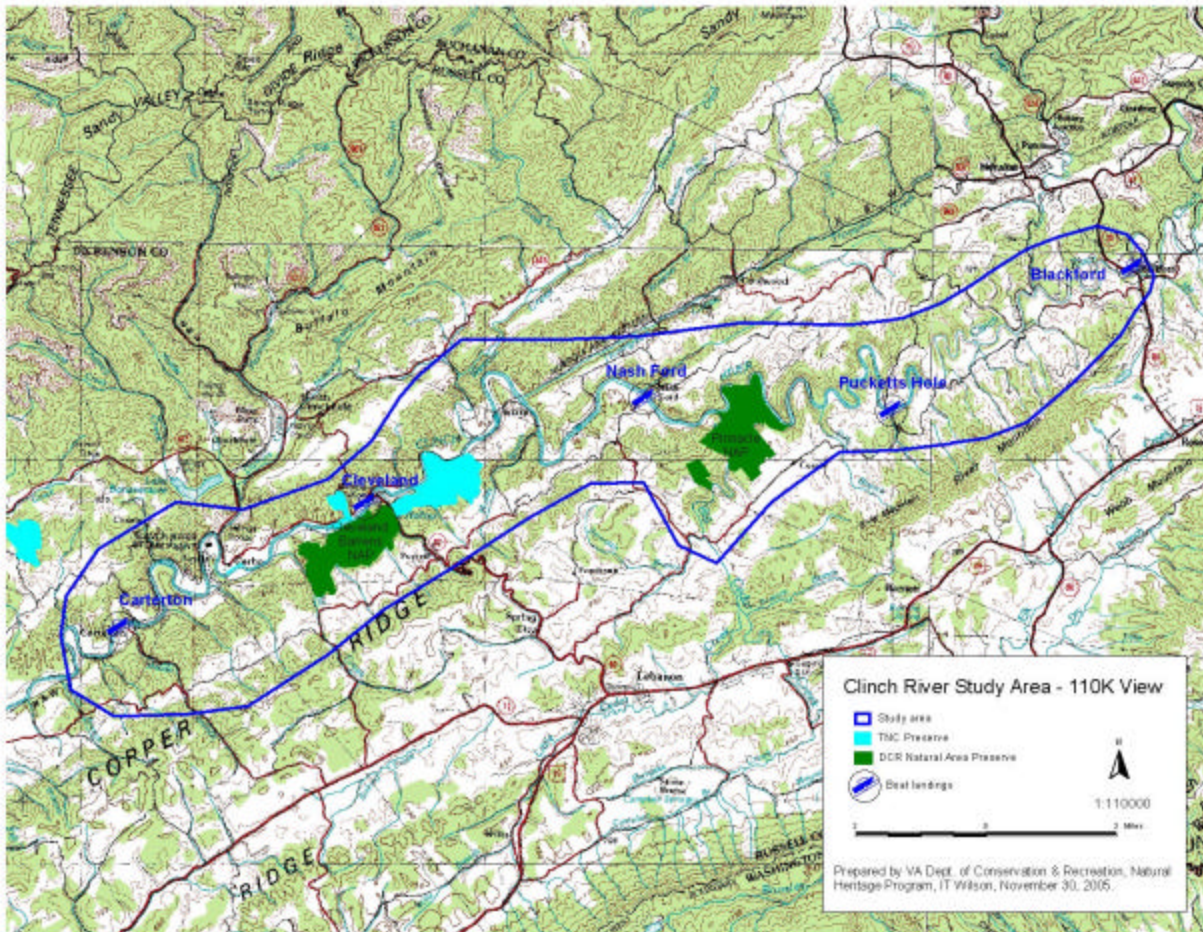
The Study Area

The General Assembly study request established the study area to be in the vicinity of the Pinnacle Natural Area Preserve. However, the significant combination of assets identified in the Clinch River Valley in Russell County suggested to DCR staff that to best capitalize on all of the resources the region had to offer, the study area should be expanded. Therefore, this report looks at the 32 miles of the river Valley in Russell County between Blackford and Carterton. (See Study Area Map, page 3).

The study area is located in Russell County in the southwestern part of Virginia. Specifically, the study area included most of the Clinch River Valley in Russell County from the Route 80 crossing of the Clinch River at Blackford to the DGIF boat landing at Carterton, a distance of 32 river miles.

In the analysis phase of the study, the Clinch River was canoed from Puckett's Hole at Route 652 to Cleveland. The entire study area was also evaluated by land. All public boat landings within the study area were inspected. Lands along the river that were suitable for the development of new access sites, parks, or rest stops were identified and mapped. Land use within the corridor was noted as well as existing recreational assets such as the Cleveland Town Park, existing and proposed scenic byways, and the Heart of Appalachia Bicycle Route.

Map of the Study Area



DESCRIPTION OF THE STUDY AREA

Geology

Located in the Ridge and Valley physiographic province, the study area is underlain by folded beds of sedimentary rocks. These rocks were deposited between the late Cambrian and Middle Ordovician periods. The Clinch River and Big Cedar Creek have cut deeply through these materials to their present beds, now lying in steep-walled valleys, 300 to 600 feet deep. Within the study area the oldest rock (Cambrian) are exposed in the northwest, where shales and sandstones of the Rome formation outcrop. Above these, thick beds of Honoker Dolomite are encountered, followed by a thin band of the Upper Cambrian Consanuga Group. Next lies the Copper Ridge Dolomite, with its inter-bedded sandstones, that composes both the Pinnacle and Big Falls. Above these are the youngest rocks cut by the Clinch River within the study area, Big Cedar Creek cuts through Middle and Upper Ordovician deposits near Lebanon.

Due to the limestone formation in the area, caves are a common occurrence. Daugherty Cave, an important feature within the study area, is classified as being significant due to its historic, geologic, natural heritage and archeological significance.

Topography and Land Use

The terrain in the study area is dramatic, characterized by steep gorges and mountain ridges reaching to 2600 feet above sea level. Southeast of the study area, Clinch Mountain rises to about 4000 feet in elevation. Major ridges and valleys run in a generally southeast to northwest direction with numerous spur ridges running perpendicular to the main ridges. Karst topography, modified by the forces of weather, water and time, has been transformed into an environment that provides habitats for unique communities of plants and animals and a special visual experience for people.

The impressive rock formation near the confluence, for which the Pinnacle Natural Area Preserve is named, is cut from dolomite and rises 600 feet above Big Cedar Creek. In the vicinity of the confluence of Big Cedar Creek and the Clinch River are especially dramatic steep sheer valley walls. Here large numbers of unique plants cling to the cliff faces.

Much of the land within the study area is forested or in open pasture for livestock. Some row-crop agriculture is still practiced on the wider terraces along the Valley. Many traditional land uses still exist; including hunting, fishing and forestry. There are relatively few home sites along the river, though the land is divided among many land owners.

Significant Natural Resources

Though the entire Clinch River Valley in the study area is considered unique and environmentally sensitive, the area between Nash Ford and Carbo, in Russell County, is considered the healthiest and most biologically diverse section of the Clinch River Valley in Virginia.

In the Clinch River watershed there are 30 federally listed threatened or endangered aquatic, plant, mammal, bird and insect species. This high diversity is due in part to the unique combination of soils, bedrock, hydrologic regimes, and minimal disturbance from man. The cliffs adjacent to the river, and the barren areas on the highlands above the river, combine to create the special environments needed for these unique species.

In 1989, House Joint Resolution No. 130 requested that DCR study “The Potential Recreation Uses of the Clinch River Corridor for the Development of a State Park”. That report enumerated the large number of natural heritage resources within the Pinnacle Natural Area Preserve. Since that time, much more information has been gathered regarding the presence and status of rare species and significant natural communities. Thirty-three (33) new rare species and significant natural communities that were not listed in the 1989 report are now known to exist in the Pinnacle Natural Area Preserve. Altogether within the overall study area of this report, there are 142 occurrences of natural heritage resources present, and of these, 78 have been recorded since 1990.

A variety of significant vertebrate animals are listed in the area, many of which are globally rare, and one, the Golden Darter, is federally listed. Invertebrate animals listed include a large number of globally and federally listed mussels and other species. Several have the highest global ranking; including the following mussels: Oyster, Shiny Pigtoe, Fine-rayed Pigtoe, Cracking, Pearlymussel, Birdwing Pearlymussel, and a millipede, the Big Cedar Creek Millipede. Other invertebrates include beetles, spiders and millipedes. Over twenty-three (23) significant vascular plants are listed in the area. Many have global rankings and most have high state rankings. Among them are: Alabama Grape-fern, American Harebell, Tufted Hairgrass, Matted Spike Rush, Lance-leaved Buckthorn, Great Plains Ladies’-tresses, Sullivantia, and Barren Silky Aster. Many of these listed species are part of unique terrestrial communities that are tracked by DCR’s Division of Natural Heritage.

A table of the significant species and their current ranking is in the Appendix. This table shows those that were listed in the 1989 report and those that have been added since then. The huge diversity of unique species and habitats makes this area a gem for the Commonwealth.

Water quality within the study area is fairly good. However, water quality is impacted from coal mines and residential runoff from the town of Richlands in the upper watershed. Downstream of Carbo, the river has been impacted by effluent from the AEP coal-fired electric plant and degraded water entering from the Guest River. Recently, ten (10) rare and endangered mussels and fish were found in this section of the Clinch River. The river through this section is mainly a mix of run and riffles with an occasional long, slow pool. Substrate is patchy gravel/pebble (where mussels are found) with large reaches with boulder and bedrock. Much of the river runs through a narrow valley with highly intact

riparian buffers. In other areas, row-crop agriculture is the primary land use and the riparian buffers are inadequate.

There is one impaired stream segment in Russell County on the Clinch River. The segment is 13.95 miles long. The upstream limit begins at the Big Cedar Confluence near Pinnacle Natural Area Preserve and extends downstream to its confluence with Dumps Creek in Carbo. This segment is not supporting the recreational use goal of the Clean Water Act. The impairment cause is thought to be Total Fecal Coliform. This segment was listed in 2004 and is scheduled for a Total Maximum Daily Load (TMDL) Study in 2016.

Declining water quality due to coal mining and agricultural practices is a continued threat to the river. Another threat to the river is the litter and trash found along its shoreline. New trash collection sites throughout the county are contributing to a diminished trash load, however, cars, trucks, tractors and other junk that has been in place for years needs to be cleaned out to provide the pristine look that an eco-tourism economy will demand.

Preserves

The Clinch Valley already has over 20,000 acres protected through DCR, TVA and TNC purchases and easements. Most of these properties are not contiguous. These special habitats and species would be impacted if the lands had not been protected and were indiscriminately developed. Currently over 2600 acres in Russell County are owned by DCR for the protection of natural heritage resources. The DCR acreage is divided into two specific areas, the Cleveland Barrens Natural Area Preserve and Pinnacle Natural Area Preserve.

The Cleveland Barrens Natural Area Preserve contains a series of significant dolomite barrens, thirteen rare plant species, and three rare insect species. The preserve's 1093 acres lie within the Clinch River Valley, one of the top six biodiversity hotspots in the United States. One of the most unique features of the preserve is a globally rare community type known as dolomite barrens. Four significant barrens occur on steep southwest-facing slopes. These unusual openings in the surrounding forest canopy are characterized by thin, rocky soils and dominated by native warm season grasses such as Indian grass (*Sorghastrum nutans*), big bluestem (*Andropogon gerardii*), and little bluestem (*Schizochyrium scoparium*).

Towering cliffs, sheer limestone ledges, and waterfalls are but a few of the spectacular features of the Pinnacle Natural Area Preserve. Located near the confluence of the Clinch River and Big Cedar Creek, the topography of Pinnacle NAP has been modified by the forces of weather, water, and time to create this dramatic landscape. Towering above Big Cedar Creek is an impressive rock formation, the Pinnacle, from which the area derives its name. Cut from dolomite, the Pinnacle rises 600 feet above Big Cedar Creek. The Preserve's unique habitats support at least nine rare species and two rare natural communities. The preserve now contains 670 acres. The topography within the Pinnacle Preserve is unsuitable for the development of most recreational facilities.

The entrance road severely limits public vehicular traffic into the Big Falls area of the preserve due to its co-alignment with Big Cedar Creek and its use of a low water bridge for crossing the creek. The entrance road that runs along the creek is located in a scour zone and is frequently washed out by high water. The U.S. Army Corps of Engineers has studied alternative ways to harden the road and has determined that the cost to do so would be prohibitive and not involve ecologically sound practices.

A big change since the 1989 Study is the amount of protected land within the study area. Except for the 60-acre Pinnacle tract owned by Russell County at the time of the report, none of the land within the study area was protected in 1989. Today more than 2600 acres of land along the Clinch River are under the protective ownership of DCR.

Threats to open space increase as more and more people live or buy second homes in more remote areas. This division of parcels can fragment ecosystems and threaten already tenuous species. Russell County does not have land use control statutes or zoning that protects its natural resources.

Demographics

Population decline in the Cumberland Plateau Planning District (PDC2), which is made up of Dickenson, Russell, Tazewell and Buchanan Counties, is the highest rate in the Commonwealth. The general trend in PDC2 is a projected drop of 1.7% over the next 25 years or so.

The declining population, increased unemployment, and lack of new businesses all are contributing to the general economic decline of the area. PDC2 accounts for three of the five lowest median household incomes in the state--a state ranking that has fallen over the last few years. Much of this is due to the loss of manufacturing jobs in the area. A major shift in manufacturing practices has contributed to the decline in population and median income.

Recreational Assessment

The 2002 Virginia Outdoors Plan, (VOP) lists about a dozen outdoor recreational activities that need additional facilities to meet measured demand in the Cumberland Plateau. Specific facilities that are needed are for camping –both tent and developed, hiking/backpacking, horseback riding, swimming, bicycling, nature studies, single-track cycling, bird watching, and playgrounds.

Many of the top outdoor recreation activities that Virginians want to participate in can be easily accommodated within the study area. These activities and their rankings are: walking for pleasure (1), driving for pleasure (2), fishing (4), bicycling (5), boating (8), picnicking (9), camping (10), visiting natural areas (11), hiking and back packing (16), and natural study programs (23).¹ These are similar to national trends and are supported by tourism trends in Virginia. Additional activities that have rising participation numbers, and would compliment any park development in the region, are:

¹ Virginia Outdoors Plan, pg. 390

bird watching (155% increase), backpacking (72% increase) and visiting primitive areas (58% increase).

The Tennessee Valley Authority and the Department of Game and Inland Fisheries have partnered to develop an excellent public access system for the Clinch River. Access sites with adequate parking are spaced at good intervals to provide river trips of varying lengths. There is a need for a river user's guide or map to help persons from out of the area plan trips on the river. The guide should include information about flow rates, ratings for rapids in each section, canoeing distance between access sites and travel time, and instructions on how to obtain flow rate readings from the USGS gauges.

The Clinch River within the study area offers two levels of boating experiences for visitors. From the public landing at Puckett's Hole to the landing at Nash Ford, a distance of 13.5 miles, the river is a high gradient white water trip with frequent ledges and rapids with difficulty ratings of up to a class four. From Nash Ford to Carterton, the river has a less steep gradient and is much less technical to paddle. Experienced white water paddlers would be attracted to the upper section, while novice paddlers would find the lower section attractive. One of the limitations to development of a year-round white water paddle sport industry is the affect of low flow rates on the navigability of the white water section. During low flows, the ledges get too shallow to paddle over and the boater is required to get out of the boat and carry over the shoals. If this situation occurs too frequently, visitor satisfaction diminishes. The river segment from Nash Ford to Carterton carries more water at a shallower gradient and is therefore less impacted by low flows. It is anticipated that in a normal rainfall year, flow rates will be adequate during most of the prime recreation season from Nash Ford to Carterton.

There are no public campgrounds in the Valley. Hotels and a variety of food service facilities are located in Lebanon. One outfitter offers guided bicycle and canoeing trips in the area.

Anecdotal evidence suggests that the number of fishermen actively fishing on the Clinch River has declined in recent years. Fishing success, however, is good. Fishing is ranked fourth (4th) in popularity in the 2002 VOP. By increasing the opportunities for fishing through the development of enhanced access and support services the number of fishermen should increase.

DCR's Pinnacle Natural Area Preserve is one of the six sites in Russell County listed on the Department of Game and Inland Fisheries' Birding and Wildlife Trail. These touring routes and sites, which are published in a booklet by DGIF, will attract many people who will be looking to experience the natural environment and learning about the unique amenities of the Valley.

State Scenic River designation recognizes the Clinch River as a particularly scenic and high quality recreational resource. The river within the study area is designated as a state scenic river. Development of a blueway with a managed system of accesses and use areas and a map that would give potential users a trip planning guide would help increase use of the river.

The National Park Service administers the National Wild and Scenic Rivers Act. It also prepares and maintains the Nationwide Rivers Inventory of significant free-flowing rivers. This inventory includes

rivers that have been identified as meeting the minimum requirements for further study and/or designation to the national Wild and Scenic Rivers System. The section of the Clinch River in the study area is included on the list as one that may meet the standards and should receive additional study.

Russell County offers several county parks with baseball fields, tennis courts, picnic areas, and basketball courts. School sites also offer playgrounds, ball fields and tracks. The existing supply of river access sites on the Clinch provides adequate facilities to meet all locally generated demand for river recreation users.

As measured by the 2000 Virginia Outdoors Survey, there is no need for an additional day-use park along the Clinch River to meet local demand. The existing park in Cleveland, coupled with the existing public access sites along the river, supply enough facilities to meet locally generated demand for water based recreation and picnicking facilities along the river. However, if the county would like to capitalize on their unique natural features, their spectacular scenery, and their recreational amenities by developing an eco-tourism economy, then new facilities and infrastructure will be needed in the way of overnight accommodations and food services. These can include campgrounds and cabins, hotels, bed and breakfasts, lodges, or hostels. Some facilities can be provided by the private sector, others may need to be developed by the public sector.

The Breaks Interstate Park is located in Dickenson County at the Kentucky Line. It offers a full range of state park type facilities. Likewise, Natural Tunnel State Park in Scott County and Hungry Mother State Park in Smyth County are nearby state parks that offer the full range of state park amenities. Breaks Interstate Park is approximately 30 miles from the study area. Natural Tunnel State Park is about 40 miles away, and Hungry Mother is about 35 miles away.

Historical and Cultural Resources

Though remote, the Clinch Valley has a number of historic and cultural resources. Across Russell County about 280 sites are listed on the Department of Historic Resources' (DHR) database. Many have not been studied but may be eligible for state or federal designation. Five (5) sites within the Valley and across the Valley are registered on the Virginia and National Historic Site lists, and six (6) additional ones are eligible. These sites consist of several plantations, a county courthouse, a mill and Daugherty Cave. These sites will contribute positively to the visitor's experience in the area. Incorporation of these resources into an overall plan for the Valley will go far in promoting, enhancing, and protecting the historic resources.

Programs of Other Agencies and Organizations

There are several programs already at work within the study area that involve different organizations. Each has specifically different programs, but jointly the goal of all the programs is to protect, preserve, and enhance the biologically diverse uniqueness of the Clinch River Valley. Most of the programs involve more than one organization.

The Tennessee Valley Authority (TVA) works closely with other groups to protect the water quality of the upper Clinch River watershed since they depend on high quality water in its lower reaches. TVA and The Nature Conservancy (TNC) are partners in the Clinch Valley Forest Bank, which helps conserve woodlands. The Conservation Forestry Program is the evolution of the original Forest Bank idea. TNC currently has over 20,000 acres of private forestland enrolled through permanent forest management easements. TNC is making annual payments to the owners-- a percentage of the standing timber value, and sustainably harvesting timber from these properties to make the payments.

Efforts from the Tennessee Valley Authority (TVA) are also focusing on supplying low-cost and reliable power, supporting a thriving river system and stimulating economic growth in the Valley. TVA is providing technical and financial assistance to the Coalfield Regional Tourism Development Authority and small businesses in Southwest Virginia. The Coalfield Regional Tourism Development Authority was created in 1993 to develop and promote tourism in the coalfield counties of Virginia, including Russell County.

One of the greatest partnership successes brings several conservation organizations together to protect the internationally significant bio-diversity of the Clinch Valley. Among the participants are: the Tennessee Valley Authority (TVA), which is looking to protect the water quality of the Clinch River watershed; The Nature Conservancy (TNC) which label the area as a 'Last Great Place' and the Natural Heritage Division of DCR, which is looking at the protection of one of the most bio-diverse places on the planet. Both the TVA and TNC have programs that help with the development of eco-tourism in the area.

The Department of Game and Inland Fisheries has an aggressive management plan for maintaining and restoring the mussel populations in the Clinch River drainage. Due to the diversity of freshwater mussels in the reach between Nash Ford and Carbo, DGIF has designated it an 'augmentation reach.' The purpose of this designation is to strengthen the endangered mussel populations by recovering adults in breeding condition, transferring them to tanks at Virginia Tech, and then placing the resultant young in upstream portions of the Clinch where the mussel populations no longer provide adequate replacements. The DGIF biologists working on this project have expressed their concern for the impacts that heavy recreational use in the river by boaters and tubers could have on the delicate and sensitive mussels they are attempting to re-establish. It is important that these biologists be consulted in the master planning process so that proper adjustments can be made to use levels and locations during low flow periods when mussels might be most susceptible to damage.

ECO-TOURISM POTENTIAL OF THE STUDY AREA

The Clinch River Valley offers an abundance of attractions on which to base an eco-tourism industry. Three main themes have been developed from the many opportunities that are present. These are viewing scenery, visiting natural areas and wildlife viewing, and outdoor recreation.

Visiting Natural Areas and Birding and Wildlife Viewing

The extraordinary ecological diversity of the Clinch River Valley makes it an attraction for persons who enjoy nature study as a leisure activity. The presence of two Virginia Natural Area Preserves, when coupled with the lands being protected by The Nature Conservancy and the Tennessee Valley Authority, provide the land base to support public visitation. Granted, heavy visitor use could negatively impact sensitive populations of organisms, so a carefully structured public educational program will have to be developed along with trails, interpretive media, and other improvements to accommodate visitation without impacting the resource.

Visiting Scenic Attractions

The Clinch Valley offers spectacular scenery and a good system of roads and trails to bring visitors to the best viewing perspectives. Driving for pleasure is the second most popular outdoor recreation activity enjoyed by Virginians. By inventorying the best scenic areas in the region and providing a map and guide, visitors will be able to plan their own trips to the region. Hiking, bicycling, canoeing, and visiting scenic areas are all popular recreational activities. Bicycle routes, hiking trails, canoe trips, and roadside stops at overlooks can all be packaged to capture the interest of a wide range of potential visitors. Many of these assets have already been recognized and mapped, including the Heart of Appalachia Bicycle Trail, scenic byways, and the system of public access areas along the Clinch River.

Two designated Virginia Scenic Byways, Routes 604 and 19, traverse the area and provide touring opportunities for auto travelers. Routes 620 and 615 are also recognized potential scenic byways that can add interest and bike loop potential to the area. Two designated touring trails bring visitors to the area: the Heart of Appalachia and Daniel Boone Trail. The Clinch River Valley is also part of the Heart of Appalachia marketing area, a regional tourism theme area being promoted by the Virginia Tourism Corporation.

As a major bicycle route bringing visitors into the area, National Bike Route 76 follows Route 80 into the Valley at the head of the study area. There are also a series of roads paralleling the Clinch River that can offer wonderful scenic day rides.

Outdoor Recreation Attractions

The Clinch River offers outdoor recreational activities for all interests and age groups. From canoeing, kayaking, rafting, and tubing to fishing in all its many forms, the river and its environs is a superior resource, although it may be limited during low flow periods. A system of public boat ramps along the

river provides good access at fairly frequent intervals. Missing from the range of service opportunities are rest stops with sanitation, picnic areas, canoe-in campgrounds, and a management structure to administer and maintain the system.

The land component of the recreation delivery system offers great bicycle tour routes, scenic hiking trails, and bank fishing opportunities at public landings. There are no campgrounds or cabins along the river. A community park in Cleveland offers picnicking and restrooms near the river as well as a river access site. There are opportunities in Cleveland and at several other communities along the Valley to open bed and breakfasts, campgrounds, outfitter and guide services, and hotels and restaurants. Downtown Cleveland has vacant or under utilized buildings that could be developed into a variety of hospitality facilities.

The upper section of the Clinch River from Puckett's Hole to Nash Ford offers a whitewater paddling experience. During low flow periods, this river segment is too shallow for an enjoyable trip. The section from Nash Ford to Carterton offers a less strenuous and technical paddling experience. The river from Nash Ford to Cleveland offers excellent potential for a canoe livery as it holds adequate water for most of the recreational season. Development of an additional access at the Artrip Road Bridge, Route 661, would provide opportunities for a shorter trip. A rest stop would also be needed in the vicinity of Artrip.

The Valley is occasionally served by an outfitter from Damascus who provides canoe trips on the Clinch River. Guided bicycle trips are sometimes offered on the Heart of Appalachia Trail. The Valley will have to have a fully developed outfitter and guide business operating before the region can realize its full eco-tourism potential. Outfitters can rent outdoor equipment, and provide livery services for canoes, kayaks, rafts, and float tubes as well as run shuttles for their customers and other river users. Outfitters can rent bicycles and provide guide services. Fishing guides are an outdoor recreation industry that is very successful on the Shenandoah River and on the New River. Fishing guides would provide a needed service on the Clinch. Many outfitters also provide campgrounds, cabins, or hostels for their guests.

ALTERNATIVE PARK DEVELOPMENT SCENARIOS

Park Development Tenets

This report explores five development scenarios for a Clinch River Valley linear park. Each scenario offers options for how services will be developed and managed. Due to the sensitive nature of the natural heritage resources in the Valley, it is imperative that all alternatives provide for their protection as a basic tenet. In developing the five alternatives, the following tenets are incorporated:

- The primary purpose of the park is to provide for public recreation while maintaining the wild and scenic character of the river and protecting the sensitive bio-diversity of the area.
- Any lands, easements, or interests in lands for the park can only be acquired from willing sellers.

- The river is the prime agricultural asset and must be viewed as a linkage between any publicly owned or managed lands. Each alternative includes the system of public accesses along the river as part of the delivery system.
- The park must feature a strong educational and interpretive component aimed at encouraging responsible stewardship of natural resources, appreciation of unique habitats, flora and fauna of the region, and leave no trace ethics and sportsmanship in recreational activities.
- There must be adequate staffing and resource to manage whatever components make up the park.
- River use will be governed by a management plan that considers impacts to mussels and other sensitive river fauna. Time of year restrictions and flow rate restrictions may apply.

Alternative 1: Improved Access to Natural Area Preserves

Under this alternative, improvements would be made to provide better public access to the DCR Cleveland Barrens Natural Area Preserve and the Pinnacle Preserve. At Cleveland Barrens, a public parking area for 8-10 cars would be developed along with the construction of up to five miles of trails that would provide access to areas within the preserve. At the Pinnacle Preserve, improvements would be made to public use areas and the trail system. DCR staff would coordinate with local and state tourism officials to disseminate brochures and other informational media to help attract nature enthusiasts to the area. Guided and self-guided interpretive trips would be offered.

Estimated cost to develop.

Site work: (A&E, road, parking, site work)	\$150,000
Trail Construction (five miles)	<u>\$100,000</u>
Total	\$250,000

Alternative 2: Local Day Use Park Near the Pinnacle Natural Area Preserves

Under this option, a locally-operated Clinch River park would be developed near the Pinnacle Natural Area Preserve.

This option would require the acquisition from a willing seller of suitable lands that would support the development of needed support facilities. Trails could be developed that would connect to those in the Pinnacle Natural Area Preserve. The acquired land would need to have frontage on the Clinch River so that water access, bank fishing, and interpretive programs could be offered. The land would also require access from a state secondary road.

Major components for the park could include parking, river access, picnic area, restrooms, hiking and bicycling trails, and administrative and support facilities.

This alternative could be expanded over time to include development of a Clinch River Blueway that would include public access and use areas at appropriate distances between Blackford and Carterton. These stops could include picnic tables, rest rooms, and canoe-in campsites. This alternative could be accomplished by local or regional government. The park would serve primarily area residents and the design capacity would be relatively low. DCR could help develop the blueway map and guide to help with marketing.

Estimated cost to develop.

Land acquisition	50 acres @ \$1500/acre:	\$75,000
Site work: (A&E, road, parking, utilities, site work)		\$1,215,000
Picnic area, river access, restrooms, trails		<u>\$350,000</u>
Total		\$1,640,000

Alternative 3: Commercially Provided Recreation

This alternative involves a diminished role for government agencies and an increased role for commercial liveries, outfitters, the hospitality industry, and support services providers. Under this option the Clinch River Valley would be marketed as an eco-tourism destination and the needs of visitors met by commercial providers. The existing TVA/DGIF boat ramps would provide the primary river access sites. Additional parcels would be acquired at appropriate intervals for the development of rest stops and canoe-in campsites. These additional parcels can be purchased and operated by government agencies or by the commercial interests as needed. The Town of Cleveland becomes the Gateway for the new park. The hospitality and food service industry could be developed in Cleveland. Cleveland would also be the headquarters for liveries, outfitters, and guide services.

The model for this alternative is the Town of Damascus that has developed into an eco-tourism destination location based on the attractiveness of the Virginia Creeper Trail, the Mount Rogers NRA, and trout fishing in Whitetop-Laurel Creek. Damascus has undergone significant economic transformations since some enterprising entrepreneurs began offering lodging, food service, bicycle rental and shuttle services. Today the town boasts a thriving downtown and 32 new businesses.

The existing central business district in Cleveland has several underutilized buildings that would be ideal for the development of bed and breakfasts, hostels, liveries, outfitter stores, restaurants, and other specialty stores that would appeal to vacationing visitors.

Existing scenic roads and bicycle routes would serve visitors in search of scenery. The DCR Natural Area Preserves will serve as outdoor classrooms and provide for those visitors who seek nature study and wildlife viewing opportunities.

This alternative could be developed by commercial interests alone, or with assistance from local or regional governments, or in partnership with DCR and other state and federal agencies and conservation organizations.

Estimated cost to develop rest stops and support facilities.

Land acquisition	50 acres @ \$1500/acre:	\$75,000
Site work: (A&E, roads, parking, trails, utilities, site work)		\$1,515,000
Picnic areas, vault toilets, river access, canoe-in campsites		<u>\$800,000</u>
Total		\$2,390,000

Note: the costs of developing the private business components of this alternative are not included in these computations.

Alternative 4: Clinch River Welcome Center

This alternative is similar to Alternative 3 but adds a Welcome Center that would include an educational/interpretive component. Under this option, a Clinch River Welcome Center would be developed in Cleveland. The purpose of the welcome center would be to orient visitors to the Clinch River Valley and the range of outdoor education and recreation activities available. This Center could be developed and operated by local businesses, the Chamber of Commerce, tourism organizations, state or local government, or a consortium of any or all of the interested parties. A major goal of establishing the Welcome Center in Cleveland is to focus economic investment towards the development of a commercial livery, outfitter and guide industry along with the required hospitality industry that will be needed to support visitors from out of the region. The existing central business district in Cleveland has several underutilized buildings that would be ideal for the development of bed and breakfasts, hostels, liveries, outfitter stores, restaurants, and other specialty stores that would appeal to vacationing visitors.

A major function of the Clinch Valley Welcome Center would be education and interpretation. The visitor center's educational and interpretive displays and media will orient visitors to the unique habitats and flora and fauna of the region. Visitors would be guided to Cleveland Barrens Natural Area Preserve or the Pinnacle Preserve. A variety of ways would be offered for visitors to see and learn about the special areas within the natural area preserves and along the Clinch River with special attention given to mitigating potential impacts.

Visitors would also be presented with a range of other activities to enjoy while in the region. Canoe

trips, bicycle tours, hikes, scenic drives, and other activities could be directed from this facility. Canoe liveries, outfitters, and fishing guides could all be partners in the operation of the welcome center and in the provision of equipment and supplies needed by visitors.

DCR’s Natural Heritage Program, in partnership with The Nature Conservancy, DGIF, and other organizations interested in educational/interpretive programming could help provide certain educational and interpretive resources for the welcome center.

This option would require the acquisition from a willing seller of a building or building lot that would be suitable for the Welcome Center.

The Natural Area Preserves will serve as outdoor classrooms and provide for those visitors who seek nature study and wildlife viewing opportunities. The existing system of public access sites along the Clinch River would provide the infrastructure to support nature study along the river. The Clinch River Blueway concept would also be developed as an enhancement to this alternative.

Existing scenic roads and bicycle routes will serve visitors in search of scenery.

Estimated cost to develop.

Acquisition	\$200,000
Site work: (A&E, parking, site work)	\$215,000
Convert building to Visitor Center, exhibits	<u>\$1,200,000</u>
Total	\$1,615,000

Estimated cost to staff.

Salaries	\$130,000
Wage	\$49,000
Equip, Materials & Supplies	<u>\$50,000</u>
Total annual Staffing and Operations costs	\$219,000

Note: Operation of the welcome center could be accomplished through a partnership between the chamber of commerce, conservation organizations, private businesses benefiting from the visitation and the state and local agencies. It may also be that a single outfitter would operate the welcome center as part of his business.

Alternative 5: Full Service State or Local Park Near Pinnacle Natural Area Preserve

Under this option, a Clinch River park would be developed adjacent to the Pinnacle Natural Area Preserve. This option would require the acquisition from a willing seller of suitable adjacent lands that would support the development of traditional park facilities. Trails would be developed that would connect to those in the Pinnacle Natural Area Preserve. The acquired land would need to have frontage on the Clinch River so that access, bank fishing, and interpretive programs could be offered. The land would also require access from a state secondary road.

Major components for the park could include a visitor center for educational and interpretive programs, campground, cabins, picnic area, hiking and bicycling trails, canoe-in camping, concession services with food service and camp store, and park administrative and support facilities. The existing system of public access sites along the Clinch River would provide the infrastructure to support nature study and recreational boating and fishing along the river. Some additional sites along the river may be added to provide rest stops, canoe-in campsites, and additional public access where needed to complete the blueway.

Existing scenic roads and bicycle routes will serve visitors in search of scenery. The Natural Area Preserves will complement the park by providing the setting for outdoor classrooms and offering opportunities to visitors who seek nature study and wildlife viewing opportunities.

Commercial outfitters and liveries will be needed to support the park visitor's recreational use of the river.

This option could be developed by local governments or by DCR as a state park. It should be noted that two State Parks are located within 35 and 40 miles of the study area.

Estimated cost to develop as a state park.

Land acquisition	600 acres @ \$1500/acre:	\$900,000
Site work: (A&E, road, parking, trails, utilities, site work)		\$2,515,000
Visitor Center		\$1,800,000
Campground (60 sites @\$35,000 ea, bathhouse)		\$2,500,000
Picnic area, river access, trails		\$400,000
Support services (Ranger Residences, Maintenance area, office)		\$1,500,000
Cabins (20)		<u>\$4,000,000</u>
Total		\$13,715,000

Estimated cost to staff and operate each year as a state park.

Salaries	\$452,000
Wage	\$168,000
Equip, Materials & Supplies	<u>\$215,000</u>
Total annual staffing and operating costs	\$835,000
Start up costs	<u>\$345,000</u>
Total first year costs	\$1,180,000

Alternative 5b:

As an alternative to having a park adjacent to the Pinnacle Natural Area Preserve, a major park site could be developed at Nash Ford with the same level of facility development as proposed above. The benefit of this location is that it would better serve the two types of river recreation available by being situated at the bottom of the white water run and at the top of the less technical section. The whitewater section of the river is affected by water levels during the main recreation season. If flow rates are too low, it is difficult to navigate many of the rapids. The section from Nash Ford to Carterton has fewer ledges and riffles to navigate and is suitable for boating for more of the recreational season. By locating the park closer to Cleveland, the relationship between the proposed commercial visitor services in town and those provided at the park can become more closely coordinated. This option also concentrates public recreational use away from the sensitive natural areas and on to lands better suited for development and the impacts of recreational use.

Costs to develop and staff this alternative are very close to those costs listed for Alternative 5.

Alternative 6: Limited or No Action

This is the no-change scenario. Existing resources and recreational opportunities would continue to service visitors in a day-use format. In this alternative, no additional land would be acquired for access or use areas by public agencies. New facilities that are developed in the Valley would be constructed by private enterprise. A marketing plan could still be developed and implemented that catered to the three prime user groups, but the lodging and food services in Lebanon would need to be offered as infrastructure to attract more visitors from out of the region. Likewise, the liveries, outfitters, and guide services would still need to be developed if the region is to more fully provide recreational opportunities. Cleveland is the logical location for these services, but without the overnight accommodations near the river, the tourism market will be limited.

The scenic roads and bicycle routes will continue to attract those interested in scenery. The natural area preserves and the bio-diversity of the region will continue to attract a limited number of visitors. Lodging and food services in Lebanon can be promoted as support for these overnight visitors.

Estimated cost to develop. This alternative relies initially on existing infrastructure to meet demand. A marketing plan and its implementation will cost some money. Incentives may have to be offered to encourage private entrepreneurs to invest in the new outfitter and guide businesses, as well as the hospitality industry needs that will evolve over time. Many of these costs could be absorbed by private enterprise.

SELECTION OF THE PREFERRED ALTERNATIVE

There are two decisions that need to be made to choose a preferred alternative. The first deals with the question of the extent to which the citizens of Russell County and the region wish to actively pursue and economy focused on eco-tourism or whether the region wishes to enhance existing recreational opportunities largely for the enjoyment of its citizens. If the later is preferred, then Alternatives 1 and 2 should be considered. Alternative 1 enhances public access to the Natural Area Preserves. Alternative 2 provides for a day-use park on the river near the Pinnacle Natural Area Preserve.

If the decision is made to develop an eco-tourism industry in the Clinch River Valley, then Alternatives 3 and 4 provide approaches for accomplishing that objective. These alternatives depend upon a strong hospitality industry and visitor services to provide canoes, shuttles, bicycles, and guide services that will facilitate public enjoyment of the Valley's resources. Some additional rest stops and accesses may be needed as visitation builds, and those could be developed commercially or by government agencies. The Clinch River could also be developed into a blueway with a managed system of public accesses and use areas.

If a destination park were the preferred choice, then either Alternative 5 or 5b would best accomplish that objective. These are the most developed alternatives and would provide the most comprehensive range of services that would attract the most visitors with the widest range of interests. These two alternatives rely heavily on the acquisition and construction of a developed full service park in the vicinity of either the Pinnacle Preserve or Nash Ford. It also depends heavily on a response from private enterprise for the development of lodging and food services, as well as liveries, outfitter and guide services, all located in Cleveland.

CONCLUSIONS

The 20,000 acres of conservation lands already protected in the Clinch River Valley coupled with the high recreational attractiveness of the Clinch River and the spectacular scenery of the area create a critical mass significant enough to support an eco-tourism economy. Much of the basic infrastructure for this economy is already in place. The addition of facilities for overnight stays and food service will be needed to support visitation from outside the region. Establishment of private liverys, and outfitter and guide services could provide the wherewithal to attract visitors to the region.

The Town of Cleveland is ideally situated to serve as a “Gateway” to the Clinch River Valley. Development of an eco-tourism industry centered in the town will stimulate the local economy and encourage rehabilitation of vacant or under-utilized buildings. The Virginia Tourism Corporation staff could assist with the development of marketing programs and media to promote visitation to the Valley.

A major component of the educational and interpretive programs that will be offered to visitors will focus on the significant biological diversity of the Valley. Through exposure to these special natural resources, it is likely that visitors will develop an appreciation for them and the lands on which they depend for their existence. It is important that the local community, government agencies, and future visitors to the Valley be committed to the maintaining the integrity of the land and water habitats of this special region under any future scenario.

APPENDICES

Appendix A

Budgetary language included in the 2004 Appropriation Act [Chapter 4 of the 2004 Virginia Acts of Assembly (Special Session 1)]:

[Item 383 N.] “The Department of Conservation and Recreation shall conduct a study to address the feasibility of establishing day use recreational access and sites along the Clinch River in the vicinity of Pinnacles Natural Area Preserve in Russell County. This study shall include the feasibility of establishing day use, environmental education and recreational activities, recreational access and park sites along the river, establishing a state or regional park, an examination of the resources that would be necessary to operate the facilities and sites, the availability of land for such facilities and sites and for the addition of land to the existing Pinnacles Natural Area Preserve, and any other conditions that may require review. The study shall recognize the value of maintaining and enhancing the existing Pinnacle Natural Area Preserve and develop recommendations that shall be compatible with it. This report shall be provided to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees by no later than December 1, 2005.”

Appendix B

Clinch River Legislation

§ 10.1-410.2. Clinch State Scenic River.

A. The Clinch River in Russell County from its confluence with the Little River to the Nash Ford Bridge at mile 279.5, a distance of approximately 20 miles and including its tributary, Big Cedar Creek from the confluence to mile 5.8 near Lebanon, is hereby designated a component of the Virginia Scenic Rivers System.

B. This designation shall not be used:

1. To designate the lands along the river and its tributaries as unsuitable for mining pursuant to § [45.1-252](#) or regulations promulgated with respect to such section; however, the Department shall still be permitted to exercise the powers granted under § [10.1-402](#); or
2. To be a criterion for purposes of imposing water quality standards under the federal Clean Water Act.

(1992, c. 308; 1994, c. 329; 2003, c. 240.)

§ 10.1-411.1. Clinch-Guest State Scenic River.

A. The Clinch River from the Route 58 bridge in St. Paul to the junction with the Guest River, a distance of approximately 9.2 miles, and a segment of the Guest River in Wise County, from a point 100 feet downstream from the Route 72 bridge to its confluence with the Clinch River, a distance of approximately 6.5 miles, are hereby designated a component of the Virginia Scenic Rivers System; however, this description shall not be construed as making the lands along such river unsuitable for underground mining pursuant to § [45.1-252](#) or regulations promulgated thereunder.

B. Nothing in this chapter shall be construed to prevent the construction, use, operation and maintenance of a natural gas pipeline on or beneath the two existing railroad trestles, one located just south of the Swede Tunnel and the other located just north of the confluence of the Guest River with the Clinch River, or to prevent the use, operation and maintenance of such railroad trestles in furtherance of the construction, operation, use and maintenance of such pipeline. Nothing in this chapter shall be construed to prevent the construction, use, operation and maintenance of a natural gas pipeline traversing the river at, or at any point north of, the existing power line that is located approximately 200 feet north of the northern entrance to the Swede Tunnel.

C. Nothing in this chapter shall preclude the federal government, Commonwealth or a local jurisdiction from constructing or reconstructing any road or bridge. (1990, c. 397; 1991, c. 487; 2002, c. 251; 2003, c. 240.)

Appendix C

NATURAL HERITAGE RESOURCES – CLINCH RIVER VALLEY 2005

SCIENTIFIC NAME	COMMON NAME	NO. OF OCCURRENCES	IN 1989 REPORT	G-RANK	S-RANK	FED STATUS	STATE STATUS
VERTEBRATE ANIMALS							
<i>Apalone spinifera</i> (formerly <i>Trionyx spinifera</i>)	Spiny Softshell	1	Y	G5	S2		
<i>Cryptobranchus alleganiensis</i>	Hellbender	1	Y	G3G4	S2S3		SC
<i>Etheostoma denoncourti</i>	Golden Darter	1	N	G2	S1	SOC	LT
<i>Graptemys geographica</i>	Northern Map Turtle	1	N	G5	S2S3		
<i>Moxostoma carinatum</i>	River Redhorse	1	N	G4	S2S3		SC
<i>Necturus maculosus</i>	Mudpuppy	1	N	G5	S2		
No longer tracked							
<i>Cottus caroliniae</i>	Banded Sculpin		Y		? (1989 S3)		
<i>Cyprinella galactura</i>	Whitetail Shiner		Y		? (1989 S3)		
<i>Etheostoma simotereum</i>	Tennessee Snubnose Darter		Y		? (1989 S3)		
<i>Etheostoma swannanoa</i>	Swannanoa Darter		Y		? (1989 S2)		
<i>Etheostoma zonale</i>	Banded Darter		Y		? (1989 S3)		
INVERTEBRATE ANIMALS							
<i>Alasmidonta marginata</i>	Elktoe	1	Y	G4	S1S2		SC
<i>Brachoria falcifera</i>	Big Cedar Creek Millipede	1	N	G1	S1	SOC	
<i>Calephelis borealis</i>	Northern Metalmark	1	N	G3G4	S2S3		
<i>Cumberlandia monodonta</i>	Spectacle Case	1	N	G2G3	S1	C	LE
<i>Epioblasma capsaeformis</i>	Oyster Mussel	2	Y	G1	S1	LE	LE
<i>Euchloe olympia</i>	Olympia Marble	1	N	G4G5	S2S3		
<i>Fusconaia barnesiana</i>	Tennessee Pigtoe	10	Y	G2G3	S2	SOC	SC
<i>Fusconaia cor</i>	Shiny Pigtoe	1	Y	G1	S1	LE	LE
<i>Fusconaia cuneolus</i>	Fine-rayed Pigtoe	1	Y	G1	S1	LE	LE
<i>Hemistena lata</i>	Cracking Pearlymussel	1	N	G1	S1	LE	LE
<i>Io fluvialis</i>	Spiny Riversnail	1	Y	G2	S2	SOC	LT
<i>Lemiox rimosus</i>	Birdwing Pearlymussel	2	Y	G1	S1	LE	LE
<i>Leptodea fragilis</i>	Fragile Papershell	6	N	G5	S1		LT
<i>Lexingtonia dolabelloides</i>	Slabside Pearlymussel	1	N	G2	S2	C	LT

SCIENTIFIC NAME	COMMON NAME	NO. OF OCCURRENCES	IN 1989 REPORT	G-RANK	S-RANK	FED STATUS	STATE STATUS
<i>Ligumia recta</i>	Black Sandshell	1	N	G5	S2		LT
<i>Nesticus mimus</i>	A Cave Spider	1	N	G2	S1	SOC	
<i>Pleurobema oviforme</i>	Tennessee Clubshell	10	Y	G3	S2S3		
<i>Pseudanopthalmus hubrichti</i>	Hubricht's Cave Beetle	1	N	G1	S1	SOC	
<i>Ptychobranthus subtentum</i>	Fluted Kidneyshell	1	N	G2G3	S2	C	
<i>Quadrula cylindrica strigillata</i>	Rough Rabbits Foot	2	Y	G3T2	S2	LE	LE
<i>Toxolasma lividus</i>	Purple Liliput	1	N	G2	S1	SOC	LE
<i>Truncilla truncata</i>	Deertoe	1	N	G5	SH		LE
<i>Villosa perpurpurea</i>	Purple Bean	1	Y	G1	S1	LE	LE
<i>Villosa trabalis</i>	Cumberland Bean	1	Y	G1	SX	LE	LE
No longer tracked							
<i>Lemiox rimosus</i>	Birdwing Pearlymussel		Y				
<i>Stygobromus mackini</i>	Southwestern Virginia Cave Amphipod		Y				
VASCULAR PLANTS							
<i>Arabis hirsuta</i> var. <i>adpressipilis</i>	Hairy Rockcress	9	N	G5T4Q	S1S2		
<i>Botrychium jenmanii</i>	Alabama Grape-fern	1	N	G3G4	S1		
<i>Buchnera americana</i>	Blue-hearts	4	N	G5?	S1S2		
<i>Campanula rotundifolia</i>	American Harebell	4	Y	G5	S1		
<i>Carex crawei</i>	Crawe sedge	6	N	G5	S2		
<i>Cuscuta rostrata</i>	Beaked Dodder	1	Y	G4	S2		
<i>Deschampsia caespitosa</i>	Tufted Hairgrass	1	Y	G5	S1		
<i>Eleocharis intermedia</i>	Matted Spikerush	1	N	G5	S1		
<i>Euphorbia purpurea</i>	Glade Spurge	4	Y	G3	S2		
<i>Gentianella quinquefolia</i> ssp. <i>occidentalis</i>		1	N	G5T4T5	S1?		
<i>Juncus brachycephalus</i>	Small-head Rush	1	N	G5	S2		
<i>Paxistima canbyi</i>	Canby's Mountain-lover	2	Y	G2	S2	SOC	
<i>Poa saltuensis</i>	A Bluegrass	3	N	G5	S2		
<i>Rhamnus lanceolata</i> var. <i>glabrata</i>	Lance-leaved Buckthorn	2	N	G5T4T5	S1		
<i>Saxifraga careyana</i>	Carey Saxifrage	1	Y	G3	S2?		
<i>Saxifraga caroliniana</i>	Carolina Saxifrage	2	N	G2	S2?	SOC	
<i>Scleria verticillata</i>	Whorled Nutrush	2	N	G5	S2		

SCIENTIFIC NAME	COMMON NAME	NO. OF OCCURRENCES	IN 1989 REPORT	G-RANK	S-RANK	FED STATUS	STATE STATUS
<i>Spiranthes magnicamporum</i>	Great Plains Ladies'-tresses	3	N	G4	S1		
<i>Stylophorum diphyllum</i>	Celandine Poppy	1	N	G5	S2		
<i>Sullivantia sullivantii</i>	Sullivantia	3	Y	G4	S1		
<i>Symphyotrichum pratense</i>	Barrens Silky Aster	6	N	GNR	S1		
<i>Synandra hispidula</i>	Gyandotte Beauty	2	N	G4	S2		
<i>Viola walteri</i>	Prostrate Blue Violet	3	N	G4G5	S2		
No longer tracked							
<i>Diarrhena americana</i>	American Beakgrain		Y		S3 (1989 S2)		
<i>Galium boreale</i>	Northern Bedstraw		Y		S3 (1989 S1S2)		
<i>Lithospermum tuberosum</i>	Tuberous Gromwell		Y		S3 (1989 S2)		
<i>Pellaea glabella</i>	Smooth Cliff-brake		Y		S3 (1989 S1S2)		
<i>Zanthoxylum americanum</i>	Northern Prickly Ash		Y		S3 (1989 S2)		
TERRESTRIAL COMMUNITIES							
Basic Mesic Forest		2	Y	GNR	SNR		
Limestone / Dolomite Barren		10	Y	GNR	SNR		
Low-elevation Boulderfield Forest / Woodland		2	Y	GNR	SNR		
Montane Dry Calcareous Forest / Woodland		1	Y	GNR	SNR		
Mountain / Piedmont Calcareous Cliff		2	Y	GNR	SNR		
No longer tracked							
Cool High-gradient River							
Cool High-gradient Stream							
Dry Limestone Cliff and Slope (now Mountain / Piedmont Calcareous Cliff?)							
Wet Limestone Cliff and Slope (now Mountain / Piedmont Calcareous Cliff?)							
ANIMAL ASSEMBLAGES							
Freshwater Mussel Concentration Area		2	N	GNR	SNR		
GEOLOGIC FEATURES							
Significant cave		3	Y	GNR	SNR		