

Upper Warwoman Watershed Assessment



USDA Forest Service – Chattahoochee-Oconee National Forest – Tallulah
Ranger District – Rabun County, GA

This watershed assessment is a Plan to Project analysis which means the process of applying the Forest Plan to a site specific project location. This assessment will become a key reference source for NEPA compliance in the future. This is not a decision document. No projects are decided within this document, only opportunities to bring specific locations into plan compliance. All will require site specific analysis and further on the ground inventories.

The process that the interdisciplinary team (ID Team) went through is can be briefly described as follows:

1. **Locate an area.** This was completed with the selection of the Upper Warwoman Sixth Order Hydrologic Unit (Upper Warwoman HU).
2. **Determine the desired conditions based on Forest Plan management direction.** The revised Forest Plan for the Chattahoochee-Oconee National Forests provides many very specific objectives to meet most of the Forest-wide and Management Prescription goals. The Forest Plan is now an excellent guide toward meeting the desired conditions envisioned by simply meeting the objectives while complying with all of the standards.
3. **Determine the existing conditions on the ground.** Adequate time for full inventories of all resources in the Upper Warwoman HU were not available, so the team relied on available databases (Continuous Inventory of Stand Conditions (CISC), Scenery Management System (SMS) inventory information, etc.) in their digitized versions using the Geographic Information System (GIS) available to the team. Photos, field checks, past timber sale information, and other more recent information were also integrated into the assessment.
4. **Identify opportunities to move from the existing to desired conditions.** This is essentially describing the difference between the existing and desired conditions. This step describes “what needs to be done,” and “why.” This step does not describe how these needs would be accomplished.
5. **Identify possible practices to take meet opportunities.** Here we brainstormed the specific means of accomplishing an objective or

moving closer to a goal. These practices answer the question “how might we do the job.” There could be many possible practices to meet any one opportunity.

6. **Check for Forest Plan consistency.** Some practices may be inconsistent with the Forest Plan. These practices should not be eliminated from consideration, but they should be tagged so the team and the responsible official know that a Forest Plan Amendment would be necessary to implement them.

This assessment will become a key reference source for NEPA compliance work in the future. Existing conditions can be used as affected environment descriptions, opportunities can be used as purpose and need statements, and selected practices as proposed actions. Some of the remaining practices can serve as alternatives if the DN path of NEPA compliance is being followed.

Fifth Order Watershed – North, East, West Forks Chattooga River

The Upper Warwoman Watershed is a sixth order watershed. This sixth order watershed resides within the larger fifth order watershed that has been named **North, East, West Forks Chattooga River** (Chattooga River watershed). Other fifth order watersheds on the Tallulah Ranger District include the Little Tennessee and the Tallulah River (see table).

| FIFTH ORDER HYDROLOGIC UNIT CODE | FIFTH ORDER WATERSHED NAME | ACRES |
|---|---|--------------|
| 0306010201 | North, East, West Forks Chattooga River | 178,704 |
| 0601020201 | Little Tennessee River | 52,235 |
| 0306010207 | Tallulah River | 121,242 |

The fifth order Chattooga River watershed includes National Forest System (NFS) in Georgia, North Carolina, and South Carolina. The total acreage is 178,704, with approximately two-thirds in Georgia on the Tallulah Ranger District. Within the fifth order Chattooga River watershed, the acres in each sixth order watershed are broken down by ownership below (see table).

| Sixth Order HU Name | Sixth Order HU Code | NFS acres | Non-NFS acres | Total Acres |
|---|----------------------------|------------------|----------------------|--------------------|
| Upper Chattooga | 030601020101 | 30,627 | 11,924 | 42,551 |
| Overflow Creek | 030601020102 | 21,185 | 6,788 | 27,973 |
| West Fork | 030601020103 | 8,142 | 501 | 8,643 |
| Lower Chattooga | 030601020601 | 34,841 | 13,629 | 48,470 |
| Upper Warwoman | 030601020602 | 13,246 | 1,439 | 14,685 |
| Lower Warwoman | 030601020603 | 9,354 | 925 | 10,279 |
| Upper Stekoa | 030601020604 | 1,521 | 13,800 | 15,321 |
| Lower Stekoa | 030601020605 | 5,104 | 5,586 | 10,690 |
| Total NFS & Non-NFS Acres in Fifth Order Chattooga River Watershed | | 124,020 | 54,592 | 178,612 |

The Chattooga River fifth level HU is briefly described in the Land and Resource Management Plan for the Chattahoochee – Oconee National Forests (Forest Plan), page 4-26.

This watershed is shared with the Nantahala National Forest in North Carolina and the Sumter National Forest in South Carolina. The watershed

ranges from high elevation near state lines to Piedmont near the confluence with the Tallulah River. The Chattooga Wild and Scenic River forms the state line between Georgia and South Carolina in the very eastern portion of the watershed, and takes in the city of Clayton along with portions of Mountain City and Tiger along the very western edge of the watershed. The highest rainfall in Georgia occurs within this watershed, exceeding 70 inches annually.

None of the streams are used as a public water supply.

The watershed includes 255 of perennial streams, including the Chattooga River, West Fork of the Chattooga River, Laurel Creek, Billingsley Creek, Holcomb Creek, Warwoman Creek, Stekoa Creek, Tuckaluge Creek, Cliff Creek, and others.







Notable features include Rabun Bald, Chattooga Wild and Scenic River, Ellicott Rock Wilderness, Black Rock State Park, and the city of Clayton. U.S. Highways 441 and 76, State Highway 28, and Warwoman Road are major arterials within the watershed.

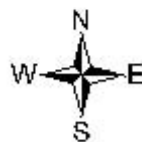
Approximately 73% of the land in the watershed in Georgia is National Forest System land. This is 76,901 acres out of a total within Georgia of 105,600 acres.

Approximately a third of the NFS acres of the watershed (24,467 acres) within Georgia is within the 9.H Management Prescription, which is described as *Management, Maintenance, & Restoration of Plant Associations*. Other major prescriptions within this watershed include *Watershed Restoration Areas (9.A.3)*, *Mid to Late Successional Forest Emphasis (8.A.1)*, *Natural Areas (4.1)*, and *Wild, Scenic, and Recreational Segments of the Chattooga Wild and Scenic River (2.A.1, 2.A.2, 2.A.3)*.

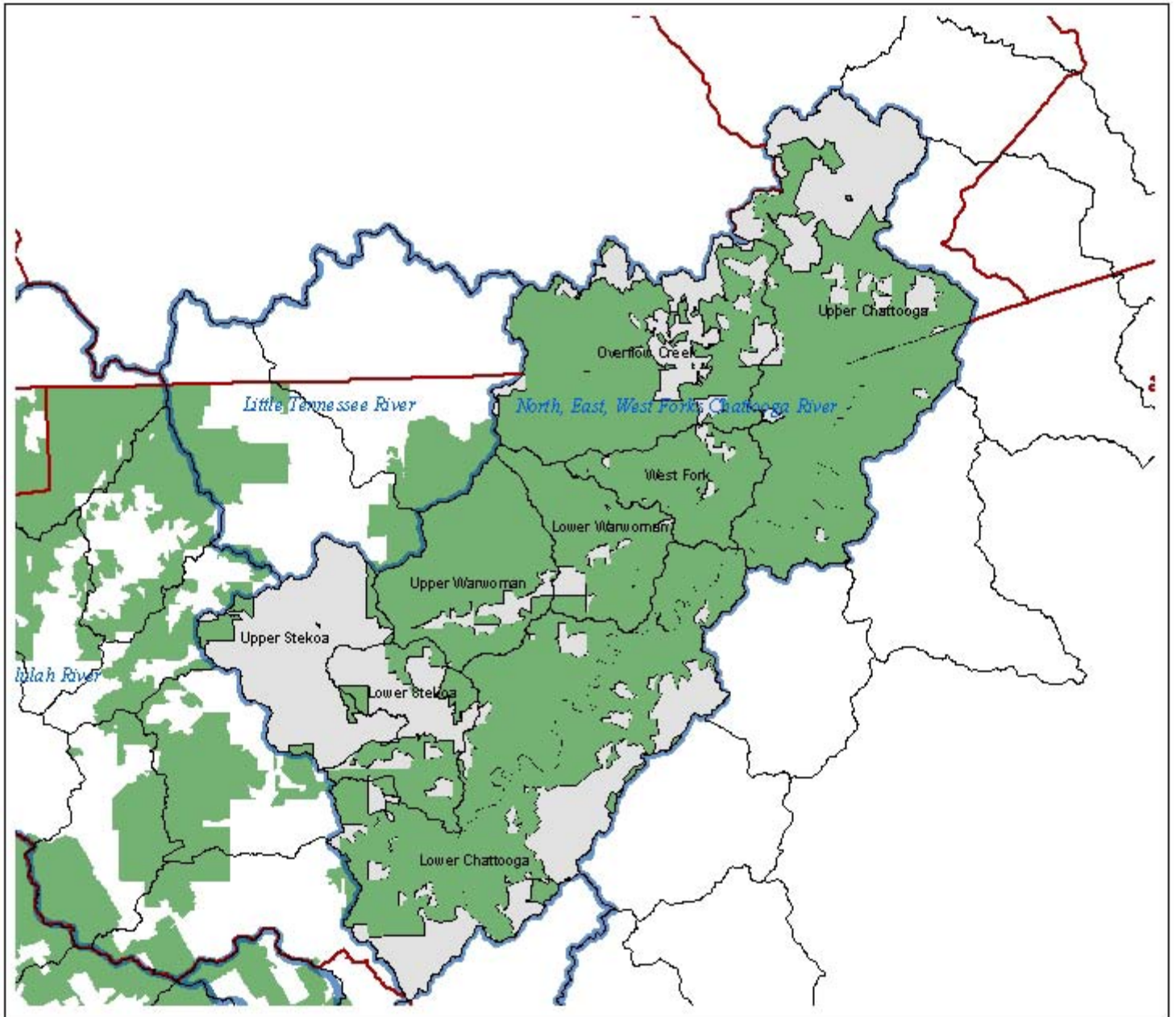
Chattooga River Fifth Order HU





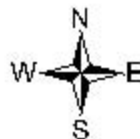
-  5th Order Hydrologic Units
-  6th Order Hydrologic Units
-  Upper Warwoman 6th Order HU
-  County Boundaries
-  State Boundaries
-  District Boundaries





NFS and Non-NFS Lands in the Chattooga River Fifth Order HU



-  5th Order Hydrologic Units
-  6th Order Hydrologic Units



Ownership

-  NFS lands
-  Non-NFS lands

Priority of the Upper Warwoman Sixth Level HU

The Upper Warwoman Sixth Level HU was selected as the Tallulah District's first watershed assessment for several reasons:

1. Information regarding the watershed, as with all HU's in the Chattooga River Fifth Level HU, is extensive. The Chattooga was the focus of the Chattooga River Demonstration Project, which produces several reports on various aspects of the watershed from 1993-1995. The Tuckaluge Project, including a large timber sale (3.8 MMBF) was planned for 1996-1999, but was litigated and eventually withdrawn. Despite the withdrawal, there remains fairly recent inventory and sale data for the areas to be treated. Finally, an "Assessment of Water Quality Conditions for the Chattooga River Watershed, Rabun County, GA, Macon County, NC, and Oconee County, SC", was completed in early 1999, producing recent and extensive amounts of new data on water quality. This report also documented the U.S. EPA recommendation for the listing of several stream segments on the 303d list maintained by the GA EPD.
2. The Upper Warwoman HU has an extensive area that is over-dominated by white pine when examining the Ecological Classification System (ECS) developed by the Chattooga River Demonstration Project and comparing it to the current stand conditions. This is a forest health problem because oak and hickory species are being shaded out by the aggressive encroachment of the white pine, leading to less and less species diversity and reductions in hard mast production.
3. This watershed has U.S. EPA "Impaired" and "Watch" stream segments and at least one segment has already been scoped for paving in order to reduce the sediment entering the watercourse system.
4. The Warwoman Wildlife Management Area includes much of this HU, making the GA DNR personnel (wildlife, fisheries) additional sources of up-to-date inventory and needs information.

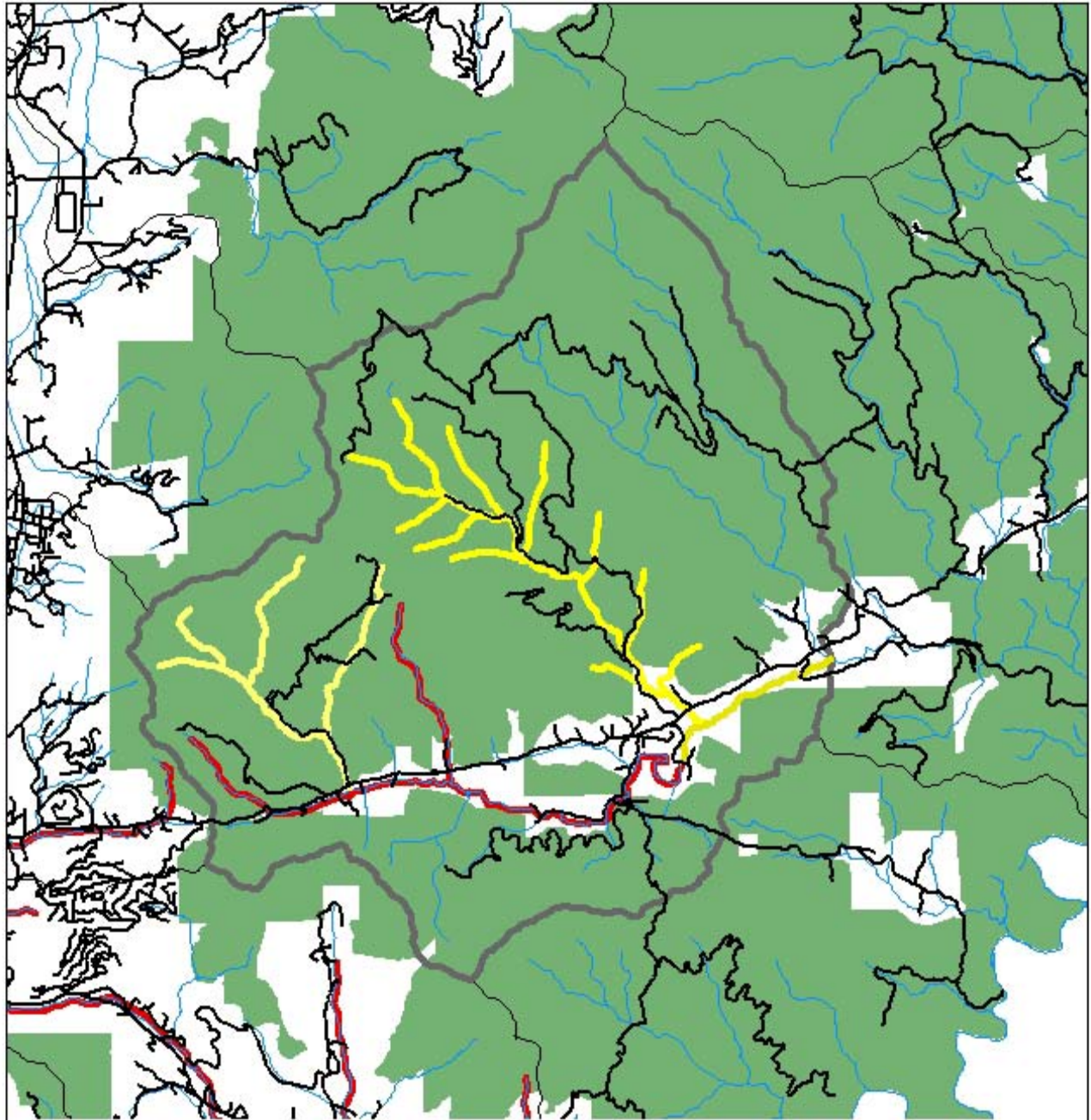
The State-listed beneficial use for all of the streams in the HU is fishing. All segments of the streams in this HU are primary trout waters.









Roach Mill and a portion of Warwoman Creek are recommended by the U.S. EPA as "Impaired." (see map) The pollutant causing the impairment in Roach Mill Creek is "biological community and habitat impairment." Excessive sedimentation is the pollutant for Warwoman Creek. Historical sediment loads are implicated on NFS lands as contributing to this impairment (Breedon, personal communication). Some activities that

may have contributed to this level of sediment load could have been prior to NFS administration of these watersheds.

Tuckaluge Creek, Martin/Finney Creeks, and the lower portion of Warwoman Creek are recommended by the U.S. EPA as "Watch" streams (see map). Sediment is noted as showing up a sign of impact in these stream reaches. Once again, historic sediment loading from past practices on lands administered by the Forest Service is noted as part of the impact (Breedon, personal communication).

EPA Listed Streams Upper Warwoman Sixth Level HU



- | | |
|---|---|
|  Upper_Warwoman_HU |  Upper Warwoman & Roach Mill Creeks: EPA Listing: IMPAIRED |
|  Forest_Service_Land |  Upper_Warwoman_WATCH |
|  Steams |  Finney & Martin Creeks: EPA Listing: WATCH |
|  Roads |  Tuckaluge Creek: EPA Listing: WATCH |



Management Direction

| RX | Description | Acreage |
|-----------|--|----------------|
| 8.A.1 | 8.A.1 Mid- to Late-Successional Forest Emphasis | 321 |
| 9.A.3 | 9.A.3 Watershed Restoration Areas | 5562 |
| 9.H | 9.H Management, Maintenance, and Restoration of Plant Associations | 6147 |
| 4.I | 4.I Natural Areas with Few Open Roads | 1182 |

Emphasis for each Rx

4.I – Natural Areas – Few Open Roads

Provide recreation opportunities in isolated areas where users can obtain a degree of solitude and the environment can be maintained in a near-natural state. These areas are managed at overall low management intensity.

8.A.1 – Mix of Successional Forest Habitats

In these areas, the emphasis will be to provide habitats associated with mid- to late-successional forest habitats. Management activities are designed to: (1) retain a forested canopy across at least 50 percent of the prescription area, (2) maintain or enhance hard and soft mast production, (3) increase vegetative diversity (structural and spatial), and (4) limit motorized access across the prescription.

9.A.3 – Watershed Restoration Areas

Management emphasis would be on improving conditions where past land uses have degraded water quality or soil productivity. The long-term goal of these watersheds is to showcase restored and resilient watersheds where proper multiple use management practices are applied. When this goal is achieved, these watersheds are allocated to a different management prescription.

9.H. – Management, Maintenance and Restoration of Plant Associations to Their Ecological Potential.

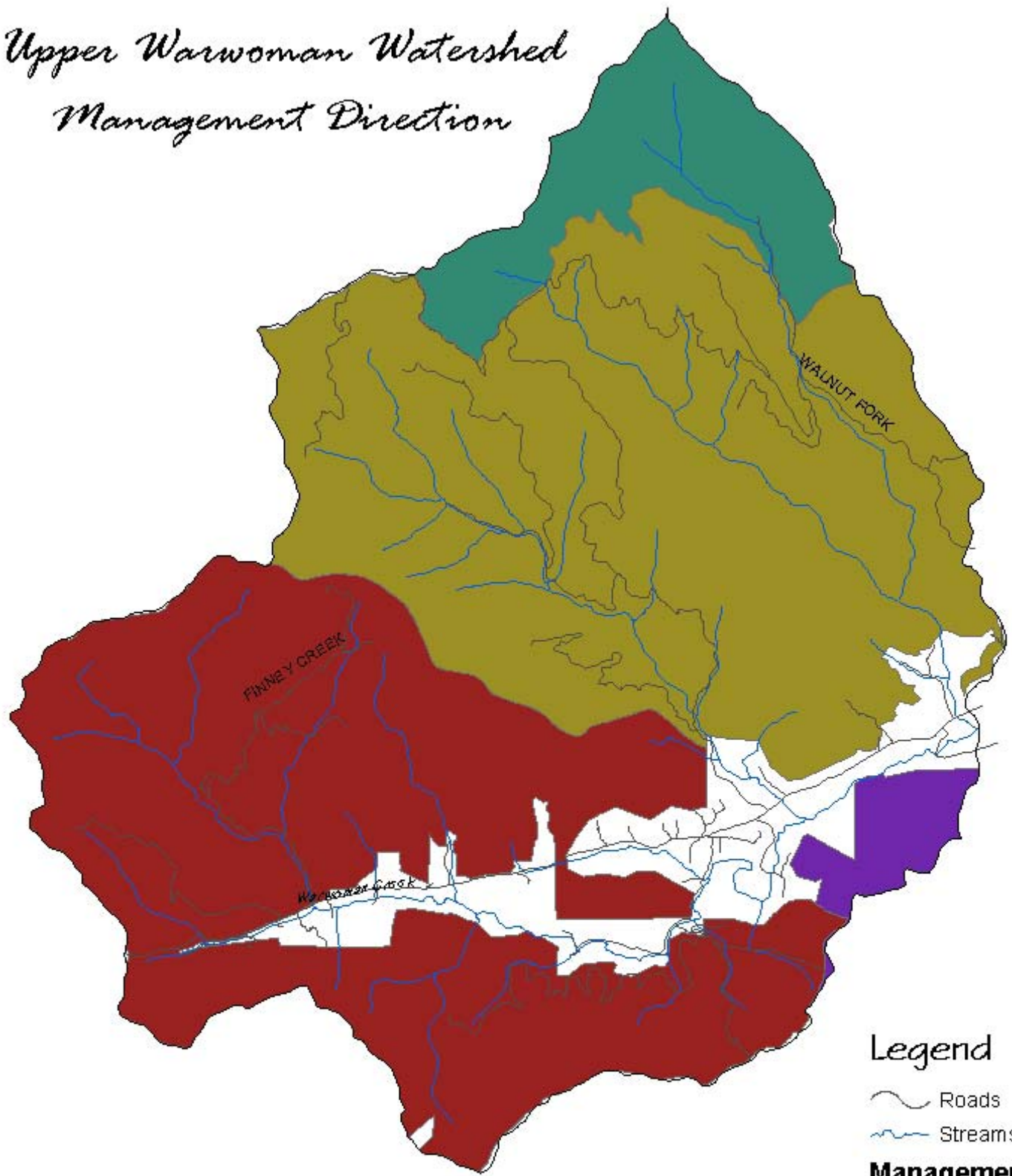
The purpose of this prescription is the restoration of historical plant associations and their ecological dynamics to ecologically appropriate locations. Focus is on: (1) communities in decline, (2) communities converted from historic composition by land uses, (3) communities on ecologically appropriate sites but unable to maintain themselves, and (4) communities infrequent on national forest but not regionally rare. Suitable-to-optimal habitats to support populations of the plant and animal species associated with these communities will also be maintained.

Opportunity for Change:

The area that is under the Management Prescription 9.A.3 needs to be changed to 9.H. This area received this prescription because of historic sediment load that predates Forest Service ownership and implementations of state BMPs. The five year Chattooga River Watershed project improved the overall conditions of this area, so much that prescription change could be warranted.

Interagency cooperation will be needed in order to complete new stream analysis and note whether or not change is warranted. Interagency partners would include the EPA, State EPD, DNR and others.

Upper Warwoman Watershed Management Direction



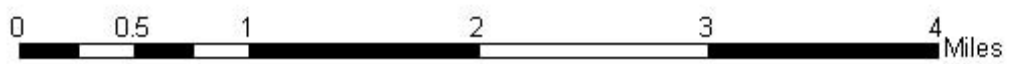
Legend

- Roads
- Streams

Management

RX

- 4.I
- 8.A.1
- 9.A.3
- 9.H



Ecological Unit Descriptions

Geology Summary

| Description | Acreage |
|--------------------------------------|----------------|
| Aluminous Schist | 2737.28 |
| Metagraywacke/Mica Schist | 12406.91 |
| Ultramafic Rocks Undifferentiated | 261.92 |

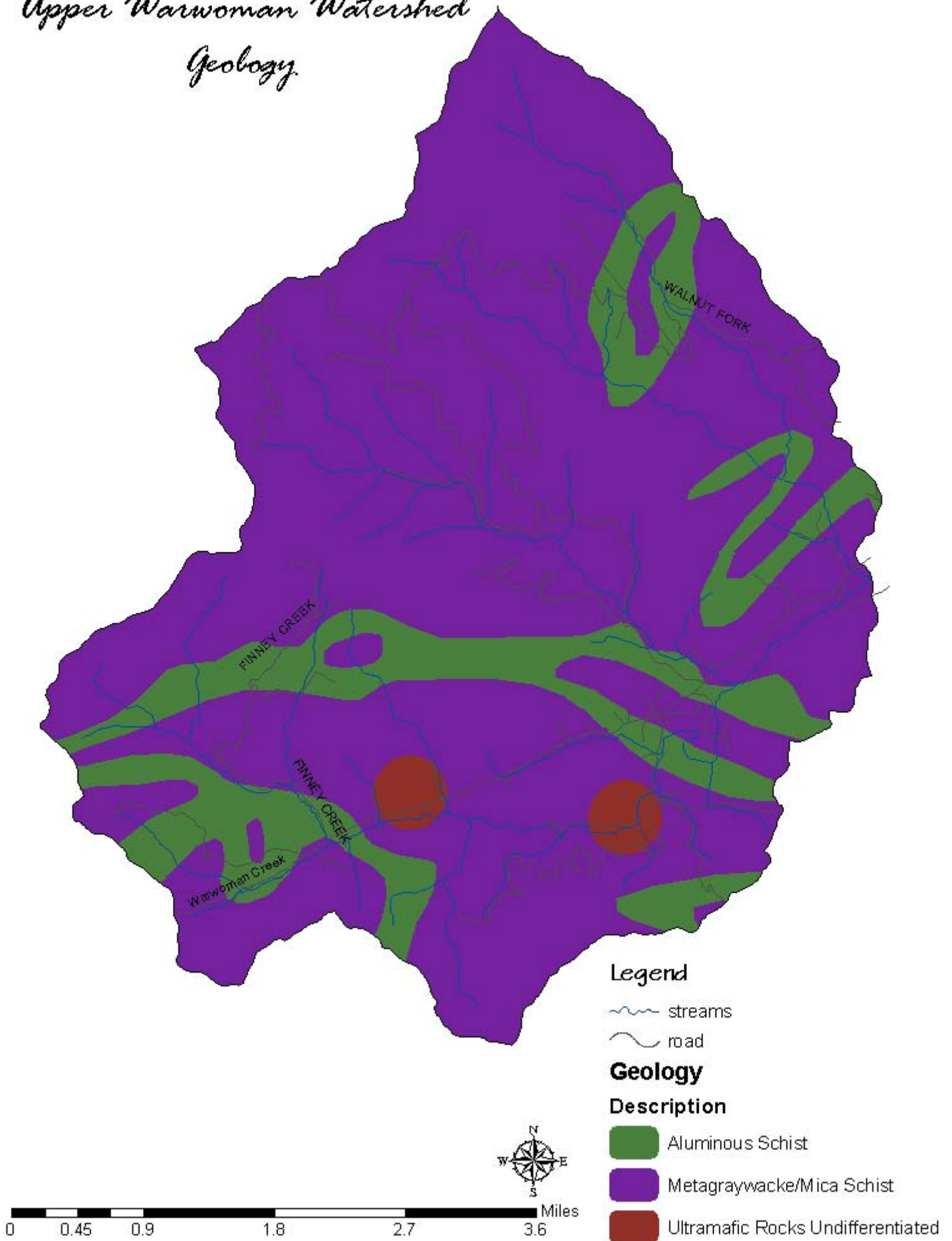
LandType Association Summary

| MAP_UNIT_I | Acreage |
|-------------------|----------------|
| M221Dc038 | 1.06 |
| M221Dc028 | 2655.59 |
| M221Dc027 | 12749.46 |

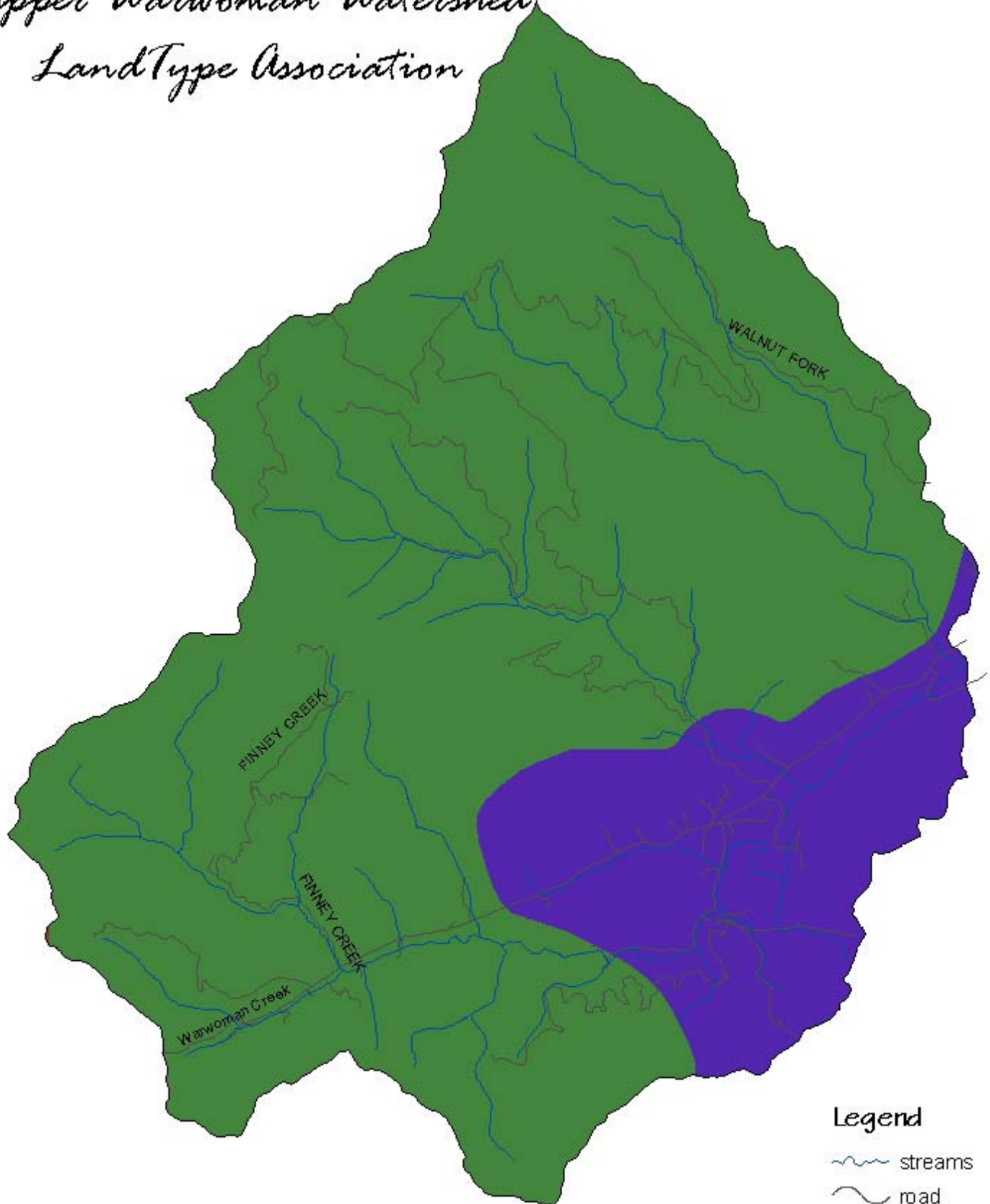
Soils Summary

| Name | Acreage |
|--|----------------|
| Ashe association, stony, very steep | 958.96 |
| Ashe-Porters association, moderately steep | 382.53 |
| Bradson fine sandy loam | 1478.15 |
| Chatuge loam | 56.44 |
| Edneyville and Porters loams | 2095.25 |
| Edneyville sandy loam | 294.68 |
| Evard Association, steep | 452.59 |
| Hayesville fine sandy loam | 1149.66 |
| Porters association, stony, steep | 455.22 |
| Porters association, stony, very steep | 242.59 |
| Rock outcrop | 86.69 |
| Saluda and Ashe stony soils, very steep | 706.58 |
| Saluda association, moderately steep | 343.85 |
| Saluda association, steep | 1675.45 |
| Toccoa fine sandy loam | 47.47 |
| Transylvania-Toxaway complex | 356.66 |
| Tusquitee loam | 1523.23 |
| Tusquitee-Haywood association, steep | 3147.49 |



Upper Warwoman Watershed Geology



Upper Warwoman Watershed Land Type Association

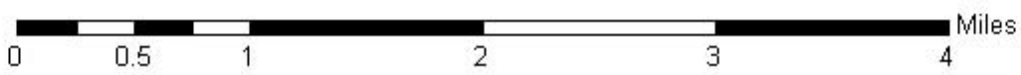


Legend

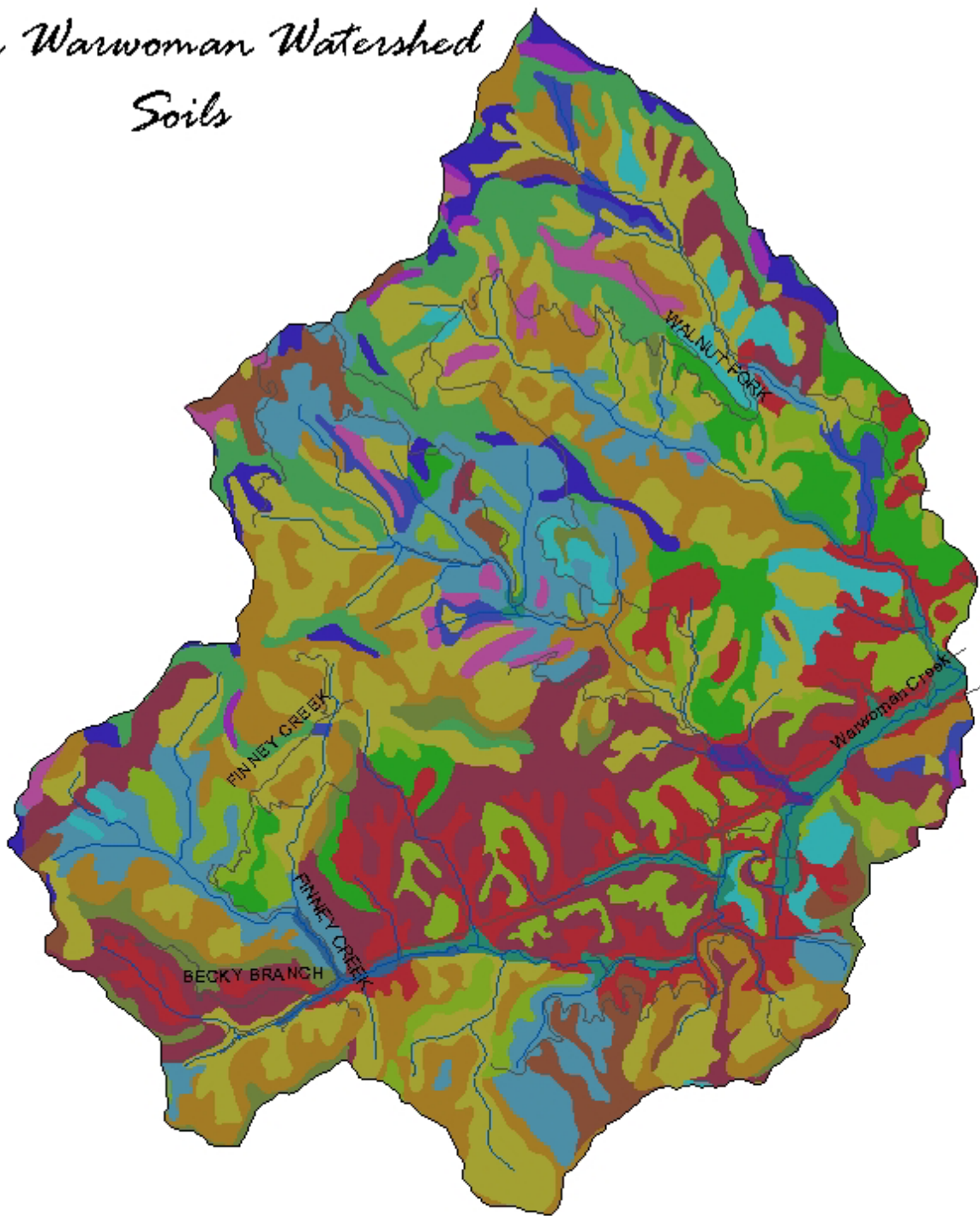
-  streams
-  road

LTA

-  M221Dc027
-  M221Dc028
-  M221Dc038



Upper Warwoman Watershed Soils



Legend

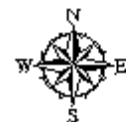
- streams
- road

Soils

Properties

- | | | |
|--|--|---|
| Ashe association, stony, very steep | Edneyville and Porters loams | Saluda and Ashe stony soils, very steep |
| Ashe-Porters association, moderately steep | Edneyville sandy loam | Saluda association, moderately steep |
| Bradson fine sandy loam | Evard Association, steep | Saluda association, steep |
| Chatuge loam | Hayesville fine sandy loam | Toccoa fine sandy loam |
| | Porters association, stony, steep | Transylvania-Toxaway complex |
| | Porters association, stony, very steep | Tusquee loam |
| | Rock outcrop | Tusquee-Haywood association, steep |

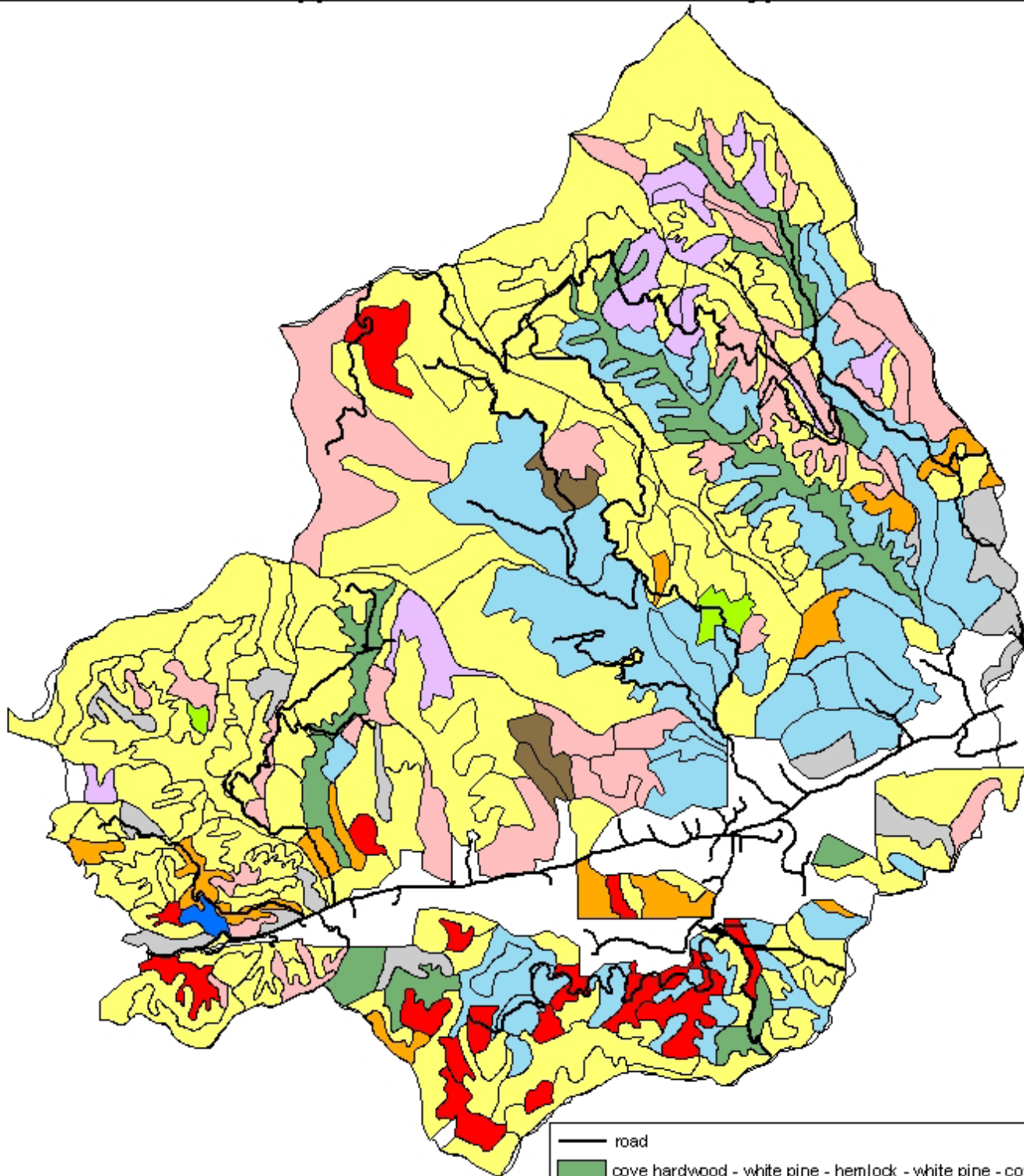
0 0.5 1 2 3 4 Miles



Major Forest Communities Information

Major Forest Communities are mapped on the next page. However, a comparison between desired and existing condition is not given here because we believe it better fits under forest health.

Upper Warwoman HUC Forest Types



- road
- cove hardwood - white pine - hemlock - white pine - cove hardwood
- northern white oak & NRO - yellowpine
- white oak
- yellowpoplar & YP-WO-RO
- oak & oak - pine mixtures
- pitch pine & pitch pine - oak
- virginia pine & virginia pine - oak
- shortleaf pine & shortleaf pine - oak
- hemlock & hemlock - hardwood & white pine - hemlock
- white pine & white pine - upland hardwood
- TMP & TMP-Hdwd
- Warwoman



0 0.5 1 2 Miles

RARE COMMUNITIES

FOREST PLAN GOALS AND OBJECTIVES

GOAL 44- Identify and delineate any rare communities found on Forest lands, and
Then incorporate them into management prescriptions 4.D or 9.F.

Forest Community-Table Mountain Pine (TMP) Forest and Woodland

*TMP stands were burned with high intensity prescribed burns in 1998, 2003 and 2004.

-Current stand conditions in areas where the stand was replaced: pines (50% pitch and 50% TMP) are 4'-5' tall, hardwood sprouts (oak, hickory, sassafras) are 5'-6' tall. Mt. Laurel is 2".

The opportunity exists to thin/release the Table Mountain and/or pitch pine from each other and other species.

***Possible management practices to improve stand conditions and ensure existing Table Mountain pine stands remain include:**

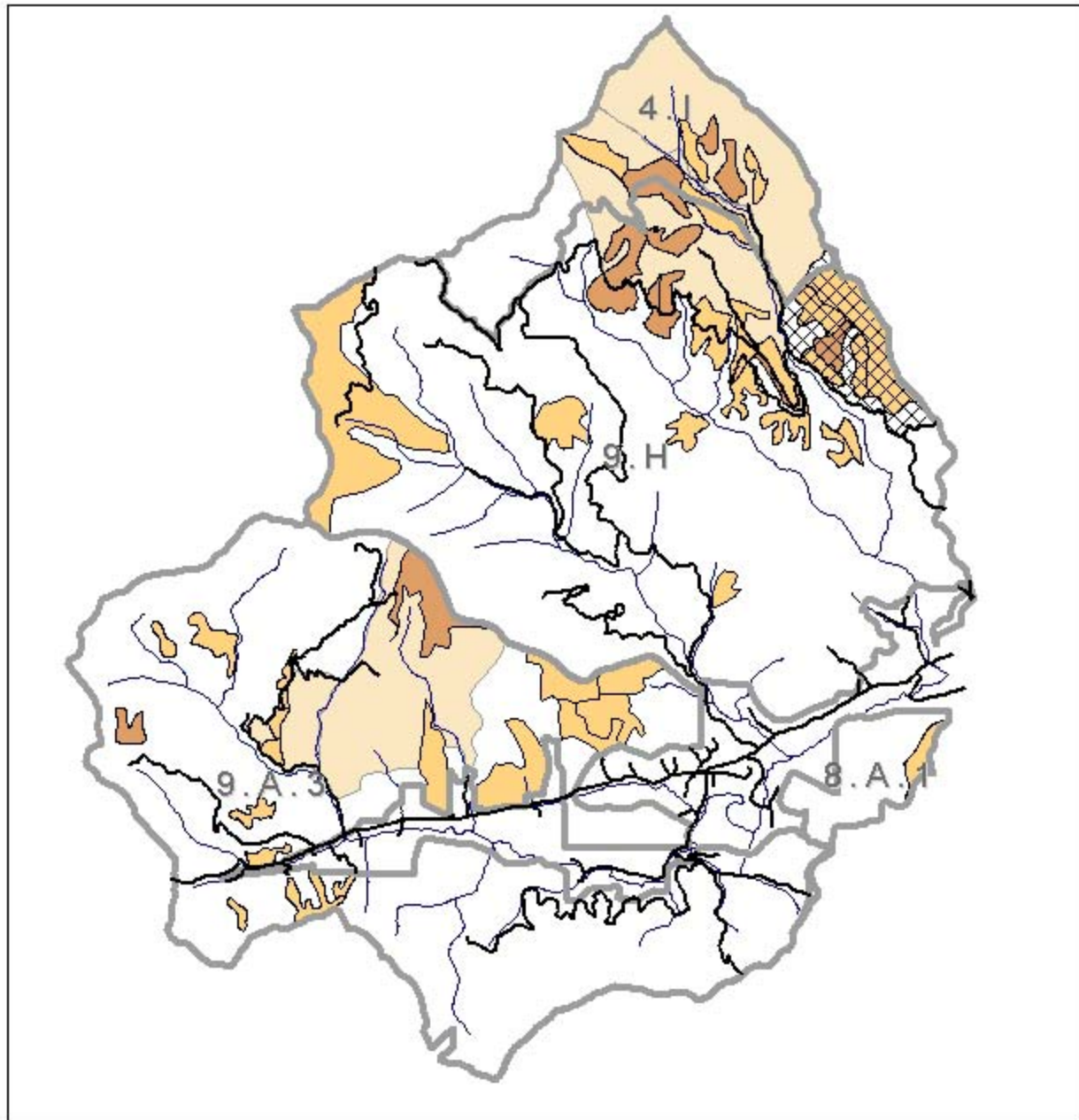
- Mechanical treatment to cut and remove competing hardwood sprouts (from Tom Waldrop)
- When pines reach 15'-20', begin a rotation of low intensity prescribed burns. Burns should occur every 3-4 years to reduce hardwood competition. (from Tom Waldrop)
- Herbicide treatments could include cut-stem treatments with appropriate chemicals.
- Ducks Nest Gap prescribed burn (1,049 acres) would provide additional seedbed preparation and possibly regenerate some small areas of Table Mountain pine within the burn area. This project is already NEPA complete.

American Chestnut – Opportunities could exist for development of stump-sprouting American chestnuts and back-crossing these trees if and when they flower with pollen from the American Chestnut Foundation nursery. These back-crosses using resistant stock increase the genetic diversity of the nursery and/or out-planted trees and offer a chance recombination of a more resistant individual.

The possible management practice of back-crossing is likely along the Tuckaluge Creek – Dan Gap – Walnut Fork – Sarah's Creek Road loop off of Warwoman, with the most potential existing on the Dan Gap and

Walnut Fork segments. An inventory is needed before planning and implementing this potential project.

TMP and Pitch Pine Stands Over Past and Proposed Prescribed Burns



- road
- Management Prescriptions
- Table Mountain Pine and TMP - Oak Stands
- Pitch Pine and Pitch Pine - Oak Stands
- ducks_nest_gap_prescribed_burn
- Controlled_Burns_in_warwoman_watershed
- streams



0.9 0.45 0 0.9 Miles

Successional Stage Habitats Information

Early Successional Areas:

Early successional areas here are defined as areas less than 10 years old. Below is a summary of information on this important habitat:

| | |
|--|--|
| Desired Condition (from Forest Plan) | 4.I – Canopy gaps and occasional large openings 8.A.1 - ESH dispersed throughout the area 9.A.3 – 85% or more of forest cover in mid-late succ. 9.H – Patches of early successional forest |
| Related Objectives to move toward Goal | 4.I - 1-4% 8.A.1 - 4-10% 9.A.3 – 1-4% 9.H – 4-10% |
| Existing Condition from inventory | See Table below |
| Opportunity? | Need more early successional forest in the 8.A.1 and 9.H Prescriptions. |
| Possible Management Practices | <ol style="list-style-type: none"> 1. Even-aged system at upper end of Tuckaluge Creek Road. This unit would also satisfy high elevation ESH. 2. Even-aged system in vicinity of Sandy Ford, Buck Branch, Dan Gap and Tuckaluge Creek Roads. 3. Vista creation along two segments on Walnut Fork and Dan Gap Roads 4. Group selection in white pine stands may provide adequate early successional habitat for some organisms. 5. Day lighting of road segments on Becky Branch, Tuckaluge Spur, Walnut Fork, Dan Gap, Black Stump Gap, and Finney Creek Roads 6. Transitional edge creation around three existing wildlife openings to be maintained (bush hogged) in ESH; 100-200 feet around openings depending on the terrain. |
| Remarks | Management Practices duplicated from other opportunities. Complete aerial and/or field inventory of stands needs to be completed to verify current early successional conditions. |

Forests less than 10 years old are summarized below. For the purpose of this analysis, past southern pine beetle (SPB) mortality was assumed to not

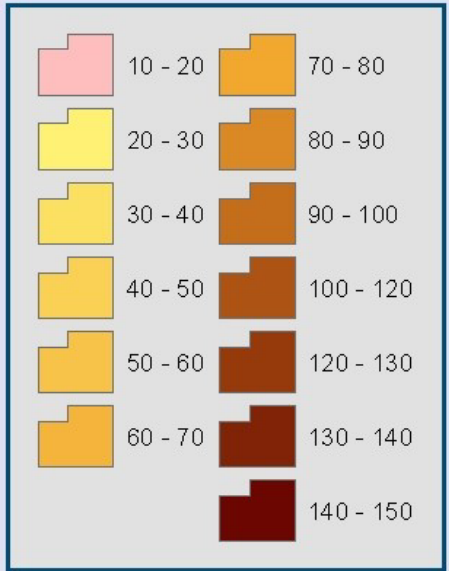
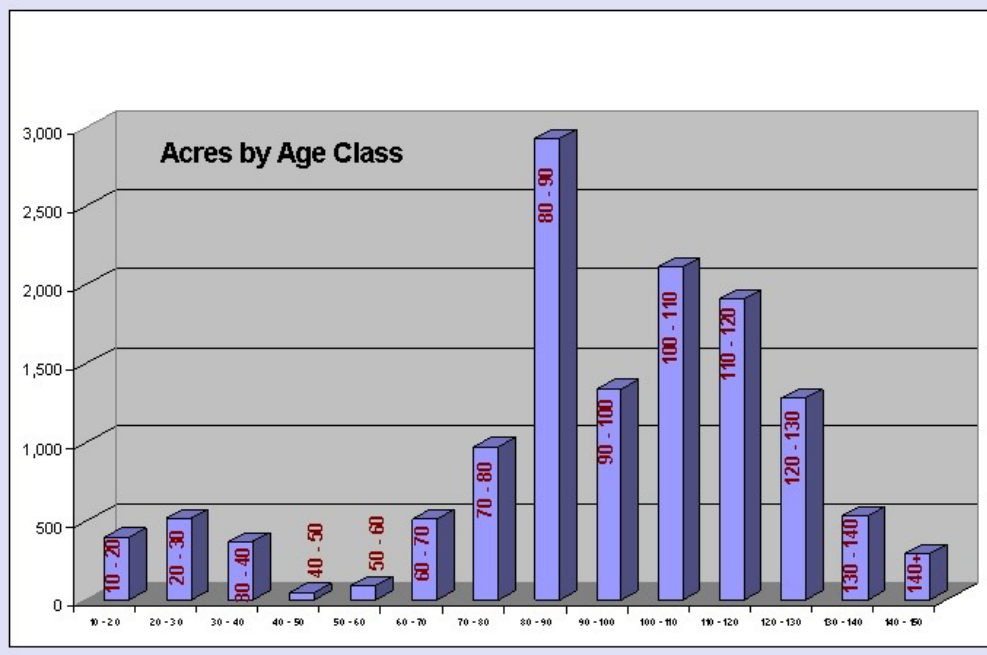
be providing significantly increased sunlight to the forest floor, and therefore was not counted. Additional aerial or field inventory is needed to ensure that this assumption is correct.

Past prescribed burning conducted from 1997 through 2004 has created some early successional conditions. These areas have been roughly mapped using oblique digital aerial photos taken from a helicopter. These areas also need ground truthing and/or aerial reconnaissance.

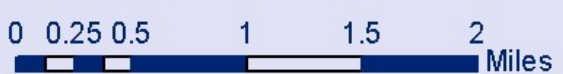
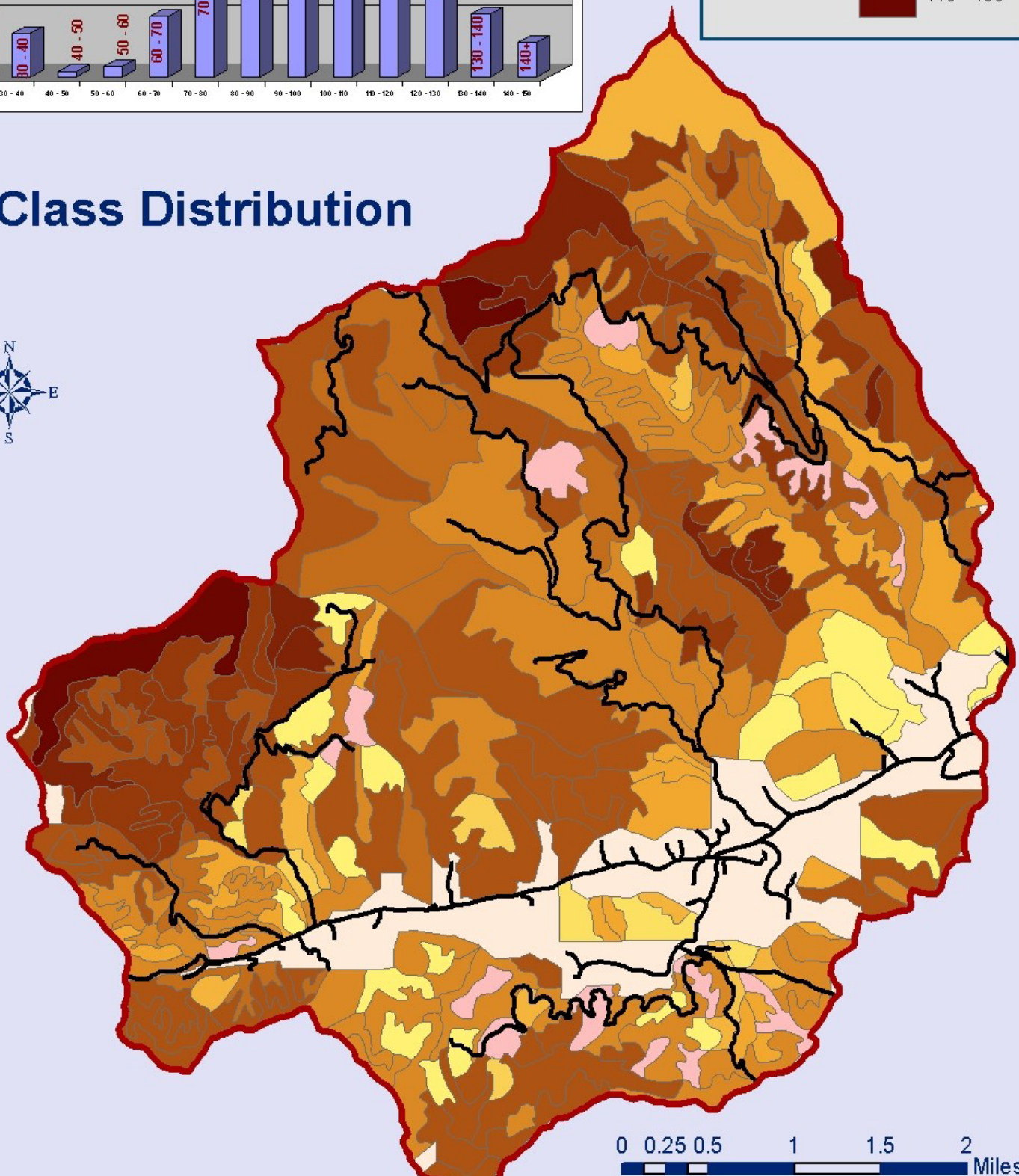
| MRx | Total NFS AC in MRx within Watershed | Acres in Early Successional Habitat (ESH) (10 yrs old and less) | Percentage of MRx in ESH |
|---------------|---|--|---------------------------------|
| 4.I | 1,182 | 203 | 17.1* |
| 9.A.3 | 5,562 | 62 | 1.1 |
| 9.H | 6,147 | 72 | 1.2 |
| 8.A.1 | 321 | 0 | 0 |
| Totals | 13,212 | 337 | 2.6 |

Old Growth:

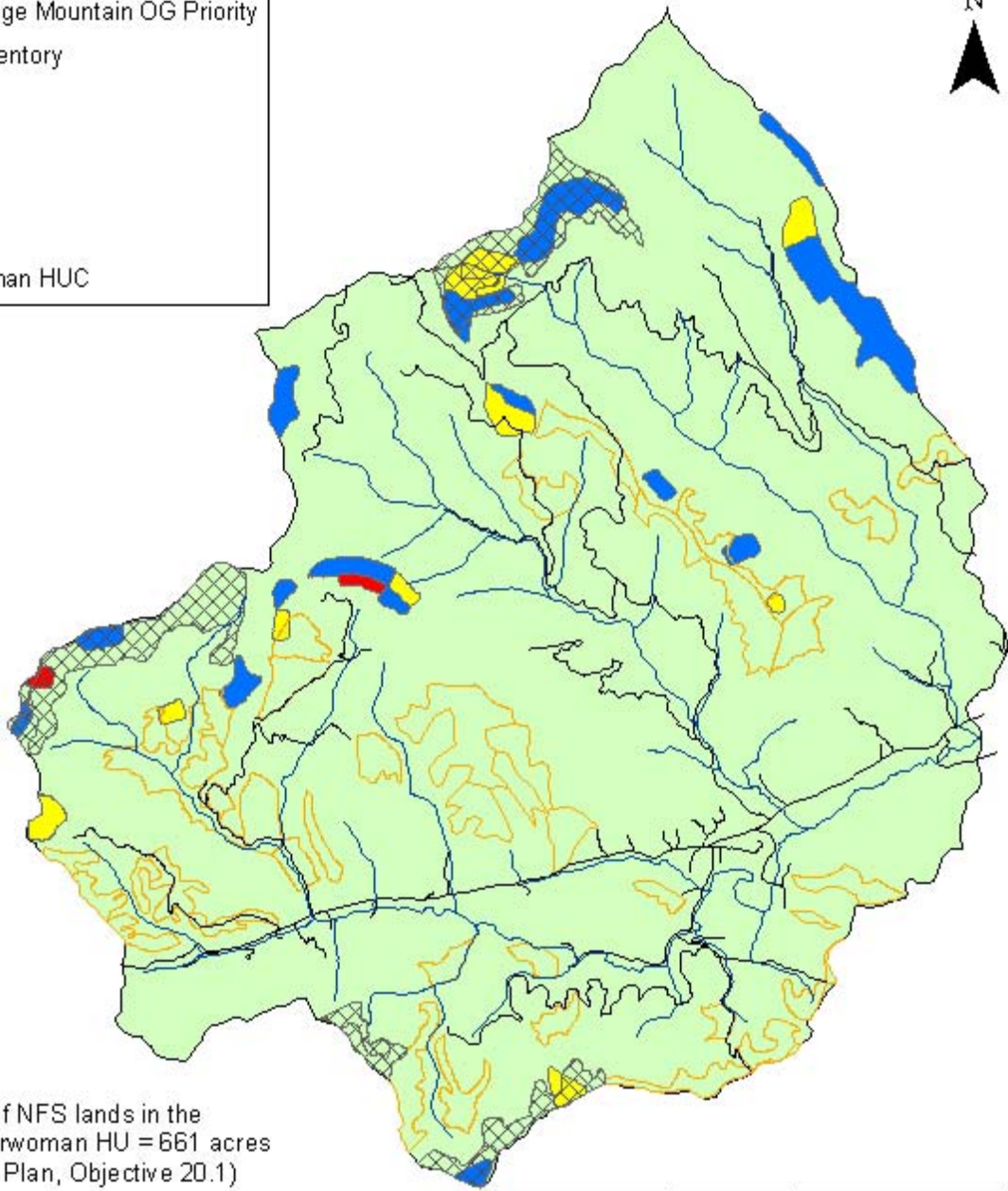
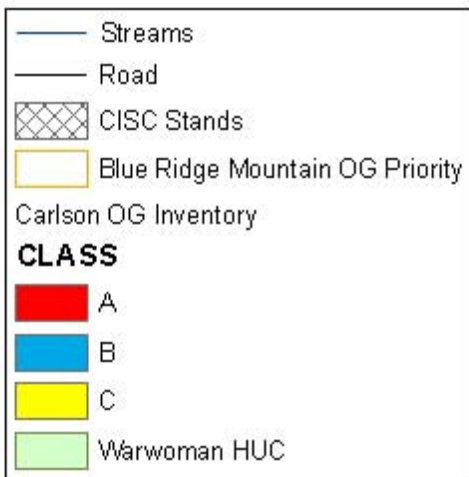
Following old growth guidance Objective 20.1, the team selected stands to meet the 5% reservation requirement (see map). In doing so, the team reserved all of the Class A areas (2) from "An Assessment of the Old-Growth Forest Resource on National Forest System Lands in the Chattooga River Watershed," 1995, by Paul Carlson (Carlson Report). In addition, several of Carlson's B areas were reserved while focusing attention on reserving as much dry and dry – mesic oak-pine stands (Standard FW-053) as is needed to satisfy the requirement of 5%, or 661 acres within the HU.



Age Class Distribution



5% Reservation of OG in HU



5% of NFS lands in the
Upper Warwoman HU = 661 acres
(Forest Plan, Objective 20.1)



| Compartment/Stand | Forest Type | Age | Acreage |
|----------------------|-------------|-----|---------------|
| 52/036 | 52 | 108 | 32.55 |
| 52/022 | 47 | 108 | 63.10 |
| 41/033 | 53 | 118 | 14.45 |
| 41/034 | 53 | 128 | 11.12 |
| 41/014 | 53 | 138 | 217.71 |
| 37/009 | 53 | 93 | 93.36 |
| 36/017 | 59 | 138 | 72.18 |
| 36/014 | 53 | 128 | 196.15 |
| 52/039 | 16 | 83 | 22.00 |
| 52/040 | 47 | 83 | 23.96 |
| Total Acreage | | | 746.58 |

Aquatic Habitat

FOREST PLAN GOALS AND OBJECTIVES

GOAL 26- Restore and/or maintain aquatic ecosystems in amounts, arrangements, and conditions capable of supporting viable populations of all native and desired nonnative species of aquatic flora and fauna within the planning area.

OBJECTIVE 26.4 Identify and prioritize streams for restoration of brook trout in cooperation with the Georgia DNR within six years of Plan implementation.

Current Conditions-Stream habitat surveys completed in 2001 show Walnut Fork, Upper Tuckaluge, and Hoods Creek are lacking in large woody debris.

Opportunities to improve aquatic habitat conditions and ensure stable fish populations include:

- Evaluate potential to restore Southern brook trout to middle section of Walnut Fork, Tuckaluge Creek, and Becky Branch (Coop project with GADNR)
- Conduct habitat, fish, and thermograph surveys in Martin Creek, Tuckaluge, and Upper Warwoman Creek (Coop project with GADNR)
- To improve conditions for existing brook trout population, add Large Woody Debris in Sections 2&3 in Tuckaluge Creek (1.7 miles)

9.A.3 WATERSHED RESTORATION AREAS

Roach Mill Creek

Forest Plan Emphasis- Management emphasis would be on improving conditions where past land uses have degraded water quality or soil productivity. The long-term goal of these watersheds is to showcase restored and resilient watersheds where proper multiple use management practices are applied. When this goal is achieved, these watersheds are allocated to a different management prescription.

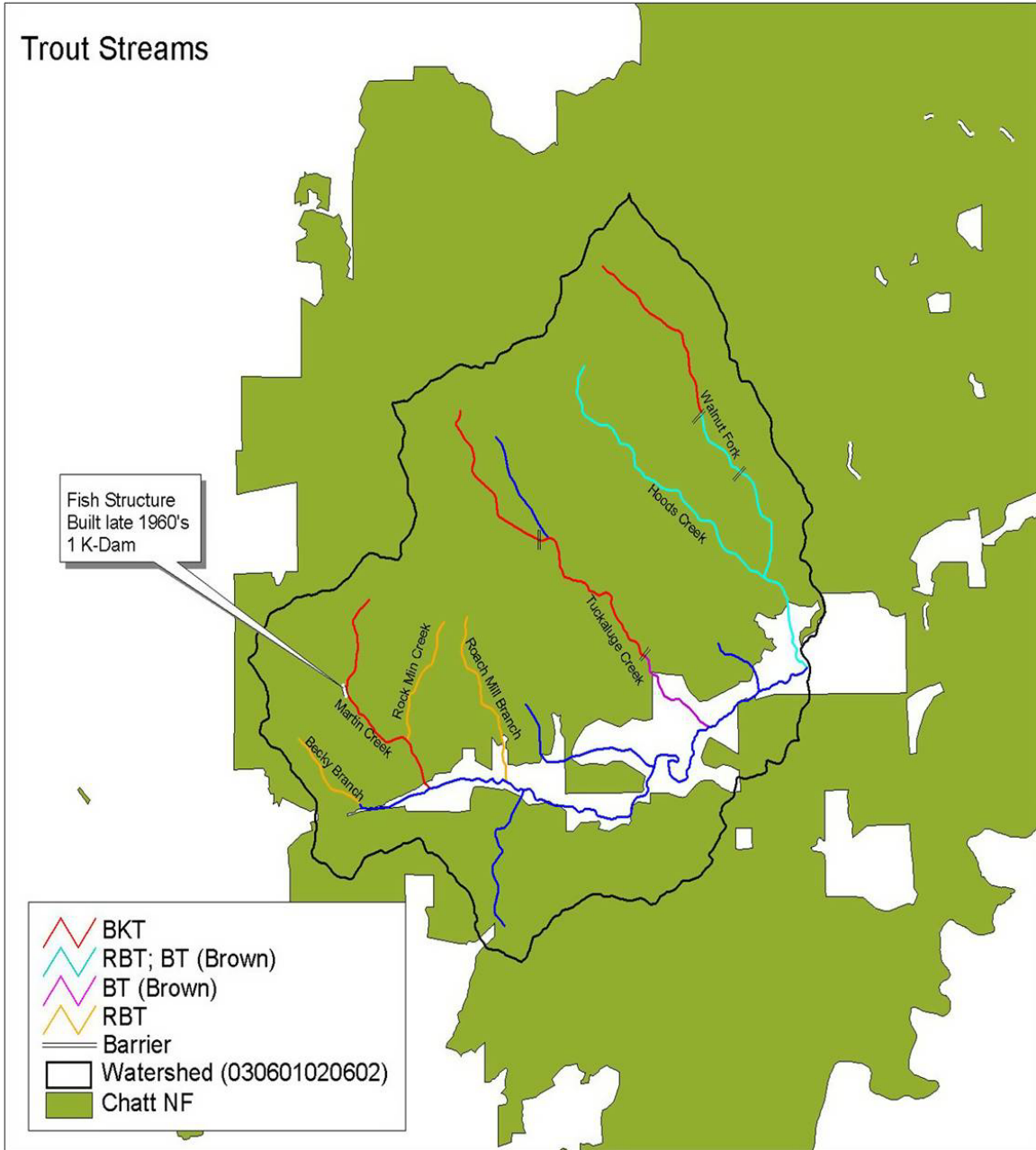
Part of watershed is in MRx 9.A.3 Watershed Restoration Area due to Roach Mill Creek listed by GA EPD as an impaired stream. Roach Mill Creek is listed as an impaired due to high sediment loads. Studies indicate

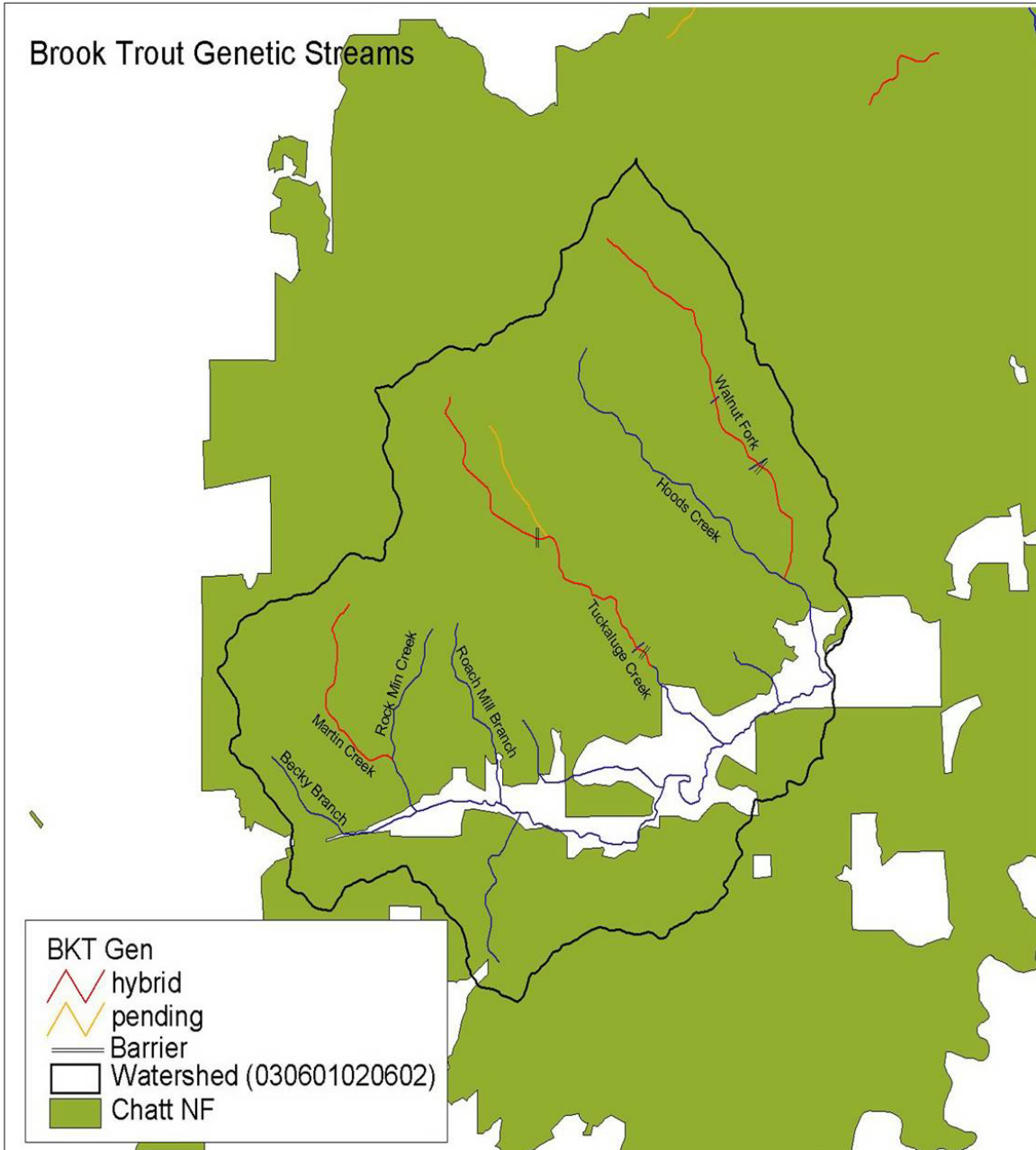
the high sediment is probably historic caused by pre-Forest Service land ownership logging and Forest Service activities prior to BMP implementation (US EPA, 1998). The Chattooga Watershed Project was implemented in 1999 and completed in 2004. The goals of the project were to improve watershed conditions, including the Upper Warwoman Watershed.

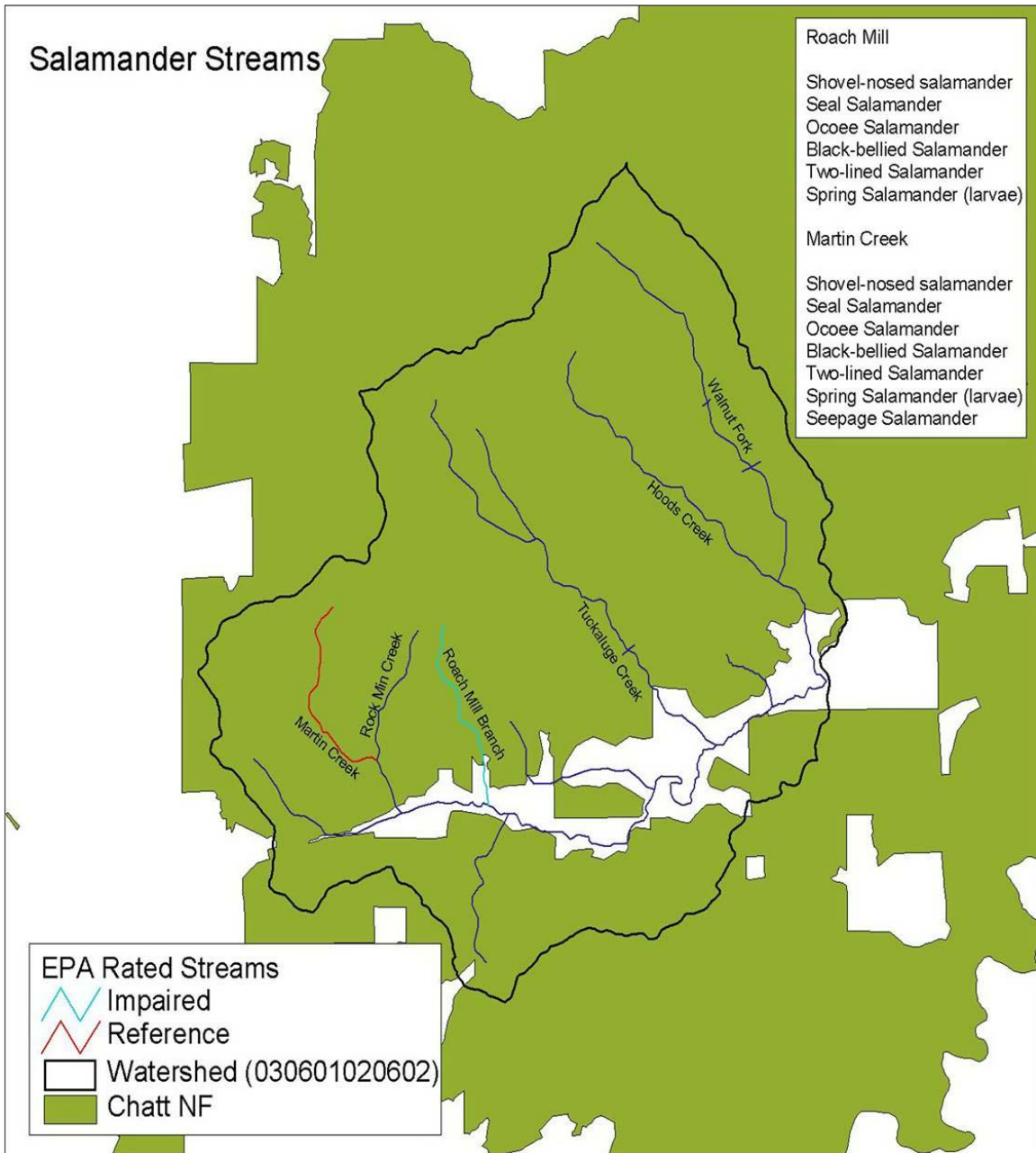
Recommendations to achieve allocating this area to a different MRx include:

- Monitor stream conditions to determine if Roach Mill Creeks habitat conditions have improved
- Coordinate with GA EPD and US EPA to have Roach de-listed as an impaired stream
- Complete a Forest Plan amendment to allocate this area to a new MRx.

Trout Streams







| Stream | Sampling Yr. | Fish |
|-------------------|--|---------------|
| Martin Creek | 2000 | BKT |
| Rock Mtn. Creek | 1992 | RBT |
| Roach Mill Branch | 1992 | RBT |
| Upper Tuckaluge | 2002 | BKT |
| Lower Tuckaluge | 2002 | BKT |
| Hoods Creek | 1954, 1990, 1991, 1992, 1993, 1994, 1995, 2000, 2002 | RBT, BRT |
| Walnut Fork | 1980, 1984, 2003, 2004 | RBT, BRT, BKT |

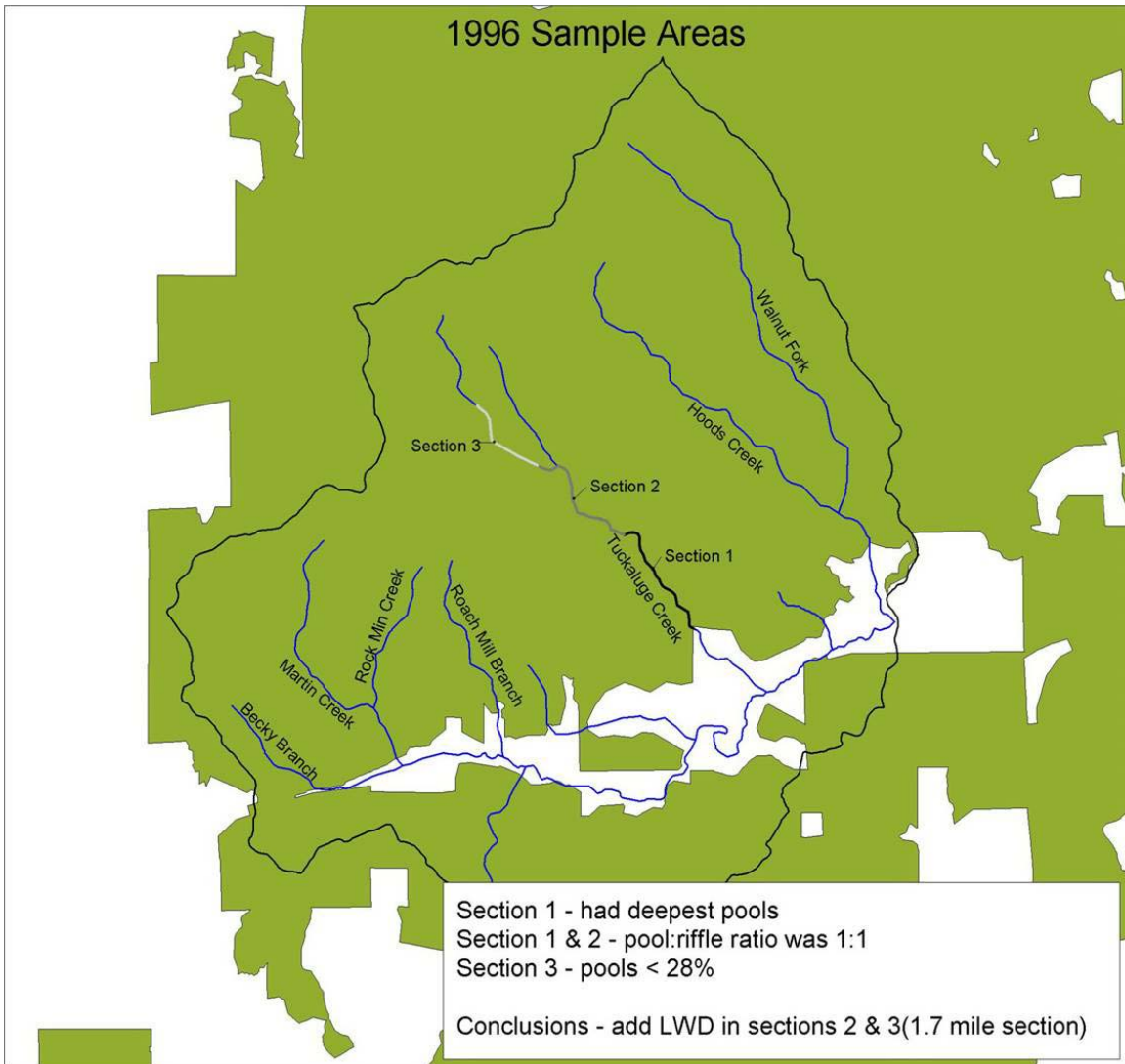
* Hoods Creek is a Standardized Sampling Stream.

Thermographs, Habitat, Fish Surveys for:
 Martin Cr. - 2003
 Tuckaluge - 2002

Thermographs only:
 Upper Warwoman @ Joe Speed Rd.
 Tuckaluge

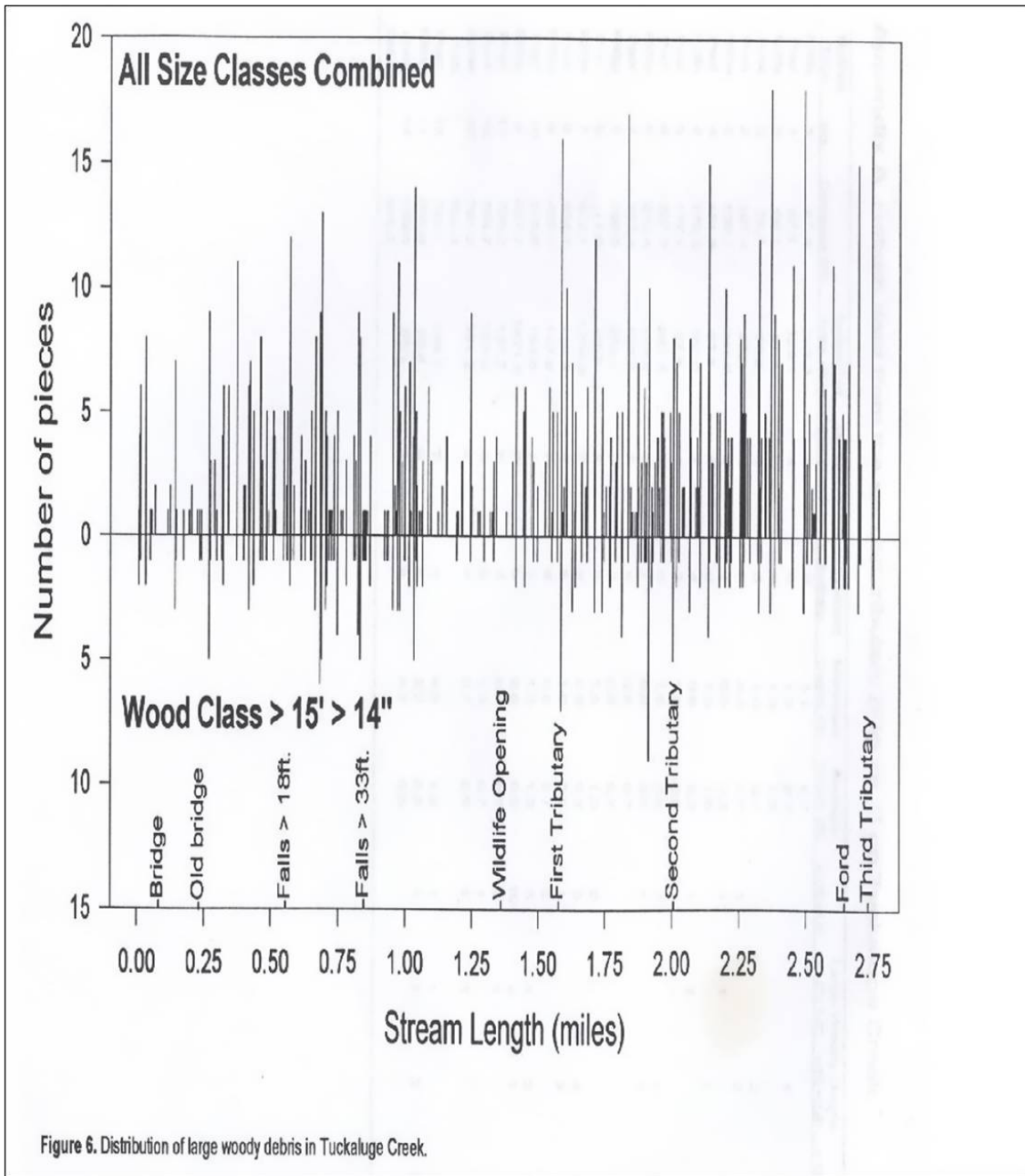
Recommendations for Upper Warwoman:

Evaluate potential to restore Southern BT to the Middle(above 1st waterfall) section of Walnut Fork
 Evaluate the potential for restoration of Brook Trout in the Tuckaluge Watershed in Becky Branch.



Potential Needs

Road Crossings - those that are barriers and those for replacement
 Grants (Embrace - A - Stream, etc.)
 Salamander surveys from activity (Burn, Timber, etc.)



Demand Species

FOREST PLAN GOALS AND OBJECTIVES

GOAL 1- Contribute to the viability of native and other desirable wildlife species.

GOAL 2- A diversity of habitat will be provided for the full range of native and other desired species. Sufficient amounts of interior or late-successional habitat as well as early-successional habitat will be provided to meet needs of all successional communities. Early successional habitat will be well distributed in all forest types, elevations, aspects, and slopes including riparian corridors.

GOAL 3- Enhance, restore, manage and create habitats as required for wildlife including disturbance-dependent forest types.

GOAL 10- Manage for a diversity of oak species to minimize yearly fluctuations in acorn supplies.

Current Conditions:

White-tailed Deer- Population has trended downward since 1991. Georgia DNR biologists indicate the lack of sufficient habitat is a contributing factor in the decline.

| Table 1 – Estimated Deer Densities per Square Mile for Warwoman Wildlife Management Area, Chattahoochee National Forest | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Warwoman WMA | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Warwoman | 27 | 25 | N/A | 35 | 39 | N/A | 22 | 28 | 24 | 13 | 13 | 16 | 11 | 11 |

N/A – Not available because of low doe harvest; WMA – Wildlife Management Area

Source: Kent Kammermeyer, 2003, "Deer population characteristics on wildlife management areas in Georgia from 1997 through 2003," Georgia Department of Natural Resources.

Black Bear- According to bait station survey data, population is stabilizing after 20 years of increase and are nearing carrying capacity on the Chattahoochee NF (GA DNR harvest data 1998-2003).

Eastern Wild Turkey- Requires hardwood forests (hard mast) and early successional habitat (nesting cover) and openings (insects for young). According to Georgia DNR biologist's, the population is stable. Continued reduction in required habitat is expected unless management activities are implemented.

Ruffed Grouse- Requires large areas (at least 40 acres) of early successional habitat. Not enough data exists to determine current population level. Recent hunter success and drumming counts suggest population is low on the Chattahoochee NF.

Opportunities to improve habitat conditions and ensure stable Demand Species populations include:

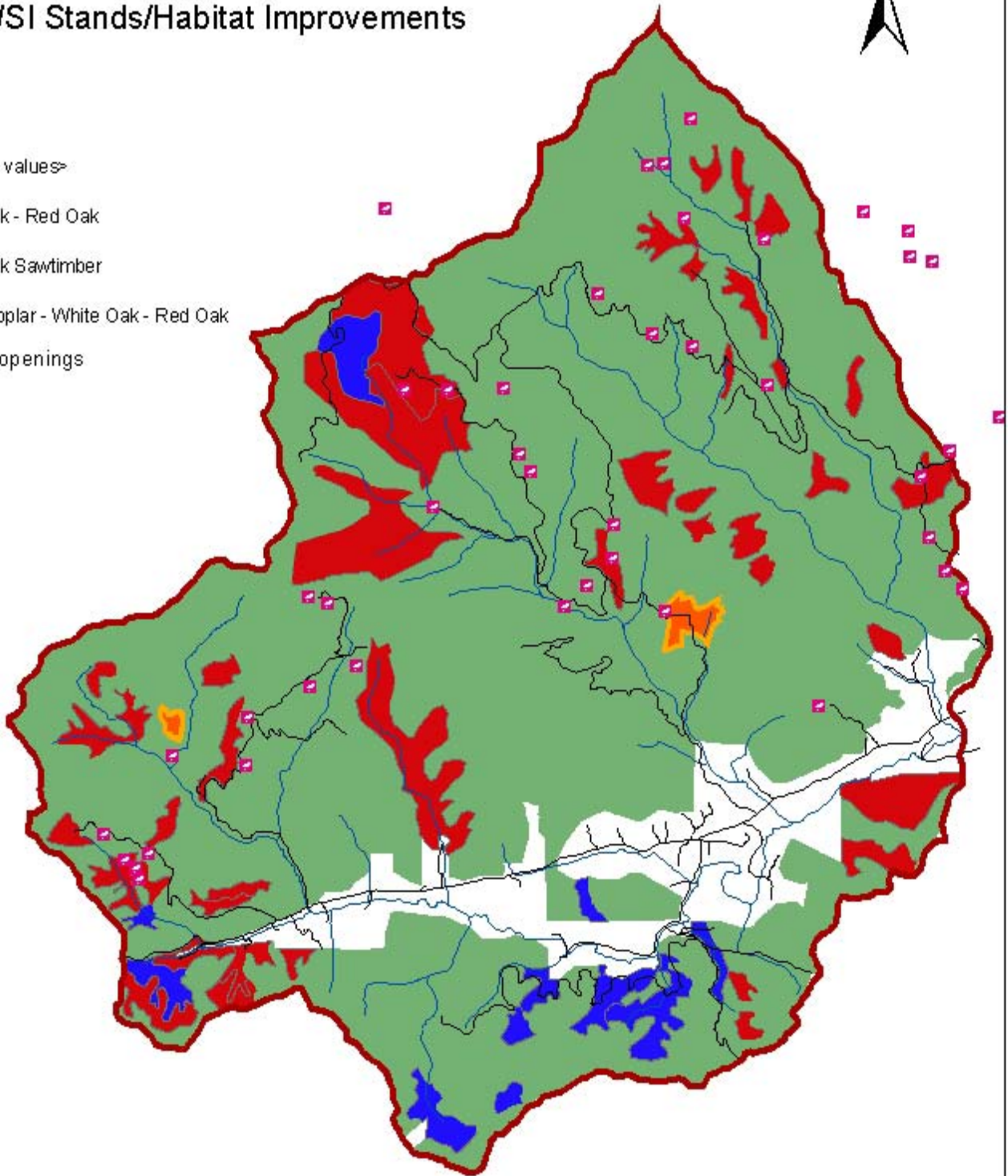
- Increase early successional habitat for soft mast, succulent plants, and escape/nesting cover
- Enhance hard mast production through WSI projects in oak stands
- Prescribed burning to increase succulent plants
- Ensure high quality wildlife openings are maintained and/or constructed where allowed
- Daylight roads and existing wildlife openings to increase acres of young forests and soft browse and mast

Warwoman Watershed

Demand Species
Potential WSI Stands/Habitat Improvements



-  <all other values>
-  White Oak - Red Oak
-  White Oak Sawtimber
-  Yellow Poplar - White Oak - Red Oak
-  wildlife_openings



0 0.5 1 2 Miles

MIS/Migratory Birds

The Forest Plan identifies 15 MIS for the Chattahoochee-Oconee National Forests (Forest Plan, page 2-5). Of these, 8 birds occur within or near the watershed. Of these species, 2 were selected because they have habitat requirements that are not being met by current conditions. There is sufficient habitat for species requiring mid-late successional habitat.

GOALS AND OBJECTIVES

| Species/ *(Status) | Habitat Requirement | Opportunities |
|--|-----------------------------------|---|
| Chestnut-sided Warbler (Population low) | High elevation early successional | Create new areas of high elevation early successional habitat. Commercial sales, daylight roads and existing wildlife openings. |
| Prairie Warbler (Population declining) | Early successional | Create new areas early successional habitat. Commercial sales, daylight roads and existing wildlife openings. |
| *Draft USFS MIS Report 2005 | | |

GOAL 2- A diversity of habitat will be provided for the full range of native and other desired species. Sufficient amounts of interior or late-successional habitat as well as early-successional habitat will be provided to meet needs of all successional communities.

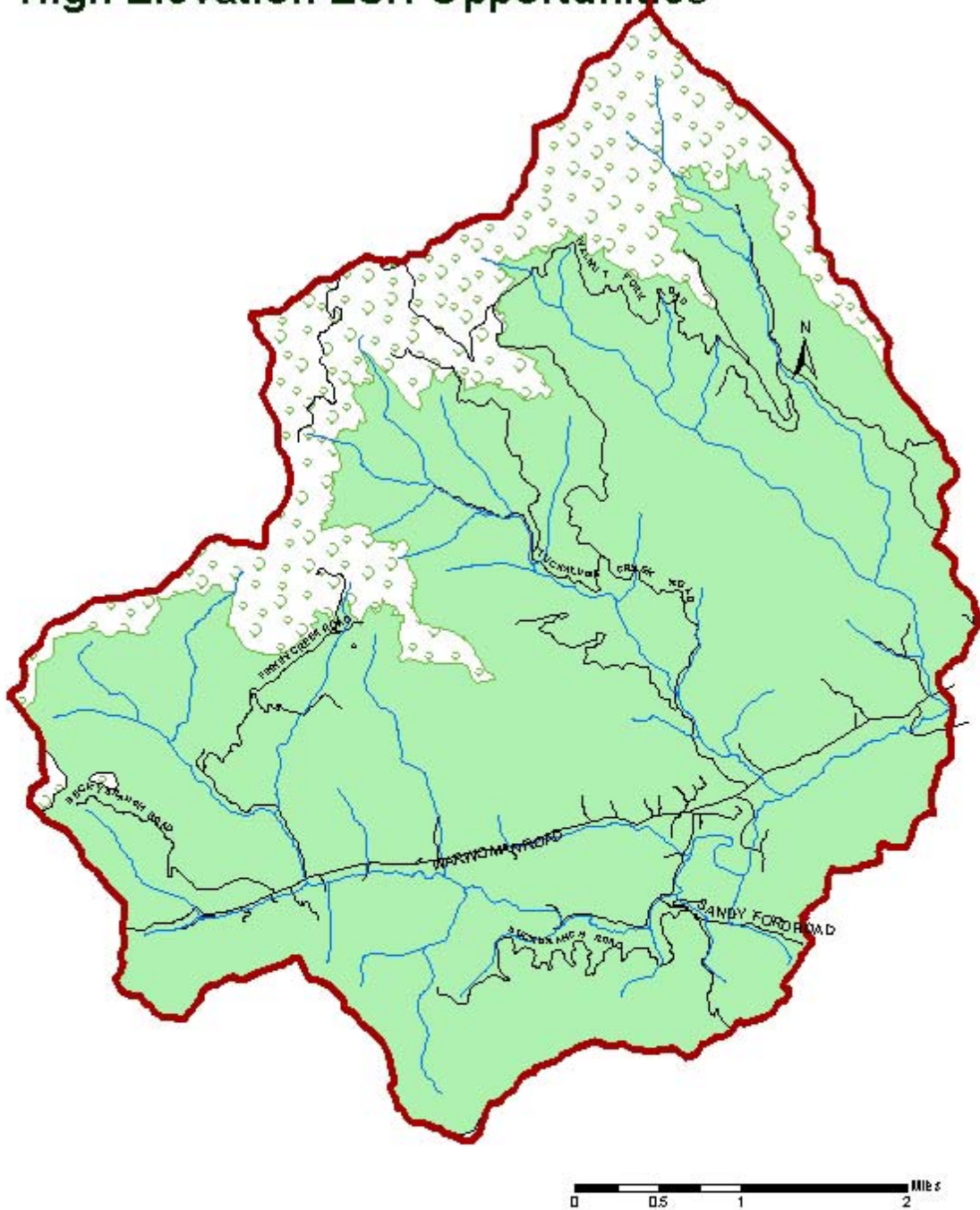
GOAL 13- Provide sufficient breeding, wintering, and migration staging and stopover habitat for migratory birds

Current Conditions- Forest stand types and age show sufficient amounts of habitat exist for species requiring older forests. However, analysis shows that less than 2 percent of the watershed provides young forest stands for species requiring early successional habitat at all elevations, slopes, and aspects.

* Includes 203 acres of Table Mountain pine prescribed burns

| MRx | Total NFS AC in MRx within Watershed | Acres in Early Successional Habitat (ESH) (10 yrs old and less) | Percentage of MRx in ESH |
|---------------|---|--|---------------------------------|
| 4.I | 1,182 | 203 | 17.1* |
| 9.A.3 | 5,562 | 62 | 1.1 |
| 9.H | 6,147 | 72 | 1.2 |
| 8.A.1 | 321 | 0 | 0 |
| Totals | 13,212 | 337 | 2.6 |

High Elevation ESH Opportunities





Legend

-  Warwoman
-  streams
-  Road

warwoman_elev_2800

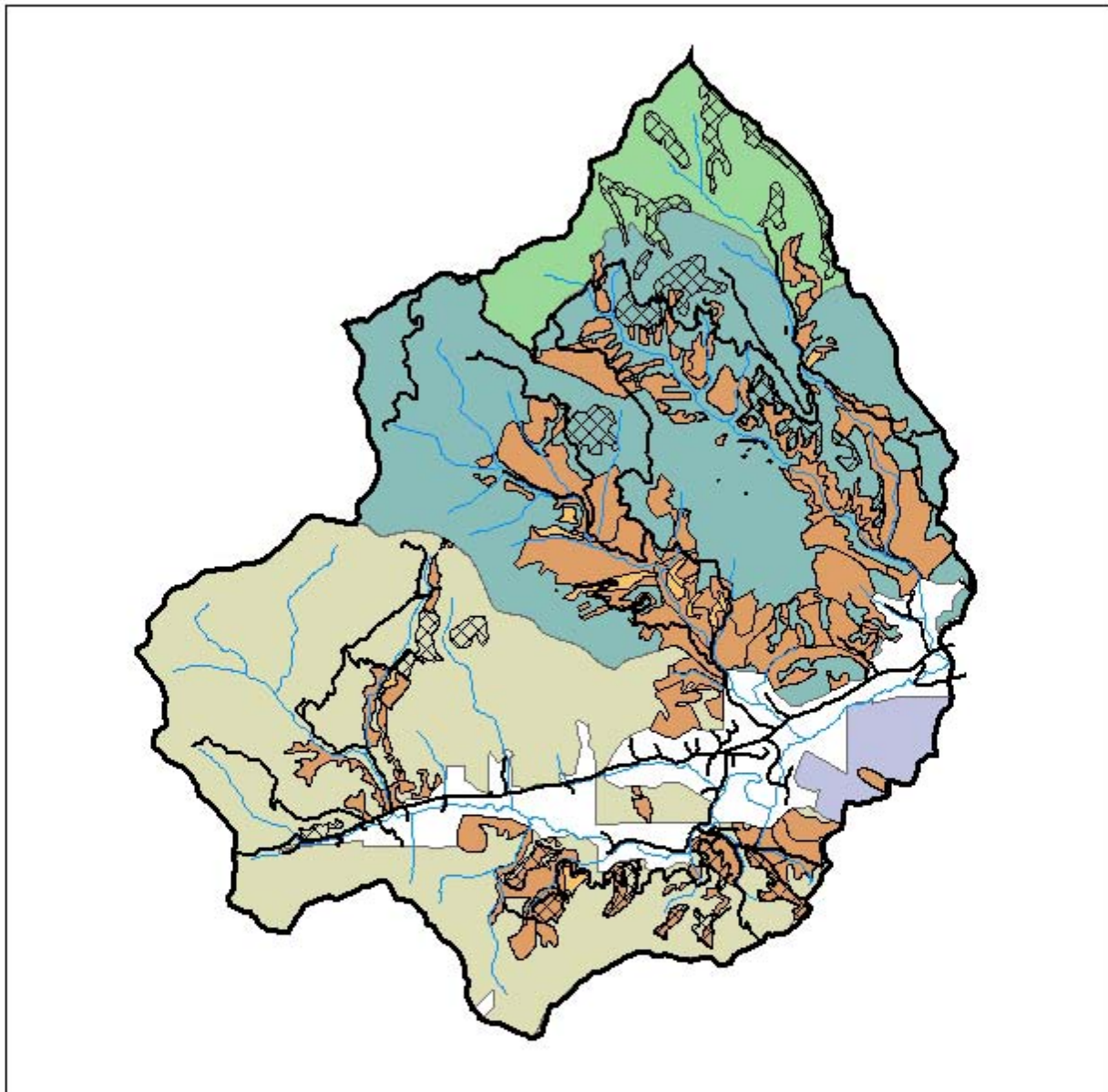
GRIDCODE

-  Warwoman HUC
-  <2800'

Forest Health Information

| | |
|--|---|
| Desired Condition (from Forest Plan) | Restore and maintain shortleaf, Table Mountain and pitch pine, oak and oak-pine forests (Goals 3, 8, 9.F) |
| Related Objectives to move toward Goal | Maintain pitch pine (133 acres annually), shortleaf pine (51 acres annually), Table Mountain pine (478 acres annually), oak and oak-pine (105 acres). This includes thinning and restoration opportunities. |
| Existing Condition from inventory | Excess of 400 accessible acres that are typed as white pine and have ECS Land Type Phases, or ecotypes, of something other than white pine. |
| Opportunity? | Reduction in white pine density within these stands. |
| Possible Management Practices | <ol style="list-style-type: none"> 1. Ducks Nest Gap Prescribed Burn (1,049 acres) 2. Manual (chainsaw, buzz saws) release of regeneration in burn areas (50% TMP, 50% pitch) 3. Prescribed burns in Tuckaluge, Dan Gap, Sandy Ford and Buck Branch areas to reduce white pine seedlings and saplings. 4. Low intensity prescribed burns starting in 2012, on a 3-year rotation in TMP/pitch pine regen areas. 5. Thinning of white pine in approximately 130 acres annually for next five years, concentrating in the Tuckaluge, Dan Gap, Sandy Ford and Buck Branch areas. 6. Regenerate 2-4 areas, converting them from nearly pure white pine to white pine-oak or non-white pine forest types. Locations include Buck Branch, Sandy Ford, Tuckaluge Creek Road and Dan Gap Road. |
| Remarks | Need on-the-ground inventories (FSVEG) of possible treatment areas to finalize proposals. |

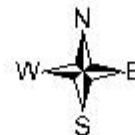
Stands Needing a Reduction in White Pine Density Comparison of CISC with the ECS from the Chattooga Demonstration Project



- Roads
- Streams
- ▨ Existing Early Succession
- Stands Needing White Pine Thinning or Conversion
- Pure White Pine Stands Needing Thinning

Management Prescription

- 4.I
- 8.A.1
- 9.A.3
- 9.H



Recreation Information

Bartram Trail

| | |
|---|--|
| Desired Condition (from Forest Plan) | <p>9.H</p> <ul style="list-style-type: none"> • ...provide a variety of motorized and non-motorized recreation opportunity. • Trail and access emphasis will depend on the condition of the area. • Some of the areas will provide opportunities for interpretation and conservation education. <p>9.A.3</p> <ul style="list-style-type: none"> • Recreation use emphasis is on dispersed activities such as hunting, fishing or hiking but localized and limited development facilitate those uses. |
| Related Objectives to move toward Goal | <p>Objective 31.1 Recognize and respond to emerging recreation trends and uses within the Forest Recreation niche by periodic assessments.</p> <p>Goal 34 Trails do not adversely affect soil and water resources</p> <p>Objective 34.1 ...prioritize for immediate action those that are found to be adversely affecting soil and water resources.</p> |
| Existing Condition from inventory | A portion (.5 mile) of the Bartram trail is located on a fairly entrenched portion of Walnut Fork Road. This is a safety issue for hikers and adversely affects their recreation experience. |
| Opportunity? | Yes, eliminate safety issues and poor visitor experience. |
| Possible Management Practices | <p>Close this area of the Bartram trail</p> <p>Relocate this portion of the trail so that it no longer follows Walnut Fork Road</p> |
| Remarks | A volunteer group has laid out a potential route following Mike Ritter's trail design guidelines. They are fully prepared to construct this reroute. The Forest Service would need to provide NEPA work. |

Walnut Fork Fisherman's Access

| | |
|---|--|
| Desired Condition (from Forest Plan) | <p>9.H</p> <ul style="list-style-type: none"> • ...provide a variety of motorized and non-motorized recreation opportunity. • Trail and access emphasis will depend on the condition of the area. • Some of the areas will provide opportunities for interpretation and conservation education. <p>9.A.3</p> <ul style="list-style-type: none"> • Recreation use emphasis is on dispersed activities such as hunting, fishing or hiking but localized and limited development facilitate those uses. |
| Related Objectives to move toward Goal | <p>Objective 31.1 Recognize and respond to emerging recreation trends and uses within the Forest Recreation niche by periodic assessments.</p> <p>Goal 34 Trails do not adversely affect soil and water resources</p> <p>Objective 34.1 ...prioritize for immediate action those that are found to be adversely affecting soil and water resources.</p> |
| Existing Condition from inventory | Fisherman are trailblazing across private land to access lower portions of Walnut Fork Creek. |
| Opportunity? | Create a "public" access to this fishing area |
| Possible Management Practices | <ul style="list-style-type: none"> • Create a Fisherman's access trail to the area from public roadway. • Encourage Fisherman to use upper Walnut Fork dispersed area and crack down on use of the lower section. |
| Remarks | This section of Walnut Fork is a prime fishing area and is highly sought after by fisherman. Discouraging its use will most likely be unsuccessful. |

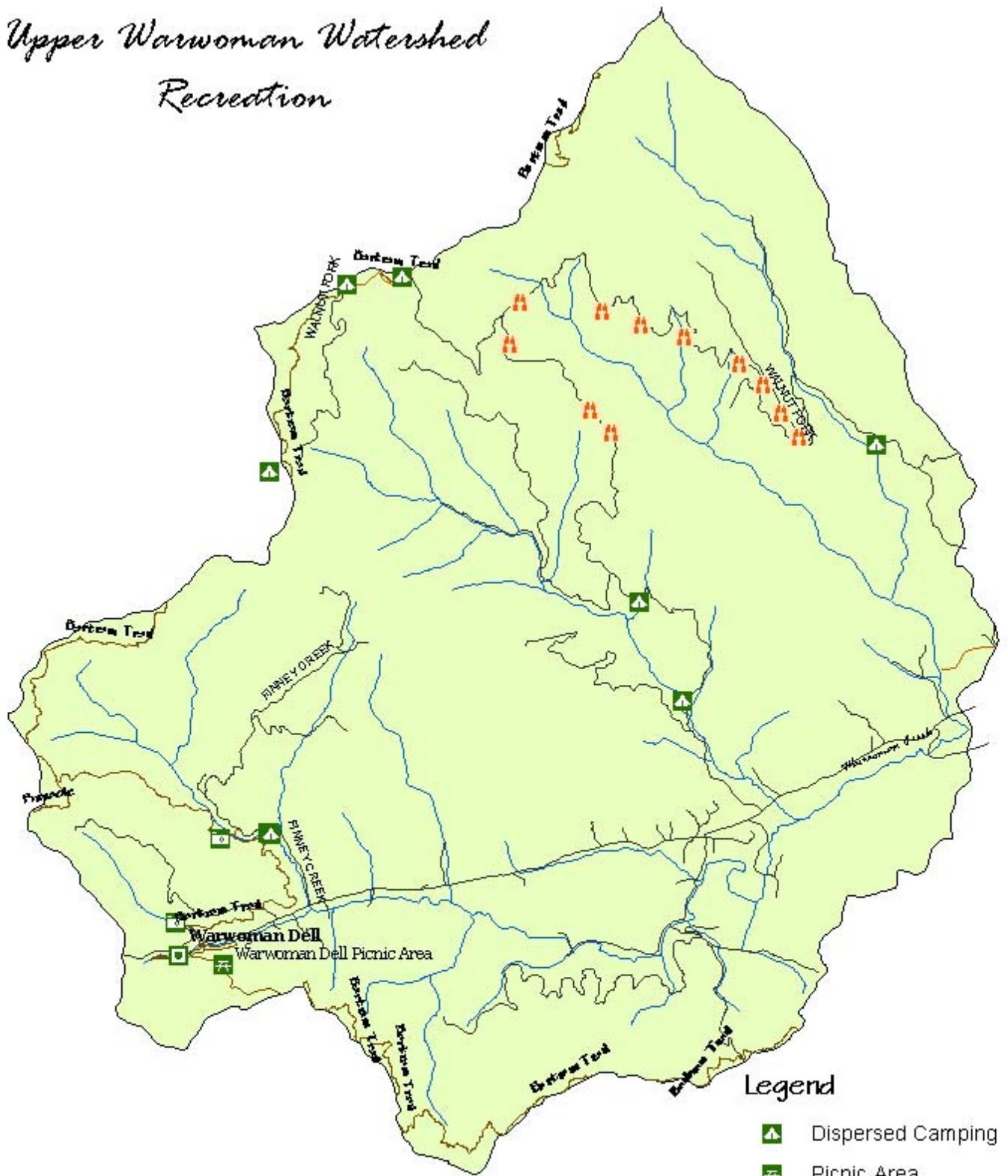
Martin's Creek Waterfall Access

| | |
|---|--|
| Desired Condition (from Forest Plan) | <p>9.H</p> <ul style="list-style-type: none"> • ...provide a variety of motorized and non-motorized recreation opportunity. • Trail and access emphasis will depend on the condition of the area. • Some of the areas will provide opportunities for interpretation and conservation education. <p>9.A.3</p> <ul style="list-style-type: none"> • Recreation use emphasis is on dispersed activities such as hunting, fishing or hiking but localized and limited development facilitate those uses. |
| Related Objectives to move toward Goal | <p>Objective 31.1 Recognize and respond to emerging recreation trends and uses within the Forest Recreation niche by periodic assessments.</p> <p>Goal 34 Trails do not adversely affect soil and water resources</p> <p>Objective 34.1 ...prioritize for immediate action those that are found to be adversely affecting soil and water resources.</p> |
| Existing Condition from inventory | <p>Visitors are trailblazing into Martin's Branch falls in order to view them. User created trails usually follow the fall line and can cause damage to soil and water resources.</p> |
| Opportunity? | <p>Allow better visitor access and reduce chances for adverse affects on soil and water resources.</p> |
| Possible Management Practices | <ul style="list-style-type: none"> • Remove information about the falls from visitor's guide. • Maintain user created trail. • Design a trail that adheres to Forest Service trail design standards and supply interpretive messages at the falls. |
| Remarks | <p>These falls are quite spectacular and are listed in our waterfall guide for visitors. Better access to such areas might increase use of neighboring facilities such as WarWoman Dell Picnic Area.</p> |








Vista Creation

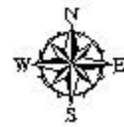
| | |
|---|--|
| <p>Desired Condition (from Forest Plan)</p> | <p>9.H</p> <ul style="list-style-type: none"> • ...provide a variety of motorized and non-motorized recreation opportunity. • Trail and access emphasis will depend on the condition of the area. • Some of the areas will provide opportunities for interpretation and conservation education. <p>9.A.3</p> <ul style="list-style-type: none"> • Recreation use emphasis is on dispersed activities such as hunting, fishing or hiking but localized and limited development facilitate those uses. |
| <p>Related Objectives to move toward Goal</p> | <p>Objective 31.1 Recognize and respond to emerging recreation trends and uses within the Forest Recreation niche by periodic assessments.</p> <p>Goal 34 Trails do not adversely affect soil and water resources</p> <p>Objective 34.1 ...prioritize for immediate action those that are found to be adversely affecting soil and water resources.</p> |
| <p>Existing Condition from inventory</p> | <p>Driving through the Tuckaluge, Dan Gap, and Walnut Fork loop is much like driving in a green tunnel.</p> |
| <p>Opportunity?</p> | <p>Create visual interest for visitors who are driving for pleasure. This would target visitors who want an easy "4 wheel drive" experience. (Those ritzy SUV folks).</p> |
| <p>Possible Management Practices</p> | <ul style="list-style-type: none"> • Leave the area alone. • Advertise the road as part of a scenic Warwoman package...include waterfalls, historic Warwoman Dell and the Tuckaluge, Dan Gap, Walnut Fork scenic drive loop for high clearance vehicles. This would include selectively clearing portions along the roadway hand picked for their scenic vista potential. Trees of interest would be left for framing views. |
| <p>Remarks</p> | <p>A volunteer group has laid out a potential route following Mike Ritter's trail design guidelines. They are fully prepared to construct this reroute. The Forest Service would need to provide NEPA work.</p> |

Upper Warwoman Watershed Recreation

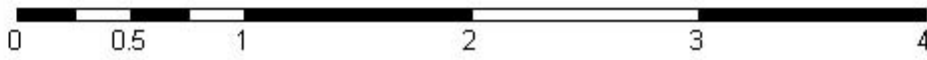


Legend

-  Dispersed Camping
-  Picnic Area
-  Historic/Interpretive Area
-  Waterfall
-  Proposed Vistas
-  Trails
-  Roads
-  Streams
-  Proposed Trails



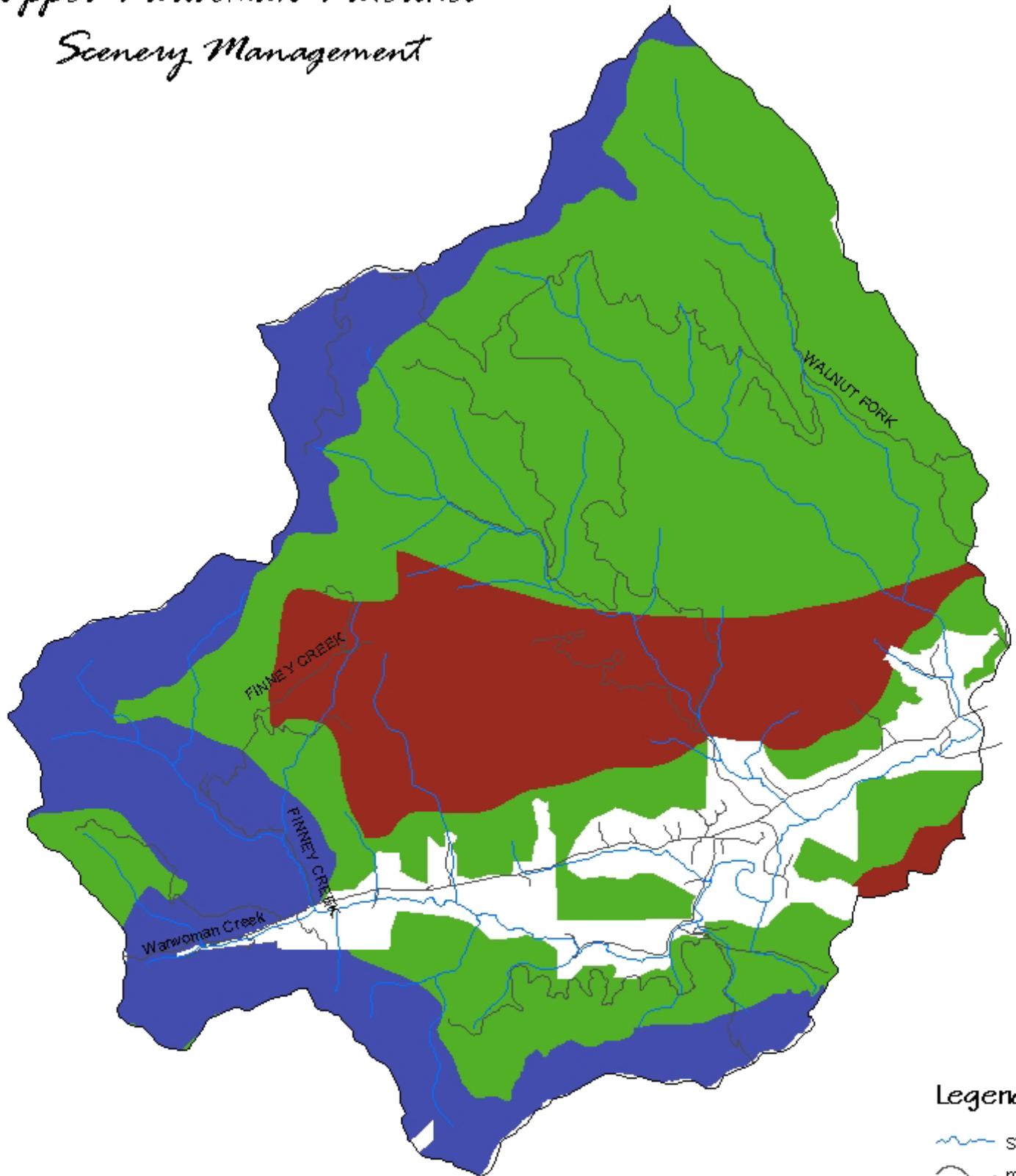
Miles





Scenery Information

| Scenic Class | Acreage |
|---------------------|----------------|
| 1 | 0.62 |
| 1 | 3.81 |
| 1 | 2354.83 |
| 1 | 453.70 |
| 1 | 0.87 |
| 1 | 278.13 |
| 1 | 8.97 |
| TOTAL | 3100.93 |
| 2 | 0.98 |
| 2 | 0.23 |
| 2 | 0.28 |
| 2 | 1.01 |
| 2 | 572.02 |
| 2 | 4.75 |
| 2 | 334.49 |
| 2 | 0.65 |
| 2 | 193.20 |
| 2 | 212.39 |
| 2 | 499.24 |
| 2 | 0.82 |
| 2 | 104.07 |
| 2 | 90.48 |
| 2 | 523.36 |
| 2 | 198.84 |
| 2 | 4214.91 |
| 2 | 696.43 |
| TOTAL | 7648.15 |
| 3 | 72.15 |
| 3 | 1052.15 |
| 3 | 1277.30 |
| TOTAL | 2401.60 |

*Upper Warwoman Watershed
Scenery Management*



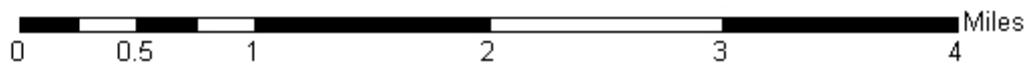
Legend

-  streams
-  road

SMS

Scenic Class

-  1
-  2
-  3



**Upper Warwomen Watershed
Cultural Resources**

Becky Bruce

4/1/05

Existing Conditions

After reviewing the current and existing heritage information on file accumulated over the last 29 years, there is a wealth of information on the cultural resources within this watershed. Approximately 1209 acres within these compartments have been previously surveyed or reviewed. The previous surveys have been for past timber sales, roads, land exchanges, SPB salvage, prescribed burning, recreation area improvements, and trails. A total of 38 sites have been recorded from these past projects as listed below.

| Report # or name | Total # Acres | Total # Sites | # Sites to Protect | Interpretive Opportunities |
|-----------------------------------|----------------------|----------------------|---------------------------|---|
| 84GA05X01 | 6 | 2 | 1 | none |
| 86GA05E01 | 10 | 0 | 0 | none |
| 91GA06-01 | 192 | 5 | 3 | none |
| 91GA05-01 | 639 | 5 | 0 | none |
| 92GA05-01 | Approx. 100 | 2 | 0 | none |
| 93GA05-01 | 134 | 4 | 3 | none |
| 94GA05-0 | Approx . 100 | | 0 | none |
| 2003-05-04 | 24 | 2 | 2 | none |
| 2003-05-18 | 2 | 0 | 0 | none |
| Warwomen Dell CCC recreation area | 2 | 1 | 1 | Yes – reconstructed picnic shelter, fish tanks, and retaining walls |
| Black Diamond RR, pre-civil war | | 1 | 1 | Yes, interpretive trail, sign in place at Warwomen Dell, |

| | | | | |
|--------------------------------------|--|----|---------|---|
| railroad | | | | other features such as tunnels, rock supports, stone culverts, and lines are found to the east of Warwomen Dell |
| Finney Creek CCC Camp | | 1 | 1 | Yes, additional historic research, and field identification of any physical remains |
| Known sites not within a survey area | | 14 | unknown | unknown |

Site Protection Needs

Of the 38 sites known in the watershed, 12 are identified as needing protection from future activities at this time. These will be identified on the ground and addressed when projects are proposed in those locations. Twenty-six sites are recommended as not eligible for the National Register. There are 14 known sites listed above that have been identified but have not been officially recorded or included into a report. There could be additional sites needing protection when these sites are accessed. When projects are proposed for these locations then these sites will be recorded and National Register eligibility accessed.

Interpretive Opportunities

Three of these sites are conducive to interpretation at this time. These are the Warwomen Dell CCC Recreation Area, Blue Ridge / Black Diamond Railroad, and the Finney Creek CCC Camp. The other nine that need protection, most are not conducive to interpretation at this time. There is an interpretive sign at Warwomen Dell about the Blue Ridge / Black Diamond Railroad as shown. Additional historic research could be undertaken for the railroad, as well as locating the many features built for the railroad, such as



tunnels, rock culverts, and bridge supports. Additional research at the Finney Creek CCC camp and field identification of any remains would be needed. Any known sites that have not been fully recorded as noted above will be if future projects are proposed in those locations.

The GIS survey data needs to be updated to the current year this project is funded. The Atlas maps were updated during this assessment and all current data was added to those maps. All new site locations also need to be updated into GIS.

Lands Information

Currently there are no lands available to be exchanged. No recently required lands require inventories. Special uses are of little consequence in this watershed as there are only 4-5 and they are water permits.

The majority of the Upper Warwoman Watershed is owned by the Forest Service. The exception is the valley which contains Warwoman road. The private lands in this area are residential/agricultural in use. Warwoman Creek runs parallel to Warwoman Road and is adversely affected by the private pastures that allow livestock to roam freely in the stream. Private landowners with garden plots tend to plow their lands directly to the stream bank. Most of the pastures house equines and there is also a private equestrian campground. It may be wise to monitor illegal equine trails in light of the new rules on where equestrians can ride on the Forest.

The picture on the left shows the equestrian campground and its close proximity to the stream. This site is very popular during the fairer seasons when most equestrians are out and about.

The right hand photo is an illustration of the typical floodplain garden plot configuration in this valley. Notice how the land is plowed as closely as possible to the stream bank.



These two pictures illustrate the typical pasture setting on Warwoman Creek.. The picture on the left is a section of stream that lies within a very small and overgrazed paddock. Notice how the livestock have churned the soil.

The photo on the right is a more typical situation where animals are in a larger pasture that is less prone to overgrazing (which causes bare soil). The stream banks are not as churned but still in bad condition from random livestock crossings.



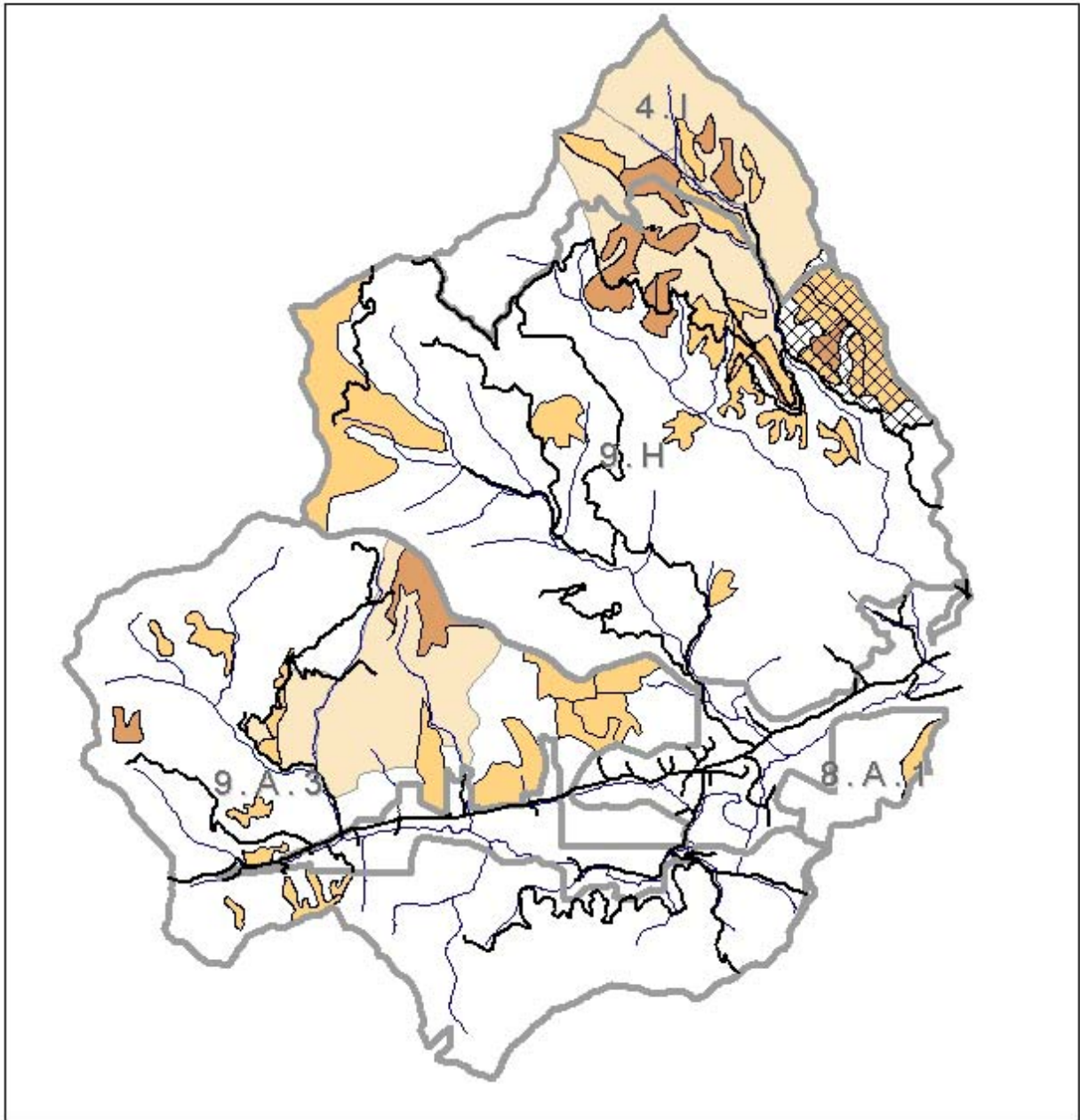
This picture shows the sediment that Warwoman Creek Drops before slowing down at this pond. The pond is located downstream from most of the garden plots and pastures.



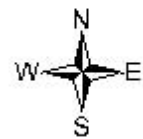
Fire Management Information

| | |
|--|--|
| Desired Condition (from Forest Plan) | Goal 58: Reduce the risks and consequences of wildfire through fuel treatments that restore and maintain conditions of fire regime Condition Class 1 to the extent practical. |
| Related Objectives to move toward Goal | Objective 58.3: Prescribe burn a three-year rolling average of 30,000 acres each year on the Chatt-Oconee combined to meet plan goals and objectives |
| Existing Condition from inventory | Fuels over most of the HU are in Condition Class 3. Table Mountain pine stands, white pine encroachment, and SPB damage are present. |
| Opportunity? | Reduce fuels across the HU; reduce SPB fuel loadings and white pine encroachment, and enhance the regeneration of Table Mountain pine. |
| Possible Management Practices | <ol style="list-style-type: none"> 1. Ducks Nest Gap prescribed burn (1,049 acres) – NEPA complete 2. Prescribed burns in the Tuckaluge, Sandy Ford, Buck Branch and Dan Gap vicinities for white pine encroachment or in combination with thinning and regeneration treatments of white pine in these vicinities. 3. Future (2012) burning of TMP regeneration on a 3-year rotation to reduce competition and thin sapling stands. |
| Remarks | |

TMP and Pitch Pine Stands Over Past and Proposed Prescribed Burns

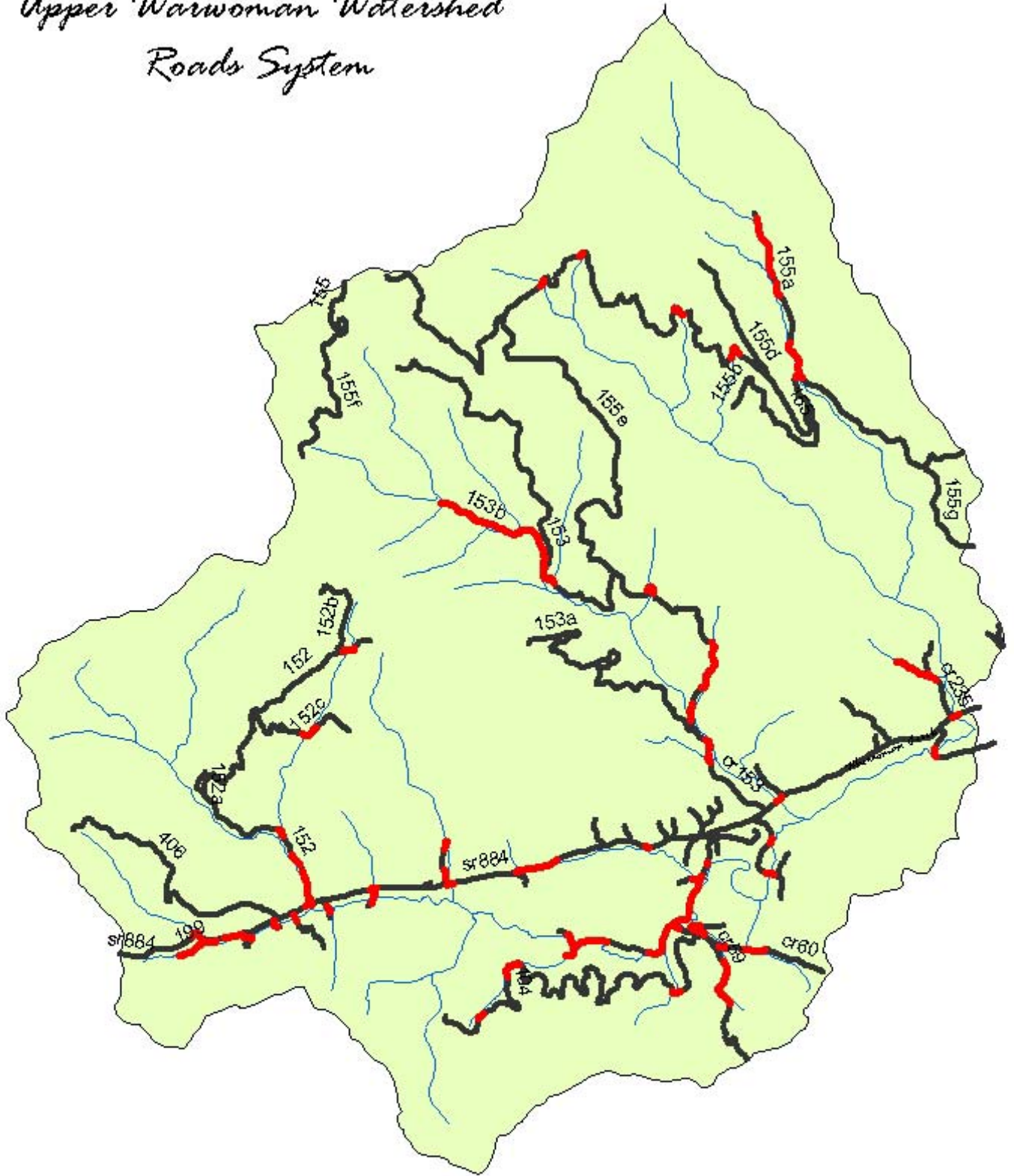


- road
- ▭ Management Prescriptions
- ▭ Table Mountain Pine and TMP - Oak Stands
- ▭ Pitch Pine and Pitch Pine - Oak Stands
- ▨ ducks_nest_gap_prescribed_burn
- ▭ Controlled_Burns_in_warwoman_watershed
- streams





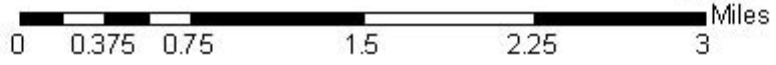
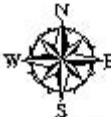
0.9 0.45 0 0.9 Miles

*Upper Warwoman Watershed
Roads System*



Legend

-  Roads
-  Streams
-  Road Segments within 100' of Streams



Roads Information

| | |
|--|-------|
| Miles of Road in Watershed | 47.23 |
| Miles of Forest Service Road | 19.46 |
| Miles of Road within 100' of Streams | 6.28 |
| Miles of Forest Service Roads within 100' of Streams | 1.72 |
| Miles of OML 1 Forest Service Roads | 0 |
| Miles of OML 2 Forest Service Roads | 15.74 |
| Miles of OML 3 Forest Service Roads | 3.72 |

Opportunities for Change

| | |
|---|--|
| Desired Condition (from Forest Plan) | Improve stream conditions. Roads are well located and stable. |
| Related Objectives to move toward Goal | Reduce sedimentation into EPD watch streams. |
| Existing Condition from inventory | Most Forest Service Roads are holding up well thanks to work performed during the Chattooga Watershed project. The exception is Tuckaluge which continues to contribute sediment into Tuckaluge Creek despite improvements. Tuckaluge Creek is an EPD watch stream and flows into the impaired Warwoman Creek. |
| Opportunity? | Reduce Sedimentation into Tuckaluge Creek |
| Possible Management Practices | <ul style="list-style-type: none"> • Pave .5 mile section of Tuckaluge Road that is overstep/parallels the creek. • Reengineer Tuckaluge Road to decrease sedimentation issues • Close Tuckaluge Road Seasonally • Close Tuckaluge Road Permanently |
| Remarks | Paving Road seems to be the most balanced action. |

Process Summary

What was the make up of your ID team and the means you used to assure interaction between resources?

Answer-

Staff of District and Techs with S.O. Specialist Consultation and cooperation from the DNR.

How much time did the ID team put into the assessment?

Answer-

Approximately 3 months for the entire team.

Given the time to complete your first assessment, do you feel subsequent watersheds of similar complexity will take as much time?

Answer-

Yes, this one had an extensive supply of existing data. This will not be a luxury to be enjoyed with subsequent watersheds of similar complexity.

What skills were most lacking? If skills were lacking, will recent position management decisions help with this? Is employee training needed? If so, what kind of training is needed?

Answer-

GIS – ESRI, Net Meetings with guru employees
Field Inventory – Prescription School

- The potential data steward may take pressure off of Erica
- Each zone needs an employee with good GIS skills and Natural Resource background with %50 of time dedicated to GIS.

While these assessments are supposed to be conducted with information that is currently available, did you find a need to do some field work? If so, what kind of field work was needed? Did you find the existing information you used adequate and of sufficient reliability; such as, CISC, INFRA, NRIS etc?

Answer-

Yes, field work was needed, but there was no time to do it!

- Used DNR people and stream analysis from Seehorn, others
- Used Waldorp on TMP research.

We needed – Fsveg, aerial photos, dispersed recreation, GPSing, Current stream conditions...just to name a few.

The existing information was not sufficient.

Changes from Hurricanes, Burns, SPB not reflected in data ESH-> CISC not correct. Regen areas are not updated in GIS. Geologic information,

trails, roads, recreation, etc are incomplete or incorrect. Duplicate files for same information...which ones to use?

Are there any major changes in the process you would recommend?

Answer-

Due date for budget, opening or recreation season and due date for the assessment need to be separated. Too much at one time.

It is hard to focus on day to day tasks and still learn/use GIS and search for databases and other needed information.

Discussion Items:

Is there a need for a defined entry schedule?

We would think not. This would allow the Forest and the Districts or Zones to re-prioritize based on the current emphasis, changing conditions, or even changing politics.

Is it reasonable to complete all assessments (18 on the Tallulah) by 2014?

We think so. At least a couple of the assessments have very few acres of NFS land within them, and could be done relatively easily at the same time as another assessment. As we learn how to do these things, it should get easier also.

What should be the completion date of these assessments during the fiscal year?

As stated above, do not put the budget, recreation season start-up, and the assessments due at the same time. A more reasonable due date may be earlier in the fiscal year, possibly in January or February prior to the Oconee prescribed burning season.

Should there be content and format requirements for the assessments?

We think not. This is a chance to be creative in form and in content. Some good examples might help, but no rigid Forest rules on this thing.

What additional training do we need to provide?

GIS training would be nice, but would not be effective if it doesn't get used immediately. Some of the team found that NetMeeting sessions with Erika were very good at "practicing" toward perfection. Also, on-line

courses at the ESRI web site may be very good and probably much more cost efficient.

It may help if an expert (Erika or others) could establish "office hours" when they would be available for NetMeetings during the months when the assessment is being worked on.

Also, there is a long-term need for more people who are trained in the Silvicultural Examination and Prescription process. This would include refresher training for people who have had this course but do not know the FSVeg/FACTS/ExamsPC/PDA relationships, etc.