It's a "Wild" place: DuPont State Forest
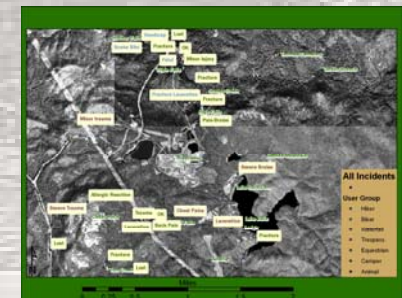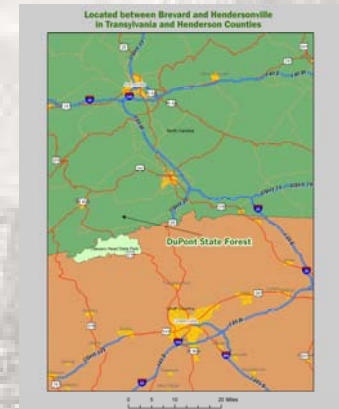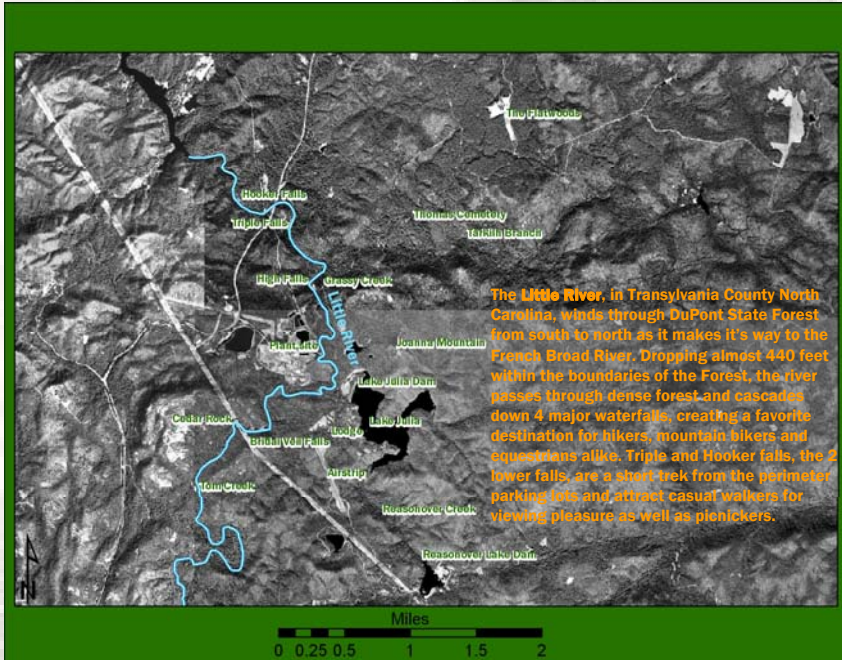
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The **Little River**, in Transylvania County North Carolina, winds through DuPont State Forest from south to north as it makes it's way to the French Broad River. Dropping almost 440 feet within the boundaries of the Forest, the river passes through dense forest and cascades down 4 major waterfalls, creating a favorite destination for hikers, mountain bikers and equestrians alike. Triple and Hooker falls, the 2 lower falls, are a short trek from the perimeter parking lots and attract casual walkers for viewing pleasure as well as picnickers.

Introduction:
• DuPont State Forest in Cedar Mountain, NC is currently enjoying a record number of visitors. The waterfalls first opened to public access on Dec 17, 2000 and each year since has seen increasing numbers of visitors and is now the most visited State Forest in NC. 125,000 visitors are expected in 2005 according to David Brown, Forest Supervisor. At the current rate 125,000 visitors are expected in 2005. With the ever increasing visitation by the public, the number of 911 calls and Search and Rescue efforts is also growing. In addition to on site management by the NC Division of Forest Resources, there are 2 counties and multiple fire agencies and search and rescue departments. While response to requests for help by these agencies has been very good, there is often confusion on the part of the person needing aid or the 911 caller as to their exact location. This leads to jurisdictional questions and multiple responses.
The North Carolina Forest Service staff at DuPont keeps records of incidents triggering a 911 call or other requests for staff assistance. This project will identify the location of these incidents over the past 4 years, and, with attribute data, will provide for various spatial analysis. This analysis will be shared with the NC Forest Service and some of the agencies providing emergency response.

Methodology:
- Get base map from USGS. NC OneMap was helpful in locating the appropriate files with a clickable map. A better way is to search for metadata on the USGS sites.
- Use 1 meter DOQQ's from USGS EROS data center. Mosaic 8 maps to create a B&W base map to overlay with incident, attributes and significant feature data. The color images did not match so a B&W representation was used.
- Download feature location names from USGS GNIS data. Edit name data to limit to DSF area and verify locations. Add missing locations.
- Obtain records of incidents and related information from DSF staff, Eric Folk, Ranger. Enter data for years 2001-2004 into Excel spreadsheet, create csv file for import to ArcMap.
- Enter to ArcMap all incident points using DSF trail map as an aid to location. Join the attribute data for all 4 years to the incident layer. Format labels for each incident.
- Make a location map using Street Map GIS layers to show the area of DSF.
- Prepare maps for each of the 4 years to show location and details of each incident.
- Gather background and pictures of features at DuPont and prepare poster.

Sources:
- http://gisdata.usgs.net/website/NC_OneMap/viewer.asp
- http://www.dupontforest.com/
- David Brown, Supervisor and Eric Folk, Educational Ranger, NC Division of Forest Resources

Maps showing increase in incidents from 2001 through 2004. As word of DuPont's waterfalls spread throughout organized groups and the general public, the parking lots filled up. Beginning in April 2001 a volunteer caretaker moved on-site and incident reporting improved. David Brown, the first Supervisor, moved to the forest in the July of 2002 and added staff the following spring. With better reporting and visitor estimates the incident rate increased from .8 per 10,000 in 2002 to 1.2 per 10,000 in 2004. If 2003 and 2004 are any indication the incident rate is leveling out.

Map showing all incidents by user group. Hikers are the largest group with 19 incidents followed by mountain bikers with 6 and waterfall visitors with 5. The other groups combined had 9 incidents.