Summary Report #1

October 15th, 2008

Sustainable Tourism Destination/Centerpiece Project for Floyd and Patrick Counties in Southwestern Virginia in the Rocky Knob Area Associated with the Blue Ridge Parkway

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Sustainable Tourism Destination/Centerpiece Project for Floyd and Patrick Counties in Southwestern Virginia in the Rocky Knob area associated with the Blue Ridge Parkway

Quarterly Report Task #1

Summary Report Contents

- DVD (in pocket): Task-1 Digital Documentation (Summary Report, Map Documents [JPEG, TIFF, and PDF formats], PowerPoint Presentations, Photographs)
- DVD (in pocket): Site Suitability Support Maps
- Presentation Handouts
- Executive Summary
- Summary Report
- Appendix A | Level 3: Multi-state Assessment Maps
- Appendix B | Level 2: Regional Inventory Maps
- Appendix C | Level 1: Local Level Inventory Maps
Sustainable Tourism Destination/Centerpiece Project for Floyd and Patrick Counties in Southwestern Virginia in the Rocky Knob Area Associated with the Blue Ridge Parkway

Summary Report: Task #1

Provided to the National Park Service and Blue Ridge Heritage by

Virginia Tech
Clemson University

October 15th, 2008
Background

Activities associated with Task #1 were to review the Zone of Influence (ZOI) as described in the SOW and determine its validity. The ZOI will serve to support the community resource inventory. In early May 2008, the project team met and identified three levels, or ‘tiers’ of geography that should be inventoried, due to their potential influence on the project. These conceptual levels were presented to the representatives from Blue Ridge Heritage, Inc. and the National Park Service (NPS) at the project kickoff meeting on May 13\textsuperscript{th}, 2008. These levels, as presented, include:

- **Level 3: Multi-state** – Provides a cursory assessment of potential distant markets and potential drivers;
- **Level 2: Regional Inventory** – Provides an inventory of natural features and potential assets in surrounding counties and nearby localities that may be leveraged to support a regional market;
- **Level 1: Local Level Inventory** – Identifies and inventories existing local amenities and attributes in Patrick and Floyd counties.

These three levels each provide unique, vital data and perspectives that are used to develop the community resource inventory. The community resource inventory is then integrated as a component to inform and support analysis, planning, and project implementation (Figure 1).

![Figure 1: The Planning Process](image)
Level 3: The Multi-state Assessment

The Multi-state view provides cursory information associated with potential demographic patterns with a defined distance of Rocky Knob. These distances were not delineated “as the crow flies” but were based on estimated driving times, which integrated multi-state road networks (interstate, primary, secondary roads) as well as speed limits associated with these road segments (Figure 2).

The objective of the multi-state assessment is to acquire a cursory-level summary of basic demographic information associated with potential tourist market areas. Again, this is cursory information, and is intended to support more in-depth and targeted market analysis provided by the National Park Service (NPS) as well as information collected in later phases of the project (tourist and potential tourist surveys).

Spatial data to support Level 3 was acquired from the US Census Bureau (demographics) and third party vendors (street networks with speed limits).

All collected data associated with Level 3 are spatially enabled. Metadata, in compliance with the Federal Geographic Data Committee’s (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) has been developed for any final versions of data created “in house”. In addition, project members collected and catalogued metadata for any spatial data that was acquired from outside sources (if available).

See Appendix A | Level 3: Multi-state Assessment Maps.
Level 2: The Regional Inventory
The regional assessment included Floyd County, Patrick County, as well as nine adjacent counties, and nearby cities and towns (Figure 3).

The counties associated with this regional assessment included:

- Carroll (VA)
- Floyd (VA)
- Franklin (VA)
- Henry (VA)
- Montgomery (VA)
- Patrick (VA)
- Roanoke (VA)
- Rockingham (NC)
- Stokes (NC)
- Surry (NC)

The cities / towns associated with this regional assessment included:

- Galax
- Martinsville
- Radford
- Roanoke
- Salem

Approximately 158 data sources were used to generate data associated with Level 2. These spatial data layers were collected from an array of sources, including county / local tourist boards and other local government entities, state agencies (both in North Carolina and Virginia), federal agencies, nonprofits, university research centers, and private sector, licensed data (See Figure 4).

Data layers include:

- VA Birding & Wildlife Trails
- Conservation & recreation areas (local, state & federal holdings)

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1 No trail data for NC available
• Public boating access locations within VA
• Non-motorized / bike / pedestrian trails
• Birding sites
• Historic highway markers
• Scenic rivers
• Trout streams
• Scenic byways
• Wineries
• Business data  
  o Registered VA and NC businesses associated with agricultural crop production
  o Registered businesses associated with agricultural livestock production
  o Registered businesses associated with amusement & recreational services
  o Registered businesses associated with apparel and other finished fabric products
  o Registered businesses associated with automotive dealers and gasoline service stations
  o Registered businesses associated with depository institutions (banks)
  o Registered businesses associated with eating & drinking places
  o Registered businesses associated with fabricated metal products except machinery and transportation equipment
  o Registered businesses associated with food and similar product manufacturing
  o Registered businesses associated with food stores (i.e. grocery stores)
  o Registered businesses associated with forestry
  o Registered businesses associated with furniture and fixture manufacturing
  o Registered businesses associated with general merchandise stores
  o Registered businesses associated with hotels, rooming houses, camps and other lodging
  o Registered businesses associated with leather & wood product manufacturing except for furniture
  o Registered businesses associated with manufacturing lumber & wood products except furniture
  o Registered businesses associated with miscellaneous retail
  o Registered businesses associated with motion pictures
  o Registered businesses associated with museums, art galleries and gardens
  o Registered businesses associated with personal services

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2 Licensed through Environmental Systems Research Institute (ESRI). Digital data cannot be distributed.
- Registered businesses associated with manufacturing stone, clay, clay and concrete
- Registered businesses associated with manufacturing textile mill products
- Registered businesses associated with manufacturing tobacco products
- Registered businesses associated with transportation services
- Registered businesses associated with the US postal service (ie post offices)
- Registered businesses associated with water transportation
- Registered businesses associated with the wholesale trade of durable goods

- Census landmark areas US Census Bureau: 2007 TIGER/Line shapefiles
- Tract-level census data
- Annual precipitation amounts
- Annual average July temperature maximums
- Annual average January temperature minimums
- Digital Elevation Model (DEM)
- 10 m (~30 ft) contours
- 107 topographic map quarter quads
- Image catalog for 1:100,000 topos
- NC general geology
- NC faults
- NC dikes
- VA geologic formations (polygons)
- VA geology (all lines required for the 1993 geologic map including geologic provinces)
- VA geologic formations (lines)
- Detailed geologic map of NC
- General geologic map of NC
- 8 NHD subbasins merged into 1 shapefile
- Land cover/land use data
- Counties boundaries
- State boundaries
- Airports
- Roads
- Blue Ridge Parkway
- Railroads
- 8 digit Watershed Boundary Dataset (WBD)
- Bike Trails
- Hydrography (1:100,000)
- Hydrography (1:24,000)
- Boundaries for lands of conservation and recreational interest
- National register of historic places – points

All collected data associated with Level 2 are spatially enabled to expedite the analysis process. Metadata, in compliance with the Federal Geographic Data Committee’s
Content Standard for Digital Geospatial Metadata (CSDGM) has been developed for any final versions of data created “in house”. In addition, project members collected and catalogued metadata for spatial data acquired from outside sources when it this information was available.

See Appendix B  |  Level 2: Regional Inventory Maps.

**Level 1: The Local Level Inventory**
The local level assessment was comprised of Floyd and Patrick counties. While geospatial data associated with Level 3 (Multi-state Assessment) and Level 2 (Regional Assessment) was collected at a reconnaissance-level (ie. locations of feature were not required to be exact), the geospatial data associated with Level 1 has been verified and cross-checked by the project team, as well as by representatives and stakeholders from Floyd and Patrick counties.

The GIS-based community resource inventories for Floyd and Patrick Counties was acquired from local governments, planning district commissions, the private sector, state agencies, federal agencies, non-profits, and other research centers at Virginia Tech. In addition spatial data were developed in-house, based on tourist information collected from meetings and Websites. Data was often geocoded using the Virginia Base Mapping Program (VBMP) E-911 road centerline (RCL) database and other address centerline databases. Often, high resolution aerial photography, digital raster graphics (DRG’s) site visits, GPS coordinates, and local knowledge were used to confirm tourism related spatial data.

Spatial data layers acquired and developed for Level 1 include:

- County boundaries
- 2007 VBMP True Color Imagery (1:2,400 / 1 foot resolution)
- 2002 Virginia Base Mapping Program Imagery - True Color (1:4,800 / 2 foot resolution)
- Accommodations, B&B’s / Lodging
- Agritourism
- Artists from Floyd, Patrick County Banks
• Birding & Wildlife Trail sites located on the Trail
• Books, Gift shops
• Entertainment (music, dancing)
• Parks, recreation areas
• Gas stations
• Golf courses
• Hardware shops
• Hospitals
• Nursing homes
• Hunting, Fishing
• Scenic roads and byways
• Museums
• Restaurants
• Public/Private schools
• Studios and Galleries
• Sustainable Living
• Wineries
• Census block group demographic information
• Conservation Lands (local, county, state, & federal parks)
• VA Scenic Rivers
• Wildlife, Management Areas, recreation, public lands, hunting, fishing, Wildlife management, recreation
• Endangered & threatened species - terrestrial
• Endangered & threatened species – aquatic
• Occurrences of Tiered wildlife species that are not federal or state listed
• VDGIF coldwater or trout, streams
• 27 topographic maps (1:24,000)
• Image catalog for 1:24,000 topos
• Architecture resources
• Archaeological resources
• Wetlands
• Hydro - lines (1:4,800)
• Hydro - polygons (1:4,800)
• 12 digit Watershed Boundary Dataset (NWBD)

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3 Digital data was provided by the Virginia Department of Game and Inland Fisheries (DGIF) under license agreement. The project is not licensed to further disseminate these data.

4 Digital data was provided by the Virginia Department of Historic Resources (DHR) under license agreement. The project is not licensed to further disseminate these data.
• NHD 1:24,000 water bodies
• Transmission lines
• Virginia GAP data - land cover data
• US Census block group boundaries & census 2000 attributes
• TIN from Digital Terrain Model (DTM)
• 12 digit Watershed Boundary Dataset (NWBD)
• Image catalog for national geographic 24k scanned topographic maps
• Common Land Unit Boundaries – Patrick
• Common Land Unit Boundaries – Floyd
• VA Scenic Rivers
• Birding & Wildlife Trail sites located on the Trail
• Locational information for Virginia’s public fishing lakes
• Virginia Department of Game and Inland Fisheries' (VDGIF) owned or managed public boating access sites.
• Point locations for Virginia Department of Game and Inland Fisheries' (VDGIF) fish hatchery stations.
• Wildlife, Management Areas, recreation, public lands, hunting, fishing, Wildlife management, recreation
• Hospitals
• Nursing homes
• VA public schools
• VA Dept of Corrections' facilities & juvenile centers
• Virginia wineries 2007
• Solid Waste Management Facilities in Virginia
• Parcels – Floyd Co.
• Parcels – Patrick Co. (only along the parkway)
• 2007 Patrick County Land Book (associated with parcel data along parkway)
• Aspect (2 mile buffer of Blue Ridge Parkway)
• Contour (2 mile buffer of Blue Ridge Parkway)
• Slope (2 mile buffer of Blue Ridge Parkway)
• Historical roadside markers
• Blue Ridge parkway mile post information- point data layer
• Traffic counts on roads within Floyd & Patrick Counties
• Roads with Geocoding\(^5\)
• Blue Ridge Parkway shapefile from NPS
• Common Land Unit Boundaries – Patrick

\(^5\) Digital data was obtained under license from the Virginia Geographic Information Network (VGIN). The project is not licensed to further disseminate these data.
• Common Land Unit Boundaries – Floyd
• Foxfire skills

Metadata has been developed, in compliance with the Federal Geographic Data Committee’s (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM), for any final versions of geospatial data that were created “in house”. In addition, project members collected and catalogued metadata for spatial data acquired from outside sources when it this information was available.

See Appendix C | Level 1: Local Level Inventory Maps.
Stakeholder Driven Workshops
Two workshops were conducted to support the community inventory mapping process. These workshops were organized by the project partners. One workshop was held in at the Jacksonville Center in Floyd, Virginia. The other workshop was held in at the Community Room at Patrick Henry Community College in Stuart, Virginia. Marketing efforts associated with the workshops included: the use of fliers posted at local store fronts, a Webpage, radio broadcasts, newsletters, newspaper articles and multiple e-mailings (Figure 6).

Project leaders and members of Blue Ridge Heritage, Inc., were on hand to provide
information and presentations at the meetings, as well as facilitate the process. In addition the project was fortunate to be able to leverage the experience and the efforts of students from both Clemson University and Virginia Tech (Figures 7 and 8).

These workshops were conducted in order to:

1. Provide community stakeholders with an overview of the Rocky Knob Destination Centerpiece Project;
2. Provide an opportunity for the project team to tap into local knowledge and gain information about local assets (Figure 9);
3. Provide community stakeholders with the opportunity to provide feedback (individual preferences, etc.) to help guide the project.

Approximately 23 individuals attended the Floyd County workshop and 25 individuals attended the Patrick County workshop. Stakeholders reviewed and provided input on over 25 Level 1 (Floyd and Patrick Counties) data layers.
As a result of these efforts, all collected data associated with Level 1 are spatially enabled to support the assessment process. Metadata, in compliance with the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) was developed for any final versions of data created “in house”. In addition, project members collected and catalogued metadata for spatial data acquired from outside sources when available.

The ZOI: Recommendations
The initial ZOI, as outlined in the project Statement of Work (SOW) should be conceptualized on three tiers, or levels. All three of these levels should be integrated to support the planning process for Floyd and Patrick counties. Information associated with Level 3 (multi-state) and Level 2 (regional/county-wide) should be viewed as “reconnaissance level” data. Precise geographic accuracy associated with level 2 and level 3 is not imperative. Third party data may therefore continue to be acquired to support the data collection efforts at these levels, when appropriate.

Level 1 (Patrick and Floyd County region) requires a much more thorough and accurate level of mapping. Geographic accuracy should be maintained at 1:24,000 (or better), when available, and correlated to the imagery (aerial photography) available through the Virginia Base Mapping Program (VBMP) which is available at 1:4,800 | 2 foot resolution (2002) and 1:2,400 | 1 foot resolution (2007) when possible.

The level of detail and accuracy associated with Level 1 is useful to support the identification of potential themes and linkages of potential tourist destinations within Patrick and Floyd counties. The high level of accuracy associated with spatial data collection in Level 1 can later be leveraged to support tourism marketing efforts (brochures, kiosks, etc.) in both Floyd and Patrick counties, as well as supporting the many day-to-day business needs of local governments. This is one of the powerful utilities associated with a GIS: Collect the data once (correctly), and apply it to support a variety of applications.

Using a “tiered” zone of influence approach will not only provide a broader understanding of opportunities and linkages outside of the two counties that can be leveraged to tie Floyd and Patrick counties to the broader landscape, but will allow the team to emphasize Floyd and Patrick county’s distinctive assets, attributes, and opportunities that make this region unique.