Conservation Plan for Broad River Greenway Conservation Area
Cleveland County, NC
NC Department of Transportation, Cleveland County and Town of Boiling Springs

Goal
The goal of this conservation plan is to manage the Broad River Greenway Conservation Area for the perpetual conservation of the dwarf-flowered heartleaf (*Hexastylis naniflora*).

Objectives
The objectives of this conservation plan are to:

1. Establish a permanent Conservation Area,
2. Describe the current understanding of the habitat requirements and management needs of *Hexastylis naniflora,*
3. Provide for the regular monitoring of the *Hexastylis naniflora* population, its habitat, and the Conservation Area,
4. Provide timely reports to Advisory Committee members,
5. Assign responsibilities to appropriate parties, and
6. Allow for adaptive management.

Conservation Measures
The following measures will be implemented as part of, and shall constitute the conservation plan:

1. Conservation Area Establishment. The deed for the acquired site will identify that this area was purchased for conservation purposes in perpetuity. No future transportation/development projects or other activities with negative impacts to the *Hexastylis naniflora* population will be allowed in the Conservation Area. The Conservation Area consists of approximately 1000 acres identified as parcel number 1710, in Cleveland County.

2. Management is to be conducted by the Broad River Greenway Association (BRG). Management will consist primarily of protection, with little direct manipulation of habitat or individuals foreseen. Maintenance of the natural community types, should not require much intervention. Maintaining the boundaries of the Conservation Area against any harmful trespass (i.e., ATV use) will be the responsibility of BRG.

   Deed restrictions will include a provision that all management recommendations for the *Hexastylis naniflora* populations will be determined by the Advisory Committee. BRG will implement recommendations agreed upon by the Advisory Committee and if resources are available. Access into the preserve will be granted for FWS representatives and representatives from state resource agencies with prior notification to the BRG. Any proposals to modify the habitat, in full or part, shall be submitted in writing to the Advisory Committee for consideration of consistency with the intent of the Conservation Area and the goals and objectives of this conservation plan.

3. Monitoring. The North Carolina Department of Transportation will conduct the monitoring of the Conservation Area, and will compile a report each monitoring year to be submitted to the Advisory Committee. To maintain data consistency throughout the monitoring and reporting periods, documentation of results for individual plant occurrences will be referenced to the map (Figure D-3) included in the Revised Biological Assessment, dated January 13, 2004.

   3.1 <u>Interval</u>: monitoring will occur every 3 years, beginning during calendar year 2009 and continuing for 3 monitoring periods for a total of 9 years.

   3.2 <u>Data collected</u>: data collected will include, at a minimum, estimates of total number of *Hexastylis naniflora* rosettes, age structure, vigor, presence/absence of potential pollinators. Each occurrence will be GPSed and a map of these locations will be generated. An assessment of the boundary of the Conservation Area will be performed to determine whether

any harmful trespass or encroachment has occurred. If so, it will be included in the monitoring report, and will be reported to the Advisory Committee.

3.3 Personnel qualifications: persons monitoring details of the plant population and habitat conditions shall possess an understanding of the species' habitat and life history requirements. Preference should be given to data collection and analysis by a trained botanist. Boundary assessments shall be performed by an individual with knowledge of the boundary lines.

3.4 Reporting: The BRG shall be responsible for submitting the monitoring and incident reports. Monitoring reports shall be submitted to the Advisory Committee by June 30 of each monitoring year. Incident reports shall be filed when special circumstances or incidents involving threats to the viability of the *Hexastylis naniflora* population and/or apparent losses of more than 10 plants or adverse modification to more than 1/10-acre of the Conservation Area. Incident notification shall occur in writing within 7 calendar days of occurrence. Copies of the monitoring report and any incident notification shall be provided to the following agencies, which make up the Advisory Committee:

- Field Supervisor, U.S. Fish & Wildlife Service 160 Zillicoa Street, Asheville, NC 28801
- North Carolina Natural Heritage Program, Raleigh, NC
- North Carolina Department of Agriculture Plant Conservation Program, Raleigh, NC
- Broad River Greenway, Boiling Springs, NC
- Natural Environment Unit, NCDOT, Raleigh, NC

3.5 Adaptive Management. This conservation plan shall be considered a living document, subject to modification for the purposes of carrying out the original goals of the plan to perpetuate a viable population of *Hexastylis naniflora* in perpetuity. Modifications to this plan shall occur as needed, and as determined by consensus of an Advisory Committee. The Broad River Greenway Association will be responsible for weed control, where applicable, using restricted/required methods as described in the species recovery plan once it is approved. The BRG will organize volunteer groups to assist in weed control.

3.6 Modifications to Land Uses. The Conservation Area is designed for the perpetual management of *Hexastylis naniflora*. Additional and/or alternate uses of the Conservation Area may be duly proposed, considered, and allowed, if consistent with the original intent of the Conservation Area, or if such proposed uses would not compromise the goals and objectives of the Conservation Plan. An example of such uses would be the potential environmental education opportunities in the Conservation Area. Because the Conservation Area contains notable examples of natural communities and significant population of a rare plant, *Hexastylis naniflora*, an interpretive hike could be developed in a manner to benefit students, naturalists, and other interested parties, without compromise to the Conservation Area or damage to *Hexastylis naniflora*. Existing roads or trails will be used where applicable, and limit access only to major populations. BMP's will be employed to control erosion, trampling, transporting invasive plant species (seed, etc.) into the heartleaf populations, and boardwalks and observation decks will be utilized wherever possible. As an education program is implemented, with collaboration from appropriate agencies, consideration will be given to signage for public education. Any decisions to include the Conservation Area as gamelands, deletion or addition of trails, or any modifications to the property by BRG will be submitted to the Advisory Committee for approval.

3.7 Modifications to Boundaries of the Conservation Area. Where necessary for the goals and objectives of this Plan, the boundaries may be expanded. In some situations, consolidation or acquisition of adjacent tracts may increase the management efficiency of the Conservation Area for *Hexastylis naniflora*. Additional tracts adjacent to or near the Conservation Area, which harbor portions of the same *Hexastylis naniflora* population or may have *Hexastylis naniflora* habitat, may become available; the boundaries of this Conservation Plan may be amended to include these parcels inasmuch as these parcels could contribute to the goals and objectives of this Conservation Plan.

3.8 Term of the Plan. This plan will be implemented, modified as necessary, and carried out in perpetuity, effective date site is transferred. The site shall remain a conservation area for *Hexastylis naniflora* regardless of the species' status under the Endangered Species Act.

3.9 References

- Gaddy, L.L. 1980. Status report on *Hexastylis naniflora*. Prepared for the U.S. Fish and Wildlife Service. Unpublished report. 25pp.
- Gaddy, L.L. 1981. The Status of *Hexastylis naniflora* Blomquist in North Carolina. Unpublished report. 58pp.
- Federal Highway Administration. 1998. Draft Environmental Impact Statement for the US74 Shelby Bypass FHWA-NC-EIS-97-02-D, Cleveland County.
- Schafale, A. and A. Weakley. 1990. Classification of the Natural Communities of North Carolina, a Third Approximation. N.C. Natural Heritage Program.
- U.S. Fish and Wildlife Service. 1989. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for *Hexastylis naniflora* Federal Register 54(71):14964-14967
- Oakley. 2003. An Inventory of the Significant Natural Areas of Cleveland County, North Carolina. N.C. Natural Heritage Program.