



National Park Service
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National Trails System
Intermountain Region

National Historic Trail Feasibility Study Amendment and Environmental Assessment

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TRAIL OF TEARS NATIONAL HISTORIC TRAIL ADDITIONAL ROUTES

North Carolina · Georgia · Tennessee · Alabama · Kentucky
Missouri · Arkansas · Oklahoma

United States Department of the Interior • National Park Service

ACKNOWLEDGEMENTS

The National Park Service thanks the technical team and many others who assisted in the trail route research and preparation and review of this document. In the interest of historical accuracy, these people generously shared their knowledge of the history and resources of the Trail of Tears. Their participation has improved the document and will serve future generations well.

EXECUTIVE SUMMARY

This document amends the Trail of Tears National Trail Study that was completed in June 1986. That original study, conducted by the National Park Service, led to Congress's 1987 designation of a primary land route and a water route of Cherokee removal as the Trail of Tears National Historic Trail. In December 2006, Congress passed Public Law 109-378 (see Appendix A) directing the National Park Service to amend the original study to determine if more routes of Cherokee removal are eligible to be added as components of the existing Trail of Tears National Historic Trail. The additional routes are evaluated here under the study provisions of the National Trails System Act (P.L. 90-543, as amended through P.L. 109-418; and 16 U.S.C. 1241-1251 – see The National Trails System Act, <http://www.nps.gov/nts/legislation.html>).

Director's Order 12, *Conservation Planning, Environmental Impact Analysis and Decision Making*, normally requires that an Environmental Impact Statement (EIS) be prepared for "proposals for legislative action to make additions to the National Trails system if the proposed trail meets eligibility criteria..." In rare instances, the Associate Director for Natural Resources Stewardship and Science may choose to waive this requirement and permit an environmental assessment (EA) to be developed, instead. The NPS Associate Director for Natural Resources Stewardship and Science signed a waiver for this feasibility study on June 6, 2007.

The Cherokee removal along what came to be known as the Trail of Tears is a significant chapter in American history. In 1838-1839, the U.S. government removed at gunpoint most Cherokee Indians from their ancestral homelands in the southeastern United States and resettled them in Indian Territory west of Arkansas. The Cherokee round-up and removal were the most visible and publicized outcomes of the Indian Removal Act of 1830, which authorized the relocation of nearly all eastern Indian tribes, including the Choctaws, Chickasaws, Muscogee Creeks, and Seminoles. In the case of the Cherokees, more than 15,000 people were systematically rounded up from their homes and held in detainment camps. They then were divided into detachments and forced to travel by foot, horseback, boat, and wagon across the southern U.S. to Indian Territory. More than 1,000 people died from exposure, illness, and exhaustion during the round-up and removal. The entire tragic event became known as the "Trail of Tears."

The Cherokees followed the two currently designated Trail of Tears National Historic Trail routes (the northern and water routes) and several alternative routes and route segments to Oklahoma. Public Law 109-378 identifies a number of the currently undesignated Trail of Tears components for study under the criteria of the National Trails System Act: the Bell and Bengé routes, the land components of the water route, round-up forts and camps, routes from the forts and camps to the main emigration depots in Tennessee and Alabama, and additional water route segments.

This study finds all these components, as well as the Cherokee detachments' disbandment routes at the end of the trail, to be nationally significant and to meet all the criteria for National Historic Trail eligibility.

The original 1986 national trail study/environmental analysis, which provides the context and organizational framework for this document, considered a broad range of alternatives for the Trail of Tears. The current study, as an amendment rather than a new comprehensive analysis, evaluates the additional trail components under the only two remaining valid alternatives presented in the 1986 study. These are New Alternative A, No Additional Action/Existing Conditions; and New Alternative B, Designation of All Known Routes or Route Segments Used by the Cherokees During Their Removal of 1838-39. A third alternative, Protection Without Designation, was rejected for reasons stated later in this document.

The routes, segments, and sites identified in this study include all Cherokee Trail of Tears components that have been adequately documented since 1986. Ongoing research on the Cherokee Trail of Tears experience could identify more route variations, round-up campsites, and associated routes, and new information may require modifications to the routes evaluated here.

Therefore, this study amendment suggests that any legislation that might designate these trail elements as part of the Trail of Tears National Historic Trail should also authorize the Secretary of the Interior to make such modifications, adjustments, and additions administratively, where warranted by scholarly research and supported by National Park Service evaluation.

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INTRODUCTION

PURPOSE AND NEED FOR THE STUDY

In June 1986, the National Park Service completed the National Trail Study for the Trail of Tears, which concluded that a primary overland route and a water route of the Cherokee removal were eligible for designation as a National Historic Trail under the provisions of the National Trails System Act. Based on that study, in December 1987 Congress designated the Trail of Tears National Historic Trail (P.L. 100-192) to commemorate the 1838-39 forced removal of the people of the Cherokee Nation from their homelands in the east to Indian Territory (Oklahoma). Since that original designation, there has developed a significant amount of new research on additional routes of the Trail of Tears. In December 2006, Congress passed legislation (P.L. 109-378; see Appendix A) directing the National Park Service to amend the original study to determine if additional routes of Cherokee removal are eligible to be added as components of the existing Trail of Tears National Historic Trail. This study amendment, which evaluates the additional routes under the feasibility study provisions of the National Trails System Act (P.L. 90-543, as amended through P.L. 109-418; and 16 U.S.C. 1241-1251 – see The National Trails System Act, <http://www.nps.gov/nts/legislation.html>), will be submitted to Congress upon completion. Any future federal involvement with the additional routes of the Trail of Tears must be based on a specific congressional authorization.

The purpose of the current study, then, is to amend the 1986 feasibility and eligibility study for the Trail of Tears National Historic Trail in order to evaluate the feasibility and suitability of adding the following components to the designated trail:

- 1) the Bell and Benge detachment routes crossing Alabama, Tennessee, Kentucky, Missouri, Arkansas, and Oklahoma;
- 2) the land components of the designated water routes in Alabama, Tennessee, Arkansas, and Oklahoma;
- 3) the routes from the collection forts in Georgia, North Carolina, Alabama, and Tennessee to the main trailhead departure points;
- 4) those related campgrounds along the routes and land components; and
- 5) disbandment routes taken by various groups from the end of the trail to their final destinations.

This study is needed to meet the requirements of P.L. 109-378. It is further needed to evaluate the feasibility and suitability of additional Trail of Tears components that a) were not known or considered during the initial study; or that b) were considered but determined to have inadequate historical documentation to justify inclusion as part of the Trail of Tears NHT at the time. Finally, it is needed to address the growing public interest in understanding and commemorating the Trail of Tears experience.

This is the first time that Congress has authorized a study to look at additional routes of an existing National Historic Trail. This study amendment examines only the additional routes and new information pertaining to them, building on and not supplanting the initial 1986 trail study/environmental assessment.

PUBLIC AND TRIBAL INVOLVEMENT

Public Scoping

Scoping is an early and open process to determine the breadth of environmental issues and alternatives to be addressed in an environmental assessment/assessment of effect. The breadth, subject, and allowable timeframe of this analysis are specified by P.L. 109-378. The National Trails System-Intermountain Region office of the National Park Service (NPS) conducted both internal scoping with agency staff and external scoping with the public and interested and affected groups and agencies.

The NPS held public scoping meetings in 12 communities across eight states during July 10-18, 2007. Attendance at those sessions ranged between 12 and 80 people, with a total of 424 participants. These numbers exceeded attendance at similar historic trails scoping sessions offered by the NPS through the years, reflecting unusually high public interest in this Trail of Tears study amendment. Officials of the Cherokee Nation, Eastern Band of Cherokee Indians, and Poarch Band of Creek Indians of Alabama attended and spoke at three of the meetings to show publicly their support for adding the study routes to the Trail of Tears National Historic Trail. A total of 201 individuals offered verbal comments during the scoping meetings; 18 submitted written comments during the meetings; and another 20 persons submitted comments to the National Park Service via surface mail and email during the scoping period. Most of the comments are favorable and some are neutral toward the study and the trail, and many provide or offer to provide additional information concerning particular sites or routes. No comment indicated a preference for non-designation of the study routes, or for any feasible alternative other than designation; and no comment has identified any concerns about or possible adverse impacts that might result from designation. However, two recurring themes concerning the breadth of the feasibility study did emerge during scoping and the subsequent review and comment period:

- **Issue 1: Removal Routes of Other Eastern Tribes**
Numerous scoping participants encouraged the National Park Service to evaluate removal routes used by the Muscogee Creeks, the Seminoles, the Chickasaws, and the Choctaws, who also were relocated from their homelands to Oklahoma in the 1830s. The individual removal experiences of those tribes are as significant and meaningful as those of the Cherokees. However, the National Park Service at this time has been authorized by Congress to evaluate only those routes associated with the 1838-39 forced removal of the Cherokee. Specific congressional authorization is required in order for the NPS to evaluate non-Cherokee routes for possible National Historic Trail designation.
- **Issue 2: Emigration of Cherokees Prior to May 26, 1838**
Some scoping participants wish the National Park Service to document the history and routes taken by Cherokees who voluntarily left the Southeast prior to the U.S. military-led round-ups that began in Georgia on May 26, 1838. Again, the scope of this study is legislatively restricted to those routes and events associated with the 1838-39 Cherokee round-up and forced removal events.

Review of Draft Feasibility Study/Environmental Assessment

The Draft National Historic Trail Feasibility Study Amendment and Environmental Assessment was posted at <http://parkplanning.nps.gov/trte> for public review and comment from September 18 through October 19, 2007. The National Park Service contacted federal and state agencies, trail organizations, and other interested parties by mail to notify them of the availability of the

draft feasibility study, and offered to provide hard copies at their request. The NPS made follow-up calls and sent emails to federal and state agencies on Sept. 25-27 and again on Nov. 1-2, 2007. Trails office staff analyzed all comments and revised the final environmental assessment as appropriate. Comments submitted during the review period closely paralleled those provided during public scoping, and many touched on the two scoping issues described above.

Involvement of Federally-Recognized Tribes

NPS consultation with federally-recognized American Indian tribes that are traditionally associated with the Trail of Tears National Historic Trail has been routine and ongoing since before 1986. For the specific purposes of this study, the NPS is consulting with the Eastern Band of Cherokee Indians, Cherokee Nation, Choctaw Nation, Chickasaw Nation, Muscogee (Creek) Nation, Seminole Nation, and the Poarch Band of Creek Indians of Alabama.

The National Park Service recognizes that other American Indian groups, in addition to the 17 Cherokee detachments addressed in this study, were impacted by the Indian Removal Act of 1830 and that they experienced their own share of misfortunes. Some relocated Eastern tribes were first to use routes that later were followed by the main body of Cherokees relocated in 1838-39, and which now are commemorated as the Trail of Tears National Historic Trail. The removal routes and stories of these groups are as significant and meaningful as those of the main body of Cherokees who were relocated in 1838-39. While the scope of this feasibility study amendment is legislatively focused on specific additional routes, the National Park Service will continue to recognize and interpret the broader story of the Indian removal along all of the Trail of Tears National Historic Trail routes.

RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

This EA is prepared pursuant to the National Environmental Policy Act (NEPA) and subsequent regulations adopted by the Council on Environmental Quality (40 CFR 1500), and pursuant to the National Trails System Act. This EA amends the Trail of Tears National Trail Study prepared by the National Park Service in 1986.

The Trail of Tears National Historic Trail Comprehensive Management and Use Plan and Environmental Assessment, completed by the National Park Service in 1992, guides administration of the existing Trail of Tears National Historic Trail. Should Congress choose to designate additional components to the National Historic Trail, those components would be administered under the general guidance of that comprehensive management plan until the plan is revised to address specific conditions and needs of the new components.

NATIONAL TRAILS SYSTEM AND NATIONAL HISTORIC TRAILS

The National Trails System was established by the National Trails System Act of 1968 (NTSA, P.L. 90-543) to provide for the ever-increasing outdoor recreation needs of an expanding population and to promote preservation of, public access to, travel within, and enjoyment and appreciation of the open-air outdoor areas and historic resources of the nation.

Initially, the National Trails System consisted of national scenic trails and national recreation trails. National Scenic Trails are extended recreational trails that allow for uninterrupted travel (typically hiking, horseback riding, and/or boating) from end to end through scenic natural areas. National Recreation Trails offer a variety of opportunities for outdoor recreation, including motorized recreation, on trails in or near urban areas. Additional information about scenic and

recreational trails and the National Trails System is provided in the 1986 Trail of Tears National Trail Study, and also can be found online at <http://www.nps.gov/nts/info.html> and <http://www.americantrails.org/resources/feds/FEDNatTrSysOverview.html>.

National Historic Trails were added to the National Trails System when the NTSA was amended in 1978. The NTSA defines National Historic Trails as “extended trails which follow as closely as possible and practicable the original route or routes of travel of national historical significance.” Their purpose is “the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment.” Designation of National Historic Trails is continuous and may include both land and water areas, other specific sites, and routes that do “not currently exist as a discernible trail.” Together, these form a chain or network of areas that may be included as components of a National Historic Trail. Existing National Historic Trails include emigration routes, gold-rush trails, routes of exploration, military routes, Native American trails, roads established for commerce and communications, and a 1960s-era civil rights march route. More information about National Historic Trails is available at the web sites listed above.

The National Trails System Act provides for a federal lead agency to administer each National Scenic Trail and National Historic Trail in perpetuity, in cooperation with a variety of partners that include other federal agencies, state and local agencies, American Indian tribes, local communities, and private landowners. National Historic Trail authorization requires federal funds for the lead agency to conduct planning, development, research, and/or management of the trail and related trail activities. Once Congress authorizes a National Historic Trail, the federal lead agency must prepare a comprehensive management plan to guide the preservation and public use of the trail and to identify education and partnership opportunities. The National Park Service, as federal lead agency for the Trail of Tears, completed the Comprehensive Management and Use Plan for the Trail of Tears National Historic Trail on June 11, 1992. If Congress should authorize the study routes to be added to the trail, that plan would be revised when funding for that purpose becomes available.

Existing trail segments already in federal ownership (for example, segments within national parks, national forests, and national wildlife refuges) generally become the initial components of the National Historic Trail. Non-federal segments may be developed and protected by alternative means such as cooperative and certification agreements, easements, and actions by non-profit organizations. National trails are managed through cooperative partnerships among public agencies, non-profit organizations, and landowners. The role of the federal lead agency is to set and maintain standards for trail research, signing, protection, and interpretation; to develop trail-wide consistency in preservation, education, and public use programs; to provide such incentives as technical and limited financial assistance for partners; and to manage the use of the official trail logo for trail marking and other appropriate purposes.

BACKGROUND

DEFINITION OF THE TRAIL OF TEARS NATIONAL HISTORIC TRAIL

The “Trail of Tears” is commonly understood to refer to “all Indian Removal from the southeast states to the Indian Territory that is now eastern Oklahoma” (Sequoyah Research Center). The “Cherokee Trail of Tears” refers specifically to the routes taken by the various Cherokee groups to Oklahoma. The Trail of Tears National Historic Trail, in contrast, comprises *only* those select Trail of Tears routes that have been designated by Congress under the National Trails System Act. At the present time, the Trail of Tears National Historic Trail consists of two of the routes utilized by the Cherokees.

The National Trails System Act defines the Trail of Tears National Historic Trail as “a trail consisting of water routes and overland routes traveled by the Cherokee Nation during its removal from ancestral lands in the East to Oklahoma during 1838 and 1839....”¹ For the purposes of the original 1986 Trail of Tears feasibility study and the current amendment study, the Cherokee removal is considered to have begun on May 26, 1838, with the military’s violent round-up of Cherokee people living in Georgia. The round-up and removal of the Cherokees continued in North Carolina, Tennessee, and Alabama through the spring and summer of 1838 and ended with the arrival of the last detachments in Oklahoma in March 1839.

In June 1838, the first three detachments of Cherokees were forced onto boats near present-day Chattanooga. Those groups traveled to Oklahoma predominantly by river transportation. A fourth detachment started west by boat in December 1838. These four groups collectively are called the “water detachments.” In October and November of 1838, another 13 detachments of Cherokees started overland to Oklahoma. These are called the “land detachments.” The last of the 17 detachments reached Oklahoma in March 1839. Upon arrival in Indian Territory, the detachments disbanded and the people dispersed to re-settle, thus ending the period of forced removal of the Cherokee Indians. Some 15,000 people, including Cherokees and Cherokee-affiliated whites and enslaved blacks, had been forced from their homes to go west along the Trail of Tears. A more detailed account of these events is provided in the 1986 Trail of Tears National Trail Study and on-line at <http://www.nps.gov/trte/historyculture/stories.htm>.

Currently, the Trail of Tears National Historic Trail includes the principal land route (the northern route) followed by 11 of the 13 land detachments, and the water route, representing the river system followed by the four water detachments (see Context Map, Appendix B). In designating these two principal routes, Congress intended to commemorate the entire Indian Removal experience. However, the northern and water routes do not comprise all of the routes used by the Cherokee during the forced removal of 1838-1839.

The 1986 Trail of Tears Trail Feasibility Study considered some additional routes used during the forced removal of the Cherokee 1838-1839. These include the Bell and Bengé routes, which are distinct from the principal land route, and which were used by two of the 13 land detachments. Other additional routes include significant passages followed by the water detachments that were not on water, but overland; additional river segments on the water route; land segments near

¹ Cherokee emigration from the Southeast, driven largely by white settlement pressures, spanned several decades and culminated in the violent removal of the remaining Cherokees by the U.S. Army and state militias in 1838-39. A summary of the events leading up to the final removal is provided on pages 1-1 and 2-2 through 2-4 of the 1986 Trail of Tears National Historic Trail feasibility study.

trail's end in Oklahoma and Arkansas, where the 17 detachments disbanded; all known round-up fort and camp locations in the old Cherokee Nation; and the routes from those places to the main emigration depots at Ross's Landing (Chattanooga) and Fort Cass (Charleston), Tennessee, and Fort Payne, Alabama, where the Cherokees gathered into detachments for the journey west.

Historical documentation available for those additional routes in 1986 was sparse and ambiguous. The routes therefore failed to meet National Trails System Act eligibility criteria, and so were not designated as segments of the Trail of Tears National Historic Trail. Since that time, though, researchers have compiled a significant amount of new information that justifies reconsidering the eligibility of those components.

DOCUMENTATION

Contemporary records of the routes followed by the Cherokees in 1838-39 are rare. Few first-hand accounts exist, and nearly all second-hand accounts are tainted by myth and misinformation. Few diaries, journals, letters, newspaper accounts, or military records, which often are the primary records of activities in the 19th century, reference the Trail of Tears. Most Cherokee people who experienced the Trail of Tears and then had to re-establish their farms and communities did not take time to write about their sufferings; and most non-Cherokees at the time did not consider those events worth documenting for the historical record.

Ironically, many of the Cherokee routes that failed to meet national trail criteria in 1986 now are better documented than the primary water and land routes that currently make up the designated Trail of Tears National Historic Trail. Publicity surrounding designation of the National Historic Trail in 1987 aroused intense local interest in Trail of Tears history, sites, and routes. Since that time, avocational and professional historians eagerly have pursued primary and field research, chasing leads and mining local, state, and national archives for previously unknown records relating to the Cherokee removal. Their efforts have turned up lodes of detailed military records created by the U.S. Army, which participated in the Cherokee round-up, conducted three of the water detachments (both water and land components), and oversaw the disbandment of the detachments at trail's end. An army officer also accompanied the Bell detachment. Military records of these activities will help pin down the locations of various route segments and enhance our general understanding of the Trail of Tears experience. Researchers poring through local archives also have brought to light old documents that identify local route segments and one-time roads that connected campsites and river crossings used by the various detachments. Over the past few years, much of this body of research has been compiled in a small but important collection of studies completed in cooperation or partnership with the National Park Service. Key studies are cited in the Selected Bibliography section at the end of this document.

Since 1986, the National Park Service has worked in close partnerships with scores of local researchers, tribal authorities, and trail enthusiasts to document additional routes of the Cherokee Trail of Tears. Personal communications and fieldwork inform much of this effort. In addition, often in cooperation with the National Park Service, researchers have developed studies that incorporate both significant primary source research and other information compiled by local trail enthusiasts and historians. Collectively, these studies form the basis for the documentation identified in this study. The most significant of these are included among the references listed at the end of this document.

HISTORICAL SUMMARY

By the time President Andrew Jackson signed the Indian Removal Act of 1830, authorizing the relocation of all Indian tribes living east of the Mississippi River, the process of Indian removal already was well underway. Faced with an unstoppable flow of white settlers and increasingly hostile U.S. and state governments, some tribes, including a significant minority of Cherokees, were already moving west on their own. But most Eastern Indians, hoping to hold onto their homelands, parried the push for removal as long as they could. The Indian Removal Act was aimed primarily at relocating the five largest of these tribes, all living in the Southeast: the Cherokees, the Muscogee Creeks, the Seminoles, the Chickasaws, and the Choctaws. Other Eastern tribes, as well, were removed from their homelands as a result of the act.

The various tribes responded in different ways to the harsh reality of the Indian removal policy. Some, such as the Creeks and the Seminoles, violently resisted removal; others, such as the Chickasaws and Choctaws, negotiated treaties that allowed for a relatively non-violent—though still traumatic—removal event. The Cherokee resistance was distinct in its legal and political complexities, but finally the majority of Cherokees, too, was forced to face removal.

The controversial Treaty of New Echota, signed by a small and unauthorized minority of Cherokees in late 1835, sealed the tribe's fate. The treaty gave the Cherokees two years to relocate themselves, but only a small number chose to do so. In the spring of 1838, the vast majority of the Cherokee Nation still clung to hopes that their leaders and white allies could persuade the public, the U.S. Army, and the U.S. Congress to let them stay.

But Cherokee removal seemed certain in the eyes of most U.S. Army officials and state militia. Soon after the Treaty of New Echota was signed, the military began establishing camps and forts throughout the Cherokee Nation. As the deadline for relocating passed in the spring of 1838, most Cherokees remained desperately in place, passively resisting the removal order. Anticipating trouble, the army dramatically increased its presence in the Cherokee Nation and sped the pace of its fort- and camp-building activities. By May 1838, 23 army camps and forts were (more or less) prepared to receive Cherokee prisoners, and a complex structure of military support, communications, and command webbed the Cherokee Nation. In Georgia, white settlers impatiently stood poised to grab up Cherokee farms parceled out to them years earlier by a series of state-operated land lotteries; and the Georgia Guard, the state's militia, was eager to assist by evicting Indian landowners. It was all the U.S. Army could do to maintain order and a level of humanity as would-be settlers' anticipation and Cherokees' fears mounted.

The forced removal of the Cherokees began in Georgia on May 26, when soldiers rode out from the military camps to round up known Cherokee communities within their 20- to 30-mile jurisdiction. Although military records generally are quiet regarding the human details of these events, the Cherokee oral tradition is not. Stories abound of soldiers physically evicting frightened Cherokee families from their homes. Once forced out, Cherokees were taken first to the local military posts, where they were held for a few days to a week or two; then they were marched to the primary emigration depots at Ross's Landing or Fort Cass in Tennessee. The Georgia round-up, in particular, was brutally quick. By June 15, less than three weeks after the removal began, the army reported that no Indians remained in the state, and that removal in Georgia was completed. Round-ups in North Carolina, Alabama, and Tennessee, where the land was not as prized by white settlers or where Cherokee residences were more dispersed, proceeded more slowly – but the results were the same. In North Carolina, Cherokees were taken to the nearest of six military camps or forts built by the army to collect the Indians, and from there they were marched through the command seat at Fort Butler (Murphy, N.C.) on their way to the

emigration depot at Fort Cass. The Alabama Cherokees were gathered to the nearest of four removal camps built in that state, and then were concentrated in camps around Fort Payne. In Tennessee, where the two largest emigration depots were located, the army placed the Cherokees in large camps along the river and creek valleys that run northeastward from Chattanooga to the Hiwassee River. They were concentrated near Ross's Landing, but many also settled in camps that stretched northward to the foot of Missionary Ridge, and others were clustered around the depot at Fort Cass at Charleston, Tenn..

Once the first groups of Georgia Cherokees arrived at Ross's Landing in early June, the army quickly began moving them west. Rivers provided the fastest and the most efficient means of transportation, and the army had procured steamboats, flatboats, and keelboats for the purpose. Three detachments of Cherokees, with a total of just over 2,000 people, were formed and forced to begin their journey almost immediately upon arriving at Ross's Landing. Two of these detachments, led separately by Lt. Edward Deas² and Lt. R. H. K. Whiteley, boarded keelboats and flatboats towed by steamers and started down the Tennessee River. Both detachments went ashore at Decatur, Alabama, to skirt the Mussel Shoals (also called Muscle Shoals), a stretch of river impassable to boat traffic. At Decatur they boarded a train that took them around the shoals and then re-boarded boats in Tuscumbia, Alabama.

A third detachment, conducted by Capt. G. S. Drane, was unable to begin the journey by river because of low water levels, and had to march overland to Alabama. Drane's detachment walked to Waterloo, some 250 miles west of Ross's Landing, before finally boarding boats.

A fourth water detachment, conducted by John Drew, made it all the way to Oklahoma by boat. This detachment left later in the year and was able to sail through a canal constructed around the shoals in Alabama. From there, the detachment continued along the Tennessee and Ohio Rivers to the Mississippi River, and then ascended the Arkansas as far as the mouth of the Illinois River in Oklahoma. There the party went ashore and marched north to the area of Tahlequah, Oklahoma.

These four groups collectively are called the water detachments – but none actually made the entire trip, end to end, by water. All took short overland portages, cutoffs, or disbandment routes, which are additional routes for the purposes of this study.

The violence of the round-up in Georgia, the frightful scene as the first Georgia Cherokees were forced onto boats at Ross's Landing, some Cherokees' great reluctance to travel by river, and the difficulties of summer-season travel across the South prompted Chief John Ross to negotiate with General Winfield Scott for the Cherokees to assume control of their own removal. This noteworthy feature of the Cherokee removal had unintended consequences. As the Cherokees settled into camps around the depots to await more hospitable autumn travel conditions, supply shortages, disease, and acute stress took their toll. Hundreds of Cherokee people died in the camps during the summer of 1838 while waiting to depart for the west.

Between October and November 1838, 11 detachments left the emigration depots in Tennessee for their overland trip via the northern route (see Context Map, Appendix B). Nine of the 11 detachments crossed the Tennessee River at Blythe's Ferry, near the confluence of the Hiwassee and Tennessee Rivers. The other two crossed the Tennessee further south, nearer to Ross's Landing. The 11 detachments merged onto a primary route that took them across Tennessee,

²Two months earlier, Lt. Deas had conducted another party of 250 Cherokee emigrants, mostly by boat, from Waterloo, Alabama, to their destination in Oklahoma. Two ill children died en route, but the rest of the party arrived safely. Their journey took 24 days (April 5-April 28, 1838).

southern Illinois and Missouri, and into northwestern Arkansas. There, the detachments split up and took different routes to various disbandment centers in Oklahoma. (These disbandment routes are study routes, described in detail below.) For most detachments, the arduous journey, beginning to end, lasted three to four months.

Two Cherokee detachments, led separately by John Bell and John Benge, took distinctly different routes. The 660-person Bell detachment consisted mostly of Cherokees who were partisans of noted Cherokee leader Major Ridge, and even included a few signers of the notorious Treaty of New Echota. Instead of taking the northern route followed by most of the overland groups, the Bell detachment set out in October 1838 heading west across Tennessee and Arkansas. It disbanded at the Vineyard Post Office in Evansville, Arkansas, in January. The Benge detachment was made up of Alabama Cherokees who had been concentrated at the depot near Fort Payne. This group set out in October 1838, taking a unique route that roughly paralleled the northern route but stayed farther south. The Benge detachment crossed most of northern Arkansas, disbanding at Mrs. Webber's Plantation near Stilwell, Oklahoma, in mid-January. The Bell and Benge routes also are study routes, described in detail below.

By the close of 1838, all of the Cherokees who had been rounded up over the spring and summer were out of the Old Nation and either already settled in Oklahoma or making their way along the Trail of Tears. In March, the last detachment of emigrating Cherokees that traveled the Trail of Tears disbanded at Mrs. Webber's Plantation. The Trail of Tears was over. The process of rebuilding the Cherokee Nation was just beginning.

DESCRIPTION OF THE ROUTES

INTRODUCTION

Two primary routes, the northern route and the water route, already are designated as the Trail of Tears National Historic Trail. This study is authorized to evaluate numerous additional routes traveled by Cherokees in 1838-39 from their ancestral homelands to their new homes in Oklahoma. The current level of research and documentation identifies removal routes from the round-up forts to the emigration depots and the routes of all 17 Cherokee detachments from the emigration depots at Fort Cass and Ross's Landing, Tennessee, and Fort Payne, Alabama, to the disbandment sites in Oklahoma. These additional routes, the specific subject of this study, are described below.

Other Trail of Tears researchers may question or dispute details of some of the route descriptions provided here. It is the determination of the National Park Service, however, that the descriptions are strongly supported by the historical evidence currently available. All of the study routes identified below, with the exception of the route from Fort Lindsay to Camp Scott, are well documented and meet the criteria of the National Trails System Act. Nonetheless, the National Park Service recognizes that continuing research could, and likely will, yield new information that clarifies and revises our present understanding of Cherokee Trail of Tears routes. Researchers at the National Archives, for example, already have identified an abundance of unexamined 19th century documentation related to the Indian Removal. As historians continue to delve into that and other repositories, the preponderance of evidence may shift and demand adjustments of the designated trail routes. Therefore, this study amendment suggests that any legislation that might designate these trail elements as part of the Trail of Tears National Historic Trail should also authorize the Secretary of the Interior to make such modifications, adjustments, and additions administratively, where warranted by scholarly research and supported by National Park Service evaluation.

ROUND-UP CAMPS, FORTS, AND ROUTES

Round-up routes from the detainment camps and forts to the departure depots are shown in brown on the Context Map and Section Map 1 (Appendix B).

North Carolina

North Carolina camps and forts, with related round-up routes, are:

- 1) *Fort Butler*. Fort Butler, located in Murphy, was headquarters for the Eastern Division of the Army of the Cherokee Nation. More than 3,000 Cherokees passed through Fort Butler during the 1838-39 removal. All Cherokees who passed through Fort Butler followed the Unicoi Turnpike to Fort Cass, Tennessee, on the Hiwassee River near Charleston. This route generally follows today's Joe Brown Highway, north of the Hiwassee River, into Tennessee, and then joins Rt. 68 to Tellico Plains. From there, the road goes west to Athens and then turns south along U.S. Highway 11 to Ft. Cass, at Charleston.
- 2) *Fort Delaney*. Fort Delaney, at Andrews, was at the intersection of the Nantahala and Cheoah Valley Roads and at the head of the State Road. Several hundred Cherokees were held at Fort Delaney, in the heart of the Valley River towns, before being moved to Fort Butler and Fort Cass. Prisoners from Fort Delaney followed the State Road along the Valley River to Fort Butler, along the general alignment of U.S. Highway 19/129.

- 3) *Fort Hembree*. Fort Hembree, at Hayesville, was the collection point for Cherokee residents of the Upper Hiwassee Valley. More than 1,000 Cherokees camped at Fort Hembree in June 1838 before traveling the Unicoi Turnpike to Fort Butler. This route generally follows U.S. 64 west, turns south through Brasstown, and continues northwest to Ft. Butler at Murphy.
- 4) *Fort Montgomery*. Fort Montgomery, at Robbinsville, held most of the Cherokees from the Cheoah River Valley. Cherokee prisoners at Fort Montgomery traveled over the Pile Ridge-Long Creek Military Road to Fort Delaney, and then continued along the State Road (along today's U.S. Highway 64) to Fort Butler.
- 5) *Fort Lindsay*. Fort Lindsay, the northernmost of the round-up forts, sat near the mouth of the Nantahala River at Almond. Cherokee prisoners from small surrounding towns were taken to Fort Lindsay, which also guarded the route to the Qualla Boundary. At least 150 Cherokee prisoners were held there.

At the completion of this study, the route followed by the captured Cherokees from Fort Lindsay to Camp Scott is undetermined. Two possible routes have been identified. The first alternative route went up the Nantahala Gorge and then headed south to Fairview and Kyle to reach the State Road at Camp Scott. Although this gorge route is the shorter and most direct of the two, it was a difficult, narrow road that might not have accommodated wagon traffic. A second possible route, longer but more accessible to wagons, went up the Little Tennessee River to Franklin, where it joined the State Road and continued directly west to Camp Scott. From Camp Scott, the route is well documented: the Cherokees followed the State Road down Junaluska Creek to Fort Delaney and then on to Fort Butler.

This study recognizes that the site of Fort Lindsay is part of the 19th century military complex along the Trail of Tears National Historic Trail and that the route from Fort Lindsay to Camp Scott may be eligible for designation once sufficient evidence has been gathered to determine the correct alignment.

- 6) *Camp Scott*. Camp Scott was located near the town of Aquone, where the State Road crossed the Nantahala River. It guarded the State Road and was the concentration point for Cherokees captured at t Aquone. Cherokees from Camp Scott went down the State Road to Fort Delaney and continued from there to Fort Butler. This route generally follows Dicks Creek and Junaluska Roads west to Ft. Delaney at Andrews, and then continues southwest along U.S. Highway 19/129 to Murphy.

Georgia

In Georgia, the U.S. Army and the state militia established at least 13 forts or camps used to hold Cherokee prisoners during the round-up of May 26-June 15, 1838. These sites and their related round-up routes are:

- 1) *Fort Wool*. As the headquarters for the Middle Military District, portions of Fort Wool occupied the Cherokee capital of New Echota (near today's Calhoun). More than 200 Cherokees living in the surrounding area were rounded up at Fort Wool, but many other Cherokees from other forts were brought through that establishment on their way to Ross's Landing or Fort Cass by way of the Federal Road's eastern or western legs in northwest Georgia and eastern Tennessee. The Fort Cass route follows more or less the

alignment of Georgia Rt. 225 to Ft. Hoskins at Spring Place, then goes north through Red Clay, Tenn., and along U.S. Highway 11 to Charleston. The Ross's Landing route goes from Fort Hoskins along Route 2 through Ringgold, then northwest to Chattanooga.

- 2) *Fort Buffington*. Between 400 and 479 Cherokees were taken to Fort Buffington, east of Canton. They went along the South Alabama Road and then north to Fort Wool. Their route generally follows Rt. 20 west from Buffington through Canton, then angles southwest to the site of Camp Sixes at Allatoona Lake.
- 3) *Camp Sixes*. Camp Sixes, in Cherokee County, was located in the heart of one of the most populous areas of the old Cherokee Nation. More than 950 Cherokee people were rounded up and held at Sixes. From there, they were taken over the South Alabama Road and north to Fort Wool. The route goes west from Allatoona Lake through Laffingall and Center to Cassville, then north along U.S. Highway 41, with variations, to Fort Wool near Calhoun.
- 4) *Fort Hetzel*. Fort Hetzel, at East Ellijay, likewise was situated in a populous area of the Old Cherokee Nation. Nearly 900 Cherokees were rounded up and detained at Fort Hetzel. From there they followed the Coosawattie Road, cut specifically for the removal of the Cherokees, to the Federal Road and then to Fort Cass. The route follows Rt. 282/U.S. Highway 76 west to Old Highway 411 and Fort Gilmer, then continues to north through Dalton, Red Clay, Tenn., and on to Fort Cass at Charleston.
- 5) *Fort Gilmer*. At Fort Gilmer, in Murray County, 334 Cherokee people were held. From Fort Gilmer they were taken to the Federal Road at Spring Place, following roughly Old Highway 411 to Smyrna-Ramhurst Road, and then on to Ross's Landing at Chattanooga.
- 6) *Fort Newnan*. Although Cherokees are known to have been held at Fort Newnan, in Blaine, the number of prisoners is undetermined. The Cherokees were taken from the fort on the Federal Road to Ross's Landing, generally following along Rt. 136 and U.S. Highway 411, then U.S. Highway 76 northwest to Chattanooga.
- 7) *Fort Hoskins*. More than 120 Cherokees were rounded up at Fort Hoskins, located near the Joseph Vann House in Spring Place, and marched over the Federal Road to Ross's Landing at Chattanooga. Many other Georgia Cherokees, rounded up in forts south of Fort Hoskins, also passed through on their way to Ross's Landing or Fort Cass. The route from Fort Hoskins to Ross's Landing goes northwest through Dawnville and Cedar Valley to Prater Mill, then west along Rt. 2 through Varnell and Ringgold. From Ringgold, it follows U.S. Highway 41 and Rt. 2 toward Rossville and continues north to Ross's Landing at Chattanooga. The route to Fort Cass continues north from Prater Mill along Rt. 71 to Red Clay, Tenn. From there, it generally follows Highway 60 to Cleveland, then U.S. Highway 11 to Fort Cass/Charleston.
- 8) *Fort Campbell*. Fort Campbell, in Forsythe County near Oscarville, held 233 Cherokees, who were marched along the Federal Road through Fort Wool to Ross's Landing. The route generally follows Rt. 369 west to the Old Federal Road and Highway 53 to Jasper. From there the route continues northwest to Talking Rock, and then follows Rt. 136 through Blaine and on to Fort Gilmer and Fort Wool near Calhoun.

- 9) *Fort Cumming*. Located in La Fayette, Fort Cumming was the concentration point for 469 Cherokees who traveled over the Old Lafayette Road to Rossville and on to Ross's Landing. This route generally follows the alignment of U.S. Highway 27 to Chattanooga.
- 10) *Fort Means*. Nearly 470 Cherokees were held at Fort Means, in the vicinity of Kingston. These prisoners were marched along the Alabama Road to Fort Wool and then to Ross's Landing. The route follows Rt. 293 east through Kingston to Cassville, where it turns north and goes to Fort Wool.
- 11) *Cedar Town Encampment*. Two-hundred Cherokees were rounded up and held at the camp at Cedar Town (now Cedartown) before going on to Fort Wool. The route goes through Vann Valley, following Rt. 100 and U.S. Highway 411 to Six Mile, and then joins U.S. Highway 27 to Rome. In Rome, it joins Rt. 53, then turns east to Rt. 140 to Adairsville, and finally turns north along U.S. Highway 41 to Fort Wool near Calhoun.
- 12) *Rome Encampment*. The camp at Rome, in the Floyd County town of the same name, held approximately 70 Cherokees. These prisoners passed through Fort Cumming on their way to Ross's Landing. The route follows the Old Summerville Road to Armuchee and U.S. Highway 27 to Summerville. From there, it heads north along Ridgeway Road and E. Broomtown Road to La Fayette, then follows road alignments a mile west of U.S. Highway 27 to Chickamauga and Rossville and continues to Ross's Landing at Chattanooga.
- 13) *Camp Perkins*. Sixty Cherokees were gathered at Camp Perkins, in Dade County, and then were taken to Ross's Landing. The associated round-up route follows northeast along U.S. Highway 11/Rt. 56 (east of Interstate 59) to Ross's Landing at Chattanooga.
- 14) *Fort Floyd/Dahlonge and the Encampment at Chastain's*. During the removal period, the army built Fort Floyd, in Dahlonge, Georgia, and established the Encampment at Chastain's at Blue Ridge (See Section Map 1 in Appendix B) for the purpose of holding Cherokees for removal. However, researchers to date have found no documentation proving that Cherokees actually were held there or indicating any routes they might have followed from those two locations to the emigration depot. These two properties clearly were part of the removal-related military complex, but the precise nature of their association with the 1838-39 Cherokee removal is unclear. This study recognizes that the sites of Fort Floyd/Dahlonge and the Encampment at Chastain's are part of the military complex established along the Trail of Tears, and that research efforts to clarify their relationship to the Trail of Tears should continue.

Alabama

At least five sites were used as internment locations in Alabama. These, along with their associated round-up routes, are:

- 1) *Fort Likens*. Located at Barry Springs (also called Berry Springs), Fort Likens may have held a large number of Cherokees during the round-up. At least 340 prisoners were taken from there to Ross's Landing, while perhaps 200 more were transferred to Fort Payne. The route to Fort Payne follows County Road 99 south, then goes southwest along Rt. 41 to Watson. From there it heads northwest, generally following Rt. 35 northwestward to Fort Payne. The Cherokees who went to Ross's Landing took a route that follows along

Rt. 337 to La Fayette and Fort Cumming and then continues north to Ross's Landing at Chattanooga.

- 2) *Fort Lovell*. Located in Cherokee County, Fort Lovell held about 225 Cherokees who were rounded up from the surrounding area. Those people were taken to Fort Payne, where they joined the Benge detachment. The route from Fort Lovell goes northeast from the Cedartown area to Rt. 35, and then on to Fort Payne.
- 3) *Fort Payne*. Fort Payne, in DeKalb County, became the main emigration depot for the Alabama Cherokees. Most of the Benge detachment camped at Fort Payne while awaiting relocation during the summer of 1838. In July, 900 Cherokees were camped in and around Fort Payne and probably at nearby Rawlingsville. The Benge detachment made its final preparation for removal and actually departed from the camp eight miles south of Fort Payne at Lebanon. From Lebanon, they continued west toward Gunter's Landing. At least 200 Cherokees at Fort Payne left Alabama and traveled north to Fort Cass, through Ross's Landing. The route goes generally northeast through Railroad Valley to Ross's Landing.
- 4) *Rawlingsville Encampment*. Rawlingsville, at Fort Payne, was a camp for Cherokees who were awaiting emigration before the forced removal began. The number of Cherokees held there after May 1838 is unknown, but it could have been as many as 1,200. Rawlingsville continued to serve as a campsite associated with nearby Fort Payne through the spring and summer of 1838.
- 5) *Gunter's Landing*. Although it was not an emigration depot, Gunter's Landing, in Guntersville, was located on the Tennessee River along the route used by the Benge detachment and the water detachments. It was a convenient supply station for the army, and most of the emigrating Cherokees who passed through Gunter's Landing stopped there, as well. The landing also served as a round-up camp. Many Cherokees were rounded up in this area, and more than 200 Cherokees camped there in July 1838 before being taken to Ft. Payne. Camp Morrow, the encampment site associated with Gunter's Landing, held fugitive Cherokees from the water detachments.

Tennessee

The majority of Cherokees who were relocated to the west passed through the emigration depots at Ross's Landing and Fort Cass, Tenn. In addition, most of these same Cherokees spent most of the summer of 1838 camped in the broad, expansive camps that spread out from these two depot sites. Tennessee sites are:

- 1) *Fort Cass*. Fort Cass, at Charleston, was largest of all the camps. It was the headquarters for the Army of Cherokee Removal and the principal Cherokee agency. Cherokee camps stretched out from this central military point along South Mouse Creek, Candies Creek, and Gunslinger Creek. There also was a camp at Rattlesnake Springs and another at Fort Foster. Together, these made up a military/encampment complex that stretched along the valley. Fort Cass, one of two primary emigration depots for the Cherokees, was the head of the Bell and additional water routes.
- 2) *Ross's Landing*. Several camps were associated with the other primary depot at Ross's Landing near Chattanooga, Tennessee. The probable location of the landing is in

downtown Chattanooga, but the camps spread out toward the base and foot of Missionary Ridge and included sites at Indian Springs, Citico Creek, and Rossville.

- 3) *Red Clay*. Red Clay, in Bradley County, Tennessee, was also the site of Indian camps during the round-up in the summer of 1838. Cherokees at Red Clay eventually followed the Federal Road to Fort Cass and joined the land detachments. The route generally follows the Southern Railroad between Lead Mine Ridge and Blue Springs Ridge and continues through Cleveland, Tenn. It then goes northeast along North Lee Highway and U.S. Highway 11 to Fort Cass at Charleston.

ADDITIONAL WATER ROUTE SEGMENTS AND LAND COMPONENTS OF THE WATER ROUTE

Four detachments traveled to Oklahoma mostly on boats. These followed the river system from the Hiwassee River downstream to the Tennessee River, then to the Ohio River, the Mississippi River, and finally, up the Arkansas River. As currently designated, the water route begins in the Ross's Landing area and continues along the river system to Fort Smith, Arkansas. However, each of the four water detachments also followed additional route components that are not currently designated as part of the Trail of Tears National Historic Trail.

First to depart was the Deas detachment, which boarded flatboats about four miles upstream from Ross's Landing on June 6, 1838. To avoid the Muscle Shoals, this party rode a train from Decatur to Tuscumbia, Alabama, and then went on by boat. On the Arkansas River, the detachment passed Fort Smith and continued west up the river a short distance to Fort Coffee, Oklahoma. The Deas detachment disbanded there on June 19 – a remarkable 14 days after starting out. No deaths occurred en route.

The second group to depart for the west was the Whiteley detachment, which started downriver from the vicinity of Ross's Landing on June 13, 1838. Like the Deas party, the Whitely detachment took the Decatur-to-Tuscumbia train around the Muscle Shoals and continued along the water route and up the Arkansas River. Before reaching Fort Smith, in the vicinity of today's Morrilton, Arkansas, their boat ran aground in shallow water. Whiteley procured 23 wagons and marched his party west on roads paralleling the river. Many people died from their exertions in the heat along the way. The Whiteley detachment swung north at Fort Smith, then turned west near Evansville, Arkansas, and proceeded into Oklahoma. The detachment disbanded at the head of Lee's Creek, in the vicinity of Stilwell, Oklahoma, on August 5. Whiteley recorded 70 deaths en route.

The third water detachment, conducted by Capt. G. S. Drane, started overland on June 17, 1838, after summer drought had made the Hiwassee and Tennessee Rivers impassable to boat traffic. The detachment's overland passage from the vicinity of Ross's Landing to Waterloo, Alabama, is described separately below. At Waterloo, the party boarded boats and started along the water route toward Indian Territory. Like that of the Whiteley detachment, Drane's boat ran aground on the Arkansas River in the vicinity of today's Morrilton. The party was forced to follow Whiteley's trail overland to Oklahoma. This land component, also used later by the Bell detachment, is described below. The Drane detachment disbanded at Mrs. Webber's Plantation at Stilwell, Oklahoma, on September 5, 1838. Drane reported 146 deaths.

John Drew's detachment of 219 people, some of them ill, boarded flatboats at the Fort Cass area near Charleston, on the Hiwassee River, on December 5, 1838. This group had been delayed by several factors, including sickness and poor travel conditions along the river route. The

detachment traveled down the Hiwassee River to the Tennessee River, and then down the Tennessee past Chattanooga and into Alabama. The Drew detachment did not have to disembark at the Muscle Shoals, but went around them via a canal that now is part of the Tennessee River. The party continued along the river system and ascended the Arkansas to the mouth of the Illinois River, where it disembarked and continued the last few miles overland to the Illinois Campground at Tahlequah. The Drew detachment disbanded there on March 18, 1839.

Additional Water Route Segments

Additional water segments are those routes shown in blue on the Context Map and Section Maps 1, 6, and 7 (Appendix B).

Additional water route components associated with the Deas detachment are:

- 1) The segment from their departure point near Ross's Landing down the Tennessee River to west of Chattanooga, also used by the Whiteley detachment (Section Map 1, Appendix B).
- 2) The Arkansas River from Fort Smith to Fort Coffee (Section Map 7, Appendix B).

The only additional water route component associated with the Whiteley detachment is the Tennessee River segment from Ross's to Chattanooga (Section Map 1, Appendix B), which also was used by the Deas detachment. Both parties' overland segments are discussed separately below.

Additional water route water components associated with the Drew detachment are:

- 1) The segment from Fort Cass and down the Hiwassee River to its confluence with the Tennessee River, and down the Tennessee to west of Chattanooga (overlapping the additional water component used by the Deas and Whiteley detachments – see Section Map 1, Appendix B).
- 2) Along the Arkansas River from Fort Smith to the mouth of the Illinois River (overlapping the Deas detachment route from Fort Smith to Fort Coffee – Section Map 7, Appendix B).

Another additional water component, called the White River Cutoff, in Arkansas, was used by all four of the water detachments. This detour avoided the treacherous mouth of the Arkansas River where it emptied into the Mississippi River. Instead fighting the currents there, the detachments followed a cutoff up the White River, just north of the Arkansas River. This tiny segment is shown in blue on Section Map 6 (Appendix B).

Land Components of the Water Route

The land components used by the four water detachments are:

- 1) *The 250-mile overland segment used by the Drane detachment from its departure point north of Chattanooga to Waterloo, Tennessee.* The Drane detachment, unable to proceed by boat along rivers depleted by summer drought, departed overland from the area above Ross's Landing and north of Chattanooga. The party crossed Moccasin Bend to Brown's Ferry and then paralleled the Tennessee River. (This component also was followed by the

Bell detachment, whose route is described below.) About 10 miles west of Jasper, Tennessee, the Drane detachment turned southwest into Alabama, following the alignment of today's U.S. Highway 72 to Florence, and then went along the alignment of County Road 14 to Waterloo. At Waterloo, the detachment finally boarded boats and followed the river system west. This route is shown in violet on the Context Map and Section Maps 1 and 2 (Appendix B).

- 2) *The 60-mile Decatur-to-Tuscumbia (near Sheffield) rail detour around the Muscle Shoals used by the Deas detachment on June 9-11 and by the Whiteley detachment on June 21, 1838.* This segment is shown in violet on Section Map 2 (Appendix B).
- 3) *The roughly 145-mile overland corridor, used by the Whiteley and Drane water detachments, from vicinity of Morrilton, Arkansas, to Stilwell, Oklahoma.* Near today's town of Morrilton, the Whiteley and Drane detachments' boats went aground in separate incidents a couple weeks apart, forcing the two groups to continue on by land. From near Morrilton, the combined corridor then goes west along the north side of the Arkansas River, deviating occasionally from today's alignment of U.S. Highway 64, to Van Buren, north of Fort Smith. At Van Buren, the route swings north and follows the alignment of Rt. 59 to Evansville, Arkansas. There, they turned west and entered Oklahoma along the alignment of Oklahoma Rt. 100. The Whiteley detachment disbanded at the head of Lee's Creek in the Flint District of Adair County, somewhere east of Stilwell. The Drane detachment continued west to Mrs. Webber's Plantation at Stilwell. Their combined route is indicated in violet on Section Map 7 (Appendix B). Most of this overland segment overlaps the route taken later by the Bell detachment, described separately below.
- 4) *The approximately 50-mile overland disbandment route used by the Drew detachment from the Illinois River, near Gore, Oklahoma, to Tahlequah.* Upon reaching the mouth of the Illinois River, the Drew detachment left its boat and struck out overland to Tahlequah. From the vicinity of today's Gore, Oklahoma, the party generally followed the alignment of today's Rt.100 northeast, then to Rt. 82/100 north to Tahlequah. The Drew detachment, last to reach Indian Territory, arrived at the Illinois Campground at Tahlequah on March 18, 1839. It was the only one of the 17 Cherokee detachments to disband in or near Tahlequah, where Cherokee Nation headquarters are now located. This overland route is shown in violet on Section Map 7 (Appendix B).

BELL DETACHMENT ROUTE

The entire length of the Bell detachment route from Tennessee to Indian Territory is an additional route for the purposes of this study. It is shown in red on the Context Map and Section Maps 1 and 2 and 5 through 7 (Appendix B).

The Bell detachment, conducted by John Bell and accompanied by Lt. Edward Deas (who had led the first Cherokee water detachment earlier that year), left the main agency at Calhoun, near Fort Cass, Tenn., on October 11, 1838. The Bell detachment took a unique route directly across southern Tennessee and central Arkansas before disbanding at Vineyard Post Office in Evansville, Arkansas, on January 7, 1839. It was the only one of the 17 detachments on the Trail of Tears that did not disband in Oklahoma.

Bell's route begins in the Fort Cass area and generally follows today's alignment of U.S. 11 through Cleveland and into Chattanooga. The detachment crossed the Tennessee River in the Chattanooga area at Ross's Landing, crossed Moccasin Bend, and then crossed the river again at

Brown's Ferry. The detachment crossed the river a fourth time at Kelly's Ferry. From there, the route generally follows the alignment of U.S. Highway 64, with some notable deviations, across southern Tennessee. The party crossed the Mississippi River north of today's Interstate 40 bridge and traveled along the old Memphis-to-Little Rock Road. The route passes through Village Creek State Park in Arkansas, turns south at Zent and crosses the White River at Clarendon, and heads west toward Jacksonville. From there, Bell's route swings southwestward, passes through North Little Rock, and then follows the old Little Rock-to-Fort Gibson Road. That road runs north of the Arkansas River and follows, with some variations, U.S. Highway 64. Shortly before reaching Van Buren, the route turns to the north and follows the general alignment of State Rt. 59 to Evansville, on today's Arkansas/Oklahoma state line.

BENGE DETACHMENT ROUTE

The entire length of the Benge detachment route from Alabama to Indian Territory is an additional route for the purposes of this study. It is depicted in orange on the Context Map and Section Maps 1-5 and 7 (Appendix B).

Cherokee Captain John Benge led nearly 1,100 Cherokee people along a unique route between the northern route, taken by most of the land detachments, and the more southern route taken by Bell's detachment. Benge's main party departed Lebanon, Alabama, eight miles south of Fort Payne, by land on October 1, 1838, and other groups followed later.

From Lebanon, Benge's route went west to Gunter's Landing, crossed the Tennessee River, and angled northwestward toward Huntsville, Alabama. The detachment entered Tennessee in the area of Elkton Springs (today's Elkton), and then followed the general alignment of Tennessee U.S. Highway 31 to Pulaski. From there, the party followed along Tennessee Rt. 166 and smaller roads north toward Centerville, then took the alignment of Rt. 230 to Waverly. The group crossed the Tennessee River at Nathan Bedford Forrest State Park and continued northwestward through Paris, Tenn., entering Kentucky in the vicinity of Dukedom. The Benge detachment crossed the Mississippi River near Columbus-Belmont State Park, Kentucky, continued through southeastern Missouri, and entered Arkansas north of Pittman's Ferry on the Current River. The detachment then turned southwest and headed toward Batesville, but only a portion of the detachment actually went into town. The rest of the group continued west. The two parties reunited east of Melbourne and continued west together, crossing the White River north of Cotter. Benge's route continued west across northern Arkansas, near today's Harrison and Huntsville, and through today's Fayetteville. It dropped south through Prairie Grove to Evansville and entered Oklahoma along today's Rt. 100. The detachment disbanded at Mrs. Webber's Plantation at Stilwell, Oklahoma.

DISBANDMENT/DISPERSAL ROUTES

The 17 detachments of Cherokees that traveled on the Trail of Tears disbanded at assigned issuing stations in Oklahoma. None went directly from the end of the northern route to Tahlequah, as implied by current maps of the designated Trail of Tears National Historic Trail.

Water Detachment Routes

No segment of the water detachment routes in Arkansas or Oklahoma is considered to be a separate "disbandment route" for the purposes of this study. The Deas and Drew river route between Van Buren and the mouth of the Illinois River at Gore, Oklahoma, is identified and mapped as a "water additional route" (in blue on Section Map 7). From the Illinois River, the

Drew detachment went overland to its assigned disbandment center at Tahlequah. That overland segment is identified and mapped as an additional “water land component” (in violet on Section Map 7). The combined route of the Whiteley and Drane detachments from the vicinity of Morrilton, Arkansas, to Stilwell, Oklahoma, also is mapped as a “water land component” (in violet on Section Map 7).

Additional Land Detachment Disbandment Routes

There were as many as five issuing stations at the end of the Trail of Tears in the new Cherokee Nation of Oklahoma. Many of the land detachments arrived in Arkansas via the designated northern route, and then split off in various directions to their assigned issuing station for disbandment. Their routes, shown in green on the Context Map and Section Map 7 (Appendix B) are as described:

- 1) *Pea Ridge, Arkansas, to Beattie’s Prairie, Oklahoma.* Three overland detachments disbanded at New Fort Wayne on Beattie’s Prairie in today’s Delaware County, Oklahoma. They used a distinct route that split from the northern route just south of Pea Ridge (today’s Pea Ridge National Military Park) in northern Arkansas. The disbandment route headed west along Spavinaw Creek and entered Oklahoma at or near Hog Eye Creek, at Beattie’s Prairie.
- 2) *Vicinity of Fayetteville, Arkansas, to vicinity of Westville, Oklahoma.* Four of the overland detachments disbanded at Old Fort Wayne and at least two more disbanded at Woodhall’s Depot, a short distance north of Old Fort Wayne. These groups would have taken a road that split off the northern route west of Fayetteville and entered Oklahoma south of the small Arkansas town of Cincinnati, just north of Westville, Oklahoma.
- 3) *Vicinity of Farmington, Arkansas, to Stilwell, Oklahoma.* Mrs. Webber’s Plantation, at Stilwell, Oklahoma, was probably the largest of the issuing centers at the end of the trail. In addition to the water detachments described earlier, five or six land detachments disbanded at Mrs. Webber’s. These groups traveled the designated northern route into Arkansas, split off west of Fayetteville, and then angled southwestward through Prairie Grove and Evansville before turning west to Stilwell.

ELIGIBILITY AND FEASIBILITY

INTRODUCTION

A route's eligibility as a National Historic Trail is based on criteria in the National Trails System Act (16 U.S.C. 1241-1251). Section 5(b) (11) of the act provides three broad criteria that a trail must meet to qualify for designation. These criteria are set forth and the trail is evaluated in the following sections.

Additionally, the National Trails System Act, Sec. 5(b) (3) states that a trail study should include:

... the characteristics which, in the judgment of the appropriate Secretary, make the proposed trail worthy of designation as a national scenic or National Historic Trail; and in the case of National Historic Trails the report shall include the recommendation of the Secretary of the Interior's National Park System Advisory Board as to the national historic significance based on the criteria developed under the Historic Sites Act of 1935 (40 Stat. 666; 16 U.S.C. 461).

The Historic Sites Act of 1935 authorized the Secretary of the Interior to identify and recognize properties of national significance (National Historic Landmarks) in United States history and archeology. National Historic Landmark criteria have been developed to identify properties that have national significance. Therefore, the criteria developed for the evaluation of national significance as part of the National Historic Landmark designation process are incorporated into the analysis of national significance under the National Trails System Act (Sec. 5(b)(11)(B)).

The National Trails System Act states that National Historic Trails should generally be "extended trails," which means they should be at least 100 miles long, although National Historic Trails of less than that length are permitted. The existing Trail of Tears National Historic Trail is approximately 2,200 miles long, and the additional routes would more than double that mileage.

The following sections evaluate the Trail of Tears additional routes with respect to each of the three criteria in the National Trails System Act.

ANALYSIS OF NATIONAL TRAILS SYSTEM ACT CRITERIA

The Trail of Tears additional routes are evaluated below.

Analysis of National Trails System Act Criterion A

(A) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential.

Three elements of Criterion A are discussed in the following sections.

1. Was the Trail of Tears, including the additional routes, a trail or route established by historic use?

This element of the criterion is met.

The intent of this part of the criterion is to ensure that the route being considered was indeed a definable trail used in the historic period and not an arbitrarily created modern entity. All of the additional routes considered in this study are documented as having been traveled by the Cherokee people during their forced removal from their homelands to Indian Territory in 1838-1839.

2. Is the Trail of Tears nationally significant as a result of the use that established it?

This element of the criterion is met.

The Trail of Tears was determined to be nationally significant in the 1986 study, leading to the establishment of selected routes as the designated Trail of Tears National Historic Trail. The study stated clearly that not only were the designated routes nationally significant, but so were all routes representing the complete story of Cherokee removal.

3. Is the location of the additional routes of the Trail of Tears sufficiently known?

This element of the criterion is met.

The determination of the location of the trail under the National Trails System Act is related to the concept of “integrity of location” under the National Register/National Historic Landmark evaluation processes. Location is one of seven aspects of integrity.

Location is the place where the ... historic event[s] occurred. The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons. (National Park Service 1998:44)

To address integrity of location, the locations of the routes themselves must be adequately documented. The original 1986 study concluded that "documentation of all routes would be extremely difficult, if not impossible" to obtain. That has turned out not to be true. The additional routes of Cherokee removal have been intensively studied for almost 20 years by many researchers, and the research has been shared and evaluated by others, including the NPS trails staff. The Cherokee removal was carried out using roads that existed at the time of removal, so there is considerable information, including remaining remnants of these historic roads, which allows those routes to be identified.

As on any historic trail, there are a few areas where some ambiguity remains and further research is warranted. However, the National Trails System Act does not require that the route of the trail be known exactly, but only known sufficiently to evaluate its potential for recreational use and historic interest. This requirement in the act recognizes that the location of trails cannot always be determined as precisely as the location of specific historic sites because the route connecting such sites may have no visible or archeological remains.

Analysis of National Trails System Act Criterion B

The second of the three National Trails System Act criteria requires that a trail:

(B) . . . must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, exploration, migration, and settlement, or military campaigns. To qualify as nationally significant, historic use of the trail must have had a far reaching effect on broad patterns of American culture. Trails significant in the history of Native Americans may be included.

This criterion is met.

This criterion sets out the conditions relating to national significance that must be met for a route to become a National Historic Trail. The terms “of national significance,” “broad facets of American History,” and “far reaching effect on broad patterns of American culture” clearly and specifically define the nature of that trail and the high standard it must meet. Thus, by its very nature, and by definition, a National Historic Trail must possess exceptional national values.

National Trails System Act Criterion B also states, “Trails significant in the history of Native Americans may be included.” This sentence does not mean that all trails that had impacts on American Indians are automatically eligible for National Historic Trail status. Indeed, virtually all historic trails had impacts—often very severe—on tribes. In considering the original use of a historic trail, impacts on American Indians would be considered along with other historic impacts of trail use, even without this language in the trails act. Those impacts must still be “far reaching” and national in scope.

Statement of Significance

The national trail study of 1986 assessed the Trail of Tears, meaning the routes taken by Cherokee Indians in 1838-39 from their ancestral lands in the east to lands west of Arkansas, and found the trail to be significant. The National Park Service Advisory Board concurred with the findings of the trail study and determined that the Trail of Tears was nationally significant. The 1986 trails study found that the Trail of Tears is symbolic of the broad social and political history that affected the Cherokee and all other American Indians. In particular, the study identified several key themes that elevated the Trail of Tears to national significance:

- ❖ The Trail of Tears draws its significance from the Indian Removal Act of 1830, and has come to symbolize the plight of all American Indians who were directly affected by this national legislation and its consequences.
- ❖ The Trail of Tears provides tangible evidence of the response of American federal officials to events arising from the westward movement.
- ❖ The Trail of Tears symbolizes major constitutional issues resulting from the Indian removal policy.
- ❖ The Trail of Tears commemorates the unique Cherokee response to Indian removal.
- ❖ The Trail of Tears is significant for the people associated with Indian removal.

Analysis Of National Trails System Act Criterion C

The third National Trails System Act criterion states that the route:

(C) ... must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation. The potential for such use is generally greater along roadless segments developed as historic trails and at historic sites associated with the trail. The presence of recreational potential not related to historic appreciation is not sufficient justification for designation under this category.

This criterion is met.

Potential for public recreational use and historic interest derives from several factors, including the existence of actual trail resources and historic sites tied to the period of significance of the trail; sections of the trail and sites with good integrity; sufficient information about the trail as a whole and about specific historic sites and events found along it; and potential for the development of opportunities for the public to retrace the original route.

The potential for historical interest and recreational use related to historical interest is in part a result of the integrity of the trail. In National Register of Historic Places terminology, “Integrity of Resources” is much more than a simple determination of resource condition. Rather, the integrity of a resource is the *composite effect* of seven different qualities: location, design, setting, materials, workmanship, feeling, and association. These elements measure the ability of a resource to convey its significance. It is important to ask whether the trail today reflects the spatial organization, physical components, and historical associations that it attained during the historic period. The concepts of design, materials, and workmanship are primarily intended for the evaluation of historic buildings, formal gardens, bridges, and other similar “built” properties. The Trail of Tears follows existing roads, so structural characteristics are not relevant to the target event. Therefore, these three elements of integrity will not be considered because they are not relevant to this analysis.

Integrity of location is evaluated in the “Analysis of National Trails System Act Criterion A” section above, with respect to its relationship to National Trails System Act, Sec. 5(b)(11)(A).

For a trail, setting, feeling, and association are closely related. Setting is defined by the National Register of Historic Places as the physical environment of a historic property. Feeling is a property’s expression of the aesthetic or historic sense of a particular period of time, which results from the presence of physical features that, taken together, convey the property’s historic character. Association is the direct link between an important historic event and a historic property. A property retains association if it is the place where the event occurred and if it is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property’s historic character. Association, like feeling, depends on individual perceptions.

Along the additional Trail of Tears study routes are found a surprising number of segments of the original trail. Even those that are now farm roads, county roads, and paved highways offer the opportunity to recognize the location of trail events and provide signing and interpretive opportunities. Many historic sites, where trail interpretation could be offered, still exist along the routes. Additional sites may be identified with future research. In essence, the additional routes,

now identified, offer all the same potential as the existing designated routes for public use and appreciation of the trail history. Examples of these kinds of properties are described in the Affected Environment and Environmental Consequences sections below.

FEASIBILITY AND DESIRABILITY

Section 5(b) of the National Trails System Act requires that other elements of trail designation be explored in a trail study. The National Trails System Act states:

The feasibility of designating a trail shall be determined on the basis of an evaluation of whether or not it is physically possible to develop a trail along a route being studied, and whether the development of a trail would be financially feasible.

Whether or not it would be physically possible to develop a National Historic Trail along the route of the Trail of Tears additional routes would depend on the ability to identify the historic route across the landscape. This document already has established that the routes have been identified. It would further depend on the possibility of providing for public use and appreciation through the establishment of a network of existing or proposed recreational facilities and interpretive sites where visitors could see and travel remnants of the trail. There are numerous museums along the route that could provide the opportunity for exhibits, films, and other media about the trail and that can provide public information.

To determine the financial feasibility, consideration must be given to the cost of a management plan, operational costs, and partnership involvement. The current base operational budget for the Trail of Tears National Historic Trail is \$358,000, which provides a solid base level of professional staff and support services to administer the multi-state Trail of Tears National Historic Trail and provide funding assistance to trail partners. As trails develop, we see an increased demand by state and local agencies, organizations, and landowners for services and funding for trail programs. If the new routes were to be added without provisions for additional funding, the trail staff would need to work with partners to more efficiently prioritize projects for all routes. The level of attention given by staff to the existing trail would be less and projects might take longer to complete, but existing trail programs might be broadened to include more communities, historic sites, and trail segments, and thereby would tell a more complete story of American Indian removal.

Base funding levels do not provide for large-scale projects such as video or film productions, major exhibit design and production packages, or extensive resource preservation. These kinds of projects would have to be funded through line item congressional appropriations, NPS competitive project funding sources, or independent fund-raising efforts. In recent years, National Historic Trails have benefited from authorization by Congress of funding designated for Challenge Cost Share Programs based on a 50-50 match of federal and non-federal funds. Because the non-federal share can be met through volunteer time and other in-kind services, these programs are especially attractive to the volunteer trail organizations and historical groups who support trails. Many small projects have been accomplished along the existing Trail of Tears National Historic Trail through cost-share funding. About \$35,000 in Challenge Cost Share Program funding has been available annually for the trail.

The willingness and interest on the part of public agencies, private organizations, and individuals in participating in the protection, interpretation, development, and management of the trail have been demonstrated by many activities and projects that are underway or have been completed

along the designated trail and also on the additional routes. Some of these are documented in the “Potential Partnerships” section of this study. Ever since the original trail designation, the NPS has on numerous occasions received, and has had to deny, requests for assistance on projects along these additional routes. Support for the addition of these routes in communities along the trail has been overwhelmingly positive.

Section 5(b) of the trail act also requires that the feasibility study address the following elements:

(1) the proposed route of such trail, including maps and illustrations

General maps are provided in Appendix B of this document. Trails at a 1:100,000 scale also can be accessed at the NPS web site, www.nps.gov/trte. The trail office maintains more detailed maps for research purposes, but generally does not provide detailed location information without the permission of a landowner. Locations of sensitive historical and archeological site locations likewise are not released to the public.

(2) the areas adjacent to such trails, to be used for scenic, historic, natural, cultural, or development purposes

The known significant natural and cultural resources associated with the Trail of Tears additional routes are described elsewhere in this study. Experience has shown that, over time, new sites are discovered as research uncovers new historic documentation.

(3) the characteristics which, in the judgment of the appropriate secretary, make the proposed trail worthy of designation as a national scenic or National Historic Trail; and in the case of national historic trails, the report shall include the recommendation of the secretary of the interior's National Park System Advisory Board as to the national historic significance based on the criteria developed under the Historic Sites Act of 1935 (40 Stat. 666, 16 U.S.C. 461)

The original trail feasibility study concluded that "...when considering the forced removal of 1838-39, it is impossible to separate one route or one group of Cherokee as being more or less significant than another." The significance of the Trail of Tears with respect to the Historic Sites Act is discussed in the Statement of Significance in the “Analysis of National Trails System Act Criterion B” section. The National Park System Advisory Board, as required by the National Trails System Act, made a determination for the 1986 study that the Trail of Tears was nationally significant.

(4) the current status of landownership and current and potential use along the designated route

Land ownership and land use are reviewed in greater detail in the “Land Ownership and Use” discussions provided in the Affected Environments and Environmental Consequences sections. Approximately 200 miles of about 2,845 miles of additional on-the-ground trail route cross federal lands; the rest are on non-federal (including state) lands. None of the study routes crosses American Indian reservations or trust lands. Land use along the route alignments varies widely. Uses include agricultural, rural residential, urban residential, and industrial and commercial uses on private lands; grazing on private and public lands; recreational and extractive uses (for example, timber harvesting and mining) on federal lands managed the USDA Forest Service and the Bureau of Land Management; recreation, preservation, and wildlife management activities on lands managed by the National Park Service and U.S. Fish & Wildlife Service and other federal

agencies; water recreation, water management, and energy production on reservoirs managed by the Tennessee Valley Authority and U.S. Army Corps of Engineers; military activities on lands and facilities managed by the U.S. Department of Defense; and a combination of these uses on lands owned and managed by state and local governments.

(5) the estimated cost of acquisition of land or interest in land, if any

Little or no federal land acquisition is anticipated. Management of the National Historic Trail would depend on cooperative partnerships among the federal lead agency, interested property owners or land managers, and other entities.

(6) the plans and costs for developing and maintaining the trail

See the introduction to this section for a discussion of plans and costs.

(7) the proposed federal administering agency

The National Park Service, through the National Trails System-Intermountain Region office in Santa Fe, New Mexico, is the administering agency (federal lead agency) for the existing National Historic Trail. The NPS would continue to administer the expanded trail if the additional routes are added.

(8) The extent to which a state or its political subdivisions and public and private organizations might reasonably be expected to participate in acquiring the necessary land and in the administration thereof

Little or no land acquisition is anticipated, based on the previous 20 years of NPS administration of the existing Trail of Tears National Historic Trail. Recent National Historic Trail legislation restricts federal land acquisition to willing-seller/willing-buyer situations. Donations of land may occur, but it usually is beneficial to have ownership of such properties remain at the local level.

(9) The relative uses of the land involved, including the number of anticipated visitor-days for the entire length of, as well as for segments of, such a trail; the number of months that such trail, or segments thereof, will be open for recreation purposes; the economic and social benefits which might accrue from alternate land uses; and the estimated man-years of civilian employment and expenditures expected for the purposes of maintenance, supervision and regulation of such trail

The designation of the additional routes to the existing National Historic Trail probably would lead to some increase in visitation and tourism revenues. The increase would be moderate and beneficial at the local level and minor or negligible at the regional and statewide levels (see discussion in the Environmental Consequences section, below). Tourism could increase in local communities along the trail corridor, and communities also would benefit from increased recognition and possibly greater understanding of cultural heritage, as well as from additional opportunities to interpret the trail.

Other federal, state, local, and private entities would benefit from the overall coordination of activities to preserve and protect trail-related resources, to interpret the trail, and to provide consistent opportunities for visitor use. The coordination of visitor services and interpretation could potentially increase tourism revenue.

The effects on land values resulting from designation would be few and limited. As previously mentioned, little or no federal land acquisition is anticipated. Some landowners might benefit from the sale of lands and easements for historic trail purposes. Local municipalities might choose to restrict incompatible development that would adversely affect trail resources. Landowners and developers, in turn, could find their land use options somewhat more limited by such actions of local governments. The owners of adjacent property, on the other hand, might consider such land use actions beneficial. However, the NPS study team is aware of no such actions by municipalities over the 20 years since the existing trail was designated.

Protected trail segments with recreational values might increase nearby residential property values. While it theoretically is possible that there could be a loss in property values because of visitor use on adjacent properties, the NPS study team knows of no instance where that has happened on current National Historic Trails.

(10) The anticipated impact of public outdoor recreation use on the preservation of a proposed National Historic Trail and its related historic and archeological features and settings, including the measures proposed to ensure evaluation and preservation of the values that contribute to their national historical significance.

If the additional routes were designated as components of the Trail of Tears National Historic Trail, the existing comprehensive management and use plan, which has been successfully in use for over 15 years, would initially continue to guide administration of all the trail routes. When funding became available, the plan could be revisited. Mitigating measures would be adopted to ensure that there would not be any degradation of resources. Public use levels would be managed so that resources would not be adversely affected. All federally funded, approved, or sponsored projects on National Historic Trails, including comprehensive management planning, are subject to compliance with the National Environmental Policy Act, the National Historic Preservation Act, and other federal and state resource protection laws.

ALTERNATIVES

This study is an amendment to the original 1986 feasibility study, which looked at six alternatives. With the designation of the primary land route and the water route as the Trail of Tears National Historic Trail, three of those alternatives are moot. Alternative A considered the designation of the primary land and water routes of the trail, and this has been implemented. The original Alternative B was designation of only the water route, and the original Alternative C was designation of only the land route. The original Alternative D considered "Designation of All Known Routes or Route Segments Used by the Cherokees During Their Removal of 1838-39," and it is that alternative that the current legislation has directed the NPS to revisit. There was also a No Action/Existing Trends Alternative, and that alternative must now be evaluated in light of the existence of the Trail of Tears National Historic Trail. A final alternative considered "Protection Without Designation." Thus, the current study considers the following alternatives:

New Alternative A: No Additional Action/Existing Conditions

Under this alternative, the existing Trail of Tears National Historic Trail would continue to be developed under its Comprehensive Management and Use Plan, and the study components would not be designated as part of that trail.

The NPS would recognize and interpret the additional routes where they cross or overlap the designated routes. The NPS would continue to work with other parties as described in the following section on the existing designated National Historic Trail. Because of the increased interest in these routes in recent years, other parties may take some independent action to recognize, interpret, and protect resources along them. There is no guarantee that any independent efforts on these undesignated routes would have overall coordination or that the Cherokees and other Indian nations would have a voice in those efforts.

In the years since trail designation, there has been limited non-federal action in some states to recognize the trail, but no specific action to protect trail segments or trail sites that are not on public lands. Georgia has placed signs along a highway that passes by two trail-related sites. In North Carolina and eastern Tennessee, a locally produced guidebook includes some sites and route segments of the additional routes; some wayside exhibits (interpretive signs) are being planned for some sites in North Carolina; and a site is being developed in Pulaski, Tennessee, to recognize the Bell and Bengé routes.

Current NPS activities along the existing designated routes of the Trail of Tears National Historic Trail include trail-wide planning, partnership activities, interpretation, and resource protection. These are summarized below.

- The Comprehensive Management and Use Plan for the Trail of Tears National Historic Trail was approved on June 11, 1992. Since then, the NPS has worked with many partners to develop the trail for public use and appreciation. A Secretary of the Interior's Advisory Council for the trail provided input to the NPS for a total of 12 years, which included the legislatively determined 10-year term plus a 2-year extension. The Trail of Tears Association was formed specifically to be a non-profit organization to support the National Historic Trail. An auto tour route was established in the early 1990s in all trail states, but development of additional directional signing to trail sites has only recently begun. Directional signs, site identification signs, and original trail marker signs have been installed at a number of trail sites. Forty-three non-federal sites have signed certification agreements with the NPS to partner in trail programs, 11 federal sites are formally affiliated with the National Historic Trail, and a number of other site partnerships are pending.
- In addition to the trail management plan, a strategic plan was developed cooperatively with the Trail of Tears Association with assistance from other interested trail partners, and this was followed by the development of an interpretive plan for the trail with the participation of the association, agencies, interested parties, and tribes. The Trail of Tears Association, which receives support from the NPS, holds an annual symposium at various locations along the trail. These symposia feature opportunities to visit trail sites and to hear presentations about the trail, Cherokee and other tribes' culture and history, and other topics of interest to trail supporters and the public.
- Two major trail museum exhibit projects at the Museum of the Cherokee Indian in Cherokee, North Carolina, and at the Cherokee Heritage Center in Tahlequah, Oklahoma, have been completed in partnership with the NPS. Smaller museum exhibit partnership projects have been completed at other museums along the route. A number of NPS wayside exhibits have been cooperatively developed and installed at trail sites or along the routes and others are now being planned. An interim trail brochure was developed pending the completion of a full-color NPS map and guide such as those used in other

NPS areas. These are provided to partner facilities along the trail for distribution to the public.

- Trail research, including studies of the additional routes, archeological and remote sensing investigations of possible trail sites, archival research into trail history, historic structure reports, and cultural landscape studies, is ongoing. The NPS has helped a number of partners with site planning for development, and NPS staff and partners have participated in local planning efforts that involve trail related sites. When notified by other agencies of proposed actions that might affect trail resources, NPS staff and partners provide review and comment. Such actions along the trail often include cell tower installations, highway projects, and housing development.

New Alternative B: Designation of All Known Routes or Route Segments

Under this alternative, all the routes included in this study (except the Fort Lindsay/Franklin/Camp Scott route, which requires additional study, indicated in dashed lines on Map 1) would be added to the Trail of Tears National Historic Trail. All of the activities identified in the previous alternative for the designated routes would continue and would be extended to all of the documented trail routes included in this study. The NPS would be able to coordinate the program along all of those routes to help with an appropriate level of consistency in preservation, interpretation, and development. Actions taken along the routes with NPS assistance would always be coordinated with the Cherokee and other associated Indian nations as part of the government-to-government relationship that federal agencies are required to maintain with federally recognized tribes.

New Alternative C: Protection without Designation

This alternative, as proposed in the original study, suggested the possible future protection of the trail through actions by others. The original study found that such action was unlikely. Because two routes of the trail were designated, this alternative is no longer a valid separate alternative, but is simply a restatement of Alternative A, above. It requires no further consideration.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The National Park Service Director's Order 12 (Section 2.7) requires that an environmental assessment identify an environmentally preferred alternative. The Council on Environmental Quality defines the environmentally preferred alternative as "...the alternative that will promote the national environmental policy as expressed in the national Environmental Policy Act's Section 101." Section 101 of the National Environmental Policy Act states that:

- ...it is the continuing responsibility of the Federal Government to...**
- 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;**
 - 2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;**
 - 3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;**
 - 4) preserve important historic cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;**

- 5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and**
- 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.**

Alternatives A and C would provide for continued trail-related federal activities along currently designated routes of the Trail of Tears National Historic Trail, but not along the study routes. The federal lead agency would be unable to offer programs and opportunities that encourage preservation of key Cherokee Trail of Tears historic properties and related natural areas along the study routes. These alternatives, therefore, do not fully meet policies 1, 3, 4, and 5.

Alternative B is the environmentally preferred alternative. Alternative B meets policies 2 and 5-6 to the extent of Alternatives A and C. It would more fully meet policies 1 and 4 by encouraging environmental and historical resource preservation along an additional 2,845 miles of trail corridor. Alternative B would more fully meet policy 3 by attaining a more diverse range of visitor enjoyment without risk to public health or safety, and policy 5 by ultimately providing a variety of ways for the visiting public to experience Trail of Tears resources.

ENVIRONMENTAL ANALYSIS

SCOPE OF THE ENVIRONMENTAL ANALYSIS

This document is a combined environmental assessment (EA) and National Historic Trail feasibility study for additional Trail of Tears routes in North Carolina, Alabama, Georgia, Tennessee, Kentucky, Missouri, Arkansas, and Oklahoma. As a combined document, it serves two primary purposes: 1) to determine whether the study routes meet the significance and desirability criteria established by the National Trails System Act; and 2) to evaluate any broad environmental, social, and economic impacts that might result from implementation of any of the three alternatives presented.

Twenty years of NPS administrative experience with the existing Trail of Tears National Historic Trail provide a solid basis for assessing general environmental, social, and economic trends that could occur along the additional routes. However, this EA cannot address issues associated with specific trail projects that might be proposed by individual landowners along the trail, should Congress decide to designate the study routes as part of the National Historic Trail. The types, size, and design of trail projects that might be proposed would greatly determine the nature and magnitude of any impacts that might result. In addition, local environmental factors vary considerably across the total 2,845-mile length of the additional trail components. Therefore, the individual and combined effects of these location-specific and project-specific factors cannot be fully anticipated or evaluated in this EA/feasibility study. Such effects would be evaluated at the project level, in consultation with affected land managers and other interested parties, if the study routes are designated as part of the National Trails System, at the time such projects may be proposed.

This document does not address Trail of Tears routes previously considered and designated by Congress as National Historic Trail. Information on those routes can be found in the 1986 Trail of Tears feasibility study.

STUDY ROUTES

Trail of Tears routes under study in this document (refer to Context Map, Appendix B) are:

- Numerous round-up routes and sites from the collection forts to main departure points in North Carolina, Georgia, Alabama, and Tennessee (a total of 640 miles).
- The Bell detachment route through Tennessee and Arkansas (a total of 955 miles).
- The Benge detachment route across Alabama, Tennessee, Kentucky, Missouri, Arkansas, and Oklahoma (a total of 798 miles).
- Additional water route segments in Tennessee, Arkansas, and Oklahoma (a total of 131 miles).
- Water-land components in Tennessee, Alabama, Arkansas, and Oklahoma (a total of 392 miles).
- Three short disbandment routes at the western terminus of the trail in Arkansas and Oklahoma (a total of 108 miles).

The study components listed above total 3,024 linear miles of trail. However, several of those route segments overlap with each other in some areas. Total length of new route on the ground, less the duplicate overlapping mileages, is 2,845 miles.

IMPACT TOPICS ANALYZED

Public use, education, access and interpretive development, and protection-related activities typically follow designation of National Historic Trail. Those types of activities have some potential to affect certain kinds of physical, biological, cultural, and social resources.

Land Ownership and Use

National Historic Trails typically cross many land ownership jurisdictions, including those of federal, state and local agencies, American Indian tribes, and private landowners. Decisions regarding land use within a National Historic Trail corridor remain the right and responsibility of property owners and managers, and are not conferred to the federal government. However, there frequently arise questions and concerns regarding land use and related property rights along National Historic Trails. Additionally, designation of the additional components as National Historic Trail may encourage property owners along the new routes to seek National Register of Historic Places listings and to protect and/or provide for public access to Trail of Tears sites. Therefore, land use is addressed in this document.

Vegetation and Wildlife

The National Environmental Policy Act (NEPA) requires examination of impacts on the components of affected ecosystems. Designation of additional components to the Trail of Tears National Historic Trail could draw visitors to natural or naturalized landscapes (including national wildlife refuges managed by the U.S. Fish & Wildlife Service) with wild plant and animal populations, vegetation, wildlife, and threatened and endangered species. Therefore, potential impacts on vegetation and wildlife are examined.

A complete listing of threatened and endangered plant and animal species found along the route is available upon request to the National Park Service National Trails System office in Santa Fe. Examples of listed species are provided in the state-by-state Affected Environment sections below.

Prehistoric and Historical Archeological Resources

Consideration of the impacts to properties listed in or eligible for inclusion in the National Register of Historic Places is required under provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and under NPS Management Policies (2006). Since trail designation is expected to attract visitors to trail-related historic resources and to unrelated archeological sites that may exist along the study routes, these resources are considered as an impact issue.

American Indian Concerns/Ethnographic Resources

The National Park Service defines ethnographic resources as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (*NPS*

Director's Order 28, Cultural Resource Management Guideline: 181). The Cherokee Nation, Eastern Band of Cherokee Indians, Choctaw Nation of Oklahoma, Chickasaw Nation, Muscogee (Creek) Nation of Oklahoma, Seminole Nation of Oklahoma, and the Poarch Band of Creek Indians of Alabama all have historical ties to the Trail of Tears. The trail consists of the routes taken by many of those groups, but especially the Cherokees, when they were forced by the federal government to relocate to Oklahoma from their homelands in the east. The march along the Trail of Tears, during which many people perished, was a highly significant event in their history, and the stories of the trail are the stories of the tribes. The National Park Service has consulted regularly with the seven associated tribes with regard to the National Historic Trail since the mid-1980s. Therefore, American Indian concerns and ethnographic resources are considered as an impact topic. American Indian concerns and ethnographic resources for all states are discussed comprehensively under a separate subheading below.

Historic Structures/Cultural Landscapes

Consideration of potential impacts to historic resources is required under provisions of Section 106 of the National Historic Preservation Act of 1966, as amended. Historic structures and cultural landscapes (including critical trail setting) are present on or near the study route, and potentially could be affected by increased visitation and/or preservation efforts as a result of trail designation.

Recreational/Socioeconomic Resources

NEPA also requires consideration of the socioeconomic impacts of a proposal. The established Trail of Tears National Historic Trail provides recreational and related economic opportunities across eight states. Additional recreational and economic opportunities could result from designation of the study components as National Historic Trail.

IMPACT TOPICS DISMISSED FROM FURTHER CONSIDERATION

Based on 20 years of experience administering the existing Trail of Tears National Historic Trail and on extensive knowledge of trail resources, the NPS has determined that the topics listed below would not be foreseeably affected or may be negligibly affected by the alternatives evaluated in this EA. Negligible effects are effects that would not be detectable over existing conditions. Therefore, these topics have been dismissed from further consideration.

Air Quality

The Trail of Tears National Historic Trail does not and would not pass through any Mandatory Class I federal air quality areas. No measurable impacts to air quality would result from implementation of any of the alternatives.

Water Resources

None of the alternatives would compel or encourage action that could result in an increased or decreased use of water or cause changes in the chemical, physical, or biological integrity of the nation's waters. In 20 years of administering the existing Trail of Tears National Historic Trail, the NPS has undertaken no projects that would impact water resources, and has reasonable expectation that none would occur in the future.

Floodplains and Wetlands

Portions of the study routes are located on or near floodplains and wetlands. Any federal agency involved in trail development in these areas would be required to follow Executive Order 11988, "Floodplain Management." This executive order requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains wherever there is a practical alternative. Also, federal policy virtually prohibits federal agencies from taking certain actions in a 500-year floodplain. The alternatives considered in this EA do not call for trail-related development proposals for these sensitive areas. Any future undertaking that might possibly be proposed for a floodplain or wetland as a result of trail designation would be carefully analyzed at that future time to ensure full compliance with the executive order and federal policy. However, in 20 years of administering the existing Trail of Tears National Historic Trail, the NPS has undertaken no projects that would impact floodplains and wetlands along the designated route. Therefore, this topic was dismissed from further analysis at this time.

Soils

None of the alternatives proposes or implies activities that would remove, erode, or contaminate soils. In 20 years of administering the existing Trail of Tears National Historic Trail, the NPS has undertaken no projects that would adversely impact soils and has reasonable expectation that none would occur in the future. Any individual undertaking that might be proposed in the future, should the additional routes be designated, would be carefully analyzed at that time with respect to soil-related impacts.

Transportation

Designated Auto Tour Routes, which are marked routes along paved roads that take visitors on or near the actual historic trail route, are established by the federal lead agency as part of a separate, public environmental compliance process. This typically is accomplished as part of the trail's comprehensive management planning process, with public participation and review. The process of identifying preferred auto tour routes for any newly designated trail components, and then selecting the most appropriate routes, would be tiered to this study and initiated when funding for that purpose becomes available. Potential impacts to roads and highways cannot reasonably be evaluated until that time. Therefore, this topic is dismissed from further analysis in this document.

Wilderness

None of the study route components cross or border wilderness areas.

Prime and Unique Farmlands

Designation of National Historic Trail does not compel or encourage development of farmlands, but instead encourages landowners to protect the rural, natural, and agricultural character of their property. Designation of additional components to the Trail of Tears National Historic Trail would not remove any farmland from production, nor contribute directly or indirectly to loss of farmland. The Natural Resources Conservation Service's Mid-Atlantic Region confirms that a prime farmland determination is not necessary for this kind of administrative action. However, any individual undertaking that might be proposed in the future, should the additional routes be designated, would be carefully analyzed at that time with respect to prime and unique farmlands.

Wild and Scenic Rivers

The study route components are not located on Wild and Scenic Rivers. Implementation of any of the alternatives therefore would not result in impacts to such waterways.

Indian Trust Resources

No physical resources held in trust by the federal government for American Indian tribes would be impacted by any of the alternatives under consideration.

Museum Collections

Implementation of any of the alternatives would not entail physical collection of artifacts or archival materials. Therefore, no impacts to NPS museum collections would occur from implementation of any of the alternatives described in this document.

Environmental Justice

Executive Order 12898, General Actions to Address Environmental Justice in Minority Populations and Low-income Populations, requires all federal agencies to identify and address the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. None of the alternatives considered in this environmental analysis would involve any development or other activities that would disproportionately or adversely impact economically disadvantaged populations along the routes. Therefore, environmental justice was dismissed from further analysis in this environmental assessment.

AMERICAN INDIAN CONCERNS AND ETHNOGRAPHIC RESOURCES

This section provides an overview of resources trail-wide, and includes information about some significant historical resources. Trail of Tears routes and resources are, obviously, of special concern to those tribes who were removed along the routes that are under consideration here. Ethnographic resources for the tribes include, but are not necessarily limited to, the properties described in this study. Consultation with the tribes is ongoing to identify additional resources.

The National Park Service has been working closely and intensively with tribes for many years on the existing trail. From 1988 to 2000, the Trail of Tears Advisory Council coordinated comments, concerns, information, recommendations, and questions to the NPS from agencies, organizations, and tribes associated with the trail. Serving on that advisory council were official tribal representatives, appointed by their respective chiefs, from the Cherokee Nation, Eastern Band of Cherokee Indians, Muskogee (Creek) Nation of Oklahoma, Chickasaw Nation, Choctaw Nation of Oklahoma, Seminole Nation, and Poarch Band of Creek Indians of Alabama. Since the conclusion of the advisory council's extended 12-year term, tribal representation has continued on the board of directors of the Trail of Tears Association. The Trail of Tears Association has a Memorandum of Understanding with the Cherokee Nation that allows the current association leadership to represent the tribe for some matters concerning the Trail of Tears National Historic Trail.

The congressional act that prompted the current study was a direct result of the coordinated efforts of the Cherokee Nation, Eastern Band of Cherokee Indians, and the Trail of Tears Association, all of whom promoted the legislation and testified in support of it. Their efforts

focused, at this time, only on the additional routes of Cherokee removal, with discussions of possible future legislation to study the routes of the other Southeastern tribes.

Dozens of Cherokee-related town sites and historical locales exist in North Carolina, Tennessee, Alabama, and Georgia. Many of these places are of particular cultural significance to the Cherokees. Representatives of the Eastern Band of Cherokee Indians and the Cherokee Nation attended public scoping meetings for this study in order to communicate the importance of extending the Trail of Tears National Historic Trail as closely as possible to the doorsteps of the Cherokee individuals who were removed from their homes, principally in North Carolina and Georgia. This step would, they maintained, reach beyond the collective story of the removal and help other Americans understand how removal impacted individuals and families. The Assistant Chief of the Eastern Band of Cherokee Indians attended the public meeting in Murphy, N.C., and on behalf of the tribe spoke strongly in favor of adding the additional routes to the National Historic Trail.

Some particular sites are of outstanding cultural importance to the associated tribes. In early 2007, the Eastern Band purchased the 71-acre site of Cowee Mound and the ancient town site of Cowee, on the Little Tennessee River near Franklin, N.C. The village, a principal center of Cherokee commerce and diplomacy in the 17th and 18th centuries, is regarded as one of the most important heritage sites of the Cherokee people and is the most intact Mississippian Period site in western North Carolina. Cowee Mound, which is listed on the National Register of Historic Places, was occupied during the Indian removal period. The Eastern Band of Cherokee plans to manage the property for habitat protection and to enhance historic interpretation of the heritage site.

New Echota, in Georgia, is a formally designated Cherokee Traditional Cultural Resource, and the Red Clay Council Grounds at Red Clay State Historic Site are considered to be sacred ground. In recent times, the Cherokee Nation and Eastern Band of Cherokee Indians have had joint tribal council meetings at Red Clay. The Sequoyah Birthplace Museum in Vonore, Tenn., and the Junaluska Museum in Robbinsville, N.C., both are owned by the Eastern Band of Cherokee Indians and are certified by the NPS as components of the National Historic Trail.

The Vice Chief of the Eastern Band of Cherokee Indians spoke at the public scoping meeting in Murphy, N.C., stating that the Eastern Band strongly supports designation of the additional components. The Tribal Historic Preservation Officer for the Poarch Band of Creek Indians attended the public meeting in Sheffield, Ala. In his public comments, he stressed the importance of the site of Tuscumbia Landing to the removal of the Creek people and supported the addition of the study routes in Alabama. During Creek removal, the landing was at the boundary of the Creek lands, and so marked the last place those removed stood on their traditional homeland.

Consultation about the trail continues with all the tribes as specific projects involve telling the stories of particular tribes. The National Park Service helped fund and worked cooperatively with the tribes in developing major exhibits about the Trail of Tears at the Museum of the Cherokee Indian in Cherokee, North Carolina, and the Cherokee National Museum at the Cherokee Heritage Center in Tahlequah, Okla. The Tahlequah exhibits include a video program about the other southeastern tribe removals, with stories told by tribal members, based on footage first developed for a similar project in partnership with Fort Smith National Historic Site. The NPS and tribal partners have cooperatively undertaken a number of projects at trail sites and along the routes. These projects include wayside exhibits for all five of the southeastern tribes at Fort Smith and North Little Rock along the water route, and museum exhibits about the trail at Red Clay State Park and Tennessee River Museum in Tennessee and at the Vann House Historic Site in

Georgia. All of these projects have been partially funded by the NPS Challenge Cost Share Program from the National Trails System Office in Santa Fe.

Issues of great sensitivity to many in the Cherokee Nation are the attempts by individuals who are not enrolled tribal members to use claims of Cherokee ancestry to seek separate tribal recognition. This issue was raised in the public meeting in Tahlequah. In carrying out the programs of the Trail of Tears National Historic Trail, the National Park Service does not either accept or refute any personal stories. Rather, the Service maintains an official relationship of government-to-government consultation with federally recognized tribes, and only persons designated by tribal officials are accepted as speaking for a particular Indian nation.

AFFECTED ENVIRONMENT

INTRODUCTION

The natural and human environments of lands located on or near the study route components of the Trail of Tears National Historic Trail are described below. As in the original 1986 study, descriptions are organized first by state, generally moving east to west, and then by impact topic.

Table 1 summarizes land use data for all states. The Context Map (Appendix B) shows the entire network of Trail of Tears routes, including established National Historic Trail and study routes. Individual trail section maps, numbered 1 through 7, provide more detailed information on the study routes.

NORTH CAROLINA

Several Trail of Tears round-up routes connected holding forts and departure depots in the westernmost part of North Carolina. These study routes cross five counties. See Table 2 for a listing of the counties and Section Map 1 (Appendix B) to view the North Carolina study routes.

Natural Resources of Western North Carolina: Geography, Vegetation, and Wildlife

The westernmost region of North Carolina, where several Cherokee round-up routes originate, is in the Blue Ridge physiographic province. It is an upland area with more than 40 peaks over 6,000 feet in elevation – including Mt. Mitchell, which at 6,684 feet is the highest peak east of the Mississippi River. The Great Smoky Mountains and the Blue Ridge Parkway are part of this scenic province. Also located in that area is Great Smoky Mountains National Park, America's most-visited national park.

Complementing the rounded mountains are deep mountain-stream gorges and broad basins. Oak, hickory, tulip, and poplar cover the lower slopes, giving way to birch, beech, maple and hemlock at higher elevations. Above 5,800 feet grow spruce and balsam-fir forests with a colorful understory of azaleas and rhododendrons.

The Blue Ridge is one of the richest centers of biological diversity in the eastern United States. This area of North Carolina has abundant fish and wildlife, including deer, raccoon, opossum squirrel, and fox. Black bear are common, especially in Great Smoky Mountains National Park, and the eastern cougar is found in the area, too. Large lakes in the region include Hiwassee, Apalachia, Fontana, and Chatuge Lakes, with populations of bass, catfish, bluegill, perch, trout, muskie, and walleye. Each year the reservoirs attract millions of visitors to the area for boating, fishing, and other water sports.

Sixty-two North Carolina species currently are listed as threatened or endangered species (T&E Species), including the Saint Francis Satyr butterfly (*Neonympha mitchellii francisci*) and the smooth coneflower (*Echinacea laevigata*). A complete listing of North Carolina T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Table 1. Statewide land ownership and use for all study-route states.

State	Total Area (Square Acres)^a	Acres Owned by State & Fed. Govts^b	Acres in State Ownership^b	Acres in Federal Ownership^b	% Non- Federal & Non- State Acres	Land in Farms (acres)^c	Population (2006 Estimate)^d
North Carolina	31,179,568	2,180,470 (6.99%)	136,000 (0.44%)	2,044,500 (6.56%)	93.01	9,079,001 (29.1%)	8,856,505
Georgia	37,067,991	1,734,590 (4.68%)	349,700 (0.94%)	1,384,900 (3.74%)	95.32	10,744,239 (29.0%)	9,363,941
Alabama	32,480,154	1,235,910 (3.81%)	395,800 (1.22%)	840,110 (2.59%)	96.19	8,904,387 (27.4%)	4,599,030
Tennessee	26,380,477	2,814,750 (10.67%)	1,722,000 (6.53%)	1,092,750 (4.14%)	89.33	11,681,533 (44.3%)	6,038,803
Kentucky	25,428,692	899,800 (3.53%)	110,500 (0.43%)	789,300 (3.10%)	96.47	13,843,706 (54.4%)	4,206,074
Missouri	44,055,140	2,655,010 (6.03%)	1,029,600 (2.34%)	1,625,410 (3.69%)	93.97	29,946,035 (68.0%)	5,842,713
Arkansas	33,328,208	3,949,900 (11.85%)	652,500 (1.96%)	3,297,400 (9.89%)	88.15	14,502,793 (43.5%)	2,810,872
Oklahoma	43,954,269	1,006,750 (2.29%)	435,400 (0.99%)	571,300 (1.30%)	97.71	33,661,826 (76.6%)	3,579,212

^a Source: Farmland Information Center, National Resources Inventory, www.farmlandinfo.org/agricultural_statistics, accessed 7/11/2007.

^b Source: Natural Resources Council of Maine, www.nrcm.org/documents/publicland_ownership.pdf, accessed 7/11/2007. Percentages represent percent of state's total area owned by the state or federal government.

^c Source: USDA National Agricultural Statistics Service, 2002 Census of Agriculture, www.nass.usda.gov/Census/Pull_Data_Census, accessed 7/11/2007. Percentages represent percent of state's total acreage being farmed as of 2002.

^d Source: U.S. Census Bureau, State & County Quickfacts, accessed 8/24/2007 from <http://quickfacts.census.gov/qfd/states>.

Land Resources: Ownership and Use

North Carolina comprises an area of 48,711 square miles, with approximately 7 % of the land in state and federal ownership (Table 1). Most federal ownership is concentrated in western North Carolina, where the Nantahala and Pisgah National Forests and Great Smoky Mountains National Park are located. Also there, tucked between Nantahala National Forest and the national park, is the 56,572-acre Eastern Cherokee Reservation. The reservation (which, as a result of the Indian Removal Act, is one of very few in the eastern United States) is on original Cherokee homeland in what is known as the Qualla Boundary. One of the round-up routes originates near the reservation, and several more originate within and pass through Nantahala National Forest.

Statewide, about 93% of the land is privately owned (this figure includes ownership by local public agencies, for which separate data are unavailable), and 29% of the North Carolina land is used for agriculture. The concentration of federal land in the western toe of North Carolina makes that region particularly rural in character. North Carolina's most dense and urbanized populations are concentrated in a broad east-west swath through the center of the state, with the western, northern, and eastern edges remaining largely rural.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Human occupation of North Carolina spans at least 12,000 years and four prehistoric periods: the Paleo-Indian (12,000 years or more Before Present [B.P.] to 9,500 years B.P.), Archaic (9,500 to 4,000 years B.P.), Woodland (4,000 to ca. years 400 B.P.), and Mississippian (ca. 400 to 250 years B.P.) (North Carolina Office of State Archaeology). Paleo-Indian sites, which occur across the continent, date to the end of the last ice age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish, and gathered many kinds of plant foods. Their camp and plant processing sites are abundant in most states. The Woodland Period was a transitional time marked by improved ceramic technology, cultivation of domesticated plants, establishment of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods.

Mississippian groups, also mound-builders, occupied southern and western portions of North Carolina (North Carolina Office of State Archaeology). They were chiefdom-based peoples who farmed the floodplains of major rivers, where their abundant archeological remains are found today. Large Mississippian towns, which were political and religious centers, typically had an open plaza with flat-topped temple mounds, and a nearby residential zone or village. Smaller villages, hamlets, and farmsteads were common.

The Mississippian cultural tradition was in decline by the time the first Europeans arrived in the Southeast. Spanish explorer Hernando de Soto encountered some of the remaining Mississippian Indian towns as his company marched through western North Carolina in 1540. Old World diseases, likely introduced by these and other Europeans, soon contributed to the final collapse of the Mississippian chiefdoms. Remnant populations eventually came together to form historically known tribes such as the Cherokees, Creeks, Choctaws, and Seminoles, who often continued to occupy the old Mississippian village sites well into the period of white settlement.

Seventeenth-century European traders venturing into the Great Smoky Mountains found Iroquoian-speaking groups, the immediate ancestors of the people known historically as Cherokee. Southwestern North Carolina was part of the original Mountain Cherokee homeland,

which also included parts of Georgia and Tennessee. Today it remains the home of the Eastern Band of Cherokee.

Europeans began settling in North Carolina 1736. In 1776, Revolutionary War General Griffith Rutherford led troops into the Cherokee homeland, via a route now called Rutherford's Trace, to punish the Cherokee for assisting the British and for attacking settlements in the region. Discovery of gold at Coker Creek, Tennessee, in 1836 brought a flood of fortune hunters, a permanent U.S. military presence, and more white settlers into Cherokee territory. These events contributed to ever-increasing pressure for the immediate removal of the Cherokees to Oklahoma.

North Carolina has thousands of documented prehistoric archeological sites and historic properties related to the traditions and historical trends summarized above, as well as to later events not addressed here. The five North Carolina counties crossed by the study routes have a total of 42 National Register-listed properties, including historic and archeological districts and landscapes (data accessed from the NPS National Register Information System at www.nr.nps.gov on May 29, 2007).

Four of the National Register-listed properties are directly or indirectly related to the Cherokee removal. They are:

- **Macon County**
 - *Cowee Mound and Village Site*, a prehistoric mound that became a 17th century center of Cherokee diplomacy and commerce; and
 - 370-acre *Cowee-West's Mill Historic District*, also at Cowee.
- **Swain County**
 - *Nununyi Mound and Village Site*, a historic Cherokee town site; and
 - *Oconaluftee Archeological District*, which includes seven prehistoric and Cherokee sites, occupied between 7,000 B.C. and A.D. 1900.

Most other National Register properties listed for these counties are non-aboriginal buildings, structures, and historic districts significant for their architecture or for their association with 19th and 20th century activities and events. Also located in the study route counties are the sites of at least seven Cherokee removal forts and related properties. No visible surface remains of these exist, although some sites may retain archeological remains. They are:

- 1) *Fort Butler*, in Murphy.
- 2) *Fort Hembree*, at Hayesville.
- 3) *Fort Delaney*, in Andrews.
- 4) *Fort Montgomery*, in Robbinsville.
- 5) *Fort Lindsay*, at the mouth of the Nantahala River, possibly submerged beneath Fontana Lake.
- 6) *Camp Scott*, on the Nantahala River between Andrews and Franklin.
- 7) *Burnt Stand*, a wagon yard and inn on the Unicoi Turnpike, in Cherokee County.
- 8) *Wacheeesees*, home of Cherokee leader Wacheeese, in Cherokee County.

Study routes that connected the forts include segments of intact Trail of Tears roadbed. A particularly significant stretch of historic route is the old Unicoi Turnpike, which traverses the lowest pass through the southern Appalachian mountain range. The turnpike originated more than 1,000 years ago as an Indian trade route and saw continued use through the settlement and removal periods. The 68-mile segment between Vonore, Tennessee, and Murphy, North Carolina,

was designated as a National Millennium Flagship Trail in 1999. Other North Carolina Trail of Tears resources are described by researchers Thomason and Parker (2003) in a National Register Multiple Property Documentation Form for eastern sections of the Trail of Tears. These are:

- a) *The Hunter Ferry*, established on the Hiwassee River at Murphy in the 1820s by Archibald R.S. Hunter. Cherokee contingents traveling the Unicoi Turnpike used Hunter's Ferry. Thomason and Parker state that the ferry site retains its historical integrity and is eligible for National Register listing. Hunter operated a store at the same location. Both store and ferry were used by the Cherokees and the army.
- b) *The grave of Cherokee leader Junaluska*, who met with President Jackson and members of Congress to protest the Indian removal law. His grave and that of his wife, Nicie, are located in Robbinsville.

The National Park Service has designated the *Junaluska Memorial and Museum*, in Graham County, as a certified site on the Trail of Tears National Historic Trail. Other NPS-certified properties in study-route counties are the *Cherokee County Historical Museum* and the *Museum of the Cherokee Indian*, both in Cherokee County.

Recreation Resources

Trail of Tears counties in North Carolina include numerous federally managed lands and waters. These properties are not necessarily crossed by Trail of Tears study routes. Table 2 provides summary information on these federally owned and managed recreation resources.

Congress designated the Blue Ridge National Heritage Area (NHA) in 2003, in recognition of the unique character, culture, and natural beauty of western North Carolina. The NHA encompasses the 25 westernmost counties of North Carolina (including the five counties on the Trail of Tears study routes). It is managed through partnerships among federal, state, and local governments and the private sector, and the National Park Service provides technical and financial assistance.

Socioeconomics

The top three employment sectors in North Carolina, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail. The category of "arts, entertainment, recreation and accommodation, and food services," the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks sixth out of a total of 13 employment categories. Median household income in the state, according to the Census Year 2000 survey, was \$39,184 (compared to \$41,994 for the U.S. as a whole). Median household income in the five North Carolina Trail of Tears study-route counties at the time of the census was lower than the statewide figure (Table 3).

Table 2. Federally owned or managed recreation resources in North Carolina counties on the Trail of Tears study routes.

County	Resources
Cherokee	Nantahala National Forest (FS) Cherokee Lake Recreation Area (FS) Blue Ridge National Heritage Area (NPS) Apalachia Reservoir (TVA) Hiwassee Lake (TVA)
Clay	Nantahala National Forest (FS) Fires Creek Recreation Area (FS) Jackrabbit Mountain Recreation Area (FS) Appalachian Trail (NPS) Blue Ridge National Heritage Area (NPS) Chatuge Reservoir (TVA)
Graham	Nantahala National Forest (FS) Cheoah Point Recreation Area (NF) Cherohala Skyway Recreation Area (FS) Joyce Kilmer Recreation Area (FS) Great Smoky Mountains National Park (NPS) Appalachian National Scenic Trail (NPS) Blue Ridge National Heritage Area (NPS) Lake Fontana (TVA)
Macon	Nantahala National Forest (FS) Cliffside Lake Recreation Area (FS) Dry Falls Recreation Area (FS) Standing Indian Recreation Area (FS) Wayah Bald Recreation Area (FS) Appalachian National Scenic Trail (NPS) Blue Ridge National Heritage Area (NPS)
Swain	Nantahala National Forest (FS) Nantahala Gorge Recreation Area (FS) Tsali Recreation Area (FS) Great Smoky Mountains National Park (NPS) Appalachian National Scenic Trail (NPS) Blue Ridge Parkway (NPS) Blue Ridge National Heritage Area (NPS) Fontana Reservoir (TVA)

Note: "FS" indicates USDA Forest Service management. "NPS" indicates National Park Service management. "TVA" indicates Tennessee Valley Authority management.

Table 3. Population and income for North Carolina counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Cherokee	24,298	\$27,992	-\$11,192
Clay	8,775	\$31,397	-\$ 7,787
Graham	7,993	\$26,645	-\$12,539
Macon	29,811	\$32,139	-\$ 7,045
Swain	12,968	\$28,608	-\$10,576

Note: Data from U.S. Census Bureau, Census Year 2000.

GEORGIA

A network of round-up routes, which connected internment forts and departure depots, spreads across 15 counties in northwestern Georgia. See Table 4 for a listing of the counties.

Natural Resources of Northern Georgia: Geography, Vegetation, and Wildlife

Georgia is divided into five physiographic provinces. In the northwest corner of the state, where several round-up study routes are located, are the Ridge and Valley and the Appalachian Plateau regions. The Ridge and Valley province occupies most of northwestern Georgia, including the Chickamauga Valley, the Armuchee Ridges, and the Great Valley. This region is characterized by a series of parallel valleys separated by ridges, where caves are numerous. The Appalachian Plateau region (also known as the Cumberland Plateau), stretches from New York to Alabama, barely clipping the northwestern corner of Georgia where most of the Cherokee round-up routes are located. This scenic corner of Georgia is occupied by flat-topped Lookout Mountain, which is threaded with miles of caves and edged by Lookout Valley and Chattanooga Valley. Underlying the entire province is a vast coalfield.

About 60 % of Georgia is forested. Common within the Ridge and Valley region are oak and hickory forests, made up of pin, post, red, black, and chinquapin oak trees, pignut, mockernut, and shagbark hickory, and maple. Understory consists of beautiful flowering trees and shrubs such as redbud, dogwood, and azaleas.

Native mammals of the Appalachian Plateau region include white-tailed deer, raccoon, opossum, black bear, fox, and squirrel. A variety of songbirds, as well as ducks, geese, and quail are found there, and Georgia's rivers and lakes are home to catfish, bass, trout, bass, bream, and crappie. At present, 70 plant and animal species in the region are listed as threatened or endangered species, including the snail darter fish (*Percina tanasi*) and the relict trillium (*Trillium reliquum*), a woodland flower. A complete listing of Georgia's T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request at the NPS Santa Fe Trails Office.

Land Resources: Ownership and Use

Georgia comprises an area of 57,906 square miles, with approximately 4.7% of its land in state and federal ownership (Table 1). Most of the federal ownership is concentrated in northern Georgia, where the Chattahoochee National Forest stretches across the southern tip of the Blue Ridge and covers a portion of the Valley and Ridge Region. Statewide, about 95% of Georgia's lands are owned by private individuals and local public agencies, and 29% of the land is used for agriculture.

The areas occupied by the national forest are largely undeveloped and rural, with low-density populations. South of the Chattahoochee National Forest and immediately outside of the Trail of Tears study area is a six-county region of concentrated, urban populations. Catoosa and Whitfield Counties, which are crossed by several of the study routes, together form another urban center.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

The culture history of Georgia spans at least 12,000 years and four primary archeological periods: the Paleo-Indian (10,000 B.C. and earlier to 8,000 B.C.), Archaic (8,000 to 1,000 B.C.), Woodland (1,000 B.C. to A.D. 900), and Mississippian (A.D. 900 to 1541) (The Society for

Georgia Archaeology). Paleo-Indian sites, which are found across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Woodland Period was a transitional time marked by improved ceramic technology, cultivation of domesticated plants, establishment of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods.

Mississippian groups, also mound-builders, settled and farmed the floodplains of major rivers, living mostly in small villages of a few hundred residents, smaller hamlets, and family-group farmsteads. Their larger political and religious centers usually included a central plaza with ceremonial and elite residential structures, a general residential zone, and fortifications of palisades and ditches. Such a site is Etowah, a 54-acre Mississippian mound complex on the Etowah River near Cartersville, in Bartow County, Georgia. The site, one of the largest mounds in North America, was occupied intermittently into the 17th century.

The Mississippian cultural tradition was in decline by the time the first Europeans arrived. Spanish explorer Hernando de Soto and company, while searching for gold in the Southeast in 1540-42, encountered Mississippian peoples in Georgia and also observed the Etowah mounds (unoccupied at the time). These and other Europeans likely spread Old World diseases that decimated native populations and contributed to the collapse of the remaining Mississippian chiefdoms. Remnant populations eventually came together to form historically known tribes such as the Cherokees, Creeks, Choctaws, and Seminoles, many of whom continued to reside at the old Mississippian village sites well into the historic settlement period. The Mississippians of the Etowah Mounds site are believed to be ancestors of the Creeks, also called Muscogees, who controlled most of Georgia into the 1500s. The first Cherokees entered Creek territory from the north in the mid-1400s and forced the Creeks out of northern Georgia around A.D. 1750.

The earliest European settlement in Georgia was a Spanish mission established on Saint Catherine's Island in 1566. Later, British colonists entered Georgia and continued to settle there until the Revolutionary War. American victory brought more settlers into the area, and discoveries of gold in White, Lumpkin, Union, and Cherokee Counties in 1828-29 triggered a rush (primarily via the historic Unicoi Turnpike) into Cherokee-controlled lands in northern Georgia. These events intensified pressures to remove the Cherokees and other tribes to Indian Territory.

Georgia has thousands of documented prehistoric archeological sites and historic properties related to the traditions and events summarized above, as well as sites relating to later trends and events, such as the Civil War. The 15 study route counties in Georgia have a total of 151 properties, including historical and archeological districts and landscapes, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov on June 4, 2007). Seven of those properties are directly or indirectly associated with the Indian removal on the Trail of Tears. They are:

- **Floyd County**
 - *The Chieftains Museum*, also called the *Major Ridge Home*, significant for its association with an important removal-era Cherokee leader.

- **Gordon County**
 - *Freeman-Hurt House*, listed on the National Register as associated with the Cherokee during the removal period; and

- *New Echota National Historic Landmark and State Historic Site*, the first national capital of the Cherokee Nation. Here in 1835 the Treaty of New Echota was signed, establishing the legal pretext for the final removal of the Cherokee over the Trail of Tears to Oklahoma.
- **Lumpkin County**
 - *Calhoun Mine National Historic Landmark*, where gold discovered in 1828 led to an influx of miners and eventual expulsion of Cherokees.
- **Murray County**
 - *Spring Place Historic District*, a Presbyterian mission station associated with Cherokee James Vann; and
 - *Vann House*, home of James Vann and his son Joseph.
- **Walker County**
 - *Chief John Ross National Historic Landmark*, which commemorates a leader who helped take his people over the Trail of Tears to Oklahoma.

Most other National Register properties listed for these counties are non-aboriginal buildings, structures, and historic districts significant for their architecture, or for their association with various 19th and 20th century activities.

Besides the listed removal-related properties, the approximate locations of 13 unlisted Cherokee removal forts and encampments along the Georgia study routes have been identified. They are:

- 1) *Fort Wool*, at New Echota on the Federal Road, Gordon County.
- 2) *Fort Buffington*, at Canton, Cherokee County.
- 3) *Camp Sixes*, now submerged beneath Lake Allatoona at the former town of Sixes, Cherokee County.
- 4) *Fort Hetzel*, in Ellijay, Gilmer County.
- 5) *Fort Gilmer*, on the Federal Road near the Cherokee town of Coosawattee, in the vicinity of Rock Springs, Murray County.
- 6) *Fort Newnan*, near the Federal Road at Blaine, Pickens County.
- 7) *Fort Hoskins*, in the vicinity of Spring Place, Murray County.
- 8) *Fort Campbell*, in Blanine, Forsythe County.
- 9) *Fort Cumming*, in La Fayette, Walker County.
- 10) *Fort Means*, in Kingston, Floyd County.
- 11) *Cedar Town Encampment*, at Cedar Town, Polk County.
- 12) *Rome Encampment*, at Rome, Floyd County.
- 13) *Camp Perkins*, in Dade County.
- 14) *Fort Floyd*, at Dahlonega, Lumpkin County

No surface remains of these posts exist. Archeological fieldwork sponsored by the National Park Service has documented subsurface remains at the site of Fort Wool that might or might not be associated with the fort. Archeological evidence may exist at the other sites.

From these forts and encampments, the Cherokee detachments traveled existing roads to the main emigration depots. Those Trail of Tears study routes have been described above and are shown on the Context Map and on Section Map 1 (Appendix B). Other Trail of Tears resources on study routes in northern Georgia include:

- a) The *home of David Oo-Watie*, near Calhoun. Oo-Watie was brother of Major Ridge and father of Elias Boudinot and Stand Watie, both important Cherokee leaders during the removal era.
- b) *Unicoi State Park and Travelers Rest State Historic Site on the Unicoi Turnpike*, the ancient Indian trading path that connected the Cherokee Overhill Towns and Lower Towns. Miners used the old road to enter Cherokee territory during the 1829 gold rush, and Cherokee detachments used it on the way to the Indian Territory.

National Park Service-certified Trail of Tears sites located in study route counties are the *Chief Vann House Historic Site* at Chatsworth, Murray County; the *Chieftains Museum/Major Ridge Home* at Rome, Floyd County; the historic *Road from Ross’s to Ridge’s*, also in Floyd County; *John Ross House* in Rossville, Walker County; and *New Echota State Historic Site* in Gordon County. New Echota also is a formally designated Cherokee Traditional Cultural Resource.

Recreation Resources

Trail of Tears counties in Georgia include two units of the Chattahoochee National Forest and two units of the Chickamauga and Chattanooga National Military Park. Table 4 provides summary information on these and other federally managed recreation resources. Note that the land and water resources listed in Table 4 are not necessarily crossed by Trail of Tears study routes.

Table 4. Federally owned or managed recreation resources in Georgia counties on the Trail of Tears study routes.

County	Resources
Bartow	Lake Allatoona (ACE)
Catoosa	Chattahoochee National Forest (FS)
Cherokee	Lake Allatoona (ACE)
Dade	Chickamauga and Chattanooga National Military Park (NPS)
Dawson	Chattahoochee National Forest (FS)
Floyd	Chattahoochee National Forest (FS)
Forsyth	Lake Sidney Lanier (ACE)
Gilmer	Chattahoochee National Forest (FS) Ed Jenkins National Recreation Area (FS) Carters Lake (ACE)
Gordon	Chattahoochee National Forest (FS)
Lumpkin	Chattahoochee National Forest (FS) Lake Sidney Lanier (ACE)
Murray	Chattahoochee National Forest (FS)
Walker	Chickamauga and Chattanooga National Military Park (NPS) Chattahoochee National Forest (FS)
Whitfield	Chattahoochee National Forest (FS)

Note: “FS” indicates USDA Forest Service management. “NPS” indicates National Park Service management. “ACE” indicates Army Corps of Engineers management. Study-route counties not listed here have no federally owned recreational properties.

Socioeconomics

The top three employment sectors in Georgia, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks fifth out of a total of 13 employment categories. Median household income in the state, according to the Census Year 2000 survey, was \$42,433 (compared to \$41,994 for the U.S. as a whole). Median household income in most of the Georgia Trail of Tears study route counties during the census year was lower than the statewide median, but exceeded the state average in Cherokee, Dawson, and Forsyth Counties (Table 5).

Table 5. Population and income for Georgia counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Bartow	76,019	\$43,660	+\$ 1,227
Catoosa	53,282	\$39,998	-\$ 2,435
Cherokee	141,903	\$60,896	+\$18,463
Dade	15,154	\$35,259	-\$ 7,174
Dawson	15,999	\$47,486	+\$ 5,053
Floyd	90,565	\$35,615	-\$ 6,818
Forsyth	98,407	\$68,890	+\$26,457
Gilmer	23,456	\$35,140	-\$ 7,293
Gordon	44,104	\$38,831	-\$ 3,602
Lumpkin	21,016	\$39,167	-\$ 3,266
Murray	36,506	\$36,996	-\$ 5,437
Pickens	22,983	\$41,387	-\$ 1,046
Polk	38,127	\$32,328	-\$10,105
Walker	61,053	\$32,406	-\$10,027
Whitfield	83,525	\$39,377	-\$ 3,056

Note: Data from U.S. Census Bureau, Census Year 2000.

ALABAMA

Several round-up routes, the Bengé route, and water-land components cross 10 counties in northern Alabama. In addition, the designated water route of the Trail of Tears crosses Alabama. See Table 6, below, for a listing of the study route counties, and Section Maps 1 and 2 (Appendix B) for the Alabama routes.

Natural Resources of Northern Alabama: Geography, Vegetation, and Wildlife

Five physiographic regions define the landscapes of Alabama. The Bengé route, segments of the round-up routes, and some of the water/land components cross the two northernmost provinces, the Highland Rim and the Cumberland Plateau. The Highland Rim is a region of fertile, rolling plains, drained by the Tennessee River. The region’s limestone bedrock is dotted with sinkholes

and solution caves. The Cumberland Plateau, which stretches in a narrow band across northern Alabama, is generally flat with some rolling hills, and forested, with poor soils.

About 65% of Alabama is forested. Northern Alabama forests are mixtures of both hardwood and softwood trees, including pine, oak, hickory, and magnolia, which are suited to the warm, humid climate. Rhododendron, mountain laurel, azalea, and sumac create a colorful understory.

The forests and surrounding environments of northern Alabama support a variety of mammals, birds, fish, and reptiles. Mammals and birds include white-tailed deer, red fox, muskrat, rabbit, nutria, and opossum; and wild turkey, mockingbird, northern cardinal, blue jay, bluebird, and yellowhammer. Reptiles include the copperhead and water moccasin snakes, the eastern diamondback rattlesnake, eastern box turtles, red-eared slider turtles, and many types of lizards and skinks. Alabama fish species include catfish, bass, and crappie. At present, 116 Alabama plant and animal species are listed as threatened or endangered species. These include the flatwoods salamander (*Ambystoma cinquatum*) and the pinkroot gentian (*Spigelia gentianoides*). A complete listing of Alabama T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Alabama comprises an area of 50,744 square miles, with approximately 3.8 % of the land in state and federal ownership (Table 1). The largest blocks of federal lands are Alabama's five national forests, which are distributed throughout the state rather than clustered in one region as occurs in North Carolina and Georgia. Only the William B. Bankhead National Forest is located in northern Alabama, and it is south of the Trail of Tears study routes. Federal lands crossed by or in the immediate vicinity of Trail of Tears study routes include the Little River National Preserve, managed by the National Park Service; Marshall Space Flight Center, managed by the National Aeronautics and Space Administration; Redstone Arsenal, managed by the Department of Defense; and the Wheeler National Wildlife Refuge, managed by the U.S. Fish & Wildlife Service.

Statewide, about 96% of the land is owned by private parties and local public agencies, and 27% of the land is agricultural. Alabama's most dense and urbanized populations occur in the northern and central portions of the state, with the southwestern region remaining largely rural and lightly populated.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Alabama archeologists define five primary prehistoric periods for their state: the Paleo-Indian (10,000 to 7,000 B.C.), Archaic (7,000 to 1,000 B.C.), Gulf Formational Period (2,500 to 100 B.C.), Woodland Period (300 B.C. to A.D. 1000), and the Mississippian (A.D. 700 to 1300) (Alabama Department of Archives & History). Paleo-Indian sites, which occur throughout the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish, and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Gulf Formational Period was transitional between the Archaic and Woodland, marked primarily by increasing sophistication in ceramic technology. The Woodland Period is characterized by construction of permanent dwellings, cultivation of corn and squash, adoption of the bow and arrow, and construction of burial mounds with exotic grave goods.

Mississippian groups, also mound-builders, were chiefdom-based peoples who occupied and farmed the floodplains of major rivers where their archeological remains are found today (for example, the 300-acre Moundville site on the Mobile River in central Alabama). Large Mississippian ceremonial centers featured a plaza and temple mounds, and often were fortified with wooden palisades and ditches. Smaller villages, hamlets, and individual farmsteads also were common. Although the Mississippian tradition was in decline by the time of European contact, some of these sites still were occupied in the mid-16th century when the Spanish arrived. Hernando de Soto, while exploring the Southeast in 1540-42, encountered the village of Chief Tascauza (also called Tuscaloosa) in southwestern Alabama. His forces engaged Tascauza's warriors in what became known as the Battle of Mabila, killing several thousand villagers and destroying the town so thoroughly that its exact location remains unknown today. Old World diseases likely introduced by these and other Europeans decimated native populations, contributing to the collapse of the remaining Mississippian chiefdoms. Remnant populations coalesced and formed the historically known Creek Confederacy and the Choctaw, Chickasaw, and Cherokee tribes. Some of these groups continued to reside at the old mound villages well into historic times.

European encroachments increased through the late 17th and early 18th centuries, with Spain, Great Britain, and France all vying for the region. By 1795, most of the land was ceded by those nations to the fledgling United States, and by 1812 all of Alabama was in U.S. possession. Andrew Jackson and his Tennessee militia decisively defeated the Creeks at the Battle of Horseshoe Bend in 1814, giving the U.S. control of their lands. A series of cession treaties signed between 1814 and 1830 gradually forced the Choctaws from much of their homeland, as well. Emigrants and prospectors poured into Alabama to claim land and minerals, hoping to make their fortunes in cotton or gold. Most remaining Choctaw, Creek, Chickasaw, and Cherokee lands in Alabama were ceded to the U.S. between 1830 and 1835. The federal government forcibly relocated native peoples over the Trail of Tears to Oklahoma in 1838.

Alabama is rich in documented prehistoric archeological sites and historic properties related to the traditions and events summarized above, as well as sites related to the Civil War and other later events. The 10 Alabama study-route counties have a total of 214 properties, including archeological and historic districts and landscapes, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov, on June 1, 2007). Listed properties directly associated with the Cherokee removal on the Trail of Tears, as well as Cherokee occupation sites that date to the late settlement and removal eras, are:

- **Colbert County**
 - *The Buzzard Roost Site*, on the historic Natchez Trace. This was a trailside "stand" owned by Levi Colbert, an influential Chickasaw leader who struggled against the Indian removal until his death in 1834.
 - *The Tuscumbia Landing Site*, terminus of a 60-mile railroad portage taken by Cherokees on the water route to avoid the shoals of the Tennessee River.

- **DeKalb County**
 - *Fort Payne*, in today's downtown city of Fort Payne. This was a temporary camp used to contain the Cherokee as they were being rounded up for removal. The fort, built in 1838, was demolished following the removal.

Most other National Register properties in the Alabama study route counties are non-aboriginal buildings, structures, and districts significant for their architecture or for their association with 19th and 20th century activities and events.

In addition to the trail-related National Register properties, a number of unlisted Trail of Tears round-up fort sites exist in these counties. They are:

- 1) *Fort Lovell*, near Cedar Bluff, Cherokee County.
- 2) *Fort Likens*, at Barry Springs, Cherokee County.
- 3) *Fort Payne*, in DeKalb County.
- 4) *Rawlingsville Encampment*, at Fort Payne, DeKalb County.
- 5) *Gunter's Landing*, in Guntersville, Marshall County.

No surface remains of these forts exist today. Any archeological remains of Fort Payne probably have been destroyed or extensively disturbed by construction activities at the site. Thomason and Parker (2003) believe that subsurface archeological remains of Fort Likens likely exist and that Barry Springs itself may be eligible for listing on the National Register. Thomason and Parker (2003) also conclude that the Fort Lovell site was impacted by the impoundment of the Coosa River for Weiss Lake. Alabama round-up routes and other trail segments under study are shown on Section Maps 1 and 2 (Appendix B).

Tuscumbia Landing has been designated by the National Park Service, at the invitation of landowners, as certified Trail of Tears sites.

Recreation Resources

Trail of Tears counties in Alabama include within them federal lands managed by the National Park Service, the Tennessee Valley Authority, and the U.S. Fish & Wildlife Service for recreation purposes. Note that these lands and waters are not necessarily crossed by Trail of Tears study routes. Table 6 provides summary information on these resources.

Table 6. Federally owned or managed recreation resources in Alabama counties on the Trail of Tears study routes.

County	Resources
Cherokee	Little River Canyon National Preserve (NPS)
Colbert	Pickwick Reservoir (TVA) Wilson Reservoir (TVA)
DeKalb	Little River Canyon National Preserve (NPS)
Jackson	Guntersville Reservoir (TVA)
Lauderdale	Key Cave National Wildlife Refuge (F&W) Pickwick Reservoir (TVA) Wilson Reservoir (TVA)
Lawrence	Wheeler Reservoir (TVA)
Limestone	Wheeler National Wildlife Refuge (F&W)
Madison	Wheeler National Wildlife Refuge (F&W)
Marshall	Guntersville Reservoir (TVA)

Note: "F&W" indicates U.S. Fish & Wildlife Service management. "NPS" indicates National Park Service management. "TVA" indicates Tennessee Valley Authority management. Counties not listed here have no federally managed recreation resources.

In addition to these federal recreation properties, the State of Alabama designated the Alabama Trail of Tears Corridor, along U.S. Highway 72, as a tour route in 1995.

Socioeconomics

The top three employment sectors in Alabama, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks sixth out of a total of 13 employment categories. Median household income in the state, according to the Census Year 2000 survey, was \$34,135 (compared to \$41,994 for the U.S. as a whole). Median household income in most of the Alabama Trail of Tears counties was generally lower than the statewide median, but exceeded the state average in Limestone, Madison, and Morgan Counties (Table7).

Table 7. Population and income for Alabama counties on Trail of Tears study routes.

<i>County</i>	<i>Population</i>	<i>Median Household Income</i>	<i>Difference from Statewide Median Income</i>
Cherokee	23,988	\$30,874	-\$ 3,261
Colbert	54,984	\$31,954	-\$ 2,181
DeKalb	64,452	\$30,137	-\$ 3,998
Jackson	53,926	\$32,020	-\$ 2,115
Lauderdale	87,966	\$33,354	-\$ 781
Lawrence	34,803	\$31,549	-\$ 2,586
Limestone	65,676	\$37,405	+\$ 3,270
Madison	276,700	\$44,704	+\$10,569
Marshall	82,231	\$32,167	-\$ 1,968
Morgan	111,064	\$37,803	+\$ 3,668

Note: Data from U.S. Census Bureau, Census Year 2000.

TENNESSEE

The Benge route, Bell route, several short segments of round-up routes, and a short segment of water route altogether cross 24 counties in Tennessee. In addition, the previously designated northern and water routes of the Trail of Tears cross the state. See Table 8 for a listing of the study route counties and Section Maps 1, 2, and 5 (Appendix B) for the Tennessee study routes.

Natural Resources of Tennessee: Geography, Vegetation, and Wildlife

Trail of Tears study routes cross all nine of Tennessee’s physiographic provinces. On the state’s eastern edge is the Unaka Mountain province, characterized by rugged terrain, several peaks higher than 6,000 feet, and dense forests with gushing streams with waterfalls. Tucked between the mountain ranges are large coves and high valleys. Lower-elevation slopes are dominated by oak-chestnut and mixed forests of buckeye, sugar maple, yellow birch, beech, and hemlock. The higher slopes support beech-maple and spruce-fir communities.

The Valley and Ridge province, to the west, is characterized by elongate, northeast/southwest-trending ridges and intervening valleys. Ridge crests range from about 1,495 to 3,097 feet above mean sea level, and support white and red oak, sour gum, sassafras, and chestnut. Lower slopes have mixed forests of beech, white oak, and buckeye, with white oak growing on the valley

floors. West of that is the Cumberland Plateau, an elevated tableland that looms 500 to 1,000 feet higher than the surrounding areas. The plateau is incised with numerous deep gorges and has two prominent linear valleys, Elk and Sequatchie Valleys. The plateau supports an old and complex eastern deciduous forest that includes oak, hickory, tulip, poplar, beech, chestnut, and maple. West of the plateau is the Eastern Highland Rim province, an area of undulating terrain and extensive limestone cave systems. Mixed tulip-oak-chestnut forests predominate.

To the west is the Central Basin province, a depression surrounded by the highland rim. The Central Basin has salt licks and springs used during prehistoric and historic times. Forests there include oak, hickory, tulip, beech, and chestnut. West of that is the Western Highland Rim, characterized by rolling terrain, deep valleys, abundant streams, and mixed oak, tulip, and chestnut forests. Next, the Western Valley province is made up of the channel, floodplain, and terraces of the Tennessee River. Deciduous forests there include white oak, hickory, beech, tulip, and sugar maple. Continuing west across Tennessee, the Coastal Plain province lies between the Tennessee River divide and the loess hills that edge the Mississippi River Valley. It supports oak-hickory forest, yellow pine, tulip, dogwood, and other deciduous species. Finally, the Mississippi River Valley comprises the Mississippi floodplain, 14 miles wide in places, and the adjacent loess bluff hills. The river valley has numerous classic features that are characteristic for a meandering, low-gradient river such as the Mississippi: oxbow lakes, meander scars, backswamps, cutoffs, and natural levees. Bottomlands include swamp forests of bald cypress and water tupelo, and drier areas support woodlands of oak, sweet gum, elm, and sassafras. The loess hills have oak-hickory forest with a mix of other trees.

The Bell detachment, starting from Chattanooga in the east and continuing due west across the state to the Mississippi River, crossed all but one of Tennessee's physiographic regions. The detachment began in the Valley and Ridge province and soon entered the Cumberland Plateau. There, Bell's detachment proceeded down Sequatchie Valley, one of the most spectacular anticlinal valleys in the world. The party continued across the Central Basin and both highland rims to the Mississippi River Valley, and crossed the river at Memphis. The Benge detachment, entering Tennessee from Huntsville, Alabama, cut diagonally across the state to Kentucky.

Wildlife is plentiful across the state, and white-tailed deer, bobcat, rabbit, black bear, opossum, raccoon, gray squirrel, fox, skunk, and eastern chipmunk are common. Reptiles include the eastern box turtle, red-eared slider, eastern diamondback rattlesnake, common garter snakes, five-lined skinks, and copperheads. Many species of bird are found in great numbers throughout the state, and these include turkey, bobwhite, mourning dove, northern cardinal, tufted titmouse, mockingbird, summer tanager, wild turkey, and blue-gray gnatcatcher. Fish include bass, trout, crappie, bream, and pike. Listed as threatened or endangered species in Tennessee are 89 plant and animal species, including the slender chub (*Erimystax cahni*), Florida panther (*Puma [=Felis] concolor coryi*), and Price's potato bean (*Apios priceana*). A complete listing of Tennessee's T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Tennessee comprises an area of 41,217 square miles, with approximately 10.7% of the land in state and federal ownership (Table 1). Most of the federal ownership is concentrated along the state's eastern boundary with North Carolina, where the Cherokee National Forest and Great Smoky Mountains National Park stretch from Virginia in the north to Georgia in the south. One of the study round-up routes that originates in North Carolina crosses into Tennessee through the

Cherokee National Forest, and another that enters Tennessee from Georgia skirts the west boundary of the forest.

Smaller federal units, including national parks and battlefields, several national wildlife refuges, and numerous reservoirs, are scattered across the width of the state. The Lookout Mountain and Point Park unit of Chickamauga and Chattanooga National Battlefield, which straddles the Georgia/Tennessee border, includes portions of the Bell route and an additional water component of the Trail of Tears.

Statewide, about 92% of the land is privately owned and about 44% is used for agriculture. Forests cover nearly half of the state, and the manufacture of wood projects, furniture, and paper products is economically important to Tennessee. Polk, Meigs, Grundy, Wayne, and Fayette Counties, through which one or more of the study routes pass, are some of the most rural counties in the state. Hamilton and Shelby Counties, along with several others scattered across the state, are two of the most urbanized and densely populated Tennessee counties through which the study routes pass.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Human occupation of Tennessee spans at least 12,000 years and four prehistoric periods: the Paleo-Indian (10,000 B.C. or earlier to 8,000 B.C.), Archaic (9,000 to 1,000 B.C.), Woodland (1,000 B.C. to A.D. 1000), and Mississippian (A.D. 1000 to 1600) (Frank H. McClung Museum, University of Tennessee). Paleo-Indian sites, which occur across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish, and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Woodland Period was a transitional time marked by increased sophistication in ceramic technology, cultivation of plant domesticates, development of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods.

Mississippian groups, also mound-builders, occupied Tennessee from about A.D. 900 to 1600, developing distinct subcultures in West, Middle, and East Tennessee (University of Tennessee Press and the Tennessee Historical Society). Mississippian groups were chiefdom-based peoples who occupied and farmed the floodplains of major rivers where their abundant archeological remains are found today (for example, the Duck River stone tool cache discovered in Humphreys County, and the Toqua Mississippian village site in Monroe County). Large Mississippian ceremonial centers typically included a plaza and earthwork temple mounds surrounded by a residential zone and often by a protective wooden palisade and ditches. Smaller settlements included villages, hamlets, and individual farmsteads.

Although the Mississippian tradition was in decline by the time of European contact, some of these mound sites still were occupied in the early 16th century. Spaniard Hernando de Soto, while exploring the Southeast in 1540-42, likely encountered Mississippian villages while passing through what is now West Tennessee (University of Tennessee Press and the Tennessee Historical Society). A 1560 Spanish expedition headed by Tristan de Luna entered the Tennessee River Valley in the area of Marion County and visited the Mississippian chiefdom of Napachies. These and other European contacts introduced Old World diseases that decimated native populations and contributed to the collapse of the remaining Mississippian chiefdoms. Remnant populations eventually coalesced to form several historically known Tennessee tribes, such as the

Chickasaws and the Cherokees. Some of these groups continued to reside at the old mound villages well into the historic period, as did the Cherokees at the old Mississippian site of Toqua in Monroe County (McClung Museum).

Beginning in the early 1700s, English and French explorers, traders, and missionaries occasionally penetrated the region. They soon were followed by British soldiers and diplomats. In addition, the Shawnees, driven by the Iroquois from their homeland in the north, began settling along the Cumberland River in Middle Tennessee in the late 1600s. The Chickasaws in West Tennessee and the “Overhill” Cherokees in East Tennessee allied in fighting the Shawnees, forcing them out in 1714-15. Within the next few decades, some colonists, with Cherokee permission, were settling in West Tennessee, and the British – again with Cherokee consent – built Fort Loudoun in 1756 at today’s Vonore, Monroe County, Tennessee.

More emigrants entered the region following the Revolutionary War, triggering Cherokee and Chickasaw resistance. Under growing settlement pressures, the Chickasaws ceded their major holdings in Tennessee to the U.S. by 1818. The Cherokees ceded their Overhill settlements in East Tennessee to the U.S. in 1819, and under the New Echota Treaty of 1835 they gave up all their holdings east of the Mississippi River. The federal government forcibly relocated the Cherokees and Chickasaws to Oklahoma in 1838.

Tennessee has thousands of documented archeological sites and historic properties related to the traditions and events summarized above and to later historical events. Many of the state’s important historical properties are related to the Civil War, settlement, and music and entertainment. The 24 Tennessee study-route counties have a total of 656 historic properties, including archeological and historic districts and landscapes, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov, on May 29, 2007 and August 17, 2007). Properties directly associated with the Indian removal and the Trail of Tears, as well as occupation sites that date to the late settlement and removal eras, include:

- **Benton County**
 - *Reynoldsburg-Paris Road*, an original segment of the Trail of Tears located in today’s Nathan Bedford Forrest State Park.

- **Bradley County**
 - *Hair Conrad (Tehkaskeh) Cabin*, home of Cherokee leader who protested the treaty that resulted in the Cherokee removal, went to Washington in 1833 to protest the actions of Georgia authorities against his people, and finally led the first Cherokee detachment out of Rattlesnake Springs.
 - *Henegar House*, home of Captain H.G. Henegar, who worked with John Ross.
 - *Rattlesnake Springs*, northeast of Cleveland, where Cherokees were held during the round-up, and where the last council of the Cherokees in Tennessee was held in 1838.
 - *Red Clay Council Ground*, now part of *Red Clay State Historic Park*, where Cherokee tribal government convened in the years leading up to the removal. A Trail of Tears interpretive center is located at the park.

- **Fayette County**
 - *Bolivar-Somerville Stage Road*, part of the Trail of Tears.

- **Hamilton County**
 - *Audubon Acres Site*, also called the *Elise Chapin Wildlife Sanctuary*. The site includes the *Spring Frog Cabin*, which may have been built before the Cherokee removal.
 - *Brainerd Mission Cemetery*, the only extant site associated with the original Brainerd Mission, which was a principal mission to the Cherokee Nation. The cemetery includes the graves of several Cherokee students, and was visible to members of the Bell detachment as they passed by on their way to Oklahoma.
 - *James Brown House*, home of Cherokee leader James Brown, who was removed from this farm and who led one of the Cherokee detachments on the Trail of Tears.
 - *Browns Ferry Tavern*, owned and operated by Cherokee leader John Brown. Brown's property formed the boundary of Cherokee nation at time of the removal.
 - *Moccasin Bend Archeological District at Chickamauga and Chattanooga National Military Park*, which includes the Federal Road that became part of the Trail of Tears.
 - *Ross's Landing*, established on the Tennessee River in 1816 by Cherokee Chief John Ross, became an internment camp and one of the three major departure points for Cherokees on the Trail of Tears.

- **Hardeman County**
 - *Hatchie River Ferry*, a Trail of Tears ferry landing and roadbed at the Hatchie River. The *Bolivar-Somerville Stage Road* also crosses Hardeman County, but is listed in the National Register as a Fayette County property.

- **Marion County**
 - *Kelly's Ferry Road and Cemetery*, used during the Cherokee removal from the Tennessee Valley. The site was a campground and a principal river crossing on the Trail of Tears.

- **Meigs County**
 - *Blythe Ferry*, built by John Blythe in 1809 and used by Cherokees from Camp Ross to cross the Tennessee River. The site is now part of the Cherokee Memorial Park.

- **Monroe County**
 - *Chota and Tanasi Cherokee Village Sites*, plus boundary increase that is counted as a separate National Register entry. These Overhill Cherokee village sites were recognized as the capitals of the entire Cherokee Nation before the removal, but were mostly inundated after construction of Tellico Dam in 1979. Cherokee memorials are located nearby.
 - *Citico Site*, an Overhill Cherokee village site occupied before the removal.
 - *Fort Loudoun (State Historic Park)*, constructed as part of temporary alliance between the British and the Cherokee during the French & Indian War.
 - *Mialoquo Site*, probably established by Cherokee refugees fleeing colonial military strikes in 1760s.
 - *Tellico Blockhouse Site*, a key federal outpost built in 1794-95, which originally functioned as a trading post for the Cherokees. Here the Cherokees signed treaties that ceded their lands to the United States.

- *Tomotley Site*, a Cherokee village occupied before the removal.
 - *Toqua Site*, an 18th century Overhill Cherokee village and Late Mississippian mound site.
- **Polk County** – *Nancy Ward Tomb*, burial place of a Cherokee “Beloved Woman” who negotiated treaties with the United States prior to the removal.

Most other National Register properties listed for these counties are non-aboriginal buildings and structures significant for their architecture or for their association with EuroAmerican exploration and settlement, Black history, entertainment, the Civil War/military, religion, industry, and education.

In addition to the listed properties, a number of unlisted fort and associated sites exist in counties along the study route:

- 1) *Fort Cass*, in Charleston, Bradley County, largest of all the holding camps.
- 2) *Ross’s Landing* camps near Chattanooga, Hamilton County.
- 3) *Fort “Marr” Blockhouse*, in Polk County, the last remains of the 1814 stockade built at Fort Morrow on the Federal Road at Old Fort, Tennessee, and re-garrisoned for the Cherokee removal. The blockhouse is not in its original location.
- 4) *Reynoldsburg Ferry Site*, on the Tennessee River in Humphreys County, used by the Benge detachment. The site is now inundated by a reservoir.
- 5) *Coker Creek*, in Monroe County, where the 1831-34 gold discoveries triggered a rush into Cherokee country and led to the Indian removal.
- 6) *The Unicoi Turnpike*. The 68-mile segment between Vonore, Tennessee, and Murphy, North Carolina, was designated by Congress as a *National Millennium Flagship Trail* in 1999.
- 7) *Lewis Ross House*, in Charleston, Bradley County, the 1838-39 residence of Lewis Ross, brother of Cherokee Chief John Ross. House has been extensively remodeled.
- 8) *Reverend Jesse Bushyhead Home Site*, in Cleveland, Bradley County. Bushyhead conducted religious services in the removal camps, led the third Cherokee detachment on the Trail of Tears, and was appointed chief justice of the Cherokee Nation after arriving in Oklahoma. The Cleveland school complex now occupies the site.

Study routes crossing Tennessee are the round-up routes that brought prisoners to the emigration depots at Ross’s Landing and Fort Cass, routes taken by the Bell and Benge detachments, and a short segment of water route through Bradley, Meigs, McMinn, and Hamilton Counties (Section Maps 1, 2, and 5, in Appendix B).

The National Park Service has designated seven Tennessee properties in Trail of Tears study-route counties as certified Trail of Tears sites, including several of the National Register properties listed above. Certified sites located in study-route counties are *Audubon Acres*, *Brainerd Mission Cemetery*, *Browns Ferry Tavern*, and *Chattanooga Regional History Museum*, all in Chattanooga, and *James Brown Cherokee Plantation* at Ooltewah, all in Hamilton County; *Red Clay State Historic Park*, Bradley County; *Tennessee River Museum*, at Savannah, in Hardin County; and *Sequoyah Birth Place Museum* in Vonore, Monroe County.

Recreation Resources

Trail of Tears study-route counties in Tennessee include federal properties managed for recreational purposes. Note that these lands and waters are not necessarily crossed by Trail of Tears study routes. Table 8 provides summary information on these resources.

Table 8. Federally owned or managed recreation resources in Tennessee counties on the Trail of Tears study routes.

County	Resources
Benton	Tennessee National Wildlife Refuge (F&W) Kentucky Reservoir (TVA)
Bradley	Chickamauga Reservoir (TVA)
Franklin	Tims Ford Reservoir (TVA)
Hamilton	Chickamauga Reservoir (TVA) Chickamauga and Chattanooga National Military Park (NPS)
Henry	Kentucky Reservoir (TVA)
Humphreys	Tennessee National Wildlife Refuge (F&W) Kentucky Reservoir (TVA)
Marion	Nickajack Reservoir (TVA)
Meigs	Chickamauga Reservoir (TVA)
McMinn	Cherokee National Forest (FS) Chickamauga Reservoir (TVA)
Monroe	Cherokee National Forest (FS)
Polk	Cherokee National Forest (FS)

Note: "FS" indicates USDA Forest Service management. "F&W" indicates U.S. Fish & Wildlife Service management. "NPS" indicates National Park Service management. "TVA" indicates Tennessee Valley Authority management. Study-route counties not listed here have no federally owned recreation properties.

Socioeconomics

The top three employment sectors in Tennessee, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of "arts, entertainment, recreation and accommodation, and food services," the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks fourth out of a total of 13 employment categories. Median household income in the state, according to the Census Year 2000 survey, was \$36,360 (compared to \$41,994 for the U.S. as a whole). Median household income in most of the Tennessee Trail of Tears counties during the census year was lower than the statewide median (Table 9).

Table 9. Population and income for Tennessee counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Benton	16,537	\$28,679	-\$ 7,681
Bradley	87,965	\$35,034	-\$ 1,326
Fayette	28,806	\$40,279	+\$ 3,919
Franklin	39,270	\$36,044	-\$ 316
Giles	29,447	\$34,824	-\$ 1,536
Grundy	14,332	\$22,959	-\$13,401
Hamilton	307,896	\$38,930	+\$ 2,570
Hardeman	28,105	\$29,111	-\$ 7,249
Hardin	25,578	\$27,819	-\$ 8,541
Henry	31,115	\$30,169	-\$ 6,191
Hickman	22,295	\$31,013	-\$ 5,347
Humphreys	17,929	\$35,786	-\$ 574
Lawrence	39,926	\$30,498	-\$5,862
Lincoln	31,340	\$33,434	-\$ 2,926
Marion	27,776	\$31,419	-\$ 4,941
Maury	69,498	\$41,591	+\$ 5,231
McMinn	49,015	\$31,919	-\$ 4,441
McNairy	24,653	\$30,154	-\$ 6,206
Meigs	11,086	\$29,354	-\$ 7,006
Monroe	38,961	\$30,337	-\$ 6,023
Polk	16,050	\$29,643	-\$ 6,717
Shelby	897,472	\$39,593	+\$3,233
Wayne	16,842	\$26,576	-\$9,784
Weakley	34,895	\$30,008	-\$ 6,352

Note: Data from U.S. Census Bureau, Census Year 2000.

KENTUCKY

The Benge route crosses two counties in far southwestern Kentucky. The state also is crossed by portions of the northern and water routes of the established Trail of Tears National Historic Trail. See Table 10 for a listing of the study route counties and Section Map 3 (Appendix B) for the Kentucky study routes.

Natural Resources of Southwest Kentucky: Geography, Vegetation, and Wildlife

The Benge route enters the western tip of Kentucky from Tennessee, crossing Graves and Hickman Counties. These two counties lie within Mississippi Embayment physiographic province, located in the Gulf Coastal Plain. The land there is composed of loose alluvial deposits and loess. Because these unconsolidated deposits are easily eroded, this low-lying part of Kentucky is flat, with many lakes, ponds, sloughs, and swamps. The embayment is bounded by the Mississippi, Ohio, and Tennessee Rivers. The area, which became part of Kentucky in 1818 when it was purchased from the Chickasaw Indians by Andrew Jackson, is known as the Jackson Purchase.

Vegetation in this region is diverse, and about 40% of the state is forested. The lower floodplain areas are wooded with river birch, silver maple, black willow, alder, sycamore and water tupelo. Above the floodplain grow oak-hickory forests, which include several varieties of oak, black walnut, black cherry, hackberry, sweet gum, and sugar maple. White-tailed deer, rabbit, squirrel, and fox are some of the wild mammals that populate the area, which also is home to mockingbirds, northern cardinals, Carolina wrens, great blue herons, and kingfishers. Reptiles include the venomous water moccasin, copperhead, and rattlesnake, as well as various turtles and lizards, and fish include bass, bluegill, crappie, and catfish. Forty-one Kentucky plant and animal species are currently listed as threatened or endangered. The U.S. Fish and Wildlife Service has identified three endangered species that are known to occur specifically within the study-route areas in Kentucky: the Indiana bat (*Myotis Sodalis*); the interior least tern (*Sterna Antillarum athalassos*); and the relict darter (*Etheostoma chienense*). A complete listing of Kentucky T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Kentucky comprises an area of 39,728 square miles, with approximately 3.5% of the land in state and federal ownership (Table 1). Daniel Boone National Forest in eastern Kentucky makes up the majority of the state's federal lands. In the west are Land Between the Lakes National Recreation area, Kentucky Lake, Lake Barkley, and two national wildlife refuges. Statewide, about 96.5% of the land is owned by private parties and local public agencies, and about 54.5% of the land is in agricultural use.

Population density is moderate across the state, with more densely populated urban areas in the areas of Louisville, Lexington, and Hopkinsville, in central Kentucky. The westernmost tip of Kentucky, where the Benge route enters from Tennessee and crosses into Missouri, is rural. Hickman County, one of the two Kentucky counties crossed by the Benge route, is the state's least-populated county.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Kentucky archeologists define four primary prehistoric time periods spanning at least 12,000 years: the Paleo-Indian (about 12,000 B.C. or earlier to 8,000 B.C.), Archaic (8,000 to 1,000 B.C.), Woodland (1,000 B.C. to A.D. 1000), and Late Prehistoric (A.D. 1000 to 1750) (Kentucky Archaeological Survey). Paleo-Indian occupations, which occur across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Woodland Period was a transitional time marked by improved ceramic technology, cultivation of domesticated plants, development of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods. Kentucky's Late Prehistoric Period includes the Mississippian and Fort Ancient cultural traditions and the European contact and early settlement era.

Mississippian peoples, who also were mound-builders, occupied a core area that included western Kentucky. They farmed the floodplains of major rivers, where their archeological remains are found today (for example, Wickliffe Mounds in Ballard County). Large Mississippian religious and political centers are characterized by plazas with flat-topped temple mounds, with a residential zone or associated village. Smaller settlements included villages, hamlets, and

individual farmsteads. The Mississippian cultural tradition was in decline by the time the first Europeans arrived, and Old World diseases quickly decimated native populations and contributed to the collapse of the remaining Mississippian chiefdoms. Remnant populations eventually formed historically known Indian tribes, such as the Cherokees, in eastern Kentucky, and the Chickasaws, in western Kentucky. Fort Ancient peoples, whose archeological remains appear in eastern Kentucky and southern Ohio at about A.D. 1300, also farmed and lived in villages but did not build platform mounds. They are believed to be ancestral to the Shawnees, who battled the Chickasaws, Cherokees and other tribes for control of the Kentucky hunting grounds.

In the early 1700s, France and Great Britain both claimed the region that now is Kentucky, but Britain prevailed under the terms of a treaty the two nations signed in 1763. At about that time, Daniel Boone and other “long hunters” entered the region, and settlers soon followed, establishing the first permanent white settlement in eastern Kentucky in 1774. Settlement intensified after Boone cut a road, Boone’s Trace, through the Cumberland Gap and into central Kentucky. Although the Shawnees, sometimes incited by their British allies, raided the Kentucky settlements, thousands more emigrants poured into the area following the American Revolution. The Shawnees sided with Britain during the War of 1812, but finally made peace with the United States in 1813. The last American Indian claims to Kentucky were eliminated five years later, when the Chickasaws sold their western Kentucky lands to the U.S. In 1838, Cherokee detachments going to Oklahoma used three Trail of Tears routes, including the Benge route, across former Chickasaw-controlled lands in western Kentucky.

Kentucky has more than 19,000 documented historic properties related to the traditions and events summarized above. The two Kentucky study-route counties have a total of 13 historic properties, including archeological and historic districts, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov on June 5 and Aug. 20, 2007). None of these listed properties is related to the Trail of Tears, but most are Civil War sites and 19th and 20th century buildings significant for their architecture.

Recreation Resources

Graves and Hickman Counties include no federally owned or managed recreation resources.

Socioeconomics

The top three employment sectors in Kentucky, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks fourth out of a total of 13 employment categories. Median household income in the state in Census Year 2000 was \$33,672 (compared to \$41,994 for the U.S. as a whole). At the time of the census, median household income in Kentucky’s study route counties was lower than the statewide median (Table 10).

Table 10. Population and income for Kentucky counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Graves	37,028	\$30,874	-\$2,798
Hickman	5,262	\$31,615	-\$2,057

Note: Data from U.S. Census Bureau, Census Year 2000.

MISSOURI

The Benge route crosses five counties in southeastern Missouri. The northern route of the designated Trail of Tears National Historic Trail also crosses the state. See Table 11 for a listing of the study route counties and Section Maps 3, 4, and 5 (Appendix B) for the Missouri study routes.

Natural Resources of Missouri: Geography, Vegetation, and Wildlife

The Ozark Plateau is the largest of Missouri’s physiographic regions, occupying most of southern Missouri as well as most of northwest and north-central Arkansas. Also known as the Ozark Mountains, or simply “the Ozarks,” this region extends westward into northeastern Oklahoma and southeastern Kansas. The region is a deeply dissected plateau covering 47,000 square miles, making it the most extensive mountainous region between the Appalachian and the Rocky Mountains. The Benge route follows along the base of the Ozark Plateau as it dips toward Arkansas.

The Ozark Plateau averages more than 40 inches of precipitation each year. This abundant moisture percolates through the joints and fractures of the limestone, creating caverns and feeding abundant seeps and springs.

Approximately 60% of Missouri’s remaining forests grow in the Ozarks. These are mostly mixed deciduous forests of red oak, white oak, hickory, walnut, and elm. In disturbed areas grow shortleaf pine and eastern red cedar, and in the wetlands grow cypress, tupelo, elm, and oak. The Ozarks is also known for its abundant wildflowers. Fauna of the plateau include the white-tailed deer, cottontail rabbit, raccoon, fox, muskrat, beaver, and squirrel; blue jays, rose-breasted grosbeaks, mockingbirds, and summer tanagers; and trout, bass, carp, crappie, perch, and sunfish. Listed as threatened or endangered species are 30 Missouri plant and animal species, including the gray bat (*Myotis grisescens*), American burying beetle (*Nicrophorus americanus*), least interior tern (*Sterna antillarum*), and the western prairie fringed orchid (*Platanthera praeclara*). A complete listing of Missouri T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Missouri comprises an area of 68,886 square miles, with approximately 6% of the land in state and federal ownership (Table 1). The majority of the federal lands are units of the Mark Twain National Forest, most of which are located in the southern one-third of Missouri. Statewide, about 94% of the land is owned by private parties and local public agencies, and 68% is agricultural.

The densest and most urban populations cluster in the St. Louis, Columbia, and Kansas City/Independence metropolitan areas across central Missouri. The southern part of the state, where the Benge route enters from Kentucky and angles southwestward into Arkansas, is rural.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Archeologists define six primary prehistoric periods for Missouri. The Early Man Period (ca. 12,000 B.C. and earlier) is speculative, based on controversial analyses of stone tools found in northwestern Missouri. It is followed by the Paleo-Indian (12,000 to 8,000 B.C.), Dalton (8,000 to 7,000 B.C.), Archaic (7,000 to 1,000 B.C.), Woodland (1,000 B.C. to A.D. 900), and Mississippian (A.D. 900 to 1700) (Missouri Archaeological Society). Paleo-Indian occupations, which occur across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. During the Dalton Period, which was transitional between the Paleo-Indian and Archaic Periods, sites and artifacts reflect adaptations to changes in climate and shifting food resources. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Woodland Period was a transitional time marked by increased sophistication in ceramic technology, cultivation of domesticated plants, development of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods.

The Mississippian Period in Missouri is characterized by large, permanent farming villages established along the Mississippi River and its tributaries (Deel 1996), where their archeological remains are found today (for example, the Koehler Fortified Archeological Site in Butler County). A few of those villages eventually became large religious and political centers with plazas and flat-topped temple mounds, all encircled by protective ditches and wooden palisades. The largest Mississippian town was Cahokia, a well-known mound site in nearby Illinois, with a prehistoric population of around 40,000 residents. But Mississippian lifeways declined between A.D. 1300 and 1400, with some groups shifting to smaller farming villages and others abandoning planting in favor of hunting and gathering (Deel 1996). New groups, defined archaeologically by their distinctive styles of pottery and stone tools, entered Missouri in the 1300s. These, which belonged to what archeologists call the Oneota culture, are ancestral to the historically known Osage and Missouri Indian tribes. By the early 1600s, the remaining Mississippian chiefdoms had collapsed, partly due to the spread of Old World diseases.

The first Europeans to enter Missouri were Jesuit Father Jacques Marquette and fur trader Louis Joliet, who explored the Mississippi River in 1673. Soon after them came explorer Rene-Robert Cavellier, Sieur de La Salle, in 1682. La Salle claimed for France the Mississippi River and all lands drained by it and its tributaries, and he named the entire area "Louisiana." Over the next 40 years, French explorers, miners, and trappers developed a flourishing trade with the Missouri Indian tribes, leading to the first permanent white settlements in Missouri: Ste. Genevieve, in 1735, and St. Louis, in 1764. Missouri changed hands twice between France and Spain before the United States acquired it as part of the Louisiana Purchase in 1803.

Meanwhile, in the late 1700s, some Delaware and Shawnee Indians fled violence in the east by voluntarily moving to Missouri, which was governed by Spain at that time. In the early 1800s, several more tribes were relocated by the U.S. government to Missouri after ceding their homelands to the United States. Most of these, along with native Missouri tribes, soon were relocated to Kansas and eventually to Oklahoma in order to open more lands to white settlement.

Travelers on the Cherokee Trail of Tears followed the northern and Bengé routes across Missouri toward Oklahoma in 1838.

Missouri has thousands of documented prehistoric archeological sites and historic properties related to the trends and events summarized above. The five Missouri study-route counties have a total of 50 properties, including archeological and historic districts and landscapes, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov on June 5, 2007). Listed properties in these counties are primarily archeological sites and districts, mostly relating to the Mississippian Period, and 19th and 20th century buildings significant for their architecture. None is related to the Trail of Tears.

The National Park Service has designated no study-route sites, at the invitation of non-federal landowners, as certified Trail of Tears properties, although several are certified along the designated route.

Recreation Resources

Trail of Tears study-route counties in Missouri include federal recreation properties managed by the USDA Forest Service and the U.S. Fish & Wildlife Service. These lands and waters are not necessarily crossed by Trail of Tears study routes. Table 11 provides summary information on these resources.

Table 11. Federally owned or managed recreation resources in Missouri counties on the Trail of Tears study routes.

County	Resources
Butler	Mark Twain National Forest (FS)
Ripley	Mark Twain National Forest (FS)
Stoddard	Mingo National Wildlife Refuge (F&W)

Note: “FS” indicates USDA Forest Service management. “F&W” indicates U.S. Fish & Wildlife Service management. Study-route counties not listed here have no federally owned recreational properties.

Socioeconomics

The top three employment sectors in Missouri, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks fourth out of a total of 13 employment categories. Median household income in the state, according to the 2000 Decennial Census, was \$37,934 (compared to \$41,994 for the U.S. as a whole at that time). At the time of the census, median household income in Missouri’s study route counties was lower than the statewide median (Table 12).

Table 12. Population and income for Missouri counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Butler	40,867	\$27,228	-\$10,706
Mississippi	13,427	\$23,012	-\$14,922
Ripley	13,509	\$22,761	-\$15,173
Scott	40,422	\$31,352	-\$6,582
Stoddard	29,705	\$26,987	-\$10,947

Note: Data from U.S. Census Bureau, Census Year 2000.

ARKANSAS

Trail of Tears study routes cross 27 counties in Arkansas. The Bengé and dispersal routes cross northern Arkansas, the Bell route crosses central Arkansas, and a short land segment between the ends of a river oxbow is located in Desha County in southern Arkansas. See Table 13 for a list of counties, and Map Sections 5, 6, and 7 (Appendix B) for Arkansas study routes.

Natural Resources of Arkansas: Geography, Vegetation, and Wildlife

The Bengé route enters Arkansas from the southeast corner of Missouri and stays in the northern part of the state, where it crosses the rugged hills and valleys of the Ozark Plateau. The Bell route continues west across several of Arkansas’s physiographic regions: the Mississippian Alluvial Plain, Crowley’s Ridge, and the Arkansas River Valley. The White River Cutoff, a short additional water component, also is located within the Gulf Coastal Plain province.

The Mississippian Alluvial Plain, also called the Mississippi Embayment, is the area drained by the Mississippi River and its many tributaries. This low-lying region was wilderness and swamp at the beginning of the 20th century, but was turned into cotton plantations by the 1930s, and now is farmland. Crowley’s Ridge is a 150-mile-long line of rolling hills that rises 250 to 500 feet above the alluvial plain of the Mississippi embayment. This line of hills extends from southeastern Missouri to the Mississippi River at Helena, Arkansas. The east/west-trending Arkansas Valley separates the Ozark Plateau in the northern part of the state from the Ouachita Mountains. The valley is a prosperous farming and mining area.

Forests cover about half of the state, with pines predominating in the southwest and hardwood forests in the east. The Ozark Plateau, in the north, is characterized by oak-hickory forests of red and white oak and several hickory species, as well as sassafras and mulberry. Disturbed lands support red cedar and shortleaf pine. In places, the pines make up as much as 40% of the canopy. The Ouachita Mountains support mixed forests of southern red, black, and white oak, several varieties of hickory, and shortleaf and loblolly pine. The state also is known for its beautiful flowering plants, including dogwood, redbud, azalea, and wildflowers.

Arkansas wildlife includes white-tailed deer, cottontail rabbits, fox, raccoon, opossum, armadillo, box turtle, skunk, woodchuck, rabbit, and squirrel. Woodlands, wetlands, and meadows are home to pheasant, duck, goose, turkey, and a variety of songbirds. Freshwater fish include sturgeon, bass, and catfish. At present, 30 Arkansas plants and animals are listed as threatened or

endangered species, including the red cockaded woodpecker (*Picoides borealis*) and running buffalo clover (*Trifolium stoloniferum*). A listing of Arkansas T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Arkansas comprises an area of 52,068 square miles, with approximately 12% of the land in state and federal ownership (Table 1). The largest blocks of federal land are the Ozark and Ouachita National Forests, in western Arkansas. Nine national wildlife refuges (including the Cache River NWR, with four separate units) are located throughout the state. In addition, there are numerous Department of Defense properties, including reservoirs established and managed by the Army Corps of Engineers, throughout Arkansas. Statewide, about 88% of the land is owned by private parties and local public agencies, and about 43% is in agricultural use.

Population density is moderate across the state, with more densely populated urban areas located in central Arkansas around Little Rock and Pine Bluff, in the northwest at Fayetteville, Fort Smith, and Van Buren, and in the northeast at Jonesboro. Trail of Tears routes pass through all those areas except Jonesboro.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Arkansas archeologists define five primary prehistoric time periods spanning over 12,000 years: the Paleo-Indian (ca. 13,500 years Before Present [B.P.] to ca. 12,500 years B.P.), Dalton (ca. 12,500 to 10,000 years B.P.), Archaic (10,000 to ca. 2,500 years B.P.), Woodland (2,500 to 1,100 years B.P.), and Mississippian (1,100 to 500 years B.P.) (Sabo 2007a). Paleo-Indian occupations, which occur across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Dalton Period sites and artifacts reflect adaptations to changes in climate and shifting food resources. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish and gathered many kinds of plant foods. Their camp and food processing sites are abundant in most states. The Woodland Period was a transitional time marked by increased sophistication in pottery-making, cultivation of plant domesticates, development of permanent village sites, and construction of elaborate burial mounds containing exotic grave goods.

During the Mississippian Period, another mound-building cultural tradition occupied much of the Southeast and Eastern Woodlands and extended into Louisiana, western Arkansas, eastern Oklahoma, and eastern Texas. These Mississippian groups lived in chiefdoms and farmed the floodplains of major rivers. Their communities ranged from the classic fortified religions and political centers with plazas and flat-topped temple mounds to scattered small farmsteads and hamlets. Many of these sites still were occupied when the first Europeans entered the area. For example, a 17-acre fortified mound village at Parkin Archeological State Park in northeast Arkansas dates to A.D. 1000 to 1550, and has yielded 16th century European-made artifacts (Butler Center for Arkansas Studies). Archeologists believe the site may be the Mississippian Indian town of Casqui, described in the journals of Spanish explorer Hernando De Soto in 1541. Not long after the Spaniards' departure in 1843, Mississippian chiefdoms throughout the Southeast collapsed for reasons variously attributed to the spread of Old World diseases, intercultural violence, and drought (Sabo 2007b). Remnant populations regrouped and formed historically known tribes such as the Cherokees, Chickasaws, Choctaws, and Creeks.

A temporally overlapping culture, considered to be a regional variant of the Mississippian cultural tradition, was that of the prehistoric Caddo. Caddo culture arose around A.D. 1000 and spread across Oklahoma, Louisiana, Texas, and the southwest ¼ of Arkansas. Settlements generally consisted of individual temple mounds surrounded by small, scattered family farmsteads with thatched-grass houses (Sabo 2007c). Soto's 1541-43 expedition found Caddo settlements in southwest Arkansas and eastern Texas.

While exploring the Mississippi River in 1673, French explorers Father Jacques Marquette and Louis Joliet encountered Quapaw Indian villages near the confluence of the Arkansas and Mississippi Rivers (Wilson and Sabo 2007). The Quapaw controlled roughly the eastern half of Arkansas, from the west bank of the Mississippi River to west of today's Little Rock (Oklahoma Historical Society). This tribe intermarried with and became close allies of the French, who called them "Arkansas," an Illini word meaning "People of the South Wind." Both Caddos and Quapaws faced competition for game from the Osage Indians, who resided in Missouri and Oklahoma but claimed northwestern Arkansas as their hunting grounds.

Once the United States acquired the Louisiana Purchase in 1803, U.S. politicians almost immediately began thinking of the Arkansas River Valley as a place to relocate entire tribes from the east. The Osages ceded their Arkansas hunting grounds in 1808, but were enraged when emigrant Cherokees were invited to settle there. Later cessions by the Quapaw (1818) and the Osages (1825) opened lands for resettlement of the Choctaws, Muscogee Creeks, Chickasaws, Seminoles, and Cherokees, who experienced their separate "Trails of Tears" in the 1830s.

The original 1819 boundaries of Arkansas Territory were whittled in half to help create the first Indian Territory, which in turn would be whittled away, as well. The western boundary of Arkansas was set by U.S. treaties with the Choctaws in 1825 and with the Western Cherokees in 1828. The state's shared border with the relocated nations would be a continuing influence on Arkansas history.

Arkansas has thousands of documented prehistoric archeological and historic properties related to the traditions and events summarized above, as well as to later trends and events. The 27 Arkansas study-route counties have a total of 1,056 properties, including archeological and historic districts and landscapes, listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov on May 29, 2007). Listed properties associated with the Trail of Tears are:

- **Baxter County**
 - *Fort Smith to Jackson Road, Talbert's Ferry Segment.*

- **Benton County**
 - *Springfield to Fayetteville Road, Brightwater Segment.*
 - *Springfield to Fayetteville Road, Cross Hollow Segment.*
 - *Springfield to Fayetteville Road, Elkhorn Tavern Segment (including a 2.4-mile segment within Pea Ridge National Military Park).*

- **Cross County**
 - *Memphis to Little Rock Road, Village Creek Segment.*

- **Faulkner County**
 - *Cadron Settlement*, where a party of over 500 Cherokee emigrants on their way to Oklahoma in 1834 (prior to the Treaty of New Echota) was struck by cholera. Many died and are buried there in unmarked graves.
 - *Military Road, Cadron Segment*.
- **Johnson County**
 - *Dover to Clarksville Road, Hickytown Road Segment*.
- **Lonoke County**
 - *Memphis to Little Rock Road, Bayou Two Prairie Segment*.
 - *Memphis to Little Rock Road, Brownsville Segment*.
- **Monroe County**
 - *Memphis to Little Rock Road, Henard Cemetery Road Segment*.
- **Pulaski County**
 - *Mount Holly Cemetery*, gravesite of Quatie Ross, wife of Chief John Ross, who died on the Trail of Tears.
- **St. Francis County**
 - *Blackfish Lake Ferry Site*, the sole known surviving ferry site along the Memphis to Little Rock Road segment of the Trail of Tears.

In addition to these listed properties, Thomason and Parker (2003), citing King (1999), report that the Bell detachment disbanded at the Vineyard Post Office in Evansville, Ark.; and at Fayetteville is the Sarah Ridge House, built in 1839. Now open to the public, Sarah Ridge House offers Trail of Tears-related programs. Sarah Ridge, who once resided at the home, was the widow of Cherokee leader John Ridge.

Arkansas properties that have been designated by the National Park Service as certified Trail of Tears sites include *Cadron Settlement Park*, in Faulkner County, and *Petit Jean State Park*, in Conway County; *City of North Little Rock Riverfront Park*, Pulaski County, where people traveling the river route came ashore, and *Pinnacle Mountain State Park*, also Pulaski County, which offers views of the designated water route of the Trail of Tears; Mount Nebo State Park, Yell County, overlooking the water route along the Arkansas River; and *Lake Dardanelle State Park*, Pope County, located in the area where the Western Cherokees had settlements until 1828, and near a land-water transportation intersection used in the 1830s by all five southeastern tribes.

Recreation Resources

Trail of Tears counties in Arkansas include federal recreation lands managed by the USDA Forest Service, the U.S. Fish & Wildlife Service, and the Department of Defense Army Corps of Engineers. Note that these lands and waters are not necessarily crossed by Trail of Tears study routes. Table 13 provides summary information on these resources.

Table 13. Federally managed recreation resources in Arkansas counties on the Trail of Tears study routes.

County	Resources
Baxter	Norfolk Lake (DOD) Bull Shoals Lake (DOD) Ozark National Forest (FS)
Benton	Beaver Lake (DOD) Pea Ridge National Military Park (NPS) Ozark National Forest (FS)
Boone	Table Rock Lake (DOD) Bull Shoals Lake (DOD)
Carroll	Table Rock Lake (DOD) Beaver Lake (DOD)
Conway	Ozark National Forest (FS)
Crawford	Ozark National Forest (FS) Ozark Lake (DOD)
Crittenden	Wapanocca National Wildlife Refuge (F&W)
Faulkner	Cadron Settlement Park (DOD)
Franklin	Ozark National Forest (FS)
Izard	Ozark National Forest (FS)
Johnson	Ozark National Forest (FS) Dardanelle Lake (DOD)
Madison	Ozark National Forest (FS)
Marion	Ozark National Forest (FS) Bull Shoals Lake (DOD) Buffalo National River (NPS)
Monroe	Cache River Mitigation Project (DOD) White River National Wildlife Refuge (F&W)
Pope	Ozark National Forest (FS) Dardanelle Lake (DOD)
Prairie	Cache River National Wildlife Refuge (F&W)
Washington	Ozark National Forest (FS) Beaver Lake (DOD)

Note: "FS" indicates USDA Forest Service management. "F&W" indicates U.S. Fish & Wildlife Service management. "NPS" indicates National Park Service management. "DOD" indicates Department of Defense, Army Corps of Engineers management. Study-route counties not listed here have no federally owned recreational properties.

Socioeconomics

The top three employment sectors in Arkansas, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) manufacturing; and 3) retail trade. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that might result from designation of the Trail of Tears study routes, ranks fourth out of a total of 13 employment categories. Median household income in the state, according to the 2000 Decennial Census, was \$32,182 (compared to \$41,994 for the U.S. as a whole). At the time of the census, median household income in Arkansas’s study route counties was lower than the statewide median, except in Benton, Conway, Crawford, Faulkner, Lonoke, Pulaski, and Washington Counties (Table 14).

Table 14. Population and income data for Arkansas counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Baxter	38,386	\$29,106	-\$3,076
Benton	153,406	\$40,281	+\$8,099
Boone	33,948	\$29,988	-\$2,194
Carroll	25,357	\$27,924	-\$4,258
Conway	20,336	\$31,209	-\$ 973
Crawford	53,247	\$32,871	+\$ 689
Crittenden	50,866	\$30,109	-\$2,073
Cross	19,526	\$29,362	-\$2,820
Desha	15,341	\$24,121	-\$8,061
Faulkner	86,014	\$38,204	+\$6,022
Franklin	17,771	\$30,848	-\$1,334
Independence	34,233	\$31,920	-\$ 262
Izard	13,249	\$25,670	-\$6,512
Johnson	22,781	\$27,910	-\$4,272
Lawrence	17,774	\$27,139	-\$5,043
Lonoke	52,828	\$40,314	+\$8,132
Madison	14,243	\$27,895	-\$4,287
Marion	16,140	\$26,737	-\$5,445
Monroe	10,254	\$22,632	-\$9,550
Pope	54,469	\$32,069	-\$ 113
Prairie	9,539	\$29,990	-\$2,192
Pulaski	361,474	\$38,120	+\$5,938
Randolph	18,195	\$27,583	-\$4,599
St. Francis	29,329	\$26,146	-\$6,036
Sharp	17,119	\$25,152	-\$7,030
Washington	157,715	\$34,691	+\$2,509
Woodruff	8,741	\$22,099	-\$10,083

Note: Data from U.S. Census Bureau, Census Year 2000.

OKLAHOMA

Trail of Tears dispersal routes cross five Oklahoma counties. For a listing of counties see Table 15, and for the study routes refer to Section Map 7 (Appendix B).

Natural Resources of Western Oklahoma: Geography, Vegetation, and Wildlife

Additional water and land components of the water route and four disbandment routes (including the Bengé route but not the Bell route) enter east-central Oklahoma. The physiographic regions they cross are the Ozark Highlands (also called the Ozark Plateau) and the Prairie Plains. The Ozarks region, in the state’s northeast corner, is characterized by hills that rise 250 feet or more to a plateau dissected by numerous small streams, creating the distinctive topography of the Ozark Mountains. The Prairie Plains includes tallgrass prairie, part of a broad tallgrass region that reaches across Kansas and Nebraska. Forests cover only 16% of Oklahoma, and they mostly occur on the eastern half of the state. These are primarily an oak-hickory mix that includes black

walnut, pecan, elm, and ash. The woodlands support white-tailed deer, raccoon, otter, opossum, mink, and squirrel, while rabbit, gopher, prairie dog, and coyote live on the prairie grasslands. Oklahoma's waters are home to 176 species of fish, including several varieties of catfish, bass, and sunfish. The state's plentiful bird life includes meadowlark, mockingbird, blue jay, northern cardinal, scissor-tail fly-catcher, red-tailed hawk, kestrel, and sparrow. Reptiles and amphibians include many varieties of salamander, turtle, frogs, and snakes, such as copperheads and western diamond-back and pygmy rattlesnakes, as well as many non-venomous snake species. At present, 19 Oklahoma plant and animal species are listed as threatened or endangered species, including whooping crane (*Grus Americana*), the least tern (*Sterna antillarum*), and the American peregrine falcon (*Falco peregrinus anatum*). A complete list of Oklahoma's T&E species, compiled by the U.S. Fish & Wildlife Service, is available upon request from the NPS National Trails Office in Santa Fe.

Land Resources: Ownership and Use

Oklahoma comprises an area of 68,667 square miles, with approximately 2.3% of the land in state and federal ownership (Table 1). Trail of Tears dispersal routes enter east-central Oklahoma and extend westward for a maximum of about 50 miles. Federal lands across the state include several USDA Forest Service units (including two national grasslands), several Bureau of Reclamation reservoirs, numerous lands and waters administered by the Department of Defense, several national wildlife refuges managed by the Fish and Wildlife Service, and three units of the National Park Service. (The Osage Indian Reservation in northern Oklahoma consists of privately owned lands with mineral rights remaining under control of the Osage Nation, and with Bureau of Indian Affairs oversight.) Statewide, about 97.7% of the land is owned by private parties and local public agencies, and 77% is in agricultural use.

The densest and most urban populations cluster in the Oklahoma City, Tulsa, and Lawton metropolitan areas. Northwestern Oklahoma, including the panhandle, is mostly rural and sparsely populated. The eastern part of the state, where the study routes are located, is moderately populated.

Cultural Resources: Archeological and Historical Properties, Historic Structures, and Cultural Landscapes

Oklahoma archeologists divide their state's prehistory into four primary periods: the Paleo-Indian (12,000 to 8,000 years Before Present [B.P.]), Archaic (8,000 to 2,000 years B.P.), Woodland (2,000 to 1,200 years B.P.), and Villagers (1,200 to 400 years B.P.) (Oklahoma Archeological Survey). Paleo-Indian sites, which occur across the continent, date to the end of the last Ice Age and are best known for their association with the remains of extinct species such as mammoths. Archaic peoples were generalized hunter-gatherers who preyed on bison, deer, small mammals, fish, and shellfish, and gathered many kinds of plant foods. The Woodland Period was a transitional time marked by increased sophistication in pottery-making, cultivation of plant domesticates, and development of permanent village sites. The Villagers Period is divided into the Plains Village (ca. 1,200 to 500 years ago) and Mississippian (ca. 2,200 to 400 years ago) phases. Plains Village peoples farmed corns, beans and squash and hunted the plains bison in central and western Oklahoma.

Mississippian groups established large religious and trade centers in the Arkansas River Basin in eastern Oklahoma, where their archeological remains are found today (for example, the Spiro Mounds in LeFlore County and the Harlan Mound Site in Cherokee County — two of the westernmost Mississippian sites). These centers and related villages, hamlets, and farmsteads

were supported by farming on the floodplains. But Mississippian lifeways were declining everywhere by A.D. 1300-1400, likely due to drought, disease, and other factors. Groups shifted to smaller farming villages, and some abandoned planting to focus on hunting and gathering. The Wichitas, descendants of the Mississippian peoples, were living in large farming villages along the Arkansas River and its tributaries in northern Oklahoma and southern Kansas when Spanish explorers arrived in the mid-1500s.

A temporally overlapping culture, considered to be a regional variant of the Mississippian cultural tradition, was that of the prehistoric Caddo. Caddo culture arose around A.D. 1000 and spread across Oklahoma, Louisiana, Texas, and the southwest one-quarter of Arkansas. Settlements generally consisted of individual temple mounds surrounded by small, scattered family farmsteads with thatched-grass houses (Sabo 2007c).

The first European explorers to enter Oklahoma were separate groups led by Francisco Vásquez de Coronado and Hernando de Soto, who arrived in 1541 (Oklahoma Historical Society). French explorers of the Arkansas River followed in the early 1700s, establishing an extensive trade network among the tribes living there.

The United States acquired Oklahoma, except for today's panhandle, as part of the Louisiana Purchase in 1803. The U.S. government relocated numerous tribes from the Southeast, Northeast, Midwest, Plains, and Southwest to "permanent Indian Territory" in Oklahoma from the 1830s through 1870s (Brooks 2007). These tribes included the Cherokees, Chickasaws, Creeks, Seminoles, and Choctaws who traveled the Trail of Tears. Today, 38 federally recognized tribes are listed for Oklahoma, where many have tribal headquarters (see Wright 1986).

Oklahoma has nearly 19,000 documented prehistoric archeological sites and historic properties related to the trends and events summarized above (Oklahoma Archeological Survey). The Oklahoma Archeological Survey web site provides site totals for each of its counties, including the five study route counties. These five counties combined have a total of 1,686 documented prehistoric and historic sites, of which 86 (including archeological and historic districts and landscapes) are listed on the National Register of Historic Places (data accessed from the NPS National Register Information System at www.nr.nps.gov on May 29, 2007). Listed properties directly associated with the Indian removal on the Trail of Tears are:

- **Adair County**
 - *The Rev. Jesse Bushyhead Grave.*

- **Cherokee County**
 - *Illinois Campground*, the detachment site of the John Drew division.
 - *Murrell Home*, residence of George Murrell, who played a pivotal role in the Cherokee removal.
 - *Ross Cemetery*, burial site of Chief John Ross and other key figures in the Cherokee removal.
 - *Park Hill Mission Cemetery*, gravesite of Elias Boudinot, brother of Confederate General Stand Watie and a Cherokee leader. Other listed Cherokee County properties that *post-date* the removal are the *Cherokee National Capitol*, *Cherokee National Jail*, and *Cherokee Supreme Court Building*, all in Tahlequah, Oklahoma.

- **Delaware County**
 - *Polson Cemetery*, which includes the gravesite of General Stand Watie, near the community of Jay.
- **Muskogee**
 - *Cherokee National Cemetery*, gravesite of several prominent Cherokee leaders.
 - *Dragoon Commandant’s Quarters* and *Fort Gibson Historic District*.
- **Sequoyah County**
 - *Sequoyah’s Cabin*, home of noted Cherokee leader Sequoyah, who moved west prior to the forced removal.

In addition to these listed properties, Thomason and Parker (2003) have identified several additional disbandment sites in Oklahoma. These include the *Woodhall Farm*, near Westville, Oklahoma, where the northern route detachments disbanded; *Fort Coffee*, a site documented by the Oklahoma Archeological Survey, where the Lt. Edward Deas detachment disbanded; and “Mrs. Webber’s near present-day Stilwell” (Thomason and Parker 2003).

The National Park Service has certified the *Cherokee Heritage Center* and the *Murrell Home*, both in Tahlequah, as Trail of Tears properties.

Recreation Resources

Trail of Tears study-route counties in Oklahoma include federal recreation properties managed by the U.S. Fish & Wildlife Service and the Department of Defense Army Corps of Engineers. Note that these lands and waters are not necessarily crossed by Trail of Tears study routes. Table 15 provides summary information on these resources.

Table 15. Federally managed recreation resources in Oklahoma counties on the Trail of Tears study routes.

County	Resources
Adair	Ozark Plateau National Wildlife Refuge (F&W)
Cherokee	Tenkiller Ferry Lake (DOD) Fort Gibson Lake (DOD)
Muskogee	Robert S. Kerr Lake (DOD) Sequoyah National Wildlife Refuge (F&W) Webbers Falls Lock & Dam (DOD)
Sequoyah	Webbers Falls Lock & Dam (DOD) Tenkiller Ferry Lake (DOD) Robert S. Kerr Lake (DOD)

Note: “F&W” indicates U.S. Fish & Wildlife Service management. “DOD” indicates Department of Defense Army Corps of Engineers management. Study-route counties not listed here have no federally owned recreational properties.

Socioeconomics

The top three employment sectors in Oklahoma, according to the 2005 American Community Survey of the U.S. Census, are: 1) education, health care, and social assistance; 2) retail trade; and 3) manufacturing. The category of “arts, entertainment, recreation and accommodation, and food services,” the employment field most likely to be affected by any increase in tourism that

might result from designation of the Trail of Tears study routes, ranks fourth out of a total of 13 employment categories. Median household income in the state, according to the 2000 Decennial Census, was \$33,400 (compared to \$41,994 for the U.S. as a whole at that time). At the time of the census, median household income in Oklahoma's study route counties was lower than the statewide median (Table 16).

Table 16. Population and income for Oklahoma counties on Trail of Tears study routes.

County	Population	Median Household Income	Difference from Statewide Median Income
Adair	21,038	\$24,881	-\$8,519
Cherokee	45,521	\$26,536	-\$6,864
Delaware	37,077	\$27,996	-\$5,404
Muskogee	69,451	\$28,438	-\$4,962
Sequoyah	38,972	\$27,615	-\$5,785

Note: Data from U.S. Census Bureau, Census Year 2000.

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

The National Environmental Policy Act (NEPA) is the national charter for environmental protection in the United States. Title I of the law requires that federal agencies plan and carry out their activities in a manner that protects and enhances the environment. The act requires public involvement in the planning and development of any proposed federal action and consideration of potential impacts to the cultural, natural, and socioeconomic environments. Because this is a feasibility study, the impacts are presented as an overview of potential impacts relating to the proposed program for each alternative. If the study routes are designated, the National Park Service will revise its existing comprehensive management and use plan for the Trail of Tears National Historic Trail and will develop more detailed implementation plans subsequent to this study. Any subsequent document will be guided by the framework set by this feasibility study. This relationship is known as “tiering.”

The National Historic Preservation Act of 1966 (NHPA) requires federal agencies to establish programs for evaluating and nominating properties to the National Register of Historic Places and to consider the effects of their undertakings on listed or eligible properties. Section 106 of the NHPA requires that federal agencies take into account the effects of their actions on properties listed or eligible for listing in the National Register, and that they afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on their proposed actions. While this does not mean that historic properties *must* be preserved, it does mean that their historic values must be weighed among the benefits and costs of federal undertakings in determining what is in the public interest. Section 106 thereby encourages agencies to seek ways to avoid, minimize, or mitigate damage to cultural resources. The goal of the process is to make sure that preservation is fully considered in federal actions, thereby protecting our shared heritage from thoughtless or ill-considered damage.

This section contains a description of the environmental consequences associated with each alternative described in this study. The alternatives are conceptual in nature, and do not include any development activities or any site-specific actions. Therefore, the assessment of potential impacts also is general in nature. The NPS can make a reasonable projection of some of the impacts, but these are based on assumptions that may not be accurate in the future. The discussion also describes generalized measures to minimize potential impacts. The study does not intend to suggest that these measures would work for every site or should be applied without further study of specific sites.

Future actions must be preceded by site-specific compliance, which may require consultations with the Environmental Protection Agency, U.S. Fish and Wildlife Service, state departments of transportation, tribal and state historic preservation officers, the Advisory Council on Historic Preservation, relevant American Indian tribes, and other state and federal agencies.

Environmental impact topics are selected based on federal laws, orders, and regulations; NPS management policies; and issues and concerns expressed during public scoping. Impact topics allow for a standardized comparison of the potential environmental consequences that each alternative could trigger. Selected impact topics considered relevant to this study include natural and cultural resources, American Indian concerns and ethnographic resources, and recreation/socioeconomic resources. NEPA requires consideration of context, intensity, duration, and cumulative impacts plus measures to mitigate impacts.

In addition, Section 5(b)(4) of the National Trails System Act requires that a trail feasibility study discuss “the current status of land ownership and current and potential use along the designated route.” Therefore, that topic is addressed below, as well.

This section is organized by impact topic with alternatives as subheadings under each topic area. Following a brief discussion of the methodology used to determine the impacts is a discussion of the impacts of each alternative by topic area, and an outline of potential mitigation measures.

METHODOLOGY

Alternatives were evaluated for their effects on the resources and values determined during the scoping process, and impact topics were developed. For each impact topic (except land ownership and use), impacts are defined in terms of context, intensity, duration, and timing. Direct, indirect, and cumulative effects are discussed in each impact topic. Definitions of intensity levels varied by impact topic, but, for all impact topics, the following definitions were applied.

Beneficial: A positive change in the condition or appearance of the resource, or a change that moves the resource toward a desired condition.

Adverse: A change that moves the resource away from a desired condition or detracts from its appearance or condition.

Direct: An effect that is caused by an action and occurs in the same time and place.

Indirect: An effect that is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable.

Short-term: An effect that would no longer be detectable within a short period, generally less than 5 years, as the resource is returned to its pre-disturbance condition or appearance.

Long-term: A change in a resource or its condition that does not return the resource to pre-disturbance condition or appearance, and for all practical purposes is considered permanent. Potential impacts are also described in terms of intensity, which can range in effect from negligible to major.

Alternatives also were evaluated based on external factors that, together with the actions of each alternative, could have cumulative impacts. External factors consist largely of the independent land use decisions of many hundreds –perhaps thousands– of private, state, county, and municipal property owners along 2,845 miles of possible new National Historic Trail corridor. These decisions may be somewhat influenced by designation of National Historic Trail, but they are more likely to be driven by local economic factors and community values, which can be expected to vary across the eight affected states. Another key external factor is the degree to which tourism boosters and the hospitality industry act to promote any newly designated trail routes and encourage visitation along them. Such activity along the currently designated trail routes over the past 20 years has been fairly steady and mostly of low intensity.

IMPACTS OF THE ALTERNATIVES

National Historic Trails typically are conceived and designated as routes with beginning and end points but lacking formally defined corridor-edge boundaries. National Historic Trails allow for *but do not require or legislatively establish* public access, ownership, easements, or rights-of-way to trail segments for outdoor recreation purposes. Landowners and managers along the designated routes retain full ownership and control of their lands, can continue to use and develop their property as they wish, and are not required to open their lands to the visiting public. They are offered opportunities but are not required to work voluntarily in cooperation with the trail's designated federal lead agency to provide for public access, resource protection, interpretation, and limited development. The role of the designated federal lead agency for a National Historic Trail consists of setting and maintaining signage and interpretive standards, helping to ensure consistent preservation, education, and public-use programs, managing the use of the official trail logo, and providing technical and limited financial assistance to partners. The impacts of any alternative, then, depend heavily on the interest of local landowners in initiating projects and working with the federal lead agency to provide for trail visitation and interpretation, and on the interest of local businesses to promote trail-related heritage tourism activities.

Three alternatives are described on pages 27-29. The third alternative was found to duplicate the No Action alternative, and so is not considered individually here. The remaining two alternatives are analyzed below.

Land Ownership and Use

Methodology

The National Trails System Act requires trail feasibility studies to address “the current status of land ownership and current and potential use along the designated route.” Quantitative data on ownership and use of specific properties along the 2,845 miles of study route are not readily available for use in this analysis. Available general information and observations relevant to the current status of land ownership and use for each affected state are provided in the Affected Environments section above.

Alternative A (No Action)

Under this alternative, the National Park Service would continue to have little interaction with landowners along the Trail of Tears study routes. The NPS would not encourage land management practices that protect trail sites, nor designate new auto tour routes along the study trails. Land use and development that does not involve federal lands, funding, or permitting would continue with little awareness of or regard for trail resources on undesignated routes. Along the authorized Trail of Tears National Historic Trail, the NPS would continue working with local governments and landowners to sign trail routes, develop appropriate visitor access and interpretation to trail sites, and help protect, rehabilitate, and stabilize trail-related historic properties. These land use-related activities and practices would continue at current levels.

Individual landowners, non-profit historic preservation and conservation groups, and local governments occasionally take independent action to recognize, interpret, and protect trail resources on both designated and study routes. On NPS-administered National Historic Trails, these kinds of independent activities typically take the form of protecting sites with fencing, permitting or facilitating limited visitation and guided tours, maintaining or protecting any historic buildings and structures, and installing roadside or on-site interpretive signs. Sometimes a

local government, such as a town or county, will establish a park, roadside pullout, or walking trail for educational and recreational purposes. Such activities typically are coincident and compatible with continuing agricultural, residential, recreational, commercial, and other ongoing land uses. These activities likely would occur more frequently along known and designated routes, and less frequently on undesignated routes.

During decades of administering National Historic Trails across the nation, the NPS has observed that the presence of trail-related sites or route segments on privately owned land may rarely influence property sales and proposed private development. This typically occurs when sellers independently chooses to promote a trail connection in hopes of attracting buyers or justifying a higher purchase price, when they partition the land to protect trail sites, or when they place conditions on the sale to limit development or otherwise protect historic properties. These actions seem more likely to happen along publicly recognized National Historic Trail than on undesignated segments. However, real estate value is seldom significantly influenced by the presence of trail sites or segments, but instead is based on the intended use of the property and the value and use of neighboring real estate.

The National Park Service has limited authority to acquire Trail of Tears National Historic Trail properties on a willing-seller basis. However, the NPS never has done so in 20 years of administering the trail, and is unlikely to do so in the foreseeable future. Therefore, there is no anticipated impact to land ownership and use resulting from federal acquisition of lands along either designated or study routes.

The No Action alternative would have no impact on ongoing land ownership and use practices along the undesignated routes, and would continue to have minor, beneficial, and indirect effects on ownership and use of lands on or adjacent to existing designated National Historic Trail.

Cumulative Impacts: Alternative A would have no measurable cumulative impacts on land ownership and use.

Conclusions: The No Action alternative would continue to have no impact on ongoing land ownership and use practices along the undesignated routes, and minor, beneficial, and indirect effects on ownership and use along existing designated National Historic Trail.

Table 17. Impact threshold definitions.

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
LAND OWNERSHIP AND USE						
<i>Land ownership and Use</i>	Changes in land ownership and use patterns are not detectible or cannot be confidently attributed to either designation or non-designation of the study components.	Changes in land ownership and use patterns may be detectible <i>and</i> appear likely to have resulted either from designation or non-designation of the study routes; occur locally, on the study routes; and impact a few scattered properties along the length of the study segment.	Changes in land ownership and use patterns are apparent and clearly attributable either to designation or non-designation of the study routes; occur locally, on or adjacent to the study routes; and affect a significant minority of properties along the length of the study segment.	Changes in land ownership and use patterns are apparent and clearly attributable either to designation or non-designation of the study routes; occur on, adjacent to, or within 2 miles of the study routes; and affect at least half of the properties along the length of the study segment.		

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
NATURAL RESOURCES						
<i>Vegetation and Wildlife</i>	Individual native plants and wildlife may be affected, but measurable or perceptible changes in plant and animal community size, integrity, or continuity would not occur.	Effects on native plants and wildlife would be measurable or perceptible, but would be localized within a small area. The viability of the plant community would not be affected and the community, if left alone, would recover.	A change would occur over a relatively large area in the native plant community that would be readily measurable in terms of abundance, distribution, quantity, or quality. Mitigation measures would probably be necessary to offset adverse effects and would likely be successful.	Effects on native plant communities would be readily apparent, and would substantially change vegetation community types over a large area. Extensive mitigation would be needed to offset adverse effects, and its success would not be assured.	A permanent adverse change in native plant communities would occur in a substantial portion of their occurrence. The change would be highly noticeable, could not be mitigated, and would affect these resources to the point that the unit's purpose could not be fulfilled and enjoyment of the native plant communities by future generations would be precluded.	<p><i>Short-term:</i> Vegetation recovers in less than 3 years, wildlife in less than 1 year.</p> <p><i>Long-term:</i> Vegetation takes more than 3 years to recover, wildlife takes more than 1 year.</p>

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
NATURAL RESOURCES						
<p><i>Threatened and Endangered Species</i></p> <p><i>(Threshold terminology from the Endangered Species Act)</i></p>	<p><i>No effect:</i> When a proposed action would not affect a listed species or designated critical habitat.</p>	<p><i>May affect/not likely to adversely affect:</i> Effects on special status species or designated critical habitat are discountable (i.e., extremely unlikely to occur and not able to be meaningfully measured, detected, or evaluated) or completely beneficial.</p>	<p><i>May affect/likely to adversely affect:</i> When an adverse effect to a listed species or designated critical habitat may occur as a direct or indirect result of proposed actions and the effect is either not discountable or completely beneficial.</p>	<p><i>Is likely to jeopardize proposed species/adversely modify proposed critical habitat):</i> The appropriate conclusion in situations in which trail development or visitor use could jeopardize the continued existence of a proposed species or adversely modify critical habitat.</p>		

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
CULTURAL RESOURCES						
<p><i>Archeological and Historical Properties (Sites, Buildings, and Structures), and Cultural Landscapes</i></p> <p><i>(Threshold terminology from the National Historic Preservation Act)</i></p>	<p>Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for §106 would be <i>no adverse effect</i>.</p>	<p>Adverse: Disturbance of site results in little, if any, loss of integrity. The determination of effect for §106 would be <i>no adverse effect</i>.</p> <p>Beneficial: Maintenance and preservation of site. The determination of effect for §106 would be <i>no adverse effect</i>.</p>	<p>Adverse: Disturbance results in loss of integrity. The determination of effect for §106 would be <i>adverse effect</i>. A memorandum of agreement is executed among the NPS and state historic preservation office and, if necessary, the Advisory Council on Historic Preservation. MOA identifies measures to minimize or mitigate adverse impacts & reduce intensity of impact from major to moderate.</p> <p>Beneficial: Site stabilization. The determination of effect would be <i>no adverse effect</i>.</p>	<p>Adverse: Disturbance results in loss of integrity. The determination of effect for §106 would be <i>adverse effect</i>. Measures to minimize or mitigate adverse impacts cannot be agreed upon and NPS and applicable state or tribal historic preservation officer and/or Advisory Council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).</p> <p>Beneficial: Active intervention to preserve site. The determination of effect for §106 would be <i>no adverse effect</i>.</p>	<p>A major, adverse impact to a trail resource or value.</p>	

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
CULTURAL RESOURCES						
<i>Ethnographic Resources</i>	Impact(s) to ethnographic resources would be barely perceptible and would neither alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group's body of practices and beliefs. The determination of effect on Traditional Cultural Properties (ethnographic resources eligible to be listed in the National Register) for §106 would be <i>no adverse effect</i> .	Adverse: Impact(s) minor but noticeable, but would neither appreciably alter resource conditions, such as traditional access or site preservation, nor the relationship between the resource and the affiliated group's body of practices and beliefs. The determination of effect on Traditional Cultural Properties for §106 would be <i>no adverse effect</i> .	Adverse: Impact(s) apparent and would alter resource conditions, interfere with traditional access, site preservation, or the relationship between the resource and the affiliated group's practices and beliefs, even though the group's practices and beliefs would survive. The determination of effect on Traditional Cultural Properties for §106 would be <i>adverse effect</i> . Beneficial: Impact(s) would facilitate traditional access	Adverse: Impact(s) would alter resource conditions and/or block or greatly affect traditional access, site preservation, or the relationship between the resource and the affiliated group's practices and beliefs, such that the survival of group's practices and/or beliefs would be jeopardized. The determination of effect on Traditional Cultural Properties for §106 would be <i>adverse effect</i> . Beneficial: Would encourage traditional access and/or accommodate a group's practices or beliefs. The determination of effect on Traditional	A major, adverse impact to a trail resource or value.	

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
		<p>Beneficial: Would allow access to and/or accommodate a group's traditional practices or beliefs. The determination of effect on Traditional Cultural Properties for §106 would be <i>no adverse effect</i>.</p>	<p>and/or accommodate a group's practices or beliefs. The determination of effect on Traditional Cultural Properties for §106 would be <i>no adverse effect</i>.</p>	<p>Cultural Properties for §106 would be <i>no adverse effect</i>.</p>		

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
RECREATION RESOURCES/VISITOR USE & EXPERIENCE						
<i>Recreation Resources</i>	Impact is barely detectable, and/or will not affect existing recreation resource and opportunities.	Impact is minor but detectable, and/or will affect some existing recreation resources and opportunities.	Impact is readily apparent and/or will affect many existing recreation resources and opportunities.	Impact is obvious and/or will affect the majority of existing recreation resources and opportunities.	A major, adverse impact to existing recreation resources and opportunities.	<p><i>Short-Term:</i> Effects last one year or less</p> <p><i>Long-term:</i> Effects last longer than one year.</p>
<i>Visitor Use & Experience</i>	No noticeable change in visitor use or experience, or in the defined indicators of visitor satisfaction or behavior.	<p>Slight, detectable changes in visitor use and/or experience, but the changes would not appreciably alter critical characteristics of the visitor experience.</p> <p>Adverse: Effects would be noticeable</p>	<p>Critical characteristics of the desired experience would be changed, or the number of participants engaging in an activity would be substantially altered. Visitor satisfaction would change as a result of the alternative.</p> <p>Adverse: Effects would</p>	<p>Multiple critical characteristics of the desired experience would be impacted.</p> <p>Adverse: Effects would detract from visitor satisfaction. Participation in desired experiences would be considerably reduced and would result in substantial changes in the defined indicators of visitor satisfaction or behavior.</p>		<p><i>Short-Term:</i> Effects last one year or less.</p> <p><i>Long-term:</i> Effects last longer than one year.</p>

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
<i>Visitor Use & Experience, cont.</i>		<p>and would slightly diminish critical characteristics of the visitor experience.</p> <p>Beneficial: Effects would be noticeable and would somewhat enhance critical characteristics of the visitor experience.</p>	<p>substantially detract from visitor satisfaction.</p> <p>Beneficial: Effects would substantially enhance visitor satisfaction.</p>	<p>Beneficial: Effects would add to or enhance visitor satisfaction. Participation in desired experiences would result in substantial changes in defined indicators.</p>		

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
SOCIOECONOMIC CONDITIONS						
<i>Socioeconomic Conditions</i>	Socioeconomic conditions would not be affected, or effects would not be measurable, or any changes would not be attributable to National Historic Trail designation or development.	Changes in socioeconomic conditions would be noticeable and measurable, appear likely to be linked to National Historic Trail designation or development, and would affect a small percentage of households in the study-route counties. Adverse: Impacts would slightly diminish median household income and	Changes in economic conditions would be readily apparent and widespread within at least one of the study-route counties, and would be clearly attributable to National Historic Trail designation or development. Adverse: Impacts would meaningfully reduce median household income and employment opportunities in any of the study-route counties.	Changes would be readily apparent, clearly attributable to National Historic Trail designation or development, and would substantially change the economy and employment opportunities in several of the study-route counties. Adverse: Impacts would greatly diminish median household income and employment opportunities in any of the study-route counties. Beneficial: Impacts would greatly increase median household income and employment		

Impact Topic	Impact Threshold Definitions					
	Negligible	Minor	Moderate	Major	Impairment	Duration
		<p>employment opportunities in any of the affected counties.</p> <p>Beneficial: Impacts would slightly enhance median household income and employment opportunities in any of the affected counties.</p>	<p>Beneficial: Impacts would meaningfully increase median household income and employment opportunities in any of the affected counties.</p>	<p>opportunities in any of the study-route counties.</p>		

Alternative B (Designation)

Along the authorized Trail of Tears National Historic Trail, the NPS currently works with local governments and land owners to mark trail routes, establish and sign auto tour routes, develop appropriate visitor access and interpretation to trail sites, and help protect, rehabilitate, and stabilize trail-related historic properties. Under Alternative B, these activities would continue along designated trail and would be extended to include the study routes.

Typical NPS-supported National Historic Trails activities with potential to impact land use and ownership include installing roadside trail site signs, working with land owners to provide for appropriate visitor access and use, developing outdoor interpretation, and helping owners to protect, stabilize, and rehabilitate trail sites, segments, buildings, and structures. The NPS supports these and other kinds of activities with technical and limited financial assistance through its Challenge Cost Share Program (CCSP). Between 1987 and December 2006, CCSP funded only three landowner-initiated projects with any potential to affect land use on the Trail of Tears. Two of these entailed production of wayside exhibits for installation at trail sites, which could be expected to result in increased public visitation to and use of the sites, but one of these was never completed by the trail partner. The third involved archeological research conducted in partnership with a State Historic Preservation Office. The remaining 23 CCSP projects were for developing exhibits at visitor centers and museums, conducting archival research and National Register activities, and providing administrative support for partner organizations, none of which had any potential to affect land use.

Demand for NPS support for development and interpretive projects on the Trail of Tears National Historic Trail may experience a slight and probably temporary surge as publicity related to designation of the study routes arouses interest in the trail and related NPS programs, and as new partnership opportunities arise along the previously undesignated study segments. Assuming that CCSP-supported Trail of Tears projects would follow historical patterns, changes in land use as a result of these activities are likely to be rare and minor; and because such partnership projects are land owner-initiated, they tend to be compatible with existing land use practices and are viewed by the land owner and by the NPS as beneficial.

Another NPS partnership tool is certification, which formally recognizes, at the landowner's request, key trail properties and facilities along the National Historic Trail. Certification encourages owners and managers to protect the historic integrity of their properties. As of December 2006, the National Park Service had designated 35 non-federal properties as certified sites, facilities, and trail segments of the Trail of Tears. NPS certifications on the Trail of Tears likely would experience a slight, temporary surge following designation of the new routes. Again, because certification is landowner-initiated, it tends to be used in conjunction with existing land use practices and is viewed by the landowner and by the NPS as beneficial.

Individual landowners, non-profit historic preservation and conservation groups, and local governments occasionally take independent action to recognize, interpret, and protect trail resources on both designated and study routes. On NPS-administered National Historic Trails, these kinds of independent activities typically take the form of protecting sites with fencing, permitting or facilitating limited visitation and guided tours, maintaining or protecting any historic buildings and structures, and installing roadside or on-site interpretive signs. Sometimes a local government, such as a town or county, will establish a park, roadside pullout, or walking trail for educational and recreational purposes on a National Historic Trail. Such activities typically are coincident and compatible with continuing agricultural, residential, recreational, commercial, and other ongoing land uses, and are viewed as beneficial by the landowner,

organization, government, general public, and the NPS. Some individual landowners may benefit from the sale of land or easements used for trail-related cultural or educational facilities, or for resource protection, as well. Under the designation alternative, these kinds of activities are expected to increase slightly as designation of the additional routes increases public interest in both existing trail and the study routes.

During decades of administering National Historic Trails across the nation, the NPS has observed that the presence of National Historic Trail-related sites or route segments on privately owned land may occasionally influence property sales and proposed private development. This typically occurs when sellers independently chooses to promote a trail connection in hope of attracting buyers or justifying a higher purchase price, when they partition the land to protect trail sites, or when they place conditions on the sale to limit development or otherwise protect historic properties. However, real estate value is seldom influenced by the presence of trail sites or segments, but instead is based on the intended use of the property and the value and use of neighboring real estate.

The National Park Service has limited authority to acquire Trail of Tears National Historic Trail properties on a willing-seller basis but never has done so in 20 years of administering the trail, and is unlikely to do so in the foreseeable future. Therefore, there is no anticipated impact to land ownership and use resulting from federal acquisition of lands as a result of either Alternative B or A.

Federal land managers are required by Section 106 of the National Historic Preservation Act to consider the effects of their undertakings on historic resources, including National Historic Trails. Designation of National Historic Trails increases public awareness of those routes and sensitivity to activities that may affect them, and thereby encourages federal managers to review more carefully any potential effects on trail resources. It further encourages federal land managers more actively to protect and interpret trail resources, and to develop agency resource management plans that emphasize protection and interpretation of trail resources. Such changes, in turn, may be expected to affect agency land use, development, and natural resource management practices. Land management practices on other National Historic Trails have included, for example, establishing guidance for reducing visual and physical impacts of development on a trail, managing recreational motorized use of historic trail, and accommodating hiking, bicycling, and equestrian activities along the route. Trail designation may also make additional funding available to the agency for trail-related protection and recreation projects. As the federal lead agency for the Trail of Tears National Historic Trail, the NPS views management practices that enhance protection of trail resources as beneficial.

Cumulative Impacts: Implementation of Alternative B could encourage more interest in preserving natural and cultural areas along the study routes, which could entail changes in land use and development trends. These cumulative impacts would be minor and beneficial.

Conclusions: Overall, designation of the study routes under Alternative B would likely introduce minor, beneficial, indirect effects on land ownership and use on and adjacent to the study routes, and would continue to have minor, beneficial, indirect effects on ownership and use along the currently designated routes of the Trail of Tears National Historic Trail .

Natural Resources: Vegetation, Wildlife, and Threatened and Endangered Species

Methodology

Issues of concern with regard to native vegetation, wildlife, and Threatened and Endangered (T&E) species may be associated with the removal of vegetative cover and disturbance of wildlife habitat in association with trail-related development and visitor-use activities. Increases in motor vehicle traffic along future auto tour routes could potentially impact wildlife populations. Refer to Table 17 for impact thresholds.

Alternative A (No Action)

Under this alternative, the National Park Service would continue to have little interaction with landowners along the Trail of Tears study routes. The NPS would not encourage land management practices that protect trail sites, nor designate new auto tour routes along the study trails. Land use and development that does not involve federal lands, funding, or permitting would continue with little awareness of or regard for trail resources on undesignated routes. Along the authorized Trail of Tears National Historic Trail, the NPS would continue working with local governments and landowners to sign trail routes, develop appropriate visitor access and interpretation to trail sites, and help protect, rehabilitate, and stabilize trail-related historic properties. These land use-related activities and practices would continue at current levels.

Along the currently authorized routes, any proposed NPS-supported activities that might disturb land or increase visitation to sensitive natural areas or wildlife populations would undergo additional environmental analysis to evaluate impacts. Over the 20 years since the Trail of Tears National Historic Trail was established by Congress, the NPS has had no involvement with any trail-related project that would have adverse impacts on vegetation, wildlife, or T&E plant and animal species.

Cumulative Impacts: Major changes in vegetative cover have occurred throughout the region since the Cherokee removal in 1838-39. Agriculture has converted large areas from native vegetation and wildlife habitat to croplands or pastures of non-native grasses. Timber harvesting for fuel or lumber has removed woodlands, and livestock grazing has reduced plant and animal densities in some areas and changed community compositions in other areas. Extensive residential, commercial, energy, and trafficway development has removed native vegetation and wildlife habitat. Sizeable communities of native plant and animal species do continue to exist within national forests, national wildlife preserves, and other protected public lands.

Under Alternative A, activities that may impact vegetation and wildlife would continue to be initiated by individual landowners, as regulated by state and local governments and driven largely by economic interests. Non-designation of the additional routes would not influence landowners' decisions with regard to those activities.

Federal land-management agencies are guided by environmental law and departmental policy when initiating, funding, or licensing activities that have the potential to impact vegetation, wildlife, and T&E species. Federal undertakings typically are designed to avoid or minimize adverse impacts to sensitive natural resources, and compliance with those laws and policies is mandatory regardless of whether National Historic Trail is designated. Implementation of Alternative A, non-designation of the study routes, would not influence agency decision-making and planning processes, and so would not impact vegetation, wildlife, or T&E species on federal lands.

Therefore, the No Action alternative would have no measurable cumulative impacts on vegetation, wildlife, or threatened and endangered species.

Conclusions: The No Action alternative would have negligible effect on native vegetation and wildlife, and no effect on threatened and endangered species.

Alternative B (Designation)

Along the authorized Trail of Tears National Historic Trail, the National Park Service currently works with local governments and landowners to mark trail routes, establish and sign auto tour routes, develop appropriate visitor access and interpretation to trail sites, and help protect, rehabilitate, and stabilize trail-related historic properties. Under Alternative B, these potentially land-disturbing activities would continue along designated trail and would be extended to include the study routes.

Typical NPS-supported National Historic Trails activities with potential to impact wildlife (including T&E species) and vegetation include working with landowners to provide for appropriate visitor access and use, developing outdoor interpretive trails and exhibits, and helping owners to protect, stabilize, and rehabilitate trail sites, segments, buildings, and structures. The NPS supports these and other kinds of activities with technical and limited financial assistance through its Challenge Cost Share Program (CCSP). Between 1987 and December 2006, CCSP funded only three projects Trail of Tears National Historic Trail projects with any potential to affect vegetation, wildlife, or habitat. Two of these entailed production of wayside exhibits for installation at trail sites, and the third involved archeological research conducted in partnership with a State Historic Preservation Office. The remaining 23 CCSP projects funded during that period were for developing indoor exhibits, conducting archival research and National Register activities, and providing administrative support for partner organizations. Most of the projects did not directly involve or affect historic properties, none of which had the potential to affect wildlife and vegetation.

Demand for NPS support for development and interpretive projects on the Trail of Tears National Historic Trail may experience a slight and probably temporary surge as publicity related to designation of the study routes arouses interest in the trail and related NPS programs, and as new partnership opportunities arise along the previously undesignated study segments. Assuming CCSP-supported Trail of Tears projects will follow historical patterns, impacts of these activities on vegetation and wildlife likely would be rare and negligible if they occur at all. In the 20 years since the Trail of Tears National Historic Trail was established by Congress, the NPS has conducted no trail-related project that adversely impacted vegetation, wildlife, or Threatened and Endangered Species.

In response to an invitation to consult regarding this feasibility study, the U.S. Fish & Wildlife Arkansas Field Office determined that no federally listed endangered, threatened, or candidate species are present in the project area in that state. U.S. Fish and Wildlife Service field offices in Kentucky, Alabama, Georgia, North Carolina, Tennessee, and Missouri, have formally concurred with the National Park Service that designation of the study routes is not likely to adversely affect any threatened or endangered species in those states. The Fish & Wildlife Service Division of Ecological Services in Tulsa, Oklahoma, likewise agrees. However, all of these offices caution, any subsequent development proposals would require further study and consultation with regard to potential impact on T&E species. All federally-funded or permitted proposals that involve development or outdoor recreation, and that therefore could potentially impact vegetation and

wildlife, would be individually reviewed under the provisions of the National Environmental Policy Act.

Individual landowners, non-profit historic preservation and conservation groups, and local governments occasionally take independent action to recognize, interpret, and protect trail resources on both designated and study routes. On NPS-administered National Historic Trails, these kinds of independent activities typically take the form of protecting sites with fencing, permitting or facilitating limited visitation and guided tours, maintaining or protecting any historic buildings and structures, and installing roadside or on-site interpretive signs. Sometimes a local government, such as a town or county, will establish a park, roadside pullout, or walking trail for educational and recreational purposes. Such activities typically are coincident and compatible with continuing agricultural, residential, recreational, commercial, and other ongoing land uses. They have some potential to impact vegetation and wildlife, both beneficially (as when a site is fenced and protected from detrimental uses and development) and adversely (as when a landowner destroys vegetation and habitat to install a parking lot or other visitor facility). The federal lead agency has no authority over these or other kinds of independent landowner activities. Under Alternative B, such activities reasonably may be expected to increase slightly as designation of the additional routes increases public interest in both existing trail and the study routes.

The National Park Service has limited authority to acquire Trail of Tears National Historic Trail properties on a willing-seller basis but never has done so in 20 years of administering the trail, and is unlikely to do so in the foreseeable future. Therefore, there is no anticipated impact to vegetation and wildlife resulting from federal acquisition of lands as a result of either Alternative B or Alternative A.

Federal land managers are required by Section 106 of the National Historic Preservation Act to consider the effects of their undertakings on historic resources, including National Historic Trail. Designation of National Historic Trail increases public awareness of those routes and sensitivity to activities that may affect them, and thereby encourages federal managers to review more carefully any potential effects on trail resources. It further encourages federal land managers more actively to protect and interpret trail resources, and to develop agency resource management plans that emphasize protection and interpretation of trail resources. Such changes, in turn, may affect agency land use, development, and natural resource management practices. Land management practices on other National Historic Trails have included, for example, establishing guidance for reducing visual and physical impacts of development on a trail, managing recreational motorized use of historic trail, accommodating non-motorized recreation activities, and withdrawing sensitive historic resource areas from certain kinds of development activities. Land management practices that protect historic resources typically also protect the surrounding natural environment, which is beneficial to vegetation and wildlife. However, increased recreational uses of some areas, such as hiking and equestrian trails, could adversely impact vegetation and wildlife. Such potential impacts would be reviewed and carefully considered by the managing federal agency under a separate NEPA process, so that any adverse effects to natural or cultural resources may be avoided or mitigated.

Cumulative Impacts: Throughout the region, major changes in vegetative cover have occurred since the Cherokee removal. Agriculture has converted large areas from native vegetation and wildlife habitat to croplands or pastures of non-native grasses. Cutting for fuel or lumber has removed woodlands, and livestock grazing has reduced plant and animal densities in some areas and changed community compositions in other areas. However, extensive residential, commercial, energy, and traffic way development has removed native vegetation and wildlife

habitat. Sizeable communities of native plant and animal species do continue to exist within national forests, national wildlife preserves, and other protected public lands.

Designation of National Historic Trail would not, itself, preserve or protect trail resources on private land. Individual landowners would continue to initiate activities that may impact vegetation and wildlife, as regulated by state and local governments and influenced largely by economic interests. However, as a result of trail designation, some property owners along newly designated routes might choose not to initiate activities, such as development or land clearing, that might otherwise impact vegetation and wildlife. In such cases, the impact of designation would be local and beneficial to wildlife and vegetation.

Federal land-management agencies are guided by environmental law and departmental policy when initiating, funding, or licensing activities that have the potential to impact native vegetation, wildlife, and T&E species. Federal undertakings typically are designed to avoid or minimize adverse impacts to sensitive natural resources, and compliance with those laws and policies is mandatory regardless of whether National Historic Trail is designated. Any federal undertakings that might result directly from implementation of Alternative B would undergo site-specific environmental analysis, and care would be taken to avoid or minimize impacts to those resources.

Therefore, Alternative B is found to have negligible cumulative impacts on vegetation, wildlife, or Threatened and Endangered species.

Conclusions: Overall, designation of the study routes under Alternative B would have negligible, if any, short- or long-term impacts on wildlife and vegetation.

Cultural Resources

Cultural resources that might be affected by designation of the study routes include prehistoric and historic archeological sites, historic buildings and structures, cultural landscapes, and ethnographic resources.

Methodology: Archeology, Historic Structures, and Cultural Landscapes

The National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their actions on properties listed or eligible for listing on the National Register of Historic Places. The process begins with identification and evaluation of cultural resources for National Register eligibility, followed by an assessment of the effects the proposed undertaking might have on those eligible resources. Section 106 of the NHPA provides criteria for evaluating the kind of effect, if any, an undertaking might have on historic resources.

If a federal undertaking has no potential to change the characteristics that qualify the resource for inclusion on the National Register, then it is considered to have *no effect* on the historic property. If the undertaking could change those characteristics, then it is considered to have an effect, which could be adverse or not adverse. *No adverse effect* means the effect would not be harmful (it could be benign or even beneficial) to those characteristics that qualify the resource for the National Register. *Adverse effect* means the undertaking could diminish the integrity of those characteristics. Refer to Table 17 for impact thresholds.

In the case of the study routes, issues of concern relating to cultural resources include possible disturbance of historic properties by development, visitor use, and preservation activities;

deterioration due to natural processes and neglect; and impingement on trail setting by visitor- or preservation-related development.

Alternative A (No Action)

Under this alternative, the National Park Service would continue to have little interaction with landowners along the Trail of Tears study routes. The NPS would not encourage land management practices that protect trail sites, nor designate new auto tour routes along the study trails. Land use and development that does not involve federal lands, funding, or permitting would continue with little or no awareness of or regard for trail resources on undesignated routes. On federal lands, managers would continue to consider the effects of their undertakings on historic trail resources, as required by the National Historic Preservation Act. Public awareness of historic resources along the study routes and of the historical events that occurred there largely would be limited to special interest groups and motivated individuals with particular historical interests. Along the authorized Trail of Tears National Historic Trail, the NPS would continue working with local governments and landowners to sign trail routes and sites, develop appropriate visitor access and interpretation to trail sites, and help protect, rehabilitate, and stabilize trail-related historic properties. These land use-related activities and practices, with potential to affect historic resources, would continue at current levels.

Along the currently authorized routes, any proposed NPS-funded undertaking on any lands, private or public, must comply with Section 106 of the National Historic Preservation Act, which requires federal agencies to consider the effects of their actions on historic properties. Over the 20 years since the Trail of Tears National Historic Trail was established by Congress, the NPS has undertaken no trail-related project that resulted in adverse impacts to historic properties.

However, very few projects along non-designated routes are eligible for NPS assistance and guidance. Individual landowners, non-profit historic preservation and conservation groups, and local governments occasionally take independent action to recognize, interpret, and protect trail resources on both designated and study routes. These kinds of independent activities typically take the form of protecting sites with fencing, permitting or facilitating limited visitation and guided tours, maintaining or protecting any historic buildings and structures, and installing roadside or on-site interpretive signs. Sometimes a local government, such as a town or county, will establish a park, roadside pullout, or walking trail for educational and recreational purposes. Such on-site activities could affect, either beneficially or adversely, trail-related historic properties having qualities that make them eligible for listing on the National Register of Historic Places. However, as non-federal projects, outside of federal lands and without federal support or permitting, such independent activities typically receive no review from historic resource professionals, State Historic Preservation Offices, or others qualified to predict, evaluate, and develop appropriate mitigation for effects on historic properties. The federal lead agency for the trail has no oversight authority over these kinds of landowner activities.

NPS-supported trail research and development of National Register of Historic Places context documentation and nominations would continue along designated routes, but would cease along the undesignated study routes. Opportunities to gather historical information and trail-related oral tradition and folklore would disappear as documents are lost and knowledgeable persons pass away.

Cumulative Impacts: Trail-related historic resources on private lands would continue to be lost gradually to development, incompatible land use practices, and neglect. Non-designation of the additional routes could continue to accrue long-term and adverse cumulative impacts on historic

resources on private lands on or near the undesignated removal routes. No data or meaningful observations by trails office personnel are available for use in characterizing or predicting the extent and rate of these impacts to Trail of Tears resources on private lands.

Federal land-management agencies are guided by law and departmental policy when initiating, funding, or licensing activities that have the potential to impact historic resources. Compliance with these laws and policies is required regardless of whether the affected historic property is part of a designated National Historic Trail. Non-designation of the additional routes therefore would have no impact on these federal properties.

Overall, Alternative A likely would result in minor long-term, adverse, and indirect cumulative impacts on historic resources on or adjacent to the undesignated removal routes.

Conclusions: The No Action alternative likely would result in minor, long-term, and indirect adverse effects on historic properties along the undesignated trail routes, and would have no effect on trail properties on currently designated routes. Effects would be local, on or adjacent to trail routes.

Alternative B (Designation)

Under the trail designation alternative, current NPS-supported activities would continue along designated trail and would be extended to include the study routes. As federal lead agency, the National Park Service would interact with landowners along all Trail of Tears routes; encourage land management practices that protect trail sites; and designate new auto tour routes along the former study routes. The National Park Service would work with individual landowners and non-federal land managers along all authorized routes to develop appropriate visitor access, public education opportunities, and interpretation of historic trail resources. These activities promote broad public awareness of trail-related historic properties, interest in and concern for them, and appropriate public stewardship of all historic resources.

Typical NPS-supported activities with potential to affect historic resources on National Historic Trails include small-scale site development to improve visitor access and interpretation, trail marking, site protection and stabilization, and outdoor interpretation projects; historic buildings and structures rehabilitation, renovation, and maintenance; and development of exhibits and programs placed or conducted in historic buildings. Some of these projects may result in increased visitation, which may also affect historic properties. Between 1987 and December 2006, the NPS Challenge Cost Share Program (CCSP) funded only three projects Trail of Tears National Historic Trail projects of that nature. Two of these entailed production of wayside exhibits for installation at trail sites, and the third involved archeological research conducted in partnership with a State Historic Preservation Office. The remaining 23 CCSP projects were for developing exhibits at visitor centers and museums, conducting archival research and National Register activities, and providing administrative support for partner organizations. Most of the projects did not directly involve or affect historic properties, and the remainder had no effect or no adverse effect.

It is reasonable to anticipate that a slight, possibly temporary surge in all these kinds of activities would result as publicity related to designation of the study routes arouses interest in the trail and related NPS programs, and as new partnership opportunities arise along the previously undesignated study segments. Assuming partners follow the existing CCSP project pattern, most projects likely would be in the areas of museum exhibits, research, and administrative support, which have little or no potential to affect historic resources. Any federal undertaking that could

potentially impact historic resources, either adversely or beneficially, would be individually reviewed under Section 106 of the National Historic Preservation Act. In the 20 years since the Trail of Tears National Historic Trail was established by Congress, the NPS has conducted no trail-related project that adversely affected National Register-eligible historic properties.

Independent projects undertaken by individual landowners and local governments currently occur both along non-designated and designated National Historic Trail routes. However, landowners along recognized, designated National Historic Trail are more likely to take advantage of technical and limited financial assistance offered by the National Park Service. This kind of partnership gives the agency's resource professionals, in consultation with State Historic Preservation Offices, an opportunity to identify potential effects and to propose avoidance or mitigation measures. Where an adverse effect seems likely to occur, the agency could also encourage the landowner to abandon or modify the project.

Federal land managers, including National Park Service trails offices, are required by Section 106 of the National Historic Preservation Act to consider the effects of their undertakings on historic resources. Federal agencies routinely survey for historic trail and consider the impacts of their undertakings on historic trail resources, whether or not they are part of a congressionally designated National Historic Trail. Formal designation, however, increases public awareness of those routes and sensitivity to activities that may affect them, and encourages federal managers to survey proactively, protect, and interpret trail resources. Congressional authorization of additional routes may lead to development of agency resource management plans that emphasize protection and interpretation of trail resources, which in turn could result in modification of land and resource management practices. Federal proposals or plans that might result from designation of the new Trail of Tears routes undergo separate and usually extensive environmental review to evaluate their specific impacts on natural resources, and to avoid or mitigate those impacts.

Federal agencies that manage designated National Historic Trail frequently invite the trail's federal lead agency to participate in environmental (NEPA) and cultural (NHPA Section 106) compliance processes that arise from federal undertakings that have the potential to affect trail-related historic resources. Sometimes the federal lead agency may become a cooperating agency, a partner, in those endeavors. Thus, the NPS is afforded many opportunities to work with other federal agencies in helping to protect National Historic Trail resources. Under Alternative B, these compliance-related reviews and activities would be extended along the newly designated Trail of Tears routes.

NPS-supported trail research and development of National Register of Historic Places context documentation and nominations would continue along all Trail of Tears National Historic Trail routes.

Cumulative Impacts: Designation of National Historic Trail does not restrict use and development or prohibit destruction of historic resources on private property. Therefore, trail-related historic resources on some private lands would continue to be lost gradually to development, incompatible land use practices, and neglect. However, if the study routes were designated, some property owners along those routes would recognize the existence and significance of Trail of Tears sites on their lands, and would take steps to protect them, accommodate public visitation, and engage as partners with the National Park Service. Federal land-management agencies would be motivated to research and proactively survey for trail resources on their lands, to incorporate trail-related measures into their resource management plans, and to provide for improved trail signing, visitor access, and interpretation.

Overall, Alternative B likely would have minor, beneficial, long-term, and indirect cumulative impacts on historic resources on or adjacent to the undesignated removal routes.

Conclusions: Designation of the study routes under Alternative B would have minor, beneficial, and long-term indirect effects on historic properties. These impacts would be local, on or near the trail routes.

American Indian Concerns/Ethnographic Resources

Ethnographic resources are those cultural and natural resources that hold cultural (not simply historical) significance and meaning to a community, and which continue to play a role in that community's identity and way of life. In the case of the Trail of Tears, these communities consist of tribes who were removed from their homelands to Oklahoma via the Trail of Tears in 1838-39. Only members of the communities to whom the resources hold cultural value can identify ethnographic resources and evaluate potential impacts to them. The National Park Service has been consulting continuously with the affected tribes regarding Trail of Tears ethnographic resources for over 20 years.

Because ethnographic resources are tied to communities' cultural identities, effects on the resources also affect the communities to which they are tied in perpetuity. Therefore, the duration of impacts to ethnographic resources is forever. Refer to Table 17 for impact thresholds.

In addition to physical resources, the stories of the trail are of critical concern to the consulting tribes. Because their own ancestors suffered on the Trail of Tears, and because removal events shape their lives even now, tribal members often regard these stories as deeply meaningful on personal, spiritual, political, and cultural levels. Stories of the Trail of Tears have been told by non-tribal members for years, often without consulting tribes with regard to accuracy, understanding, and appropriateness. Affected tribes take a deep interest in how they and their Trail of Tears ancestors are portrayed to the public. Federal and most state agencies are required to consult with affected tribes on such matters, but local and private landowners generally are not so required.

Methodology

Issues of concern include potential impacts to physical ethnographic resources; whether ethnographic information concerning the events and impacts to affected tribes would be considered in developing informational and interpretive media for public use; and whether people outside the affected tribes would be educated in U.S. Indian removal policy, events, and outcomes.

Effects on ethnographic resources can be beneficial or adverse, direct or indirect, or short-or long-term. Refer to Table 17 for impact thresholds.

Alternative A (No Action)

Under this alternative, National Park Service activities, including federally mandated government-to-government relations with federally recognized Indian tribes, would continue along the designated National Historic Trail, but would not involve discussions of non-designated study routes.

Effects on ethnographic resources would be as described for historic resources under Alternative A, above.

It is likely that some individual landowners, non-profit historic preservation and conservation groups, and local governments independently would take some action to recognize, interpret, and protect trail resources. Interpretation of the Trail of Tears inevitably involves discussing cultures, actions, motivations, and sufferings of American Indian people who were forced along the trail in the 1830s. Individual landowners and local governments, however, are not required to consult affected American Indian tribes regarding interpretation of their history, the cultural and personal consequences of the Indian removal policy, or potential project impacts to culturally significant trail sites. Some do choose to do so. In most cases, however, Cherokees and other Indian Nations are unlikely to be consulted to ensure interpretive accuracy or to express any concerns or suggestions they might have regarding projects that concern their history and cultures. Most interpretive projects, though, are planned and carried out by federal and state agencies and non-profit organizations that do solicit the opinions and participation of affected tribes.

Cumulative Impacts: Trail-related ethnographic resources on some non-federal lands would continue to be impacted by development, incompatible land use practices, and neglect. Non-designation of the additional routes could continue to accrue long-term and adverse cumulative impacts on ethnographic resources on private lands on or near the undesignated removal routes.

Federal land-management agencies are guided by law and departmental policy when initiating, funding, or licensing activities that have the potential to impact ethnographic resources. Compliance with these laws and policies is required regardless of whether the affected resource is part of a designated National Historic Trail. Non-designation of the additional routes therefore would have no impact on these federal properties.

Overall, Alternative A likely would result in minor, long-term, and indirect adverse cumulative impacts on ethnographic resources on private lands on or adjacent to the undesignated removal routes, and would have negligible effects on American Indian concerns regarding interpretation of the Trail of Tears.

Conclusions: Alternative A may have a minor, long-term, and indirect adverse cumulative impacts on ethnographic resources and negligible effects on American Indian concerns related to interpretation of the Trail of Tears stories. Resource impacts would be local, on or near the trail.

Alternative B (Designation)

Effects to ethnographic resources would be as described for historic resources under Alternative B, above.

Numerous laws, executive orders, and National Park Service guidelines and management policies require the National Park Service to consult regularly with American Indian tribes, particularly with regard to cultural resources. These mandates include but are not limited to the National Environmental Policy Act of 1969, as amended (P.L. 91-190; 42 U.S.C. 4371 et seq.); the National Historic Preservation Act of 1966, as amended (P.L. 91-190); the Archeological Resources Protection Act of 1979 (P.L. 95-96); Executive Order 12898, issued by President Clinton on February 11, 1994; NPS-28 Cultural Resources Management Guidelines; and NPS Management Policies. Accordingly, over the past 20 years the National Park Service has consulted with seven federally recognized Indian tribes associated with the Trail of Tears National Historic Trail, soliciting their concerns, suggestions, and information about the trail and

projects relating to it. Under this alternative, consultations would continue along the authorized trail, and would be extended to include the study routes.

Tribal consultation ensures accuracy and sensitivity in developing interpretive and educational materials. It provides opportunities to gain and pass on specific cultural knowledge and perspectives that otherwise would be unavailable to the public. It ensures a voice and active role for affected tribes in telling their story and establishing their modern identities. It promotes coordination of the story, such that individual sites are not providing contradictory information. It benefits both the tribes whose stories are being told and the public that desires an accurate and complete history of the events surrounding the Indian removal.

Cumulative Impacts: Designation of National Historic Trail does not restrict use and development or prohibit destruction of ethnographic resources on private property. Therefore, trail-related ethnographic resources on some private lands would continue to be lost gradually to development, incompatible land use practices, and neglect. However, if the study routes are designated, other property owners along those routes would recognize the existence and significance of Trail of Tears sites on their lands, and would take steps to protect them, accommodate tribal use and opinion, allow for public visitation, and engage as partners with the National Park Service and the affected tribes. Partnerships with the NPS concerning undertakings with the potential to affect ethnographic resources would ensure tribal consultation.

Federal land-management agencies are guided by law and departmental policy when initiating, funding, or licensing activities that have the potential to impact ethnographic resources. Agency compliance with these laws and policies is required regardless of whether the affected resource is part of a designated National Historic Trail. Designation of the additional routes therefore should have no impact on these federal properties.

Cumulative impacts would be minor, long-term, indirect, and beneficial to ethnographic resources, affected Indian tribes, and the rest of the American public.

Conclusions: Alternative B would have minor, long-term, and indirect widespread beneficial impacts with regard to American Indian concerns. Resource impacts would be minor, long-term, indirect, and local.

Recreation Resources and Visitor Use

Methodology

Federal, state, and locally managed recreation resources abound throughout the Trail of Tears states. These resources include national and state forests, where people camp, climb, hike, bike, hunt, ride horses, fish, boat and canoe, drive ATV and four-wheel-drive trail, go geo-caching, and much more; large freshwater rivers and reservoirs where people enjoy camping, swimming, fishing, canoeing, kayaking, tubing, skiing, and various motorized water sports; national parks and national wildlife preserves, which attract wildlife-watchers, botanists, photographers, hikers, kayakers, and others who enjoy nature and heritage-oriented activities; and scenic byways, parkways, and historic routes, for sight-seeing. They also include state-operated recreation areas and historic sites, local picnic sites, historic tours, and walking trails, many kinds of visitor centers and museums (including tribal facilities). Trail of Tears authorized and study routes pass through or near many of these resource areas. Marking and interpretation of the Trail of Tears in these areas could change the visitor use and experience of the trail and of other recreation resources. Potential impacts include interference or conflict with existing recreational uses, and

enhancement of existing recreational uses and visitor use by adding more recreational and educational opportunities. Refer to Table 17 for impact thresholds.

Alternative A (No Action)

Federal lead agencies occasionally enter interagency partnerships with recreation resource managers (such as the USDA Forest Service, the Bureau of Land Management, and state and local agencies) along National Historic Trails, working jointly on such projects as surveying and documenting trail; marking or signing trails and roads for recreational use; developing interpretive trails, wayside and museum exhibits, and visitor-oriented trail guides and other media; and rehabilitating or stabilizing trail-related buildings and structures. Under the No Action alternative, the National Park Service, as federal lead agency for the Trail of Tears National Historic Trail, would not be involved in consultation or partnership projects with recreation resource managers along the study routes. The National Park Service likewise would not assist with research, publicity for trail-related events, or development or distribution of interpretive information, maps, web sites, or guidance relating to trail-related resources on recreational lands beyond designated National Historic Trail.

However, other land managers are not dependent on the National Park Service to provide or enhance historic trail-oriented recreational opportunities for the public, but more typically undertake these activities on their own or in partnership with non-profit trail organizations. They would continue to do so along undesignated historic trail. Visitation to recreation resource areas that include study routes likely would remain stable, under existing conditions. Existing National Park Service units along the study routes would continue to interpret or mark trail resources at a minimal level. Impacts to historic trail-related and non-trail recreation resources, recreation opportunities, and visitor use and experience, under the No Action alternative would be negligible.

Visitor use and enjoyment of Trail of Tears properties on private lands along the study routes would continue to be limited or mostly unavailable. Visitor use and enjoyment of trail properties on along existing authorized routes would continue to be available at privately owned museums and heritage sites.

Cumulative Impacts: Federal and state agencies along designated and undesignated routes would continue to mark and interpret Trail of Tears-related properties as they have in the past. Private entities along designated and undesignated routes would continue to make trail-related facilities and sites available for public visitation as they have in the past. Use of existing recreational properties and facilities would continue to be minimally influenced by Trail of Tears visitation. Therefore, impacts to existing recreation resources and visitor use and experience is determined to be negligible.

Conclusion: Alternative A would have a negligible impact on existing recreational resources and visitor use and experience.

Alternative B (Designation)

The National Park Service, as federal lead agency for the Trail of Tears National Historic Trail, would consult and cooperate, as invited, with recreation resource managers along all Trail of Tears National Historic Trail routes. (See Alternative A above for descriptions of interagency partnership activities.) Interagency partnerships allow agencies to combine their resources to achieve mutual trail-related goals. NPS historic trails administrators also often assist other

recreation resource agencies with research, publicity for trail-related events, and development and distribution of interpretive information, maps, or guidance relating to trail-related resources on recreational lands along designated National Historic Trail; and the NPS produces highly popular, free fold-out brochures showing designated National Historic Trail routes. Many travelers use those brochures along with NPS trail web sites to plan trips and retrace designated routes. Other land management agencies, trail organizations, and commercial interests likewise produce attractive and popular historic trails maps and guides for researchers and travelers. Thus, trail designation, along with associated trail activities and products, increases public awareness of and participation in historic trail-related recreational opportunities.

Heritage tourism is a moderately popular leisure activity in the United States. In a survey of 4,713 visitors to the Blue Ridge National Heritage Area in North Carolina (Evans et al. 2006), historic site visitation ranked fourth of eight primary visitor activities available in the area. More frequently reported primary visitor activities were scenic drives, outdoor recreation, and “other” activities. Tourism surveys conducted in Missouri between 1995 and 2003 (Kaylen 2004) likewise indicate heritage tourism is a middle-range interest, ranking well below shopping but nearly equal to outdoor recreation and amusement activities. A Travel Industry of America (2005) report for Tennessee also ranks “historical places/museums” fourth, beneath shopping, social/family events, and rural sightseeing. A separate, undated report by the Tennessee Preservation Trust (n.d.:12) states that “historic sites are now the second largest tourist attraction in Tennessee.”

Extrapolating the results of these studies, roughly 15 to 17% of leisure travelers can be expected to make recreational visits to a broad range of historic sites across all of the Trail of Tears states. A much smaller percentage, of course, would be interested in visiting specifically Trail of Tears heritage resources, and these travelers would be likely to visit forests, parks, reservoirs, and other recreation resources in order to experience trail sites in those areas. The majority of visitors to recreation destinations such as forests, parks, refuges, and reservoirs are there primarily to enjoy active outdoor pursuits, but some would visit nearby, easily accessible Trail of Tears sites incidental to those activities. Heritage tourists would be much more likely to visit publicized, interpreted sites on designated and mapped Trail of Tears National Historic Trail routes than they would be to research, locate, and visit unpublicized trail sites on undesignated routes.

Designation of the study components and consequent NPS and land manager activities, therefore, could be expected to result in a modest increase in visitation to outdoor recreation destinations crossed or bordered by those routes. Actual numbers of expected visitors are very difficult to estimate, as visitation would depend largely on the efforts of state and local tourism promoters in publicizing the trail. Impacts to existing recreation resources due to increased visitation would be negligible and unlikely to conflict with visitation to Trail of Tears resources. Any impacts of designation would be beneficial, enhancing the visitor experience, and would be indirect and long-term.

Cumulative Impacts: Designation of the study routes would encourage federal and state agencies to better mark and more actively interpret Trail of Tears-related properties within their jurisdictions. Most visitation to popular federal and state recreation properties along the Trail of Tears National Historic Trail is for the purpose of outdoor recreation. Any additional visitation resulting from Trail of Tears-related heritage tourism at such places would be comparatively minor and would be compatible with existing uses. Private entities along designated routes would continue to make trail-related facilities and sites available for public visitation as they have in the past, and new facilities and sites may be made available for visitation as a result of designation of

the study components. Cumulative impacts to existing recreation resources and visitor use and experience therefore would be minor, beneficial, indirect, long-term, and local.

Conclusion: Alternative B would have minor, beneficial, indirect, long-term, and local impacts on existing recreational resources and visitor use and experience.

Socioeconomic Conditions

Socioeconomic factors include effects of trail designation or non-designation on the regional economy and nearby communities.

Methodology

Issues of concern with regard to socioeconomic conditions include opportunities to create jobs related to tourism and hospitality (lodging, fuel, and food service). Refer to Table 17 for impact thresholds.

Alternative A (No Action)

The National Park Service would not establish and sign new auto tour routes, mark trail, or assist partners in developing visitor and interpretive facilities along the study routes. The NPS would not add the study routes to its publicly distributed trail maps, web sites, and interpretive media, nor publicize Trail of Tears events along those routes. Public visitation to historic resources and sites along the undesignated routes and knowledge of the historical events that occurred there probably would remain very low. Consequently, little or no new economic stimulus related to Trail of Tears heritage tourism would result under the No Action alternative. On designated routes, the NPS would continue to conduct all of those activities at about current levels.

Cumulative Impacts: No economic stimulation or dampening likely would result if Alternative A were selected. Any cumulative impacts would be economically negligible, at best.

Conclusions: The No Action alternative would have negligible, if any, long- or short-term impact on socioeconomic conditions on or near the study routes.

Alternative B (Designation)

Under the designation alternative, the National Park Service would increase visitor opportunities by establishing and signing new auto tour routes, marking trail, and helping partners develop visitor and interpretive facilities along the study routes. The NPS would add the study routes to its publicly distributed trail maps, interpretive media, and trail web site, and would help publicize Trail of Tears events and facilities along those routes. Public interest in and visitation to historic resources along all routes and knowledge of the historical events that occurred there would be expected to increase as a result of these activities. Visitation, of course, has economic implications.

The 2006 Blue Ridge National Heritage Area visitor survey study (Evans et al. 2007:6) reports that day-trip travelers spent an average of \$61.09 per day, overnight visitors spent an average of \$107.59 per day, and passers-through spent an average \$58.64 per day in 2006. Average travel party size was 2.85 people, and average length of stay was 3.75 nights. The survey found that, altogether, travel parties spent about \$701.49 each during their visits to the area. Across the Trail of Tears states, expenditures and party size would vary depending on the local economy and the

kinds of attractions and accommodations available (which determine length of stay); nonetheless, the Blue Ridge figures provide a baseline for estimating annual travel expenditures along the Trail of Tears National Historic Trail.

No overall figures are compiled for annual visitation along the whole length of the existing Trail of Tears National Historic Trail, but some key trail parks and facilities report annual visitation as follows:

- *New Echota State Historic Site* at Calhoun, Georgia: Receives approximately 15,000 visitors per year.
- *Chief Vann House State Historic Site* at Chatsworth, Georgia: Receives 10,000 to 12,000 visitors per year.
- *Sequoyah Birthplace Museum* at Vonore, Tennessee: Received approximately 18,700 visitors in 2006.
- *Trail of Tears State Park* at Jackson, Missouri: visitation ranges from 190,000 to 197,000 people per year. (This is a regional destination park whose main visitor attractions are camping and other outdoor recreational activities.)
- *Fort Smith National Historic Site*, Fort Smith, Arkansas: Visitation in 2006 totaled 77,014. (This site is primarily known for its associations with the Civil War and frontier justice.)
- *George Murrell House* at Tahlequah, Oklahoma: Visitors to the historic house numbered 6,000 in 2005; visitors to the park numbered 7,000.
- *Cherokee Heritage Center* at Tahlequah, Oklahoma: Received 17,575 visitors over 11 months (closed December) in 2006.

Relatively small Trail of Tears facilities such as museums receive from 7,000 to more than 17,000 visitors per year, while large sites with additional interpretive themes and outdoor recreational opportunities receive tens of thousands of visitors annually. Disregarding the large facilities that draw large visitors for largely non-trail-related recreational purposes, then, these figures indicate that site visitation along the length of the Trail of Tears National Historic Trail is in the neighborhood of about 13,000 people per year. Dividing that number by 2.85, the average travel-group size reported for the Blue Ridge Heritage area, it comes to 4,561 parties visiting trail sites each year. Multiply that number by \$701.49, the average amount spent by each party per trip in the Blue Ridge Heritage Area, and the product is \$3,199,779 in trail-related expenditures along the length of the trail each year. This figure admittedly is rough, but it provides a general idea of the amount of revenue generated annually by visitation to sites along the Trail of Tears National Historic Trail.

U.S. Census data presented earlier in this document show that travel-related industries ranked among the top three or four employment categories for most of the study route states. Census data further show that the majority of counties that would be affected by designation of the study routes have median household incomes well below the state median and significantly below the national median. While designation of additional Trail of Tears National Historic Trail segments would not be expected to result in dramatic increases in heritage tourism along those routes, even a modest increase in the number of bus tours, hotel stays, and gift shop and restaurant purchases could make a meaningful difference to residents of those economically disadvantaged counties. This would be especially true for those working in hospitality services (restaurants and motels), providing tours, and operating automotive centers such as gas stations – all common sources of jobs in small communities. Visitor purchases and overnight stays also generate needed tax revenues for state and local governments.

Cumulative Impacts: Designation of the study routes likely would result in some economic stimulation due to tourism and related new job opportunities in communities along the trail and within the entire region. These benefits would accrue slowly, would be unevenly distributed along the length of the study routes, and would be highly dependent on the ongoing efforts of community boosters and businesses to publicize the trail to attract visitors. Nonetheless, the resulting economic stimulation would become meaningful in most of the study-route counties, where job opportunities are limited and median household incomes are lower than statewide averages. Therefore, the cumulative impacts of Alternative B likely would be moderate, beneficial, long-term, and indirect at a local level, and probably would be minor, beneficial, long-term, and indirect at the regional level.

Conclusions: Implementing Alternative B likely would create moderate, beneficial, long-term, and indirect socioeconomic impacts in local areas on or adjacent to the trail, and minor, beneficial, long-term, and indirect socioeconomic impacts at a regional level.

UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

Alternative A (No Action)

Undesignated study routes and associated cultural and natural resources would remain susceptible to natural deterioration, inadvertent human damage, and intentional human damage through development, incompatible land use, and vandalism. It is likely that some important resources would be lost. Increasing piecemeal development in proximity to the route could contribute to the loss of trail resources.

Alternative B (Designation)

With proper planning, consultation, and management, no long-term adverse impacts on trail resources would be anticipated from Alternative B. The physical activities with potential for adverse effect would consist of installing route markers and interpretive exhibits in areas of public use, and limited facility development (for example, establishing a parking pullout) related to trail activities. These activities would have a long-term visual impact. With appropriate siting, these effects could be minimized but not eliminated. Any construction activity that might follow from study route designation could cause short-term disturbance of wildlife near construction sites, but construction should be located so that there would be no permanent disturbance. Visitor use could result in temporary displacement of species when people are present. The extent of impacts on vegetation and wildlife would have to be determined on a site-specific basis and cannot be predicted at this time. However, no such impact is foreseen.

SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The National Park Service is required to describe actions in terms of the NEPA objective to maintain and enhance the long-term productivity of the environment.

Alternative A (No Action)

Negligent or intentional incompatible activities along the study routes could damage or destroy trail segments and associated resources, and could negatively affect the long-term ability to protect and interpret trail resources.

Alternative B (Designation)

In the long term, protection of trail routes and associated cultural and natural resources would be enhanced. Any short-term use would contribute to this long-term effect. Recognition and interpretation of the National Historic Trail would have a negligible effect on the long-term productivity of adjacent land. Short-term actions and uses that enhance the national recognition and understanding of trail resources would create greater opportunities for protecting trail-related resources.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible commitment of resources is one that cannot be changed once it occurs. An irretrievable commitment of resources means that the resources cannot be recovered or reused.

Alternative A (No Action)

There would be no new commitment of resources under the No Action alternative.

Alternative B (Designation)

The use of nonrenewable energy resources, such as fuel to power construction equipment to build new facilities, would be an irreversible commitment of resources under this alternative. Limited amounts of nonrenewable resources may be used for construction projects such as providing trail access, parking and pullout sites, and visitor facilities; development and placement of wayside exhibits, directional signs, and other interpretive materials. These nonrenewable resources would include fossil fuel energy and materials. Disturbance and/or destruction of nonrenewable resources such as archeological resources is also possible in all action alternatives. Even with mitigating measures, it is possible that some archeological information could be found in the trail area. Some erosion could occur along the trail path because of trail development and use, which could result in irreversible loss of portions of these resources.

The funding, renewable resources, and staff time used to construct, operate, and maintain any trail and small-scale visitor facilities would be lost for other activities. This would constitute an irretrievable commitment of resources.

Creation and expansion of interpretive programming for study routes added to the Trail of Tears National Historic Trail would also constitute an irreversible and irretrievable commitment of resources because of the use of funding, staff, and renewable and limited nonrenewable energy sources and materials involved. Once interpretive programs and partnerships are in place, it would be difficult to withdraw resources and support from them.

Cultural resources and landscape elements historically associated with the study routes exist on lands adjacent to National Park Service and NPS-partner properties. If memoranda of understanding, easements, or transfer of development rights are not implemented, adjacent lands owned by private property owners could be developed and would constitute an irretrievable loss of the acreage and cultural resources. The Secretary of the Interior would cooperate with adjacent landowners and the local jurisdictions to protect the trail setting and cultural resources from possible incompatible development and encroachment. This would constitute an irretrievable commitment of resources because of the level of long-term support and commitment of staff and resources that would be required to address adjacent lands issues.

IMPAIRMENT

The study team finds that there would be no impairment of national park or trail resources caused by designation of the study routes to the Trail of Tears National Historic Trail.

CONSULTATION

AGENCIES, TRIBES, ORGANIZATIONS, AND INDIVIDUALS CONTACTED AND CONSULTED

The following federal and state agencies, tribes, and organizations were contacted by mail and follow-up telephone calls and emails to advise them of the availability of the draft feasibility study/environmental assessment on-line. Hard copies and/or PDF files of the document and maps were mailed to all who requested them. Agencies that requested and were granted consulting party or cooperating agency status are so indicated below; agencies that responded with comments also are indicated as consulting parties. All of the tribes and Trail of Tears Association Chapters named below are consulting parties of long standing. Prior to and during the feasibility study process, the individuals named below made available to the National Park Service their personal research and knowledge of the trail to help identify routes and sites.

FEDERAL AGENCIES

U.S. Army Corps of Engineers

Allatoona Lake, Cartersville, GA (consulting party)
Tulsa District, Tulsa, OK
Lake Sidney Lanier, Buford, GA

U.S. Department of Agriculture Forest Service

Cherokee National Forest, Cleveland, TN
Ozark-St. Francis National Forests, Russellville, AR
National Forests in North Carolina, Asheville, NC

U.S. Department of Agriculture Natural Resources Conservation Service

Mid-Atlantic Soil Survey, Region 14, Auburn, AL (consulting party)

National Park Service

Regional Offices

Intermountain Region, Denver, CO
Southeast Region, Atlanta, GA
Midwest Region, Omaha, NE

National Park Service Units

Chattahoochee River National Recreation Area, Atlanta, GA
Chickamauga & Chattanooga National Military Park, Fort Oglethorpe, GA
Little River Canyon National Preserve, Fort Payne, AL
Stones River National Battlefield, Murfreesboro, TN

U.S. Fish & Wildlife Service

Chickasaw National Wildlife Refuge, Ripley, TN
Sequoyah National Wildlife Refuge & Ozark Plateau National Wildlife Refuge, Vian, OK
Wheeler National Wildlife Refuge, Decatur, AL

Alabama Ecological Services Field Office, Daphne, AL (consulting party)
Arkansas Ecological Services Field Office, Conway, AR (consulting party)
West Georgia Sub Office, Athens, GA (consulting party)
Kentucky Ecological Services Field Office, Frankfort, KY (consulting party)
Columbia Ecological Services Field Office, Columbia, MO (consulting party)
Asheville Field Office, Asheville, NC (consulting party)
Division of Ecological Services, Tulsa, OK (consulting party)
Ecological Services Field Office, Cookeville, TN (consulting party)

U.S. Federal Highway Administration

Alabama Division, Montgomery
Arkansas Division, Little Rock
Georgia Division, Atlanta, GA (consulting party)
Kentucky Division, Frankfort
Missouri Division, Jefferson City
North Carolina Division, Raleigh
Oklahoma Division, Oklahoma City
Tennessee Division, Nashville

Tennessee Valley Authority

Office of Environment & Research, Knoxville, TN (cooperating agency)

STATE AGENCIES

Departments of Transportation

Alabama Department of Transportation, Montgomery (consulting party)
Arkansas State Highway & Transportation Department/Arkansas State Highway
Commission, Little Rock (consulting party)
Georgia Department of Transportation, Atlanta (consulting party)
Kentucky Secretary of Transportation, Frankfort
Missouri Department of Transportation, Jefferson City
North Carolina Secretary of Transportation, Raleigh
Oklahoma Department of Transportation, Oklahoma City (consulting party)
Tennessee Department of Transportation, Nashville (consulting party)

State Historic Preservation Offices

Oklahoma Deputy State Historic Preservation Office, Oklahoma City (consulting party)
Arkansas State Historic Preservation Officer/Department of Arkansas Heritage, Little Rock
(consulting party)
Alabama Deputy State Historic Preservation Officer/Alabama Historical Commission,
Montgomery (consulting party)
Georgia Historic Preservation Division, State Department of Natural Resources, Atlanta
(consulting party)
Kentucky State Historic Preservation Officer, Frankfort
Missouri State Historic Preservation Officer (State Department of Natural Resources),
Jefferson City (consulting party)

North Carolina State Historic Preservation Officer, Raleigh
Tennessee Deputy State Historic Preservation Officer, Nashville

State Parks and Recreational Facilities

Lake Dardanelle State Park, Russellville, AR
Tims Ford State Park, Winchester, TN
Red Clay State Park, TN
Arkansas Department of Parks & Tourism, AR
Alabama Department of Conservation & Natural Resources, AL
Division of State Parks & Historic Sites, GA
Missouri Department of Natural Resources, Division of State Parks, MO
Department of Environment & Conservation, Division of State Parks, TN
Kentucky Department of State Parks, KY
North Carolina Division of Parks and Recreation, NC

AMERICAN INDIAN TRIBES

Cherokee Nation, Tahlequah, OK
Chickasaw Nation, Ada, OK
Choctaw Nation of Oklahoma, Durant, OK
Eastern Band Cherokee Indians, Cherokee, NC
Poarch Band of Creek Indians of Alabama, Atmore, AL
Seminole Nation of Oklahoma, Wewoka, OK
Muscogee (Creek) Nation of Oklahoma, Okmulgee, OK

ORGANIZATIONS

Trail of Tears Association
North Carolina Chapter Trail of Tears Association
Georgia Chapter Trail of Tears Association
Tennessee Chapter Trail of Tears Association
Alabama Chapter Trail of Tears Association
Kentucky Chapter Trail of Tears Association
Missouri Chapter Trail of Tears Association
Arkansas Chapter Trail of Tears Association
Oklahoma Chapter Trail of Tears Association

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Crass, David (Georgia State Archaeologist, Atlanta)
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Davis, Jerry (Arkansas Chapter Trail of Tears Association)
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 Hope, Holly (Special Projects Historian, Arkansas Historic Preservation Program, Little Rock)
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 Kent, Carolyn (Arkansas Chapter Trail of Tears Association)
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 King, Gail (President, Alabama Chapter Trail of Tears Association, Sterrett)
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APPENDIXES

APPENDIX A: NATIONAL TRAILS SYSTEM ACT

[A full copy of the act can be found at <http://www.nps.gov/nts/legislation.html>.]

(P.L. 90-543, as amended through P.L. 109-418, December 21, 2006)
(as found in *United States Code*, Vol. 16, Sections 1241-1251)

AN ACT

To establish a national trails system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. [16U.S.C.1241] This Act may be cited as the "National Trails System Act".

STATEMENT OF POLICY

SEC. 2. [16U.S.C.1241] (a) In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails should be established (i) primarily, near the urban areas of the Nation, and (ii) secondarily, within scenic areas and along historic travel routes of the Nation which are often more remotely located.

(b) The purpose of this Act is to provide the means for attaining these objectives by instituting a national system of recreation, scenic and historic trails, by designating the Appalachian Trail and the Pacific Crest Trail as the initial components of that system, and by prescribing the methods by which, and standards according to which, additional components may be added to the system.

(c) The Congress recognizes the valuable contributions that volunteers and private, nonprofit trail groups have made to the development and maintenance of the Nation's trails. In recognition of these contributions, it is further the purpose of this Act to encourage and assist volunteer citizen involvement in the planning, development, maintenance, and management, where appropriate, of trails.

NATIONAL TRAILS SYSTEM

SEC. 3. [16U.S.C.1242] (a) The national system of trails shall be composed of the following:

(3) National Historic Trails, established as provided in section 5 of this Act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic

route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the National Historic Trail criteria established in this Act are included as Federal protection components of a National Historic Trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the National Historic Trail criteria established in this Act and such criteria supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.

(4) Connecting or side trails, established as provided in section 6 of this Act, which will provide additional points of public access to national recreation, national scenic or National Historic Trails or which will provide connections between such trails.

The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker for the national trails system.

(b) For purposes of this section, the term "extended trails" means trails or trail segments which total at least one hundred miles in length, except that historic trails of less than one hundred miles may be designated as extended trails. While it is desirable that extended trails be continuous, studies of such trails may conclude that it is feasible to propose one or more trail segments which, in the aggregate, constitute at least one hundred miles in length.

NATIONAL SCENIC AND NATIONAL HISTORIC TRAILS

SEC. 5. [16U.S.C.1244] (a) National scenic and National Historic Trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails:

(16)(A) The Trail of Tears National Historic Trail, a trail consisting of water routes and overland routes traveled by the Cherokee Nation during its removal from ancestral lands in the East to Oklahoma during 1838 and 1839, generally located within the corridor described through portions of Georgia, North Carolina, Alabama, Tennessee, Kentucky, Illinois, Missouri, Arkansas, and Oklahoma in the final report of the Secretary of the Interior prepared pursuant to subsection (b) of this section entitled "Trail of Tears" and dated June 1986. Maps depicting the corridor shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior. The trail shall be administered by the Secretary of the Interior. No lands or interests therein outside the exterior boundaries of any federally administered area may be acquired by the Federal Government for the Trail of Tears except with the consent of the owner thereof.

(B) In carrying out his responsibilities pursuant to sections 5(f) and 7(c) of this Act, the Secretary of the Interior shall give careful consideration to the establishment of appropriate interpretive sites for the Trail of Tears in the vicinity of Hopkinsville, Kentucky, Fort Smith, Arkansas, Trail of Tears State Park, Missouri, and Tahlequah, Oklahoma.

(C) Not later than 6 months after the date of the enactment of this Act [Dec. 1, 2006], the Secretary of the Interior shall complete the remaining criteria and submit to Congress a study regarding the feasibility and suitability of designating, as additional components of the Trail of Tears National Historic Trail, the following routes and land components by which the Cherokee Nation was removed to Oklahoma:

- (i) The Benge and Bell Routes.
- (ii) The land components of the designated water routes in Alabama, Arkansas, Oklahoma, and Tennessee.
- (iii) The routes from the collection forts in Alabama, Georgia, North Carolina, and Tennessee to the emigration depots.
- (iv) The related campgrounds located along the routes and land components described in clauses (i) through (iii).

(D) No additional funds are authorized to be appropriated to carry out subparagraph (C). The Secretary may accept donations for the Trail from private, nonprofit, or tribal organizations.

(b) The Secretary of the Interior, through the agency most likely to administer such trail, and the Secretary of Agriculture where lands administered by him are involved, shall make such additional studies as are herein or may hereafter be authorized by the Congress for the purpose of determining the feasibility and desirability of designating other trails as national scenic or National Historic Trails. Such studies shall be made in consultation with the heads of other Federal agencies administering lands through which such additional proposed trails would pass and in cooperation with interested interstate, State, and local governmental agencies, public and private organizations, and landowners and land users concerned. The feasibility of designating a trail shall be determined on the basis of an evaluation of whether or not it is physically possible to develop a trail along a route being studied, and whether the development of a trail would be financially feasible. The studies listed in subsection (c) of this section shall be completed and submitted to the Congress, with recommendations as to the suitability of trail designation, not later than three complete fiscal years from the date of enactment of their addition to this subsection, or from the date of enactment of this sentence, whichever is later. Such studies, when submitted, shall be printed as a House or Senate document, and shall include, but not be limited to:

- (1) the proposed route of such trail (including maps and illustrations);
- (2) the areas adjacent to such trails, to be utilized for scenic, historic, natural, cultural, or developmental purposes;
- (3) the characteristics which, in the judgment of the appropriate Secretary, make the proposed trail worthy of designation as a national scenic or National Historic Trail; and in the case of National Historic Trails the report shall include the recommendation of the Secretary of the Interior's National Park System Advisory Board as to the national historic significance based on the criteria developed under the Historic Sites Act of 1935 (49 Stat. 666; 16 U.S.C. 461);
- (4) the current status of land ownership and current and potential use along the designated route;
- (5) the estimated cost of acquisition of lands or interest in lands, if any;
- (6) the plans for developing and maintaining the trail and the cost thereof;
- (7) the proposed Federal administering agency (which, in the case of a national scenic trail wholly or substantially within a national forest, shall be the Department of Agriculture);

(8) the extent to which a State or its political subdivisions and public and private organizations might reasonably be expected to participate in acquiring the necessary lands and in the administration thereof;

(9) the relative uses of the lands involved, including: the number of anticipated visitor-days for the entire length of, as well as for segments of, such trail; the number of months which such trail, or segments thereof, will be open for recreation purposes; the economic and social benefits which might accrue from alternate land uses; and the estimated man-years of civilian employment and expenditures expected for the purposes of maintenance, supervision, and regulation of such trail;

(10) the anticipated impact of public outdoor recreation use on the preservation of a proposed National Historic Trail and its related historic and archeological features and settings, including the measures proposed to ensure evaluation and preservation of the values that contribute to their national historic significance; and

(11) To qualify for designation as a National Historic Trail, a trail must meet all three of the following criteria:

(A) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential. A designated trail should generally accurately follow the historic route, but may deviate somewhat on occasion of necessity to avoid difficult routing through subsequent development, or to provide some route variations offering a more pleasurable recreational experience. Such deviations shall be so noted on site. Trail segments no longer possible to travel by trail due to subsequent development as motorized transportation routes may be designated and marked onsite as segments which link to the historic trail.

(B) It must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, exploration, migration and settlement, or military campaigns. To qualify as nationally significant, historic use of the trail must have had a far reaching effect on broad patterns of American culture. Trails significant in the history of native Americans may be included.

(C) It must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation. The potential for such use is generally greater along roadless segments developed as historic trails and at historic sites associated with the trail. The presence of recreation potential not related to historic appreciation is not sufficient justification for designation under this category.

(c) The following routes shall be studied in accordance with the objectives outlined in subsection (b) of this section.

(25) Trail of Tears, including the associated forts and specifically, Fort Mitchell, Alabama, and historic properties, extending from the vicinity of Murphy, North Carolina, through Georgia, Alabama, Tennessee, Kentucky, Illinois, Missouri, and Arkansas, to the vicinity of Tahlequah, Oklahoma.

(f) Within two complete fiscal years of the date of enactment of legislation designating a National Historic Trail..., the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, and the relevant Advisory Council

established pursuant to section 5(d) of this Act, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the management, and use of the trail, including but not limited to, the following items:

- (1) specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved, details of any anticipated cooperative agreements to be consummated with State and local government agencies or private interests, and for national scenic or National Historic Trails an identified carrying capacity of the trail and a plan for its implementation;
- (2) the process to be followed by the appropriate Secretary to implement the marking requirements established in section 7(c) of this Act;
- (3) a protection plan for any high potential historic sites or high potential route segments; and
- (4) general and site-specific development plans, including anticipated costs.

APPENDIX B: MAPS

Context Map: All states, all routes

Section Map 1: North Carolina, Georgia, Eastern Tennessee, Eastern Alabama

Section Map 2: Central and most of Western Tennessee, Central and Western Alabama

Section Map 3: Kentucky, Illinois, Eastern Missouri

Section Map 4: Missouri

Section Map 5: Western Tennessee, Eastern Arkansas

Section Map 6: Southern Arkansas

Section Map 7: Western Arkansas, Oklahoma