

**Draft Chisholm and Great Western National Historic Trail  
Feasibility Study / Environmental Assessment**





**Chisholm and Great Western National Historic Trails  
Feasibility Study and Draft Environmental Assessment  
Kansas, Nebraska, Oklahoma, and Texas**

The purpose of the *Chisholm and Great Western National Historic Trails Feasibility Study and Environmental Assessment* is to evaluate the suitability, feasibility, and desirability of designating the Chisholm Trail and “Great” Western Trail cattle trails as national historic trails. In addition the national significance of these routes is also addressed. These determinations will be made in accordance with the National Trails System Act, Public Law 90-543 (dated October 2, 1968), as amended, and Section 5303 of Public Law 111-11, the Omnibus Public Land Management Act of 2009, dated March 30, 2009. Preparation of the study was delegated by the Secretary of the Interior to the National Park Service.

As noted in Section 5303 of the Omnibus Public Land Management Act of 2009 (see appendix A), Congress has asked the Secretary of the Interior to evaluate the Chisholm Trail from the vicinity of Cuero and San Antonio, Texas, northward through Oklahoma to Abilene, Kansas, and the Western Trail from the vicinity of San Antonio, Texas, northward through Oklahoma and Dodge City, Kansas and continuing north to Ogallala, Nebraska. This study evaluates the Chisholm and “Great” Western cattle trails and recommends that the trails be designated as the Chisholm National Historic Trail and Western National Historic Trail, administered as a combined unit of the National Trails System under the action alternative.

According to Section 5(b) of the National Trails System Act, as amended, any feasibility study compiled according to the dictates of this act “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.” In addition, the three criteria for national historic trails, as defined in the National Trails System Act, have been applied in evaluating the Chisholm and Western Trails.

If national historic trails are designated, a comprehensive management plan will need to be completed with detailed administrative recommendations. Further environmental compliance documents would be completed through subsequent planning.

Submit comments via the Internet at <http://parkplanning.nps.gov/ntir>, or to Chief of Planning Gretchen Ward, National Trails Intermountain Region, National Park Service, P.O. Box 728, Santa Fe, NM 87504, [gretchen\\_ward@nps.gov](mailto:gretchen_ward@nps.gov). The public comment period for this document will last for 60 days after December 22, 2014. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your comment—including your personal identifying information—may be made publicly available as part of the final *Chisholm and Western National Historic Trails Feasibility Study and Environmental Assessment*. Although you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. Comments will be a matter of public record.



## SUMMARY

### PURPOSE AND NEED FOR ACTION

The *Chisholm and Great Western National Historic Trails Feasibility Study and Draft Environmental Assessment* responds to congressional direction to study the Chisholm and Great Western cattle trails for possible addition to the National Trails System. The study evaluates the trails' routes, historic use, national significance, and potential for public recreational use and historic interest to determine whether they are eligible for designation as national historic trails (NHT). It further evaluates the costs and environmental consequences of NHT designation.

The Chisholm Trail and the "Great" Western Trail were the two primary trails used by Texas ranchers and contractors to move cattle from Texas to various midwestern and Great Plains states during the 1850s through the 1880s. (The name "Great Western" does not have strong historical associations. National Park Service (NPS) and independent research has led to an understanding that the "Great Western" trail should be more appropriately referred to as the "Western Trail" and it is so referenced hereafter.) These two trails crossed Texas, Oklahoma, Kansas, and Nebraska, with distribution routes extending into more northern states and even into Canada.

The development and intensive use of the Chisholm and Western Trails to move cattle to market in the 19th century played an important role in the economic recovery of Texas and other western states following the Civil War. The growth of the Texas cattle industry coincided with the depopulation of the bison on the nation's central grasslands and the rapidly-moving tide of westbound agricultural settlement. The period of significance and the period when both cattle trails were most heavily used is 1867 to 1884.

This study is not a definitive management plan. If national historic trails are designated, a comprehensive management plan and further environmental compliance documents would be completed through subsequent planning.

### PUBLIC SCOPING

In June 2010, the National Park Service conducted 12 public scoping meetings in the affected states to solicit information, answer questions, and hear concerns about potential trail designation. Concerns expressed included the possibility that NHT designation would invite trespass on private property, depress property values, or restrict future uses of private property. Nevertheless, members of the public as well as local governments showed nearly universal support for trail designation.

### EVALUATION OF NATIONAL SIGNIFICANCE, FEASIBILITY, AND SUITABILITY

The criteria for significance, feasibility, suitability, and desirability for designating the Chisholm and Western Trails as the Chisholm National Historic Trail and Western National Historic Trail are met. The trails and trail routes were established by historic use and are nationally significant as a result of that use. The trails are nationally significant to American history in that they had far-reaching effects on the distribution of cattle and beef throughout the United States, on the American economy, and on popular culture. In addition, the trails were determined to have significant potential for interpreting the events that took place along the cattle trails.

The primary routes of the Chisholm and Western Trails across Texas, Oklahoma, Kansas, and Nebraska (including the Ellsworth Trail, also called Cox's Cutoff, and

a series of historically related routes in central Texas) meet the eligibility provisions of the National Trails System Act (NTSA): the historic routes are known, historic use is securely documented, significant potential for recreational use or historic interest exists along the routes, and they are of national significance.

This study finds that designating the historic cattle trail routes as a discontinuous national historic trail is physically feasible. Much of the national historic trail would be accessible along modern roads rather than as a continuous, end-to-end, developed pedestrian trail. The study further finds that designation is suitable and desirable, given the apparent level of public support for designation and the opportunities designation would provide for heritage tourism, protection of original trail sites, and public recreation and education. Adding to the desirability of this designation is the fact that these iconic cattle trails would be a unique addition to the National Trails System. No trail currently in the system commemorates this important and highly mythologized aspect of American history.

## **ALTERNATIVES**

A no action alternative was developed, as well as an action alternative for the administration and use of the proposed Chisholm National Historic Trail and Western National Historic Trail, originally proposed as the Chisholm Trail and Great Western Trails National Historic Trail.

Implementing the action alternative and planning and managing for that alternative would depend on future funding and agency priorities. The completion and transmittal of a feasibility study does not guarantee that funding and staffing needed to implement the action alternative would be forthcoming.

### **Alternative A—No Action (Continuation of Existing Policies and Authorities)**

Alternative A would continue present conditions. Under the no action alternative, the Chisholm and Western Trails would not be designated as national historic trails. Existing actions of agencies, organizations, and individuals relating to interpretation or protection of resources associated with the Chisholm and Western trails would continue as in the past.

Without national historic trail designation, there would not be a single, overarching federal agency directed to help coordinate, interpret, and protect resources and segments of the trail. There would be no coordinated federal recognition or administration outside of Texas, Oklahoma, Kansas, and Nebraska. National recognition of the events associated with these cattle trails would continue to occur in a piecemeal fashion.

### **Alternative B—Designate Two National Historic Trails as One Administrative Unit**

Under alternative B, Congress would designate two national historic trails as the Chisholm National Historic Trail and the Western National Historic Trail. The designated national historic trails would be administered together as a single unit because of their nature as cattle trails. Where the two trails are co-located near the southern termini of the routes they would be represented together on any signs indicating their locations. These routes include the primary cattle migration routes that are nationally significant.

Nationally significant portions of the Chisholm Trail from the vicinity of Cuero and San Antonio, Texas northward to Abilene, Kansas, and the Western Trail from the vicinity of San Antonio, Texas, northward through Oklahoma and Dodge City, Kansas and continuing north to Ogallala, Nebraska would be included as parts of the designated national historic trail. In addition, the designated trail will include the length of the Ellsworth Trail (Cox's



Cutoff) from Pond Creek, Oklahoma to Ellsworth, Kansas, as well as a series of nationally significant routes in central and southern Texas that, historically, were thematically related to both the Chisholm and Western Trails. These latter trails would bear both names up to the point where the routes separate and become either the Chisholm or Western Trail.

The National Park Service chose to not adopt an alternative that called for separate national historic trail administration for the Chisholm and Western Trails, for reasons elaborated upon in section 3. While named separately, the two trails should best be administered as a single entity.

The national historic trails would be administered by the Secretary of the Interior through formal and informal partnerships with private and federal landowners, state and local governments, and others on a strictly voluntary basis for resource protection, visitor experience, and interpretation/education.

If Congress designates these routes as national historic trails, a comprehensive management plan would then be undertaken, a process that would involve federally recognized American Indian tribes,

federal, state and local agencies, landowners, and site managers.

## THE NEXT STEPS

After a 60-day public review/comment period for the *Draft Chisholm and Western National Historic Trails Feasibility Study and Environmental Assessment*, the planning team will evaluate comments from federal agencies, tribes, organizations, businesses, and individuals regarding the draft study, and incorporate appropriate changes into a *Final Chisholm and Western National Historic Trails Feasibility Study and Environmental Assessment*. The final study will include letters from governmental agencies and tribes, any substantive comments on the draft document, and NPS responses to those comments, as well as the Finding of No Significant Impact as appropriate. The study will then be sent to Congress for its consideration. The final study will also recommend that should the trails be designated, the names should be the Chisholm National Historic Trail and Western National Historic Trail; however, for organizational and economic efficiency they would be administered together as cattle trails because of their similarity of historic use.

# CONTENTS

SUMMARY.....	iii
PURPOSE AND NEED FOR ACTION.....	iii
PUBLIC SCOPING.....	iii
EVALUATION OF NATIONAL SIGNIFICANCE, FEASIBILITY, AND SUITABILITY .....	iii
ALTERNATIVES .....	iv
Alternative A—No Action (Continuation of Existing Policies and Authorities).....	iv
Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	iv
THE NEXT STEPS .....	v
.....	3
Section 1: Purpose and Need for Action.....	3
Background .....	4
Description of National Trails System and National Historic Trails.....	4
Purpose of National Historic Trails .....	5
Scoping Issues .....	5
Support for Trail Designation.....	6
Relationship of the Proposed Action to Previous Planning Efforts .....	7
Regulations.....	7
Impact Topics.....	8
Issues and Impact Topics Analyzed in Detail.....	8
Issues and Impact Topics Considered but not Analyzed in Detail .....	8
.....	11
Section 2: Evaluation of Significance, Feasibility, and Suitability.....	13
Introduction.....	13
Historical Context.....	13
Documentation .....	13
Historical Overview .....	15
American Indian Tribes and the Cattle Trails.....	18
Description and Integrity of the Route.....	19
Requirements of the National Trails System Act and Meeting National Historic Trail Criteria	21
Criterion 1: The Proposed Route.....	22
Criterion 2: Adjacent Areas to be Utilized for Scenic, Historic, Natural, Cultural, or Developmental Purposes .....	22
Criterion 3: Characteristics that Make the Proposed Trail Worthy of Designation as a National Scenic or National Historic Trail .....	23
Criterion 4: Current Status of Land Ownership and Current and Potential Use along the Designated Route.....	23
Criterion 5: Estimated Cost of Acquisition of Lands or Interest in Lands.....	24

Criterion 6: Plans and Cost for Developing and Maintaining the Trail.....	24
Criterion 7: Proposed Federal Administering Agency.....	27
Criterion 8: Extent to which a State or its Political Subdivisions and Public and Private Organizations might Reasonably be Expected to Participate in Acquiring and Administering the Necessary Lands.....	27
Criterion 9: Relative Uses of the Lands Involved .....	27
Criterion 10: Anticipated Impact of Public Outdoor Recreation Use on the Preservation of a Proposed National Historic Trail and Measures Proposed to Preserve its Values .....	28
Criterion 11: To Qualify for Designation as a National Historic Trail, a Trail Must Meet all Three of the Following Criteria .....	28
Criteria for and Determination of National Significance Relevant to the National Park Service Thematic Framework and NHL Criteria .....	33
Findings Regarding National Significance .....	34
.....	37
Section 3: The Alternatives .....	39
Introduction .....	39
Alternative A—No Action (Continuation of Existing Policies and Authorities) .....	39
Alternative B—Designate Two National Historic Trails as One Administrative Unit.....	40
Alternatives Considered but Eliminated from Detailed Study.....	51
Additional Considerations .....	51
How the Action Alternative Meets the Purpose of the Study .....	51
Environmentally Preferable Alternative.....	51
Section 4: Affected Environment.....	55
Issues and Impact Topics Analyzed in Detail .....	55
Cultural Resources .....	55
Introduction.....	55
Historic Resources.....	55
Archeological Resources.....	56
Ethnographic Resources.....	60
Socioeconomics.....	77
Introduction.....	77
Rural or Urban Character .....	77
Population.....	78
Income and Poverty.....	82
Labor Force and Education.....	83
Ethnicity and Race .....	85
Land Ownership.....	85
Economy and Tourism.....	86
Visitor Use and Experience.....	87

Introduction.....	87
Regional Characteristics .....	88
The Chisholm Trail.....	90
The Western Trail.....	92
Special Events.....	94
Impact Topics Considered but Not Analyzed in Detail.....	94
Cultural Resources.....	95
Natural Resources.....	96
Other Resources, Values, and Issues .....	104
Section 5: Environmental Consequences .....	111
Introduction.....	111
General Methodology for Assessing Impacts.....	111
Cumulative Impacts.....	112
Cultural Resources .....	112
General Methodology for Assessing Impacts on Cultural Resources.....	113
Historic Resources.....	114
Impacts of Alternative A—The No Action Alternative.....	115
Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	116
Archeological Resources.....	117
Impacts of Alternative A—The No Action Alternative.....	118
Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	119
Ethnographic Resources.....	120
Impacts of Alternative A—The No Action Alternative.....	121
Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	122
Socioeconomics.....	124
Methodology and Assumptions.....	124
Study Area .....	124
Impact Thresholds.....	124
Impacts of Alternative A—The No Action Alternative.....	125
Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	125
Cumulative Impacts.....	126
Conclusion.....	126
Visitor Use and Experience.....	127
Methodology and Assumptions.....	127
Study Area .....	127



Impact Thresholds.....	127
Impacts of Alternative A—The No Action Alternative.....	127
Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit .....	128
Summary of Impacts.....	128
Section 6: Consultation and Coordination.....	133
Public Involvement.....	133
Consultation .....	133
Consultation with American Indian Tribes.....	133
American Indian Tribes Consulted .....	134
Section 7 Consultation .....	134
Section 106 Consultation.....	135
National Landmarks Committee .....	135
List of Agencies, Organizations, and Individuals Notified of this Feasibility Study .....	136
Senators and Congressional Delegates Contacted.....	136
Appendix A: Chisholm National Historic Trail and Western National Historic Trail Legislation .....	141
Appendix B: Summary of Public Meetings .....	142
Scoping Notice, Newsletter, and Website.....	142
Media Releases.....	142
Meeting Profiles .....	144
Summary of Public Comments.....	146
Appendix C: Threatened and Endangered Species .....	147
Flora .....	147
Fauna .....	147
Appendix D: Cattle Trails History Timeline.....	150
REFERENCES .....	153
PLANNING TEAM AND PREPARERS.....	163

## TABLES

Table 1. Cost Estimates .....	26
Table 2. Comparison of Alternatives.....	42
Table 3. Historic Sites Related to the Chisholm and Western Trails.....	57
Table 4. Land Ownership in the Study Area Counties and States in 1995 .....	86
Table 5. Visitor Use Opportunities in Proximity to and/or Relevant to Both the Chisholm Trail and the Western Trail .....	88
Table 6. Number of Recreational Visitors in 2010 at NPS Units near the Chisholm Trail and the Western Trail .....	90
Table 7. Visitor Use Opportunities in Proximity to and/or Relevant to the Chisholm Trail .....	90
Table 8. Visitor Use Opportunities in Proximity to and/or Relevant to the Western Trail.....	92
Table 9. Summary of Impacts (Environmental Consequences) .....	129

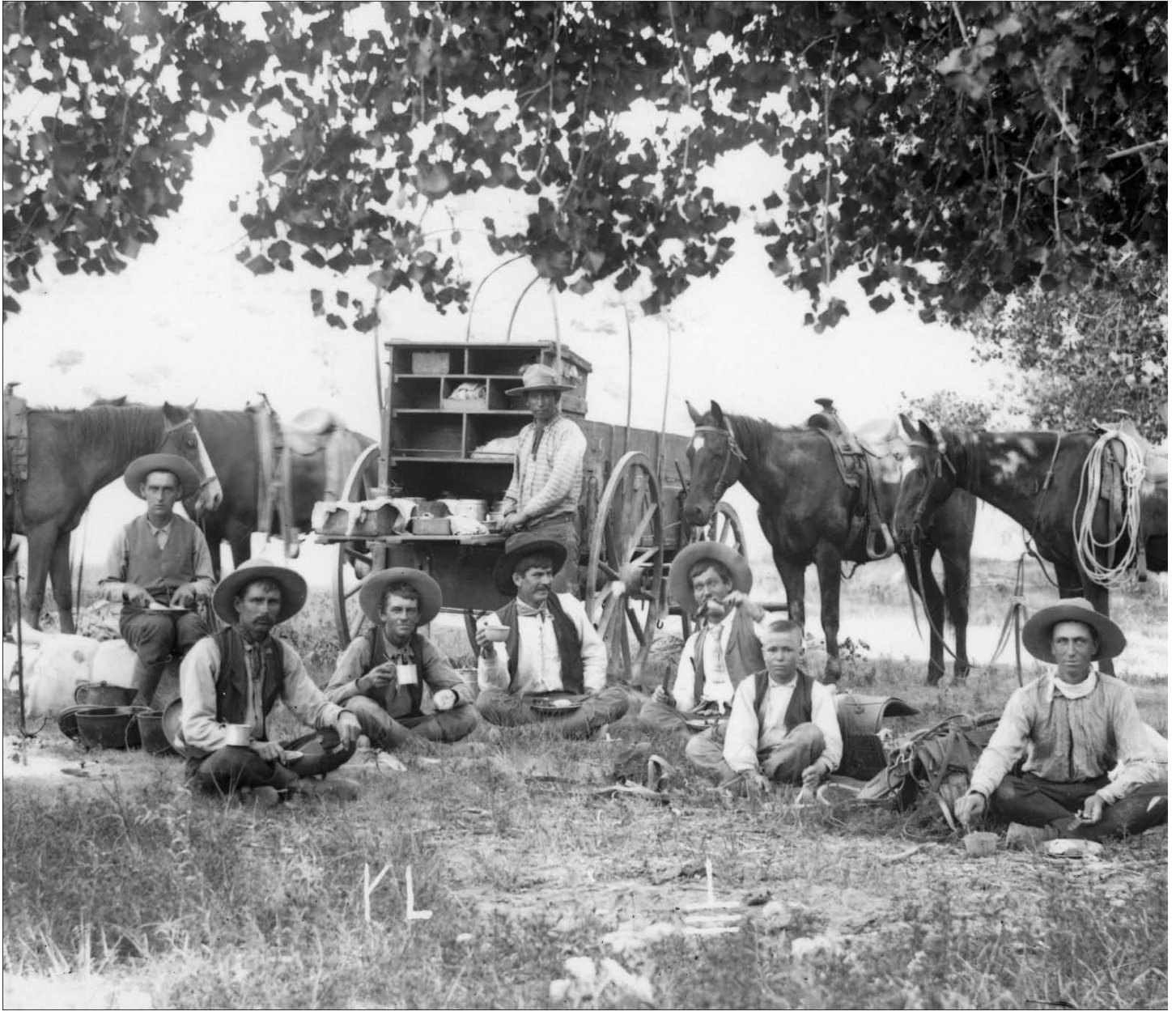
## FIGURES

Figure 1. Proposed Chisholm National Historic Trail and Western National Historic Trail– Depicting the Chisholm and Western Trails and Southern Texas Feeder Trails.....	43
Figure 2. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes– Overall Context Map .....	44
Figure 3. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes– Map 1 (Texas) .....	45
Figure 4. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes– Map 2 (Texas) .....	46
Figure 5. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes – Map 3 (Oklahoma and Texas) .....	47
Figure 6. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes – Map 4 (Oklahoma) .....	48
Figure 7. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes – Map 5 (Oklahoma and Kansas) .....	49
Figure 8. Proposed Chisholm National Historic Trail and Western National Historic Trail Study Routes – Map 6 (Kansas and Nebraska).....	50
Figure 9. Index to Metropolitan and Micropolitan Statistical Area Maps.....	79
Figure 10. Metropolitan and Micropolitan Areas in the Southern Texas Counties.....	80
Figure 11. Metropolitan and Micropolitan Areas in the Northern Texas and Oklahoma Counties .....	81
Figure 12. Metropolitan and Micropolitan Areas in the Kansas and Nebraska Counties.....	82
Figure 13. Eco Regions in the Trail Corridors.....	98









Cowboys gathered around a chuck wagon at meal time. Photo was taken in the region of the Texas Panhandle and Western Oklahoma Territory. Photo courtesy of the Western History Collections, University of Oklahoma.

## SECTION 1 PURPOSE AND NEED



## PURPOSE AND NEED FOR ACTION

The *Draft Chisholm and Western National Historic Trails Feasibility Study and Environmental Assessment* has two purposes: 1) to provide information to the US Congress on the national significance of the Chisholm and Western cattle trails and on the feasibility and desirability of designating them as national historic trails; and 2) to evaluate any broad impacts on the natural and human environment that could result as a consequence of designation. The study is needed in order to comply with the National Trails System Act, Public Law 90-543 (dated October 2, 1968), as amended, and Section 5303 of Public Law 111-11, the Omnibus Public Land Management Act of 2009, dated March 30, 2009.

In Section 5303 of the Omnibus Public Land Management Act of 2009, Congress directs the Secretary of the Interior to evaluate two trail routes:

- The Chisholm Trail (also known as the 'Abilene Trail'), from the vicinity of San Antonio, Texas, segments from the vicinity of Cuero, Texas, to Fort Worth, Texas, Duncan, Oklahoma, alternate segments used through Oklahoma, to Enid, Oklahoma, Caldwell, Kansas, Wichita, Kansas, Abilene, Kansas, and commonly used segments running to alternative Kansas destinations, and
- The Western Trail (also known as the 'Dodge City Trail'), from the vicinity of San Antonio, Texas, north-by-northwest through the vicinities of Kerrville and Menard, Texas, north-by-northeast through the vicinities of Coleman and Albany, Texas, north through the vicinity of Vernon, Texas, to Doan's Crossing, Texas, northward through or near the vicinities of Altus, Long Wolf, Canute, Vici, and May, Oklahoma, north through Kansas to

Dodge City, and north through Nebraska to Ogallala.

Preparation of the feasibility study was delegated by the Secretary to the National Park Service.

According to Section 5(b) of the National Trails System Act, as amended, any feasibility study compiled according to the dictates of this Act "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." In addition, "...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 Secretary of the Interior, through the National Park Service, is conducting this study with staff from the National Trails Intermountain Region, Santa Fe, New Mexico.

This study is neither a decision document nor a management plan but an evaluation for consideration by Congress. Should Congress decide to designate the Chisholm National Historic Trail and Western National Historic Trail, the designated administering federal agency would initiate a separate comprehensive management planning / environmental assessment process to develop detailed administrative recommendations (see National Trails System Act, Section 5[f]). Should Congress choose not to designate, the cattle trail would not become a component of the National Trails System and the federal government would have no further involvement.

## BACKGROUND

### Description of National Trails System and National Historic Trails

As noted in Section 2(a) of the National Trails System Act, Congress established the National Trails System in order “...to provide for the ever-increasing outdoor recreation needs of an expanding population and 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.”

Initially, the National Trails System consisted solely of national scenic trails and national recreation trails. National scenic trails are intended to be continuously protected corridors, 100 miles or longer, intended for outdoor recreation. These trails allow for uninterrupted travel (typically hiking, horseback riding, and/or boating) from end to end through scenic natural areas. Such trails are designated by Congress; examples include the Appalachian, Continental Divide, and Pacific Crest national scenic trails. National recreation trails, on the other hand, offer a variety of opportunities for outdoor recreation, including motorized recreation, on trails in or near urban areas. These regional and local trails are designated by either the Secretary of Agriculture or the Secretary of the Interior. More than 900 recreation trails have been designated thus far on federal, state, local, and privately owned land throughout the country.

National historic trails were added to the National Trails System when the National Trails System Act was amended on November 10, 1978. Section 3(a)(3) of the National Trails System Act defines national historic trails as “extended trails which follow as closely as possible and practicable the original trails 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 shall be continuous” and may include both land and water areas, other specific sites, and routes that do “not currently exist as a discernible trail.” (Section 5(b)(11)(A)). Existing national historic trails include emigration routes, gold-rush trails, routes of exploration, military routes, American Indian trails, roads established for commerce and communications, and a 1960s-era civil rights march route.

Information about the National Trails System is available from a variety of sources, inasmuch as the trails are administered by the USDA Forest Service, the National Park Service, the Bureau of Land Management, and a wide variety of non-federal partners. General information about the various national trails and a systemwide map are available online at <http://www.nps.gov/nts>, [http:// www.nationaltrailspartnership.org/](http://www.nationaltrailspartnership.org/), [or](http://www.americantrails.org/resources/feds/fednatrsysoverview.html) <http://www.americantrails.org/resources/feds/fednatrsysoverview.html>.

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 includes 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 (as noted above) to guide the preservation and public use of the trail and to identify education and partnership opportunities. 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.

National trails are administered through cooperative partnerships among public agencies, non-profit organizations, and landowners. Trail segments that are in federal ownership (for example, segments within national parks, national forests, and national wildlife refuges) are generally considered to be “federal components,” and the protection and interpretation of those trail segments becomes subject to those units’ ongoing planning processes. The federal role is one of setting and maintaining standards; providing incentives like technical and limited financial assistance to partners; helping to ensure consistent preservation, education, and public use programs; and managing the use of the official trail logo for marking and other appropriate purposes.

Non-federal segments may be protected and interpreted by alternative means such as cooperative and certification agreements, easements, and actions by non-profit organizations.

## **Purpose of National Historic Trails**

The purpose of national historic trails is the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. National historic trails are extended trails that follow as closely as possible and practicable the original routes of travel that are historically significant. The designation of such trails or routes is to be continuous, but the established or developed trails are not necessarily continuous land areas; they may include portions or sections of land areas, land and water segments, or other specific sites. Together these qualifying entities form a chain or network of areas that may be included as components of a national historic trail. National historic trail authorization would require federal funds for the planning, development, research,

and/or management of the trail and related trail activities.

The National Trails System Act establishes the following additional criteria for a national historic trail:

1. It must be a trail or route established by historic use and must be historically significant as a result of that use.
2. It must be of national significance with respect to any of several broad facets of American history, and its historic use must have had a far-reaching effect on broad patterns of American culture.
3. It must have significant potential for public recreational use or historical interest based on historical interpretation and appreciation.

Trail segments already in federal ownership could become the initial components of the national trail. Other trail segments could be developed and protected through various means—such as cooperative and certification agreements, easements, and actions by nonprofit organizations.

## **SCOPING ISSUES**

In June 2010, a total of 12 public scoping meetings were held in towns along, or with a strong association to, these two trails to solicit feedback from the public on the following planning issues (see appendix B). Scoping refers to the information gathering process required by the National Environmental Policy Act and is associated with preparing an environmental document such as an environmental assessment. Scoping helps identify significant issues related to a proposed action and is used to develop alternatives to a proposal or impacts that may be otherwise overlooked.

Planning questions presented at scoping meetings:

1. Do you think that national historic trail designation is an appropriate

way to commemorate the events and history of these two trails? Would commemorating them in some other way be more appropriate?

2. Do you know of any existing on-the-ground swales, traces, or trail-related resources such as historic structures?
3. Do you know of any existing museums, educational exhibits or interpretation materials that tell the history of these two trails?
4. Is public interest in these trails sufficient enough to warrant national designation?
5. Are these two trails historically and nationally significant? Why or why not?
6. Are there opportunities for the public to enjoy and visit parts of these trails?
7. Are the routes known?

Issues and concerns raised at the various scoping meetings dealt with a variety of topics, including:

- 1) the need to strike a balance between visitors' access and the possibility of individuals trespassing on private land;
- 2) the need for maintenance and the protection of the routes and existing sites;
- 3) the promotion of heritage tourism opportunities to provide economic opportunities through recreation and tourism in communities along the routes;
- 4) the desire for educational opportunities for schools and communities;
- 5) the protection of landowner property rights—people made the

recommendation to include language in any subsequent legislation that would protect private property rights if these trails are designated;

- 6) the name of the trail—controversy exists regarding the name of the trails and where they actually begin;
- 7) opposition to combining trails under one name; and
- 8) the desire to include cattle trail related additional routes not named in the legislation.

## **SUPPORT FOR TRAIL DESIGNATION**

One of the most common topics expressed at all 12 scoping meetings by the public related to their universal support for trail designation. In addition to verbal consent for designation, many attendees brought in 'letters of support' from their counties, mayors, and other political affiliates. Virtually all written comments showed support for designation. The only cautionary words were expressed by some owners of farm and ranch land, who worried that designation would invite trespassing, depress property values, restrict future uses, or lead to federal condemnation of private land.

Many people felt that designation would give the trails name recognition on a national and international scale. They also felt that designation would bring more people to their communities. One attendee thought that existing partners and advocates of the trails would remain fragmented in their efforts to manage and interpret the trails without designation. Overall, people were open to federal involvement and thought that the support, leadership and money that would come with designation would have a positive influence on the trails and trail communities.

## RELATIONSHIP OF THE PROPOSED ACTION TO PREVIOUS PLANNING EFFORTS

The 1968 National Trails System Act (P.L. 90-543), Section (5c) called for various trails to be studied for possible inclusion as national trails. Clause 3 within that section called for a study of the “Old Cattle Trails of the Southwest” from the vicinity of San Antonio, Texas, approximately 800 miles through Oklahoma via Baxter Springs and Chetopa, Kansas, to Fort Scott, Kansas, including the Chisholm Trail from the vicinity of San Antonio or Cuero, Texas, approximately 800 miles north through Oklahoma to Abilene, Kansas.”

Based on that act and on resolutions by various state legislatures, the Bureau of Outdoor Recreation studied three trails for addition to the National Trails System: the Shawnee Trail (from Belton, Texas to Baxter Springs, Kansas), the Chisholm Trail (from San Antonio, Texas to Abilene, Kansas), and the Western Trail (from San Antonio, Texas, to Dodge City, Kansas). At that time, the only two trails in the system were two national scenic trails—the Appalachian Trail and the Pacific Crest Trail—and all trails were evaluated according to national scenic trails criteria. The “Old Cattle Trails of the Southwest” study, completed by the Bureau of Outdoor Recreation’s Albuquerque office in April 1975, concluded that the Shawnee, Chisholm, and Western Trails did not meet the qualifying criteria for inclusion in the National Trails System as National Scenic Trails.

In essence, the corridor through which the three trails passed did not provide for maximum outdoor recreation potential and for the conservation and enjoyment of nationally significant scenic, historic, natural, or cultural qualities.

The Bureau of Outdoor Recreation did, however, felt that these three trails possessed “characteristics of state or regional importance.” The study evaluated the four

“qualities” noted above and as for historic qualities, it noted that

“The historical integrity and appearance of the study corridors have been almost completely altered by man’s activities. Preservation and historical interpretation has been accomplished in only a few museums, forts, buildings, parks site markings [sic], and civic celebrations. It is unlikely that these historic qualities would exert a substantial nationwide attraction.”

In 1978 Congress created a new category for national historic trails within the National Trails System Act; this provision allowed historic trails to be designated based on a different, more appropriate set of criteria than national scenic trails.

## REGULATIONS

This *Draft Feasibility Study and Environmental Assessment* complies with applicable federal laws, regulations, and planning direction. This includes, but is not limited to, the legislation authorizing this study; the National Trails System Act; the National Environmental Policy Act; the National Historic Preservation Act; the Federal Land Policy and Management Act; the Native American Graves Protection and Repatriation Act; the American Indian Religious Freedom Act regarding consultation with North American Indian Tribes; Executive Order No. 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*; Executive Order No. 13007 *Indian Sacred Sites*, May 24, 1996, 61 FR 26771, 42 USC 1996; Executive Order No. 13175 *Consultation and Coordination with Indian Tribal Governments*, November 6, 2000, 65 FR 67249, 25 USC 450; Executive Order 13195 *Trails for America in the 21st Century*; the Architectural Barriers Act Accessibility Standards (2006) and the Rehabilitation Act of 1973; NPS *Management Policies* (2006), and relevant director’s orders. In accordance with NPS Director’s Order 12, *Environmental Impact*

*Analysis*, the environmental assessment is being prepared as a part of this feasibility study.

## **IMPACT TOPICS**

The National Environmental Policy Act (NEPA) of 1969 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 requirements of the law include public involvement in the planning and development of any proposed federal action and consideration of potential impacts on the cultural, natural, and socioeconomic environment. The impacts are analyzed in section 5 of this document. This feasibility study / environmental assessment presents a broad overview of potential impacts relating to each alternative. A more detailed comprehensive management plan and implementation plan will be developed subsequent to this feasibility study if national historic trails are designated. Any subsequent document associated with this feasibility study will be guided by the framework in this study.

The impact topics were chosen through a process of a preliminary evaluation by a private consultant, a review of that work, and further refinement. The final list of impact topics below was chosen based on the requirements of the National Trails System Act and past trail developments and actions. Because this is a programmatic document, these impacts will require reevaluation and further analysis should Congress designate national historic trails and a trail management plan is prepared.

Detailed descriptions of resources and impact topics are found in the “Affected Environment” section of this document (section 4).

## **Issues and Impact Topics Analyzed in Detail**

These topics are introduced here and are analyzed in detail in section 4 below. These topics were chosen for further analysis by the interdisciplinary planning team because one or both of the alternatives has the potential to have some negligible to minor impacts on these resources.

Cultural Resources  
Historic Resources  
Archeological Resources  
Ethnographic Resources  
Socioeconomic Conditions  
Visitor Use and Experience

## **Issues and Impact Topics Considered but not Analyzed in Detail**

The topics immediately below will not be analyzed in detail in this study. They are introduced here and are discussed further in section 4 along with a rationale for dismissing the topic. These topics were not included for detailed analysis because neither alternative has the potential to have measurable impacts on these resources or issues.

### **Cultural Resources.**

Museum Collections  
Cultural Landscapes  
Sacred Sites  
Paleontological Resources

### **Natural Resources.**

Geologic Resources  
Soils  
Vegetation  
Rare or Unusual Vegetation  
Air Quality  
Wetlands and Floodplains  
Water Resources  
Wildlife and Wildlife Habitat  
Threatened or Endangered Species or  
Species of Concern

**Other Resources, Values, and Issues.**

Ecologically Critical Areas and National  
Natural Landmarks  
Unique Ecosystems, Biosphere Reserve, and  
World Heritage Sites  
Wilderness  
Wild and Scenic Rivers  
Lightscapes  
Soundscapes

Prime and/or Unique Farmland  
Public Health and Safety  
Environmental Justice  
Urban Quality and Design of the Built  
Environment  
Indian Trust Resources  
Energy Requirements and Conservation  
Potential  
Natural Depletable Resource Requirements  
and Conservation Potential





Cheyenne Camp of ten tepees in the vicinity of Fort Reno in Indian Territory, circa 1868-1872. Driving herds of cattle and horses through Indian Territory was a common occurrence. Photo courtesy of the Western History Collections, University of Oklahoma

## SECTION 2 EVALUATION OF SIGNIFICANCE, FEASIBILITY, AND SUITABILITY





# EVALUATION OF SIGNIFICANCE, FEASIBILITY, AND SUITABILITY

## Introduction

To qualify as a national historic trail, a proposed trail must meet criterion 11 as defined in the National Trails System Act. Criterion 11 is considered first as a proposed national historic trail designation must meet the three parts of that requirement (11A, 11B, and 11C are described in detail below). Criteria 1-10 are also addressed in this section and are important considerations when evaluating the suitability and desirability of designating a national historic trail.

## Historical Context

The Chisholm Trail and the Western Trail were the two most popular trails that Texas ranchers and contractors used to move cattle from Texas to various Midwestern and Great Plains states during the 1850s through the 1880s. (The Chisholm and Western Trails were most active during only a portion of that time, from 1867 to the mid-1880s.) Historians have identified more than a dozen trails that gained some semblance of notoriety during that time, and four of the best known of those trails (from east to west) were the Shawnee Trail, the Chisholm Trail, the Western Trail, and the Goodnight-Loving Trail. Given the rapid pace of Anglo-based westward expansion, most of these trails were active for a fairly brief time-period; despite that brevity, however, most of these trails were constantly changing: they gained new origination and termination points, their relative importance waxed and waned, and differing groups called them by a variety of names.

According to provisions in the National Trails System Act (Section 5(c)(44)), the Chisholm Trail apparently began in the vicinity of either Cuero or San Antonio, Texas, and continued north through present-day Oklahoma and on to Abilene, Kansas, while the so-called "Great Western

Trail" began in or near San Antonio, Texas and headed northwest and north through Oklahoma to Dodge City, Kansas and on to Ogallala, Nebraska. Historians differ, however, as to where each of these trails began and ended. Some claim that either or both trails began south of San Antonio, perhaps as far south as Brownsville, Texas, or Matamoros, Tamaulipas, Mexico, while others argue just as vehemently that cattle were driven over these two trails north of Abilene, Kansas, and Ogallala, Nebraska, respectively. Some observers claim, with some justification, that scores if not hundreds of cattle herds were driven north to the territories of Wyoming, Montana, or Dakota, and some herds continued as far north as the Canadian provinces of Alberta and Saskatchewan.

The Chisholm and Western Trails are emblematic of a broadly-defined period, one in which the trailing of Texas cattle signaled the emergence of the Texas economy from its post-Civil War doldrums, and the cattle drives historically coincided with the depopulation of the bison and the rapidly-moving tide of westbound agricultural settlement. As several historians have pointed out, neither of these trails gained their present name until they had been used for a number of years, and no name seems to have predominated during the period in which the trails were active. Complicating the matter of nomenclature, both popular fiction and the efforts of early trail popularizers played a role in applying the "Chisholm Trail" name to other trails as well, most specifically to the Western Trail.

## Documentation

In the first stanza of the well-known poem "Cattle" (1935), the Texas-born Berta Hart Nance penned, "Other states were carved or born, Texas grew from hide and horn." With some justification, Texans over the years have taken great pride in their cattle trail

heritage, and the iconography of the cattle trailing era is one with which many Texans still identify. Although some aspects of this iconography have doubtless become magnified and distorted, historians fortunately have a rich bibliographic basis for determining the day-to-day realities of the cattle trail era.

Although many of those who participated in the cattle-trail era were illiterate or had little interest in writing, a number of others—despite the 18-hour days, weather extremes, and an almost complete lack of amenities—wrote diaries of their trail experiences, either as drovers, cooks, trail bosses, merchants, or cattle buyers. Joseph G. McCoy, the self-professed “pioneer western cattle shipper” who, arguably, was the individual most responsible for the postwar cattle drives, wrote a full-length volume of the first decade of this activity in his 1874 publication *Historic Sketches of the Cattle Trade of the West and Southwest*. In addition, many towns published newspapers that recorded the economic benefits (and threats to public safety) associated with the arrival of cattle and their herders. Some cattlemen, late in their lives, penned reminiscences of their trail days; and George W. Saunders went so far as to collect scores of such reminiscences, which were compiled and edited by J. Marvin Hunter, then published in the mammoth 1924 volume *The Trail Drivers of Texas*.

In recent years, a number of excellent secondary-source histories of the cattle trails have been published. Wayne Gard led this effort with *The Chisholm Trail*, published in 1954. Almost 20 years later, Jimmy M. Skaggs published *The Cattle-Trailing Industry: Between Supply and Demand, 1866-1890*, and in 1980 Don Worcester wrote *The Chisholm Trail: High Road of the Cattle Kingdom*. During the 1990s, Terry Jordan wrote of the postwar cattle-trailing period in the context of a broader ranching overview in his *North American Cattle-Ranching Frontiers: Origins, Diffusion, and Differentiation*. And in 2004, Gary and Margaret Kraisinger wrote the first definitive treatment of the Western Trail,

entitled *The Western: The Greatest Texas Cattle Trail, 1874-1886*. Others have added their own histories of the cattle ranching empire and to complement these efforts, historians throughout the Great Plains and southwestern states have written excellent volumes describing the impact of the cattle drives on specific cities and towns such as Caldwell, Ogallala, Dodge City, and elsewhere. Many of these books, not surprisingly, highlighted some of the rowdier, more lurid aspects of life in the various towns where the cattle herds met the railroads and were hauled east to the packing houses.

Many efforts have also been made to cartographically document the location of the major cattle trails. During the 1870s, General Land Office surveyors, by good fortune, documented much of the length of the Chisholm Trail in Indian Territory (Oklahoma) and a portion of the Shawnee Trail; equivalent surveys elsewhere, however, preceded the era of the great cattle drives. The first latter-day effort to demarcate trail locations took place in 1931, when the Oklahoma legislature tasked the state’s highway commission to publish maps of both the Chisholm Trail and the “Texas Trail” (Western Cattle Trail). These maps were published in 1936.

Most of the trail histories noted above (Gard, Skaggs, etc.) provided only general information about the trails’ locations. In recent years, however, several efforts have provided more exact geographical trail information; some of this information was published in historical journals, while other information was distributed to the broad traveling public. In 1990, a small group of historical enthusiasts headed by Robert Klemme began placing concrete posts where the Chisholm Trail intersected various section-line roads in the so-called “Cherokee Strip” portion of Oklahoma. This project, before long, was expanded to include all of the Chisholm Trail in Oklahoma and in 1997 this effort was successfully completed.

In response, a similar effort began in 2003 on the Western Trail. The Rotary Club in Vernon, Texas began a massive project in which concrete posts would be established along the Western Trail in counties throughout Texas and in other selected points all the way from Matamoros, Tamaulipas, Mexico north to Valjean and Regina, both in Saskatchewan, Canada. This project, which is ongoing, features posts inscribed "Great Western Trail" and were placed in city parks, near courthouses, and in other locations easily accessible to visitors. The Kraisingers' 2004 publication (see above) featured large-scale maps that pinpointed the location of hundreds of miles of Western Trail routes; in addition, various historical groups in Texas and elsewhere have undertaken initiatives to provide detailed geographical information about the various trail routes.

## **Historical Overview**

Long distance cattle trailing is an age-old activity. As Wayne Gard has noted, two brothers in 1655 trailed a herd from Springfield to Boston, Massachusetts, and during the 1820s, "many took herds from Ohio and even Indiana to Baltimore." In 1845, 250 Illinois cattle were trailed to Albany and on to Boston and in 1849 Texas ranchers responded to the gold rush by driving cattle more than 1,000 miles across the southwestern deserts to California. In each case, the impetus for cattle-trailing was simple: herds at a distant destination point could be sold for far more than they were worth in Texas.

By the 1850s, it had become widely recognized that Texas—which had been part of Mexico until 1836 and a state only since 1845—was prime cattle country. Particularly in the central and southern parts of the state, cattle thrived because the climate was mild and grass cover was sufficient, yet the land was sufficiently well-watered to support herd growth. Given the increasing population of the country's eastern and midwestern states, and given the industrial

growth of the larger cities, the demand for beef skyrocketed. Texas, with its well-stocked herds, had a ready supply—but its ranchers would benefit only if ways could be devised to get the cattle to market. Ranchers, as a result, opened cattle trails to Louisiana, to Illinois, and to the newly-populated gold camps in Colorado.

The primary cattle route during the 1850s, however, was the so-called Shawnee Trail, which headed north-northeast from Austin, Texas to the Dallas area and on to Fort Gibson, Indian Territory. From there, the trail went on to a number of towns (St. Joseph, Kansas City, and St. Louis, Missouri, and Quincy, Illinois), all of which were major railheads or steamboat ports (Gard 1954). The Shawnee Trail, in all of its geographical variations, provided an outlet for Texas beef; it was not, however, a safe or reliable market. Ruffians in the Baxter Springs, Kansas area rustled cattle and endangered the lives of drovers, and an increasing number of homesteaders chafed at the passing herds who both trampled their crops and spread Spanish fever (Texas fever or "tick fever"). This disease, common among the south Texas herds, often killed Midwestern cattle but had no effect on the wilder, tougher Texas stock.

In April 1861, Confederate cannons fired on Fort Sumter, and for the next four years the nation was embroiled in the Civil War. Two months prior to hostilities, Texas had seceded from the union and given the prevailing sentiment, a large percentage of the state's able-bodied men had left Texas and joined the Confederate army. Gard noted that as a result of the war, "the cattle industry on the frontier fell into neglect. Calves were left unbranded, and herds strayed far across the prairies or into the brush. . . . In some sections, steers were almost given away, despite the high prices prevailing in the North."

At war's end, thousands of war-weary veterans returned to their Texas ranches, only to find that "uncounted Longhorns were scattered over the prairies and plains,"

a large proportion of which were grazing, unbranded, on public land. These half-wild “mavericks” were freely available to whoever could rope and brand them. The returning Texans, therefore, were land-rich and cattle-rich. However, they were cash-poor and were facing the same big problem that existed before the war: cattle being sold in Texas for rock-bottom prices. What was needed was a way to get the cattle to eastern and midwestern markets, where far higher prices could be obtained. Texas’s railroad system during this period consisted of 11 short-line carriers, which were unconnected with one another, and all of these lines were hundreds of miles from the contiguous rail network located east of the Mississippi River (Potts 1909).

In response, some ranchers attempted to trail cattle elsewhere, as they had prior to the war. Renewed attempts were made to move herds up one or more branches of the Shawnee Trail, but new settlement and continued banditry forced some herders to turn back or find alternate routes. Seeking a new market, cowmen Charles Goodnight and Oliver Loving sent herds west from the Fort Belknap area (80 miles west of Fort Worth) west and north to Fort Sumner, New Mexico Territory, where the government had recently resettled thousands of Navajos and Apaches (Gard 1954). Other routes were also used with varying degrees of success.

A new alternative for getting Texas cattle to market emerged in the late spring of 1867. Joseph G. McCoy, an Illinois cattle dealer, “developed a strong interest in the possibility of setting up a new market for Texas longhorns” (Gard 1954). After arriving in Kansas City, he headed west along the Union Pacific Eastern Division railroad, which had been built only as far as Salina. Residents of most of the several railside towns (including those in Salina) showed little interest in McCoy’s proposed developments, but the people of Abilene—at that time a rude assemblage of cabins and businesses, all of log construction—offered 250 acres for a cattle yard on the edge of town, and both the Union Pacific Eastern

Division and the Hannibal and St. Joseph railroads offered reasonable rates for hauling cattle to Chicago and its packing houses. McCoy then sent colleagues south into Indian Territory and Texas, telling both herders and contractors about the new railroad destination and the easy, open route over the intervening terrain (Gard 1954).

Portions of this route—specifically between central Indian Territory and the vicinity of Wichita, Kansas—was over a wagon road that had been pioneered by a well-known Indian trader named Jesse Chisholm. Existing routes between central Indian Territory and central Texas, however, were few and far between. But given the growing traffic in northbound cattle, the trail from central Texas to Abilene, by 1870, was being called the Chisholm Trail (although other cattlemen called it the Abilene Trail, McCoy’s Trail, the Texas Cattle Trail or, in Texas, the Eastern Trail) (Gard 1954).

McCoy’s 1867 efforts did not have an immediate impact because the number of Abilene-bound cattle rose slowly at first and because other destinations—in southeastern Kansas, Missouri, New Mexico, Colorado, and elsewhere—were attracting Texas herds as well. By 1869, however, cattlemen throughout Texas had heard about the trail and that Abilene was the goal of the large majority of cattle-trailing outfits (Gard 1954). Abilene continued to be the predominant destination through the 1871 season, although other Kansas railheads such as Hays City, Great Bend, Junction City, Salina, and Wichita presented strong competitive challenges. Perhaps the biggest 1871 rival was Newton, to the south, which had received a railroad connection that spring. The following spring witnessed the commencement of a three-year free-for all in which Ellsworth, Wichita, and a host of minor challengers competed for the northbound cattle herds. Hundreds of thousands of cattle (with hundreds of cowboys) were driven north each year along the Chisholm Trail from the late 1860s through the mid-1870s and the by-products of that mass movement included a renewed

prosperity among Texas cattlemen—along with a series of wild, lawless cattle towns that witnessed both unparalleled economic growth and a legendary spate of raw frontier violence.

Throughout this period, Texas cattlemen continued to be dogged by the “tick fever” that had been causing trouble for herds since the 1850s. In response, the Kansas legislature instituted a quarantine for all areas in the state east of the Chisholm Trail route. But with the ongoing westward expansion of the agricultural frontier, that quarantine line could not remain stationary for long. During this period, Kansas underwent an unparalleled population boom, with the result being that the western edge of farming activity moved westward 25 miles or more each year. By the mid-1870s, cattlemen were finding themselves increasingly unwelcome along the Chisholm Trail. Local “sodbusters” (farmers) were antagonistic to cattle trailing because herds trampled their crops or infected local cattle with “tick fever.” And local business interests—despite the obvious profits to be made—often pulled up the municipal welcome mat after enduring a few years of riotous behavior from the Texas cowhands. Given these factors, it surprised no one when, in 1875, the Kansas legislature quarantined the entire trail corridor in that state (Kraisinger 2004).

As a result, cattlemen had little choice but to seek routes farther west. L. B. Harris, a cattleman from San Antonio, made the first such move in 1873, driving a large herd—perhaps 40 to 80 miles west of the Chisholm Route—across Texas and Indian Territory before heading northwest to Fort Dodge and Ellis in western Kansas (Kraisinger 2004). The following year, rancher John T. Lytle pioneered yet another route which headed north-northwest from San Antonio to Fort Griffin, across the Red River to Camp Supply in northern Indian Territory, on to Dodge City, Kansas (just west of Fort Dodge) and north into Nebraska. Other cattlemen soon followed in Lytle’s wake, and for the next dozen years his route, which became known by many as the either

the Western Trail or the Dodge City Trail, attracted a majority of the northbound cattle traffic. The Chisholm Trail did not by any means become obsolete; indeed, the early 1880s saw a resurgence of traffic northward to Caldwell, on Kansas’s southern frontier. Throughout this period, moreover, many cattlemen headed north from San Antonio along the old Chisholm Trail only to veer west either at Belton, Texas, at Elm Spring (near Red Rock Ranch), Indian Territory, or elsewhere (Gard 1954).

Dodge City, as a result of this westward migration, gained a well-deserved reputation as a violent cowtown. Dodge City, however, was the terminus and loading facility for only a minority of the northbound herds. Large numbers also continued north to Ogallala, on the Union Pacific, which also served as a riotous railhead destination for several years. Many of the cattle sold in Ogallala or other points beyond Dodge City were not bound for Midwestern packing houses but were instead sold to the burgeoning number of white farmers and ranchers, or to the numerous reservations that had been recently created for the Indian tribes of the northern plains.

When John Lytle pioneered the Western Trail in 1874, this route was located well beyond the agricultural frontier. Given that buffer, the trail remained active for more than a decade, and its location—which was well west of the one hundredth meridian and thus significantly drier than equivalent areas along the Chisholm Trail—suggested that ranching rather than farming might continue in this area for the foreseeable future. But by the mid-1880s, the burgeoning farmers’ frontier was once again impinging upon the trail corridor. During this period, the railroads that had been built into Texas were beginning to offer competitive freight rates and packing houses had opened at Fort Worth to compete with those of Chicago and other eastern cities. The biggest blow to cattle trailing, however, came in the late summer of 1884, when Kansas Governor G. W. Glick—acting in response to the ire of western-state homesteaders against both

crop destruction and the spread of “tick fever”—signed a bill that imposed a quarantine throughout the state against most Texas cattle (Kraisinger2004).

After the 1884 season, the cattle trailing industry continued on a limited scale. The Kansas legislature’s law proscribed the immigration of cattle from central and southern Texas but given the plethora of cattle that were stocked on ranges in the Texas panhandle, the “Cherokee Strip” section of Indian Territory, and elsewhere, such cattle depots as Dodge City and Caldwell continued to receive and ship cattle for the remainder of the decade. In the meantime, Texas cattle-trailing interests pinned their future hopes on a “National Trail,” a Congressionally-designated corridor along the eastern boundary of Colorado (Kraisinger 2004).

As a legislative concept, the trail made little headway and was never implemented; as an economic reality, however, some cattlemen used this route in both 1885 and 1886. Trail City, located along the Santa Fe Railroad just west of the Colorado-Kansas border, erupted out of the high-plains sagebrush during the winter of 1884-85 in anticipation of this trade; it thrived for a year or two but was abandoned soon afterward. Throughout the west, the severe winter of 1886-87 played havoc on cattle that remained on the open range (Kraisinger2004; Gard 1954). As late as the early 1890s, a few cattle continued to be driven over the northern ranges (Gard 1954) but for all intents and purposes, the long-distance cattle-trailing industry diminished in 1885 and continued a slow decline until 1897.

### **American Indian Tribes and the Cattle Trails**

Driving herds of cattle and horses through what was then known as Indian Territory and is now Oklahoma occurred during the same period in which American Indian tribes were being placed on reservations in Indian Territory. As a result, drovers often met with

groups of American Indians who requested and sometimes demanded recompense for driving the herds across their lands, because the animals consumed the grass and water that would feed the tribe’s herds of horses and cattle driving disrupted their hunting for buffalo, deer, and other animals (Skaggs 1973).

In some instances, a tribe would require payment of cash for each head of cattle. Charges varied from a penny to eight cents a head (Brayer and Brayer 1952). In other cases, payment was made by cutting out one to several cattle from the herd, which the Indians either butchered on site or drove to their village for later use. Drovers quickly recognized that it was wiser pay the toll/tax or to give the Indians a few cattle that were in poor condition or ill-tempered or were strays from another herd than to risk insulting the Indians and face the high likelihood that the warriors would instead obtain cattle and horses through night-time raids and/or stampedes (Gard 1954; Brayer and Brayer 1952). Experienced drovers included a line in their budgets for such payments, sometimes referring to the costs as “watering expenses” (Skaggs 1973). Because of the quarantines established in Missouri and eastern Kansas to protect livestock from the Texas fever, drovers sometimes grazed their herds on reservation lands for extended periods until the animals could be sold or allowed to continue northward (Gard 1954). One of the reasons for the shift of the cattle drivers from the Shawnee Trail to the Chisholm Trail was to avoid the tolls being charged by the eastern-most tribes in Oklahoma (Drago 1965).

It should be acknowledged that segments of the cattle trails, like every transportation route across the country, followed trails established by American Indian groups (Gard 1954). Because the Indians needed good grass and water for their horse herds as they moved their villages, made communal bison hunts, or otherwise travelled across their territory, they created trails along the same kinds of terrain most suitable for herding cattle. One well-defined and long-

used American Indian trail, the Osage Trace, situated east of the Chisholm Trail, was an early cattle trail through Oklahoma. Later this route became known as the Shawnee Trail and the Texas Road (Drago 1965). Many of the cattle driven north from Texas were for the US Government for distribution to tribes relocated on reservations (Brayer and Brayer 1952). The cattle were often intended to substitute for restricted access to bison herds. On the reservation or at the Indian Agency, warriors often practiced traditional buffalo hunting methods, killing the running cattle from horseback. When the bison herds were exterminated, cattle replaced buffalo as the primary source of protein and hides (Brayer and Brayer 1952). Thus, though the cattle drives from Texas to Kansas and Nebraska were primarily to provide beef to the expanding western frontier and eastern markets, they had a significant role in the alteration of traditional American Indian lifeways and in the evolving relationships between American Indian groups and non-Indian populations.

The cattle trails cross traditional territories and reservation lands documented for several federally recognized American Indian tribes, including the Arapaho, the Caddo, the Comanche, the Pawnee, the Kaw, the Kiowa, the Oglala Sioux, the Osage, the Cheyenne, the Southern Ponca, the Tonkawa, and the Wichita. Several other tribes, whose traditional lands and reservation lands are situated outside of the cattle trail corridors, include the Ho-Chunk, the Citizen's Band of the Potawatomi, the Omaha, the Otoe-Missouria, the Santee, the Eastern Shoshone, the Taos Pueblo, the Fort Sill Apache, and the Mescalero Apache.

### **Description and Integrity of the Route**

As noted in Section 5303 of the Omnibus Public Land Management Act of 2009, signed into law on March 30, 2009, two trails are being evaluated for study. First, the Chisholm Trail (also known as the "Abilene Trail") went "from the vicinity of San

Antonio, Texas, segments from the vicinity of Cuero, Texas, to Fort Worth, Texas, Duncan, Oklahoma, alternate segments used through Oklahoma, to Enid, Oklahoma, Caldwell, Kansas, Wichita, Kansas, Abilene, Kansas, and commonly used segments running to alternative Kansas destinations." Second, the Western Trail (also known as the "Dodge City Trail") went "from the vicinity of San Antonio, Texas, north-by-northwest through the vicinities of Kerrville and Menard, Texas, north-by-northeast through the vicinities of Coleman and Albany, Texas, north through the vicinity of Vernon, Texas, to Doan's Crossing, Texas, northward through or near the vicinities of Altus, Long Wolf, Canute, Vici, and May, Oklahoma, north through Kansas to Dodge City, and north through Nebraska to Ogallala."

The trail routes as noted in the Congressional legislation are generally accurate and conform to the notions that most historians ascribe to these two trails. These geographical descriptions, however, simplify what was a fairly complex historical reality. The descriptions above suggest that these two trails were single linear routes. In reality, historians recognize that these trails—unlike highways and many emigrant trails—were not narrowly-defined paths but instead were broad swaths of territory that were anywhere from 100 yards to perhaps one-half mile wide. In certain places (for instance, near river crossings) herds could spread out for a mile or more in order to either bed down or seek a navigable crossing site, although the pathways at the river crossings themselves were typically fairly narrow. As Don Worcester has noted, "when only a few herds were following a trail, they usually found adequate forage close by. But when many herds were on the move during any season, the later ones had to travel parallel to the tracks of the earlier ones to find grass. The drying up of streams and waterholes also caused variations in the route" (Worcester 1980).

Both the Chisholm Trail and the Western Trail split into more than one route in

certain places. Specifically, the northbound Chisholm Trail route split apart near the site of Silver City, in present-day Grady County, Oklahoma (just south of the South Canadian River crossing) and rejoined just south of the old Red Rock Ranch (in present-day Dover), just north of the Cimarron River crossing in Kingfisher County, Oklahoma. (Historical sources indicate that the eastern fork received a majority of the cattle herds and that the western fork was used as a stage route, but both routes witnessed the northward migration of substantial numbers of cattle) (Gard 1954; Worcester 1980).

Along the Western Trail, a single route seems to have predominated between southern Texas and Dodge City, Kansas, although there were some minor deviations in Callahan, Shackelford, and Baylor counties, Texas. (See Kraisinger, “Map of Texas Showing the Location of the Western Cattle Trail,” ca. 2004.) Between Dodge City and Ogallala, however, cattle outfits—apparently in response to the westward march of the agricultural frontier—used four different routes: a little-used eastern fork from 1874 to 1877, a central fork from 1876 to 1882, a western fork from 1881 to 1884, and the rarely-used “Fort Wallace Route” through far western Kansas, which carried cattle herds from 1883 to 1886.

Finally, both the Chisholm Trail and the Western Trail served a variety of purposes. They are best known because they brought cattle to Abilene, Dodge City, Ogallala, and other railroad towns. But they also supplied the continually high demand for cattle on ranches and farms, both in the Great Plains and farther west, and they also provided beef for Indian reservations in Nebraska, Montana, Dakota Territory, and elsewhere. The routes described in the Congressional legislation presume that the trails were primarily intended to serve the railheads. By contrast, the trails served an array of needs, and geographically, the trail network was quite complex. As Wayne Gard noted in his study of the Chisholm Trail, “it was like a gigantic upside-down tree with many branches.” T. C. Richardson, in his study of

Texas cattle trails, agreed when he noted that “trails originated wherever a herd was shaped up and ended wherever a market was found. A thousand minor trails fed the main routes, and many an old-timer . . . lived with the firm conviction that the Dodge or Chisholm cattle trail passed right over yonder” (Gard 1954). Because of this complexity, it is impossible to pinpoint where any given cattle trail began or ended.

Some historians, as noted above, have claimed that the “main stem” of either the Western or Chisholm trail began in Brownsville (or even south into Mexico) (Gard 1954), but other texts and maps have concluded that one or both main-stem trails began in the San Antonio or Austin areas, with all trails south from that point serving as feeder trails.

Similar confusion reigns at the trails’ northern end. While many traditional accounts suggest that these two trails, at the northern end, terminated in Kansas at the cattle-loading facilities in Abilene and Dodge City, respectively, more recent accounts argue strongly that Abilene (as noted above) was only one of a cluster of Kansas railheads; that some cattle continued past Abilene north to Schuyler, Nebraska (Kraisinger 2004); that the majority of Dodge City-bound cattle did not stop there but instead continued north into Nebraska (Kraisinger 2004); and that cattlemen heading north on both trails used cattle-loading facilities at many railheads other than Ogallala, Dodge City, Abilene, Newton, and Ellsworth. Given the definitions of “national significance” promulgated in the National Historic Sites Act of 1935, therefore, it is no easy matter to easily define the designated beginning and ending points of these two trails, which this study demands.

Based on the above description of the two routes there is substantial integrity of the historic context. Table 3 lists historic locations that relate to the trails and have the potential to further display the routes’ historic integrity should designation occur.



## **REQUIREMENTS OF THE NATIONAL TRAILS SYSTEM ACT AND MEETING NATIONAL HISTORIC TRAIL CRITERIA**

The National Trails System Act requires that the feasibility and desirability of designating a national historic trail be evaluated. To qualify as a national historic trail, a trail must meet three criteria (see 11 A, B, C). The act also requires that a feasibility study for designating a national historic trail meet 10 additional criteria. All criteria are listed below and addressed individually in the following pages:

- (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 (40 Stat. 666; 16 USC 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 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;

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

(11 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 exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of the potential for public recreation and historical interest. A designated trail should generally follow the historic route but may deviate somewhat on occasion of necessity to avoid difficult routing or for more pleasurable recreation.

(11 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 American Indians may be included.

(11 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 the category.

### **Criterion 1: The Proposed Route**

The proposed Chisholm National Historic Trail and Western National Historic Trail are composed of the primary routes of the Western Trail, the Chisholm Trail, and various routes in southern and central Texas where ranches supplied cattle for both trails. Although there were various cattle ranches in the lower Rio Grande valley from which cattle were driven north, the southernmost nationally significant trail begins at Kingsville, Texas, the longtime headquarters of the well-known King Ranch. Between Kingsville and Austin, there were scores of locally and regionally significant trails emanating from area ranches, but only two nationally significant trails: one heading northeast from San Patricio to Refugio, Cuero, and north to Austin, the other north-northwest from San Patricio to San Antonio and either northwest or northeast from that point.

The Chisholm Trail—often called the Eastern Trail in Texas—headed northeast from San Antonio to Austin, Waco, Fort Worth, and Red River Station, in present-day Montague County. It then headed due north across Indian Territory (present-day Oklahoma) on a route that generally paralleled present-day US Highway 81 to Pond Creek. Here the main trail to Abilene (used primarily from 1867 to 1871 and also in the late 1870s and early 1880s) split off from the Ellsworth Trail (or Cox’s Cutoff) to Ellsworth (used from 1872 to 1875). In Kansas, the main trail passed through Caldwell before moving north to Wichita, Newton, and Abilene, while the Ellsworth

Trail passed present-day Kingman and Ellinwood on its way to Ellsworth.

The Western Trail moved northwest from San Antonio to present-day Kerrville, Brady, Coleman, Albany, and Vernon on its way to Doan’s Crossing of the Red River. Within Indian Territory, the trail wound north near present-day Altus, Lone Wolf, Vici, and Fort Supply before entering Kansas. The first major town in Kansas was Dodge City, but many herds continued north on one of several trails to Ogallala, Nebraska. In addition to these main-stem trails there were many feeder trails and connector trails in Texas, Indian Territory, and Kansas. Colorado, Kansas, and Nebraska contained many trails which brought cattle to more northern destinations such as Wyoming, Montana, Dakota Territory and even Canada. Each of the trails north of Abilene, Ellsworth, and Ogallala, however, are of regional or local significance. These feeder and connecting routes have the potential for development as side trails and connecting trails in accordance with the National Trails System Act. Maps and illustrations have been provided in this document as evidence of said routes.

The combined total estimated mileage for the cattle trails study routes is 2,548. Broken down by state, there are 1,180 miles of study route in Texas, 551 miles in Oklahoma, 680 miles in Kansas, and 137 miles in Nebraska.

Finding: Criterion 1 is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail study routes are known and described as proposed.

### **Criterion 2: Adjacent Areas to be Utilized for Scenic, Historic, Natural, Cultural, or Developmental Purposes**

Comprehensive tables (see tables 2, 3, 4, and 5) detailing sites and areas that are associated with or are relevant to the history and interpretation of the trail have been included

in this document. The tables incorporate sites that have a direct and substantial connection to the historic cattle trails as well as sites and venues that currently interpret the history of the cattle trails such as museums, visitor centers, and annual events. It also includes venues that have the potential to interpret the trail in the future. If these national historic trails are designated, a management plan would be prepared and would propose specific areas (if any) to be developed adjacent to the trails for the noted purposes. Those sites that have a direct association with the trail and qualify (meet the criteria) could also be included in the high potential sites section of the management plan should the study routes be designated as national historic trails.

Finding: Criterion 2 is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail include numerous opportunities for scenic, historic, natural, and cultural sites to be developed adjacent to the routes.

### **Criterion 3: Characteristics that Make the Proposed Trail Worthy of Designation as a National Scenic or National Historic Trail**

The National Trails Intermountain Region office of the National Park Service prepared a significance statement for the National Park System Advisory Board in February 2012. This statement (see appendix D of this study) posited that there were four themes upon which the cattle trails were considered to be nationally significant. This statement was peer-reviewed by two university professors who are familiar with the cattle-trail era and by each of the four state historic preservation officers along the various cattle trail routes. The professors and the four state historic preservation officers concluded that the Chisholm and Western cattle trails were nationally significant according to the four themes noted in the significance statement. The statement was then submitted to the National Park System's National Historic Landmarks

Committee, which at its mid-May 2012 meeting unanimously voted to forward the nomination to the full NPS Advisory Board. The advisory board, in turn, approved the nomination at its May 22-23, 2012 meeting. The approval was communicated to the National Trails Intermountain Region office from the National Park System Advisory Board via email dated May 23, 2012.

Finding: Criterion 3 is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail study routes are historically and nationally significant making them worthy of designation as national historic trails.

### **Criterion 4: Current Status of Land Ownership and Current and Potential Use along the Designated Route**

Private landowners constitute the vast majority of the landownership in the cattle trails route corridor, with very minor lands allotted to federal, state, and other public agencies. Already there are hundreds of markers, and many interpretive exhibits, marking the route or the vicinity of both the Chisholm and Western Trails, and there is the potential to mark and interpret both historic sites and mark additional trail routes and segments. The marking of the proposed Chisholm National Historic Trail and Western National Historic Trail would include the name of the particular route, either Western or Chisholm Trail. Where the two trails overlap both names would appear on signs. On existing roads and highways auto tour routes could be designated and signed. The opportunity for a range of national historic trail experiences could be realized along the designated routes. Existing public rights-of-way could be used for access to both public and private sites along the two routes. Mechanisms, such as site certification, are currently used by trail administrators along other national historic trails to assist private landowners interested in making privately owned resources available to the public. This approach could

be used as one means of engaging with private land owners to provide for controlled public access and preservation of trail resources as appropriate.

Predictable land use changes related to urban growth in the next decade—for example, at places on the edges of towns and metropolitan areas—could diminish the trails corridor’s scenic values and historic integrity. Table 3 lists historic locations that relate to the trails and have the potential for further development.

Finding: Criterion 4 is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail feasibility study has documented land use and includes an evaluation of current and future uses along the routes.

#### **Criterion 5: Estimated Cost of Acquisition of Lands or Interest in Lands**

No federal land acquisition is anticipated. No lands or interests in lands shall be acquired by the federal government without the consent of the owner. Much of the trail is accessible from public rights-of-way, and major interpretive locations are on existing state lands or at publicly accessible museums and visitor centers. Partner cooperation would be a key aspect in the development of trail interpretation if these trails are designated as national historic trails. Therefore, costs and interest in the national historic trails would depend on cooperative partnerships among the Secretary of the Interior, private landowners, public land managers, federally recognized American Indian Tribes, and other entities.

Implementing the selected trail designation alternative and planning and administering that alternative would depend on future funding and priorities. The approval and transmittal of a feasibility study does not guarantee that funding and staffing needed to implement the proposed alternative would be forthcoming.

Finding: Criterion 5 does not include estimated costs of land acquisition as the study finds that no land acquisition is anticipated.

#### **Criterion 6: Plans and Cost for Developing and Maintaining the Trail**

If designated by Congress, a comprehensive plan for administration and management would be prepared for the trails. It would detail the development opportunities along the national historic trails and would provide cost estimates. The development of such a plan would cost between **\$500,000 and \$800,000**. Plans of this nature typically direct administration of the trail over a 15 to 20 year period. A yearly budget would be required for a federal agency to administer the trail, within a range of \$350,000 and \$500,000 annually. This potential budget would account for one to two full-time equivalents (FTE) staff positions, with trail administrative duties. These FTEs are based on current operations and administration for other national historic trails and reflect the need for operations, cultural resource, interpretive specialists, and landscape architects to work on various aspects of trail administration.

Other costs associated with the trail are typically single expenditures. A preliminary trail inventory to identify and further define high potential sites and segments would include substantial funding. This kind of expenditure could be carried out in increments over a number of years. Inventory of sites is a function of administration and management after designation. Issues of resource management after designation include the need to inventory for high potential sites and segments. Cost figures in this document that deal with inventory were generated by the Bureau of Land Management and relate to the costs that were incurred to do inventory of portions of the Old Spanish National Historic Trail. Given the length of these cattle routes it is possible, that phased in over a number of years, an intensive

inventory of the routes for high potential sites and segments could cost upwards of \$4,000,000. The cost of these inventories would likely be borne by the landowner/manager.

Other possible expenditures include the development of brochures and publications, as well as costs to support partners in the administration of the trail. These costs are typically derived from the annual operating budget for a national historic trail. While the two trails would be named separately, they would be administered jointly under alternative B and there would be one comprehensive plan for administration and management in place that deals with both trails.

The National Park Service does not construct or operate national historic trail visitor centers, although these types of facilities provide opportunities for partnerships with the designated trail administrator. Trail construction for retracement opportunities, information kiosk construction, wayside exhibits, and signs are examples of other types of expenses that could be incurred if the Chisholm National Historic Trail and Western National Historic Trail is designated. These kinds of expenses would be single events for the initial design and development, but would require some periodic maintenance and upkeep by the landowner or public land manager where the kiosk, wayside, or sign would be placed. These particular expenses would require the active participation of trail partners and a commitment to provide maintenance of the structure or trail.

Trail retracement construction would generally be accomplished for short distances for national historic trails. Trail

retracement would also be one-time initial expenses for design and development and would also entail periodic maintenance. Periodic ongoing maintenance would be an additional cost. By their nature, and as described in the National Trails System Act, national historic trails are not usually continuous and are comprised of noncontiguous segments where some original trail may or may not be present. There would be no need to complete a full retracement of the route from end to end. However, if a pedestrian-focused segment of the historic route was developed for recreational use, it would cost between approximately \$250,000 and \$475,000 per mile to construct, depending upon the chosen materials and site conditions, as well as location. Construction techniques would be designed to be sustainable and would minimize natural, historic, cultural and aesthetic resource impacts (USDA 2007).

These figures are based on FY 2013 amounts. A 6% increase per calendar year should be applied to all costs indicated in table 1. The cost estimate supplied in this table reflects amounts indicative of a typical project and development costs incurred when administering national historic trails. As with any cost estimate, the prices vary depending on the resource, materials, and number of publications.

Funding for development and maintenance of the trails would be subject to agency priorities. The completion and transmittal of a feasibility study does not guarantee that funding and staffing needed to implement the action alternative would be forthcoming.

Finding: Criterion 6 includes estimated costs for the development and maintenance of the proposed Chisholm National Historic Trail and Western National Historic Trail.

**TABLE 1. COST ESTIMATES**

Item Description	Estimated Cost – Low Estimate	Estimated Cost – High Estimate
Management Plan (for 3,750 copies, which includes contractor fee for the environmental assessment, design of the document, technical editing as well as printing, binding and shipping)	\$250,000 (simple environmental assessment)	\$500,000 (complex environmental assessment)
Official Map and Guide (for 230,000 copies)	\$50,000	Relevant to size, format, and number of copies
Sites and Segments Survey (carried out as funding becomes available)	\$3,500,000	\$4,000,000
Trailhead Development (includes two interpretive exhibits, one kiosk/shelter, restroom, parking area with 10 paved spaces, and a walkway)	\$118,834	\$544,792
Visitor / Interpretive Center	\$250,000	\$1,500,000
Trail Signing per Mile (includes two directional signs, two site identification signs, two Original Route signs, two Crossing signs and two Auto Tour / Local Tour Signs)	\$3,270 (county or city roads only)	\$15,888 (includes county but also high speed road signs)
Interpretive Wayside	\$1,000 (fabrication and shipping)	\$1,300 (upright panel)
Retracement Trail per Mile (4% 10' wide asphalt trail, which entails vegetation clearing, leveling, and paving)	\$200,000	\$300,000
Retracement Trail Per Mile (95% earthen non-motorized trail, which entails vegetation clearing and leveling)	\$50,000	\$75,000

### **Criterion 7: Proposed Federal Administering Agency**

The Secretary of the Interior was tasked in the congressional study bill with writing this feasibility study. If these national historic trails are established, the secretary would designate a lead federal administering agency, which would work in partnership with federal, state, and local agencies; private landowners; federally recognized American Indian tribes and others along the cattle trail routes. The great majority of the cattle trail routes are located on private land with minor portions being owned by state, federal, and other public entities. The National Park Service, due to its authorship of this feasibility study, is the only federal agency that, presently, is broadly familiar with the historical and administrative aspects of the two cattle trail routes in their entirety. The National Park Service has a successful history of working with a broad variety of trail partners from many organizations including federal, state, local, and private sources. Therefore, this study recommends that the National Park Service be the federal administering agency of these national historic trails should they be designated.

Finding: Criterion 7 has been addressed for the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail study recommends that the National Park Service be the administering agency.

### **Criterion 8: Extent to which a State or its Political Subdivisions and Public and Private Organizations might Reasonably be Expected to Participate in Acquiring and Administering the Necessary Lands**

No land acquisition is anticipated (see criterion 5 above) for the potential national historic trails. Therefore, there would be limited or no role for states or other political subdivisions to play in acquiring land. No public or private organizations have shown an interest thus far in acquiring land along

the trail corridors. By contrast, it is anticipated that designation of these national historic trails would result in little or no change in existing land use patterns.

Organizations such as the Great Western Cattle Trail Association and the International Chisholm Trail Association could play a future role as potential trail partners for the administration of the two study routes. These two organizations seek to promote and preserve the heritage and culture of the cattle drives of the late 1800s and work to market the study routes as heritage tourism destinations across several states.

Finding: Criterion 8 has been addressed for the proposed Chisholm National Historic Trail and Western National Historic Trail. The designation of the Chisholm Trail and Western Trail study routes as national historic trails would not require acquisition of lands.

### **Criterion 9: Relative Uses of the Lands Involved**

The major use of the lands through which the cattle trail routes pass is private or agricultural. Since the majority of the cattle trail routes pass through privately-owned property, it is not feasible to get an accurate estimate of the number of visitors to sections or sites along the trail except from those sites that monitor visitation (i.e., museums, visitor centers, etc.) on a daily basis. Visitor use along national historic trails is typically quantified through the acquisition and compilation of the numbers at these specific sites. That is the closest approximation that can be made for anticipated visitor use and visitor days. However, use of the trail could span all the months in the year. The socioeconomic analysis in section 5 projects positive economic benefits from establishment of national historic trails. The social benefits are in the form of education to the public about the cattle trail history. Because the trail corridor is so small and would not displace any existing uses, alternate land use benefits would be

negligible. Annual operating costs for the trail are anticipated to be \$300,000 to \$500,000, with a total of five person years (includes both volunteers [three person years] and paid staff [two FTE] in the trail administration).

Finding: Criterion 9 has been addressed by the proposed Chisholm National Historic Trail and Western National Historic Trail study. The study concludes that there would be benefits to designation and land use would remain the same.

**Criterion 10: Anticipated Impact of Public Outdoor Recreation Use on the Preservation of a Proposed National Historic Trail and Measures Proposed to Preserve its Values**

Despite the large percentage of privately-owned land, public outdoor recreation opportunities along and nearby the trail are still available. They primarily exist along public lands and rights-of-way but trail enthusiasts may potentially access trail sites and segments on private lands, with the consent and cooperation of the landowner. The impact of such use on the preservation of the cattle trails and their related historic and archeological features and settings would be mitigated through appropriate and consistent literature disseminated to the public as well as measures that fall under section 6 of the National Environmental Policy Act, section 9 of the Archaeological Resources Protection Act of 1979 and section 304 of the National Historic Preservation Act of 1966.

If national historic trails are designated, a comprehensive plan for administration and management would be prepared to address the issues and necessary actions required to ensure evaluation and preservation of the values that contribute to the national historic significance of the proposed cattle trail routes. In addition, historic sites and segments that are selected as high potential sites would be flagged according to their degree of sensitivity. Those rated as highly sensitive would be kept confidential by the

federal government if disclosure may result in substantial risk of harm, theft, or destruction of the site.

Finding: Criterion 10 has been addressed for the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail study finds that recreational use would remain the same or be enhanced.

**Criterion 11: To Qualify for Designation as a National Historic Trail, a Trail Must Meet all Three of the Following Criteria**

(11 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 exist as a discernible trail to qualify but its location must be sufficiently known to permit evaluation of the potential for public recreation and historical interest. A designated trail should generally follow the historic route but may deviate somewhat on occasion of necessity to avoid difficult routing or for more pleasurable recreation.

Both the Chisholm Trail and the Western Trail served a variety of purposes: to access railheads for the Midwestern market, to supply the ever-increasing demand for cattle on newly-established ranches and farms (both in the Great Plains and farther west), and to supply beef for Indian reservations in Nebraska, Montana, Dakota Territory, and elsewhere. The routes described in the congressional legislation spotlight those routes that were primarily intended to serve the railheads. Cattle driven north for the other two purposes, however, largely followed these same routes as well; north of Ogallala, Nebraska, however, these herds branched out onto many smaller, regionally-significant trails.

The fact that the trails served a diversity of purposes had a direct impact on the trails' route structure. As Wayne Gard noted in his study of the Chisholm Trail, "it was like a gigantic upside-down tree with many



branches.” He further noted that “many a Texan, on hearing the trail mentioned, recalls that it went right through his grandfather’s ranch. These hazy recollections, added together, would put the trail in almost all of the 254 counties in Texas.”

T. C. Richardson, in his study of Texas cattle trails during the 1930s, agreed when he noted that “trails originated wherever a herd was shaped up and ended wherever a market was found. A thousand minor trails fed the main routes, and many an old-timer . . . lived with the firm conviction that the Dodge or Chisholm cattle trail passed right over yonder.”

The actual trail network reflected the above-noted quotes, largely because thousands of square miles in central and southern Texas were located in prime ranching country. It was inevitable, therefore (using the “upside-down tree” analogy noted above), that the southern end of the trail would consist of hundreds if not thousands of capillaries, funneled into a smaller number of major and minor branches, at the northern end of which there would be a very small number of trunk routes headed toward Kansas. Where exactly the trail began, therefore, is by necessity a matter of conjecture. Some historians have claimed that the “main stem” of either the Western or Chisholm trail began in Brownsville (with the implication that Mexican cattle, located immediately south of the border, and various lower Rio Grande Valley ranches were functionally part of the trail system).

Similar confusion reigns at the trails’ northern end. While many traditional accounts suggest that these two trails terminated in Kansas at the cattle-loading facilities in Abilene and Dodge City, respectively, more comprehensive accounts conclude that Abilene (as noted above) was only one of a cluster of Kansas railheads, one of which was Ellsworth; that some cattle continued past Abilene north to Kearney and Schuyler, Nebraska; that the majority of Dodge City-bound cattle did not stop there but instead continued north to Ogallala,

Nebraska; and that many Texas cattle were driven beyond Ogallala (or went well west of Ogallala) on their way to eventual destinations in Wyoming, Montana, and Dakota territories.

Recent research has shown, with considerable clarity, a differentiation between the nationally significant trails and those of regional or local significance. This research, which was able to ascertain annual trail volumes as well as number of years of prominent use, has shown that the cattle trail routes, as outlined in the study legislation, are a very good indicator of where the nationally significant routes are located. This research specifically revealed that relatively high volumes of cattle went north over a multi-year period on the generally-recognized Chisholm Trail route from the San Antonio area to Fort Worth to the vicinity of present-day Oklahoma City and north to Abilene, Kansas; in addition, high volumes of cattle went north-northwest over a multi-year period on the generally-recognized Western Trail from the San Antonio area to Dodge City and on to Ogallala.

This research, however, also revealed that there were routes other than those named in the study that were just as deserving of national significance. For example, it was shown that the Ellsworth Trail—also known as the Cox Cutoff—was nationally significant because it was a primary conduit for Chisholm Trail cattle for a period of three to four years. This trail departed from the more traditional Chisholm Trail near present-day Pond Creek (Grant County), Oklahoma, and angled north-northwest to the railhead at Ellsworth, Kansas. In addition, research conducted by historian Armando Alonzo at Texas A&M University revealed that a nationally significant trail existed south as far as the Kingsville, Texas area and that between San Patricio and Austin, Texas, there were two nationally significant routes: one that went through Oakville, Floresville, and San Antonio, the other through Refugio, Cuero, and Lockhart.

Research into areas north and northwest of Ogallala, Nebraska, revealed that there were a number of trails that branched into Wyoming, Montana, and Dakota territories. Some went to Deadwood in present-day South Dakota; another to Cheyenne and on north to the Miles City-Fort Keogh area in Montana, and still others north to Fort Buford in present-day North Dakota. A few trails went as far as the present-day Canadian provinces of Alberta and Saskatchewan. Historical sources show, however, that the volumes on all of these northern trails were relatively small; that most cattle heading to northern destinations either overwintered in the Ogallala area or were sold to another owner along the way; and that cattle arriving at destinations north of Ogallala often came from origins other than Texas. (Cattle were driven to these destinations from Utah, Minnesota, Oregon, western Montana Territory, and elsewhere.) For all of these reasons, none of the cattle trails north or northwest of Ogallala are considered to be nationally significant as it pertains to this study.

For the various nationally significant trails, their specific locations are known with considerable accuracy. Based on Alonzo's research, it is known that the route heading generally northeast from the San Antonio area toward Austin was along a right-of-way that was located close to present-day Interstate 35, while the trails south of Austin (which began in cattle-rich Refugio, Goliad, and Dewitt counties) largely followed the route of present-day highways from Cuero north to Gonzales, Lockhart, and Austin. From Austin, the trail's trunk route is similar to what is noted in the congressional legislation; it heads north to Belton, the Waco area, the Cleburne area, Fort Worth, and on to St. Jo (in Montague County) and Red River Station.

In Oklahoma, the Chisholm Trail's right-of-way, which is well known due to a series of 1873 General Land Office survey maps (provided by Robert Klemme) that demarcated the route with considerable

specificity, went through, or adjacent to, Duncan, Chickasha, and Tuttle. North of this point, an eastern trail fork headed north to the Mustang and Yukon areas, while a more western variant heads through the Minco, El Reno, and Kingfisher areas. The two trails rejoined near Dover, Oklahoma, then the combined trail goes north to Enid and on to the small community of Pond Creek. From there, the traditional Chisholm Trail crossed the line into Kansas and went through Caldwell, Clearwater, Wichita, Newton, and on to Abilene, while the Ellsworth Trail (Cox Cutoff) headed northwest to Bluff City, Kingman, Ellinwood, and on to Ellsworth.

For the Western Trail, the National Park Service is indebted to various maps that were drawn by Gary and Margaret Kraisinger (based on research performed earlier by Jimmy Skaggs) that are available in the volume *The Western: the Greatest Texas Cattle Trail, 1874-1886*, published in 2004. These maps show with considerable accuracy where the trail went from Fort Supply, Oklahoma to Ogallala, Nebraska; large-format maps that are also available from the Kraisingers have pinpointed the route between San Antonio, Texas and Fort Supply, Oklahoma.

According to the National Trails System Act, a right-of-way for the designated national historic trail would need to be established "with the concurrence of the head of the federal agency having jurisdiction over the lands involved. . ." Given that the majority of these two study routes are primarily in private ownership, any established NHT right-of-way would be determined through a coordinated effort by the trail administrator and landowners willing to designate such a corridor on their non-federal public or private lands.

Finding: Criterion 11A is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The Chisholm Trail and Western Trail study routes were established by historic use and

are historically significant as a result of that use.

**(11 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 American Indians may be included.

NOTE: Criterion 11B is judged by national historic landmark (NHL) criteria. The historic significance of the potential national historic trails was assessed using criteria applied by the National Historic Landmark Program. This program, established by the Historic Sites Act of 1935, applies criteria to evaluate historic and archeological sites, buildings, and objects for their exceptional value in commemorating or illustrating the history of the United States.

Of the six NHL criteria, criteria 1 and 3 apply to properties associated with the Chisholm and Western Trails. Meeting any one of the six criteria meets qualification requirements.

Criteria for and Determination of National Significance Relevant to the National Park Service Thematic Framework and NHL Criteria are listed below following the completed discussion of criterion 11.

Finding: Criterion 11B is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The study routes possess national significance and are eligible for designation as national historic trails.

**(11 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 the category.

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 cattle trails offer potential for historical interest and some recreational use related to historic interpretation and appreciation. Historic resources and sites tied to the trails do exist primarily in the form of built properties such as saloons, hotels, trading posts, military forts, homesteads, residences, ranches and cemeteries or natural features such as river crossings, waterholes, springs, and natural landmarks. However, a large percentage of structures related to the trail and the trail era were either ephemeral in nature or have been destroyed by time, fire, or deliberate demolition leaving only a small fraction of original structures standing or in viable condition. This also applies to some of the historic sites and trail segments that have been altered due to environmental changes, time, or farming practices.

It is also important to note that there were very few structures erected between the beginning and end (railheads) of the cattle trails. Aside from the occasional trading post, fort, or soddie most of the cattlemen traveling the trails were continuously exposed to the forces of nature and were typically very eager to step into a building once they reached the cowtowns at the end of their journey.

Despite this, the cattle trails still offer plenty of opportunities for the general public to enjoy and learn about the history and significance of the cattle trails. The majority

of these opportunities lie within existing facilities such as museums and visitor centers as well as venues that offer experience-based learning such as living history museums and working ranches or towns that offer cattle trail events, reenactments, or commemorative cattle drives. Moreover, there are many historic sites tied to the period of significance that people can visit and experience. A list of existing sites that either interpret or have potential to interpret these trails is located in table 2, 3, and 4. Although a large majority of the trails pass through private property, there is still some potential for recreation and retracement opportunities. Developing a trail along these studied routes is physically possible in places where the trails pass through public lands or in cases where landowners are willing to allow full or occasional access to their property. There are some individuals who have trail resources on their property that have expressed interest in conserving their land for preservation purposes but also to allow for visitor use and enjoyment. Hiking and horseback riding trails could be developed on public land where there are longer continuous stretches of the historic route. Such retracement trails could be enhanced by appropriate interpretation. In addition, portions of the trail follow existing roads, which can provide many opportunities for signing and interpreting along these right-of-ways.

The location of the Chisholm and Western Trail is well-known due to extensive documentation and marking of the routes. However, further research is still needed to identify additional sites and segments that are directly tied to the history of these trails. Designation of these trails would allow further research to be conducted.

**Period of Significance—1867 to 1884.** The Chisholm Trail and Western Trail study routes have been determined to possess national significance and are suitable for designation as the Chisholm National Historic Trail and Western National Historic Trail under Criterion B of the National Trails System Act.

The establishment of the Chisholm Trail and Western Trail as national historic trails would foster greater awareness of the events that took place between 1867 and 1884, and most certainly would generate a greater level of appreciation and ownership among trail partners and the general public. More specifically, the congressional approval of these trails as national historic trails would increase the public visitation to these museums; it would also stimulate public travel along roads adjacent to the historic trails routes, encourage the construction of new cattle trail-related interpretive materials, increase public interest in the preservation of known cattle trail-related historic sites, such as river crossing sites, bedding areas, and known structural remnants remaining from the cattle driving period. The management of each of these types of activities would be addressed in a comprehensive management plan for the cattle trails, which—if approved by Congress—would be written shortly after the appropriate Congressional legislation was signed into law.

**Finding:** Criterion 11C is met by the proposed Chisholm National Historic Trail and Western National Historic Trail. The proposed Chisholm and Western Trail study routes have significant potential for public recreational use or historical interest to meet Criterion C of the National Trails System Act.

**Conclusion.** To qualify for designation as a national historic trail, a trail must meet criterion 11. It must be “nationally significant,” have a documented route through maps or journals, and offer significant potential for public recreational use. Criterion 11 has been met for both the Chisholm and Western trails and criteria 1-10 have been addressed and met as appropriate.

**CRITERIA FOR AND DETERMINATION  
OF NATIONAL SIGNIFICANCE  
RELEVANT TO THE NATIONAL PARK  
SERVICE THEMATIC FRAMEWORK  
AND NHL CRITERIA**

In order to attain national significance (item B, above), proposed national historic trails, in the same way as proposed historically-themed national park units, must qualify under at least one of six criteria that pertain to national historic landmarks, in accordance with regulations issued subsequent to the National Historic Sites Act of 1935.

*How to Apply the National Register Criteria for Evaluation* is an NPS bulletin that pertains to the National Register of Historic Places. It states that

“The quality of national significance [when considering potential National Historic Landmarks] is ascribed to districts, sites, buildings, structures, and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering, and culture and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
2. That are associated importantly with the lives of persons nationally significant in the history of the United States; or
3. That represent some great idea or ideal of the American people; or
4. That embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style or method of construction, or that

represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or

5. That are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
6. That have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts and ideas to a major degree.”

Another key topic in the selection and appropriateness of historic trails as being part of the national trails system is whether they are part of broad, recognized themes in American history. The National Park Service has long operated under one of a series of thematic frameworks. Because of a widespread perception that the practice of history had changed dramatically over the years, Congress passed a bill in 1991 (Public Law 101-628) which included a provision (section 1209) directing the National Park Service to revise its thematic framework for history and prehistory to reflect current scholarship and represent the full diversity of America's past. That law, in turn, brought forth a convocation of historians and other scholars that met at a June 1993 workshop in Washington, D.C.

That meeting was evenly divided between NPS professionals and the academic community with participants from the Organization of American Historians, the National Coordinating Committee for the Promotion of History, and the American

Historical Association. Emanating from that workshop was the publication and distribution of the *National Park Service Revised Thematic Framework*, which was issued in 1994. The document envisions American history as a complex interrelationship of people, time, and place that are manifested in eight broad themes: 1) Peopling Places, 2) Creating Social Institutions and Movements, 3) Expressing Cultural Values, 4) Shaping the Political Landscape, 5) Developing the American Economy, 6) Expanding Science and Technology, 7) Transforming the Environment, and 8) Changing Role of the United States in the World Community. Within each theme, the document also provides a list of subsidiary topics that further define and describe that theme.

As noted below, feasibility study recommends that the proposed Chisholm National Historic Trail and Western National Historic Trail, which incorporates the Chisholm Trail and the [Great] Western Trail (as signified in Section 5303 in the 2009 omnibus parks bill) is nationally significant under four separate themes. Each of these themes describes an overall theme and subsidiary topic as delineated under the National Park Service's 1994 *Revised Thematic Framework*. In addition, for each theme it describes one of thirty Areas of Significance, each of which is also listed in the NPS bulletin entitled *How to Apply the National Register Criteria for Evaluation* (see above). Finally, it describes the NHL criterion associated with each theme.

### Findings Regarding National Significance

The National Trails Intermountain Region planning team makes the following findings regarding national significance. The Chisholm National Historic Trail and Western National Historic Trail are nationally significant for their association with the following four themes.

#### 1) Developing the American Economy: exchange and trade

This theme is associated with NHL Criterion #1: an association with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history.

The widespread use of the cattle trails, more than any other factor, was responsible for re-integrating Texas into the national economy following the Civil War. Texas during the mid-1860s was in a severe postwar economic depression; it was cash-poor but rich in cattle. The Chisholm Trail and, later, the Western Trail brought Texas out of its isolation and tied it into a large national and international trading network, and the state rebounded economically as a result. Due to the newfound availability of inexpensive beef, millions of Americans shifted from a pork-based diet to one based increasingly on beef.

#### 2) Developing the American Economy: distribution and consumption, plus transportation and communication

This theme is associated with NHL Criterion #1: an association with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history.

The success of the cattle trail migrations was an economic windfall to cities and towns between southern Texas and western Nebraska, but it had more far-reaching impacts as well. Because of these trails, cattle were driven to locations throughout the Great Plains and the Mountain West.

#### 3) Peopling Places: encounters, conflicts, and colonization, plus Expressing Cultural Values: popular and traditional culture, plus Developing the American Economy: workers and work culture

This theme is associated with NHL Criterion #1: an association with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history.

The cattle trails, which were located just west of the homesteader's frontier, forced farmers and cowmen to live and work in close proximity to one another. The wild, transient habits and lifestyle of Texas cowmen was a stark contrast to the Midwestern farmers, who focused their livelihood on a designated plot of land. As a result, the cattle trails brought a well-publicized and predictable conflict whenever and wherever these frontiers collided with each other.

4) Expressing Cultural Values: literature, mass media, and popular and traditional culture

This theme is associated with NHL Criterion #3: a theme that represents some great idea or ideal of the American people.

The cattle drives had an enormous impact on popular culture. The reality of a cowboy's lifestyle on a trail drive was anything but romantic; it meant long hours, exposure to weather extremes, dust clouds, swollen rivers, stampedes and other dangers, a minimum of comforts, and low pay, much of which might be spent at an end-of-trail cowtown. Writers and other observers, however, quickly made the cowboy a uniquely American icon: tough, individualistic, hard-working, and self-sufficient. The image of the cowboy was one that came to be widely admired and imitated, first in "dime novels" and other books, and later in motion pictures and television shows. This image, in time, spread out beyond the Great Plains to the remainder of the United States and to foreign lands as well.







A herd of Texas Longhorn Cattle, south of Dodge City, Kansas in 1878. Photo courtesy of the Western History Collections, University of Oklahoma

## SECTION 3 THE ALTERNATIVES



# THE ALTERNATIVES

## INTRODUCTION

This section describes development of no action and action alternatives for the administration, resource management, interpretation, and visitor use of what is proposed to be called the Chisholm National Historic Trail and Western National Historic Trail. The National Park Service conducted public, agency, and planning team scoping meetings to develop the action alternative and met with groups and individuals interested in the trail: city, county, state, and federal agencies; American Indian tribes; elected officials; historians; potential trail users; natural and cultural resource managers; and tribal and state historic preservation officers. Also considered were comments received by mail, email, and submissions via the National Park Service's Planning, Environment, and Public Comment (PEPC) website. Groups and individuals identified opportunities and constraints associated with trail designation. These issues were then synthesized by the study team into proposed designation alternatives. (See section 6 for more information on consultation and coordination.) The development of the alternatives was also aided by the process of developing a significance statement.

As required by the National Environmental Policy Act, the NPS planning process requires the development, analysis, and public review of different solutions, or "alternatives," for accomplishing planning goals while minimizing negative impacts on the environment. A reasonable range of alternatives must be developed, including a baseline alternative, or "no action alternative." This creates a baseline of existing conditions and impacts against which the impacts of the action alternatives can be compared and evaluated. The action alternatives should examine options for national historic trail designation and potential federal involvement.

The planning team considered two alternatives in detail: a no action alternative and an action alternative resulting in the federal designation of two national historic trails as one administrative unit. These two alternatives are discussed below. Another action alternative, for two separate national historic trails, each with their own administration, was considered but dismissed as unsuitable as was another alternative considering a national heritage area or corridor. These decisions are also discussed below in the section "Alternatives Considered but Eliminated from Detailed Study."

The implementation of the action alternative and subsequent planning and/or administration would depend on future funding and agency priorities. The approval and transmittal of a feasibility study to Congress does not guarantee that funding and staffing needed to implement the proposed alternative would be forthcoming.

## ALTERNATIVE A—NO ACTION (CONTINUATION OF EXISTING POLICIES AND AUTHORITIES)

The no action alternative provides for a continuation of current conditions. Under this alternative, there would be no federal designation of national historic trails. Agencies, organizations, and individuals would continue their various approaches to the administration and management of resources associated with the two cattle trails. Existing actions of agencies, organizations, and individuals relating to interpretation or protection of resources associated with the Chisholm and Western Trails would continue as in the past.

Without national historic trail designation, there would not be a single, overarching federal agency directed to help coordinate, interpret, and protect resources and segments of the trails. There would be no coordinated federal recognition or

administration either within or outside of Texas, Oklahoma, Kansas, and Nebraska. National recognition of the events associated with the Chisholm and Western Trails would continue to occur in a piecemeal fashion.

Existing preservation mechanisms would remain in place, but no new federal actions would be taken to protect other significant resources. Existing trends in development would continue, potentially compromising the integrity of the trail and its associated resources. State, county, and tribal laws for historic preservation and property rights would continue to apply. Public access would be provided by those sites now in public ownership. County and tribal-level planning would continue to balance preservation of historic and cultural resources with the realities of incremental development.

If no national historic trail is established, recognition of the national significance and contributions of these trails to broad patterns of United States history, and their role in developing American economy, commerce, and population would occur sporadically and in an uncoordinated fashion.

There would be no additional federal funding for this alternative.

### **ALTERNATIVE B—DESIGNATE TWO NATIONAL HISTORIC TRAILS AS ONE ADMINISTRATIVE UNIT**

Under alternative B, Congress would designate two national historic trails as one administrative entity that would include the route of both the Chisholm and Western Trails as described in Public Law 111-11, Section 5303. The designated national historic trails would be known separately as two distinct trails, specifically the Chisholm National Historic Trail and Western National Historic Trail. Each national historic trail would include the primary

cattle drive routes that are nationally significant.

Nationally significant portions of the Chisholm Trail from the vicinity of Cuero and San Antonio, Texas, northward to Abilene, Kansas and the Western Trail from the vicinity of San Antonio, Texas, northward through Oklahoma and Dodge City, Kansas, and continuing north to Ogallala, Nebraska, would be included in the designated national historic trails.

In addition, the designated trail would include the length of the Ellsworth Trail (Cox's Cutoff) from Pond Creek, Oklahoma to Ellsworth, Kansas as well as a series of nationally significant routes in central and southern Texas that historically were thematically related to both the Chisholm and Western Trails. Where the route relates to both trails, any future signing of the route would indicate both national historic trails.

These national historic trails would be administered by the Secretary of the Interior through formal and informal partnerships with private and federal landowners, state and local governments, and others on a strictly voluntary basis for resource protection, visitor experience, and interpretation/education.

If Congress designates these routes as national historic trails, a comprehensive plan covering administration of the trails would be developed, a process that would involve federally recognized American Indian tribes, federal, state and local agencies, landowners, and site managers. The plan would outline resource protection and interpretation of the trails. Cooperative agreements would outline strategies for partners to accomplish national historic trail goals.

New visitor experience opportunities would be developed and/or initiated through coordinated partnerships between the Secretary of the Interior and interested entities. Interpretation and education programs would emphasize the Chisholm and Western trails history and heritage. While they would be administered as a single

unit, the distinctiveness of each trail would be recognized and interpreted with trail specific focused interpretive exhibits, published materials, social media, and development opportunities such as retracement trails. Existing visitor experience opportunities could be enhanced through new partnerships and the available technical expertise from trail administration related to development and interpretation.

A comprehensive plan for administration would build on the nationally significant themes related to the contributions of these trails to broad patterns of United States history and their role in developing the American economy, commerce, and population. A program of coordinated interpretation would further enhance public understanding and appreciation of these historic routes.

The trails and their resources would continue to be owned and managed by the current owners. Tables 5, 7, and 8 in Section 4, provide lists of current visitor use opportunities in proximity to the proposed national historic trails. These opportunities are presently provided by private and public landowners who would be potential partners for trail administrators to work with regarding providing and developing greater access to various trail sites.

To the north and south of the main trails the feeder and connecting routes that are not nationally significant would have the potential for development as side trails and connecting trails in accordance with the National Trails System Act.

There would be challenges for trail administrators to work with private entities to provide visitor access to privately owned trail sites. Trail administrators would work with private landowners to protect and preserve their historic trail properties, and share them with others at their discretion

through a certification process. Certification is a partnership that would be available to landowners and allow them to choose how and when visitors might access private property under limited and controlled circumstances. The certification process is optional and landowners would participate on voluntary basis. Participation in national historic trail interpretation, preservation, and allowance of public access would continue to be done at the discretion of the private landowner.

These routes represent an opportunity for recreation that would not be a traditional through-hiking trail. While some opportunities would be available for short hiking and recreational experiences, these cattle trail routes better lend themselves to interpretation and recreation at sites along the routes. A large percentage of these routes are in private ownership which could be a hindrance to trail development.

Existing federal and state laws and regulations would be enforced. American Indian tribes associated with the trails and state historic preservation offices would be consulted prior to any actions to develop or interpret the trail. Any existing organizations such as the Great Western Cattle Trail Association and the International Chisholm Trail Association could play a future role as potential trail partners.

The establishment of the two trails would not have any impact on existing state and federal regulatory processes, nor place any additional requirements on property owners, regarding use or continued ownership. This study has determined there will not be an impact on private properties as a result of establishing the Chisholm National Historic Trail or the Western National Historic Trail.

**TABLE 2. COMPARISON OF ALTERNATIVES**

	Alternative A No Action	Alternative B Designate Two National Historic Trails as One Administrative Unit
Concept	National historic trails would not be designated. No federal government action would occur and extant resource protection, interpretation, and education programs would continue.	Two national historic trails would be designated to commemorate the movement of cattle from Texas through Oklahoma to railheads in Kansas and Nebraska.
Route Description	Routes would not be identified or interpreted by the federal government.	The main cattle drive routes would be designated: included would be the Chisholm Trail from southern Texas to railheads in Kansas; and the Western trail from southern Texas to Nebraska.
Administration	No federal administration would occur.	The national historic trails would be administered by the Secretary of the Interior through formal and informal partnerships. A comprehensive management plan would be developed.
Visitor Use and Experience	Visitor experience would continue to be provided by existing private and public local and state facilities.	New visitor experience opportunities would be developed and/or initiated through coordinated partnerships between the Secretary of the Interior and interested entities.
Interpretive Emphasis and Programming	Existing interpretation and education programs at museums and visitor centers would continue.	Interpretation and education programs would emphasize cattle trail history and heritage. The distinctiveness of each trail would be recognized and interpreted. A comprehensive plan for administration and management would identify themes and provide for coordinated interpretation.
Resource Protection – Cultural and Natural Resources	Existing federal and state laws and regulations would be enforced.	Existing federal and state laws and regulations would be enforced. Associated tribes would be consulted. The administering agency, in partnership with various groups, tribes, federal and state and local agencies, would develop a comprehensive plan for administration and management that identifies sites supporting public access and interpretation and resource protection strategies.

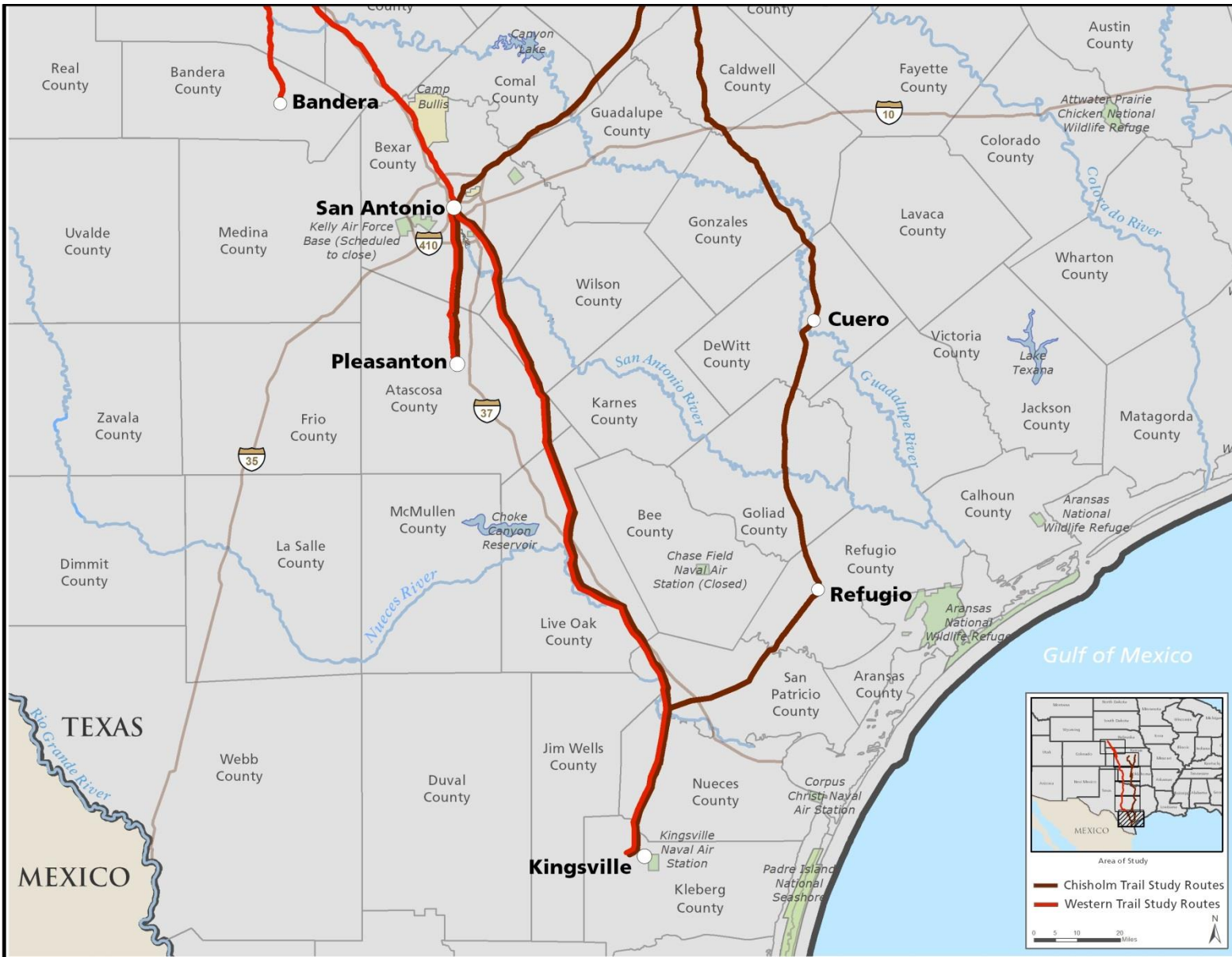


**FIGURE 1. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL—  
DEPICTING THE CHISHOLM AND WESTERN TRAILS AND SOUTHERN TEXAS FEEDER TRAILS**

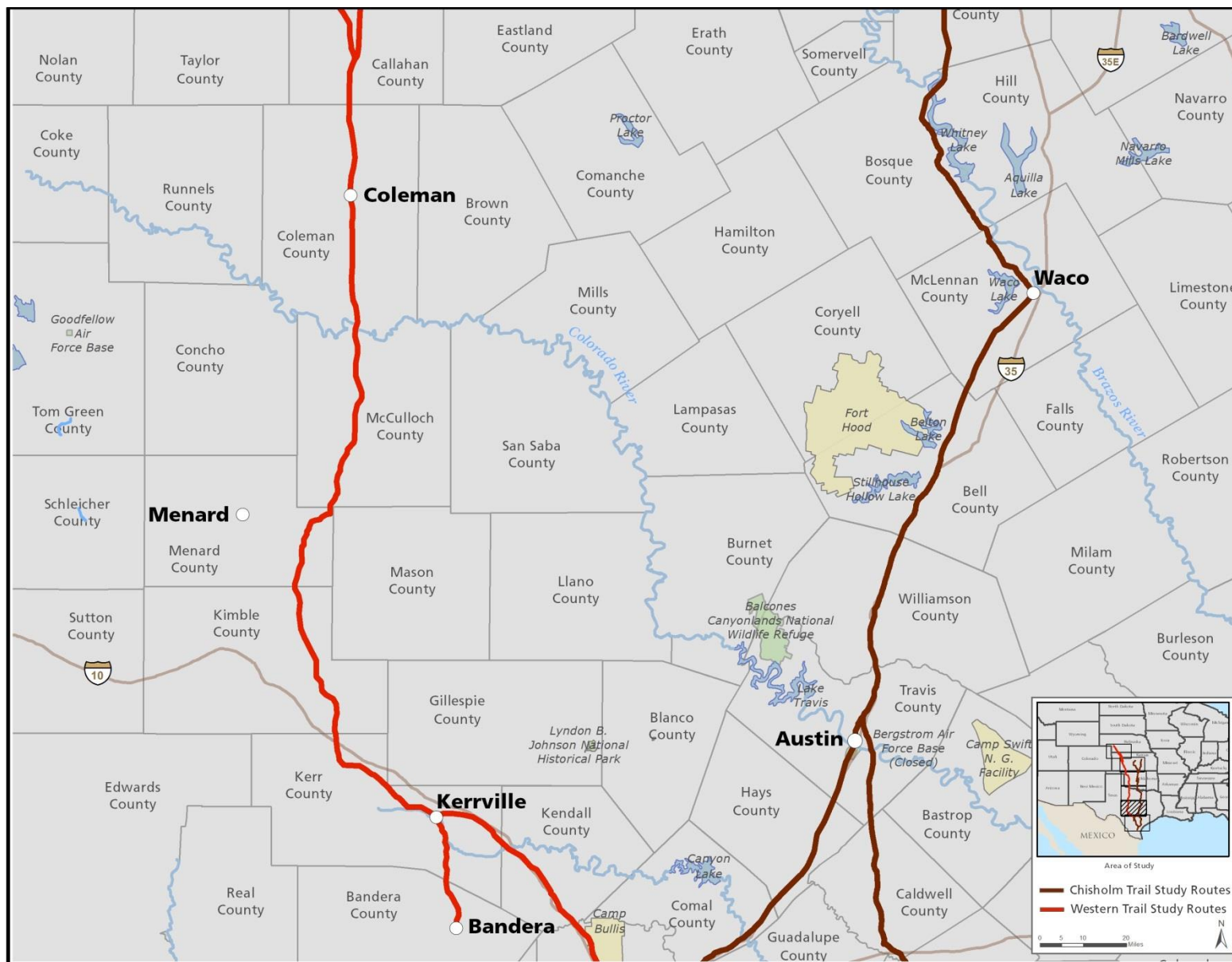


**FIGURE 2. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES—OVERALL CONTEXT MAP**

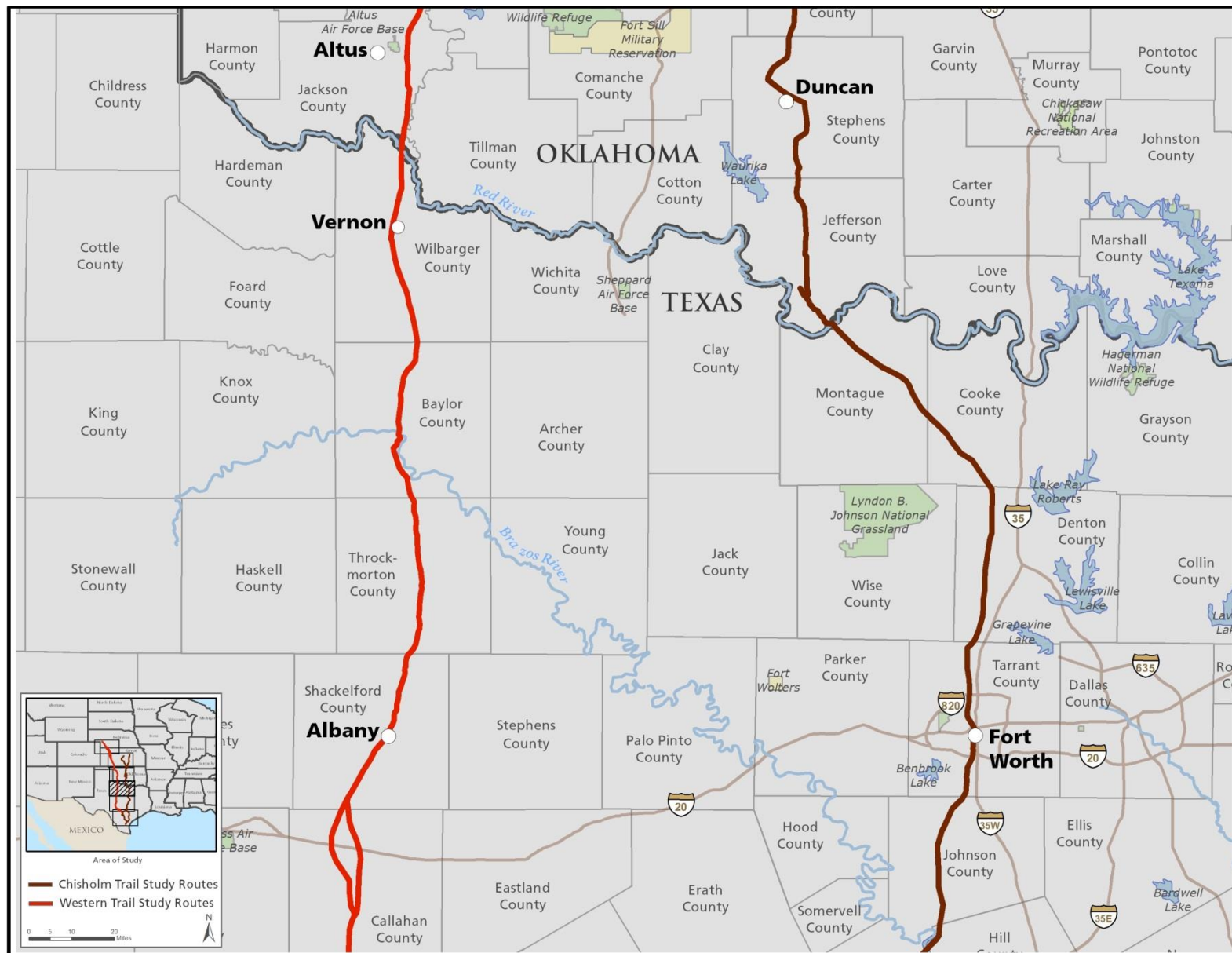




**FIGURE 3. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES—MAP 1 (TEXAS)**

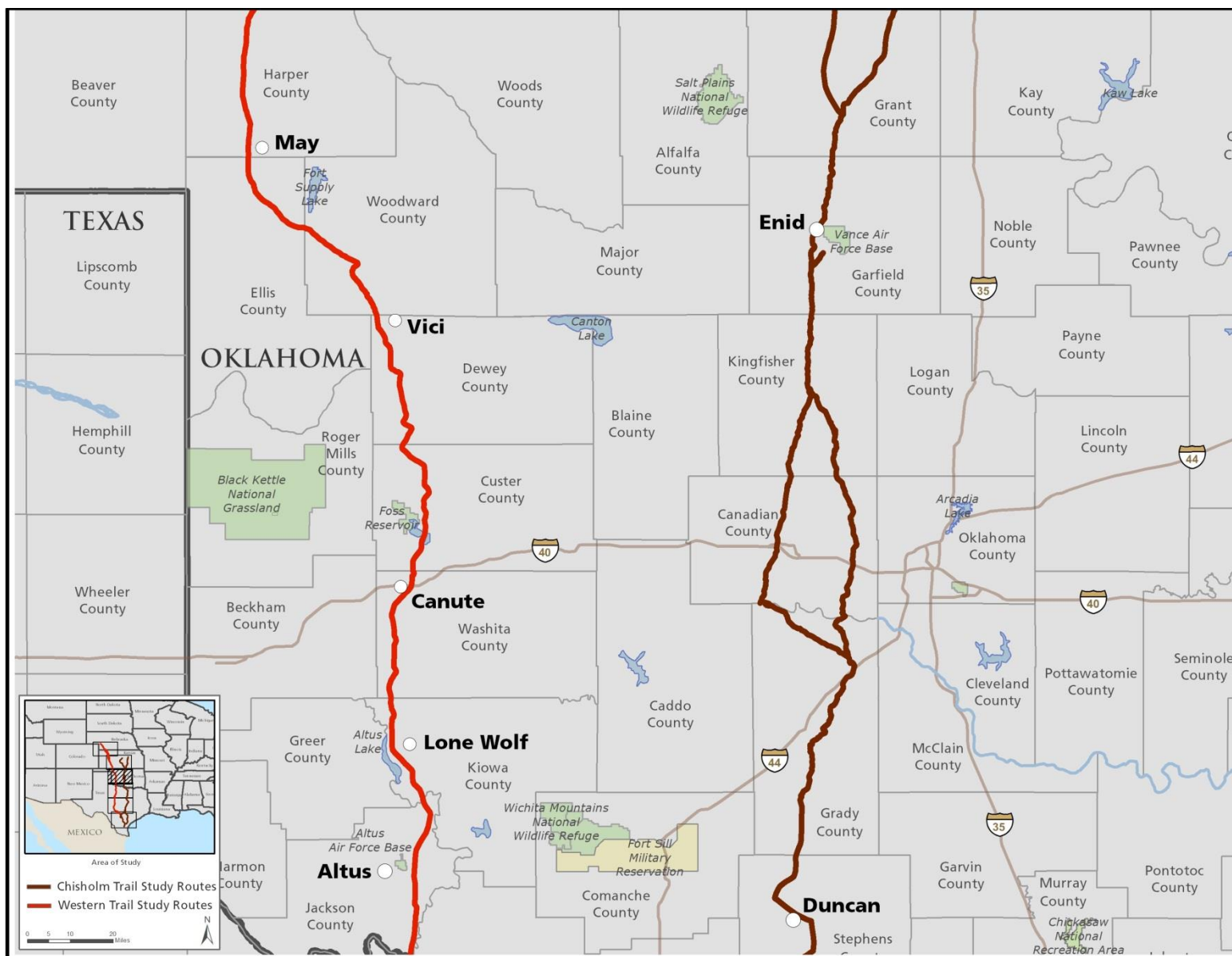


**FIGURE 4. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES—MAP 2 (TEXAS)**

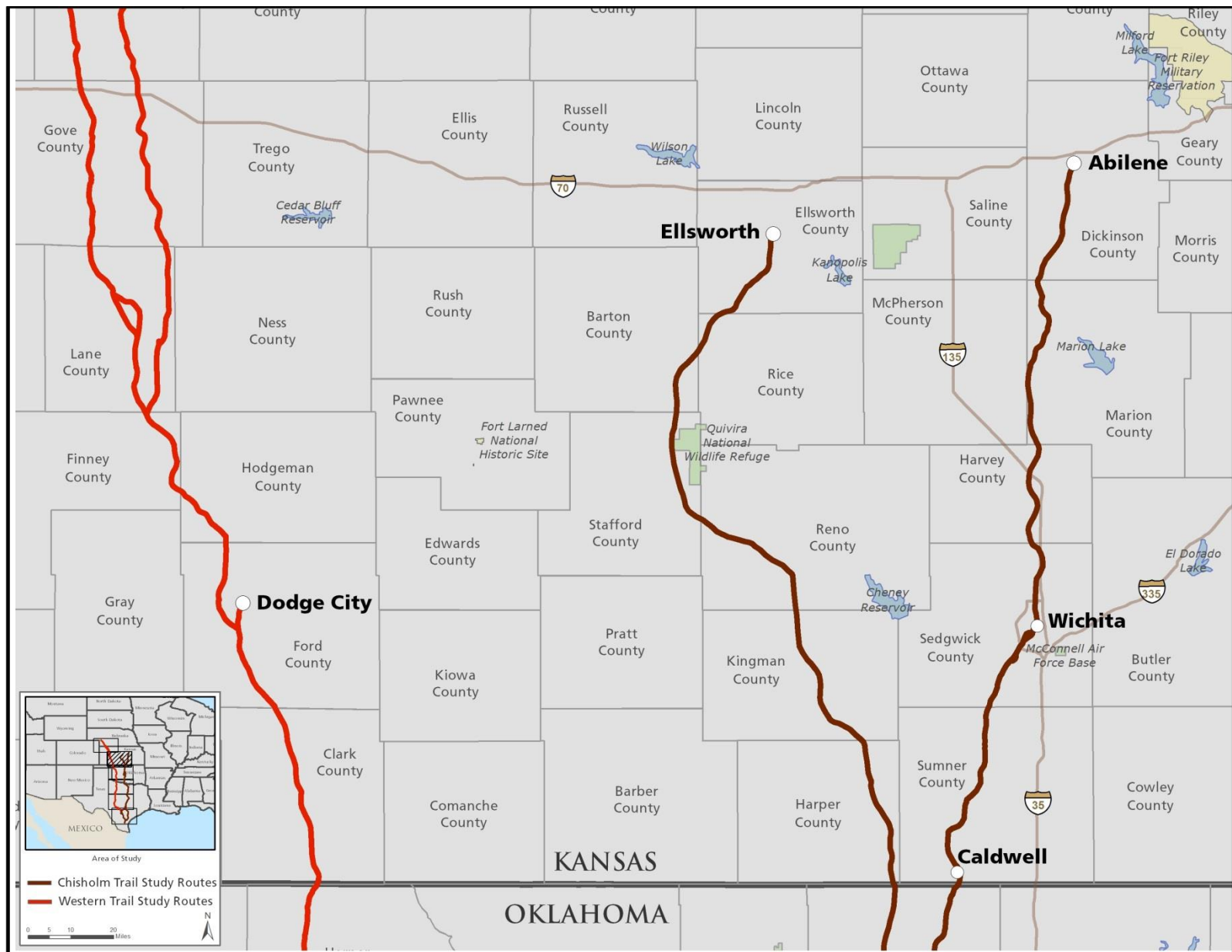


**FIGURE 5. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES – MAP 3 (OKLAHOMA AND TEXAS)**

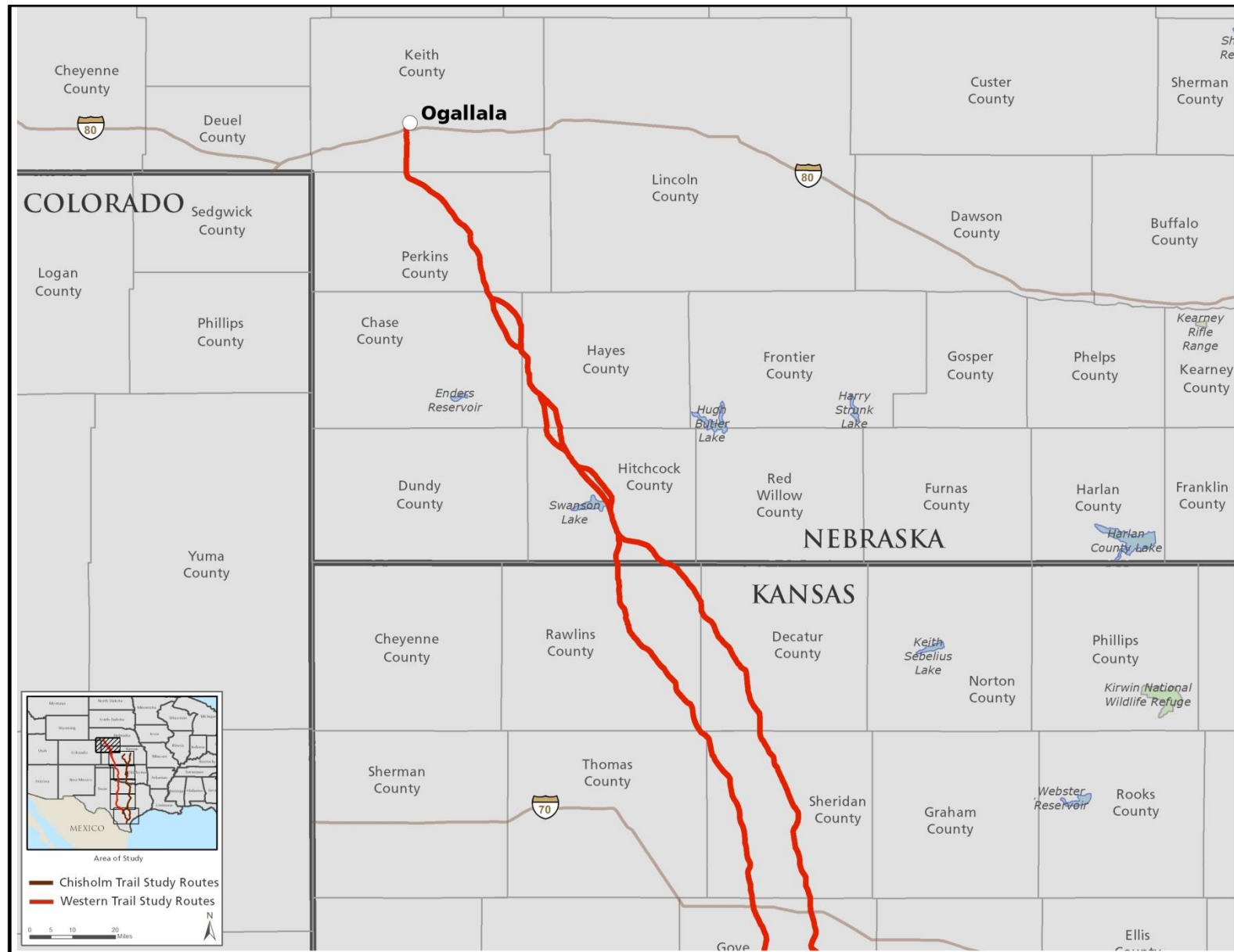




**FIGURE 6. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES – MAP 4 (OKLAHOMA)**



**FIGURE 7. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES – MAP 5 (OKLAHOMA AND KANSAS)**



**FIGURE 8. PROPOSED CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL STUDY ROUTES – MAP 6 (KANSAS AND NEBRASKA)**

## **ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

The planning team considered an alternative that would designate a different kind of administrative entity, such as a national heritage corridor or heritage area. The planning team did not conduct detailed study of this type of alternative because there was no interest in this designation from the public. During public scoping and subsequently during additional analysis, no interest was shown in carrying forward this type of alternative.

The study team also considered the designation of two national historic trails, each with their own administration. This approach was eliminated as not efficient and one administrative unit is proposed in the action alternative for the two trails which are named separately.

## **ADDITIONAL CONSIDERATIONS**

As part of the action alternative, consideration was given to adding certain northern and southern routes to the proposed national historic trail. These additional routes were associated with cattle movement north along feeder routes from southern and central Texas to the main route; as well as from Kansas and Nebraska railheads to points farther north. Historically, cattle were driven from Texas north not only to the better-known railheads in Kansas and Nebraska, but many cattle were driven to supply the demand for beef at the newly-established Indian reservations in Nebraska, Dakota Territory, and Montana territories. In addition, farms and ranches were opening up throughout the northern plains and the northern Rocky Mountains, and cattle were needed for many if not most of these new operations. The volume of cattle that went over the various routes north or northwest of Ogallala, Nebraska, was a small fraction of the cattle volumes along the main stem of the Chisholm or Western trails; these trails were often used for a relatively short time (three years or

less); and in addition, the cattle being driven over these northern routes were overwintered, or otherwise changed owners, at Ogallala before being delivered to their final destinations. Regarding trail volumes at the southern end of the trail system, research by Armando Alonzo, a historian at Texas A&M University, has demonstrated that while a few of the main trailing routes in southern Texas were so heavily used that they warrant national significance, many other routes were only regionally or locally important.

As a result of these research efforts, some southern, central, and northern routes were recognized as being nationally significant. Many others, however, were dismissed from the action alternative based on failing to meet the criteria for national significance. These connecting and feeder routes could still be interpreted and preserved by federal, state, county, or private management or administrative entities as part of the cattle trails story. They could be considered for a state historic byway or other designation deemed appropriate by the landowner or manager.

## **HOW THE ACTION ALTERNATIVE MEETS THE PURPOSE OF THE STUDY**

The purpose of the study is to evaluate the suitability and feasibility of designating the Chisholm and Western cattle trails as the Chisholm National Historic Trail and Western National Historic Trail. Alternative B meets this purpose by proposing designation of these two trails as an administrative national historic trail unit encompassing the two routes that are named separately.

## **ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

The National Park Service *Director's Order 12* (Section 2.7) requires that an environmental assessment identify an environmentally preferable alternative. The

environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

The Council on Environmental Quality defines the environmentally preferable 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.

Alternative A, the no action alternative, recognizes that existing conditions along the length of the historic routes would continue. No national historic trail would be designated, and no federal lead agency would be designated to encourage preservation of the Chisholm and Western cattle trails-related historic properties and natural areas along the study routes. This alternative, therefore, does not fully meet criteria 1-6 as described above.

Alternative B is the environmentally preferable alternative because it best meets criteria 1-6. It provides the greatest degree of resource protection and enhanced visitor experience while allowing for individual property rights, diverse land uses, and balance between existing populations along the route and the creation of national historic trails.

The environmentally preferable alternative should not be viewed as the National Park Service’s preferred alternative or as a positive or negative recommendation by the National Park Service or the Department of the Interior for any future management strategy or action directed at a Chisholm National Historic Trail and Western National Historic Trail.





Noon stop on the Chisholm Trail. Photo courtesy of the Western History Collections, University of Oklahoma.

## SECTION 4 AFFECTED ENVIRONMENT



## **AFFECTED ENVIRONMENT**

### **ISSUES AND IMPACT TOPICS ANALYZED IN DETAIL**

This section describes the existing conditions of those resources and values that could be affected by the designation of the cattle trail routes as national historic trails. This discussion provides the descriptive information necessary to understand the current conditions and the context for comparing alternatives for designation of these trails. The resource topics presented in this section correspond to the resource impact analysis presented in the environmental consequences section. An additional section describes those topics considered but not carried forward for further analysis.

The National Park Service analyzes potential impacts by considering the effects of the proposed action on the environment, along with connected and cumulative actions. In those cases where impacts are not anticipated or are expected to be minor or less, the issues and impact topics may be dismissed from detailed analysis. As described in NEPA regulations, NEPA analysis should focus on issues that are truly significant to the action in question, rather than amassing needless detail (Council on Environmental Quality (CEQ) NEPA regulations, 40 CFR 1500.1 (b)).

The study area for the affected environment includes the counties and regions around the two principal trail routes under consideration and counties associated with several additional trail spurs south of San Antonio. The trail routes parallel each other for approximately 700 miles, starting in San Antonio, Texas, with several hundred additional miles of trail routes south of San Antonio. Historically, cattle were driven to San Antonio before being driven north. The primary routes cross through four states and 96 counties. The western route, the trail known as the Western Trail, extends north

to a Nebraska trailhead; the more eastern route, the Chisholm Trail, extends north into Kansas. The additional 18 counties included in the analysis were the locations of historically important routes, or were south of San Antonio in counties referred to in some documents as the Cattle Procurement Area.

### **CULTURAL RESOURCES**

#### **Introduction**

Cultural resources are those resources that relate to archeology, history, and ethnography. To focus attention on management requirements within these property types, the NPS management policies categorize cultural resources into archeological resources, cultural landscapes, structures, museum objects, and ethnographic resources. Cultural resources addressed here include historic resources (sites, structures, and districts), archeological resources, cultural landscapes, and ethnographic resources.

#### **Historic Resources**

Historic resources include sites, structures, buildings, objects, and districts. A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archeological value regardless of the value of any existing structure. Structures are typically a work made up of interdependent and interrelated parts in a definite pattern of organization and often reflect an engineering project that is large in scale. A building is a structure created to shelter any form of human activity, such as a house, barn, church, hotel, or similar structure. An object is a material thing of functional, aesthetic, cultural,

historical or scientific value that may be, by nature of design, movable yet related to a specific setting or environment. A district is a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. While impacts to historic resources are most likely to be beneficial, this topic is retained for further analysis because of the importance of these resources to the potential national historic trails and the emphasis placed on historic resources in the National Trails System Act.

There is one national park system unit in the general area of the Chisholm and Western Trails: the San Antonio Missions National Historical Park in Bexar County, Texas. The Chisholm and/or Western Trails also cross six national historic trails currently in the National Trails System: the El Camino Real de los Tejas National Historic Trail in Texas, the Santa Fe Trail in Kansas, and the Pony Express, Oregon, and California and Mormon Pioneer trails in Nebraska.

Texas has 46 national historic landmarks, 3 of which are listed for multiple counties. Currently there are 3,095 individual and district entries on the National Register of Historic Places in Texas (14 of which are recorded in multiple counties). Three properties are related to the cattle trails: the King Ranch in Kleburg County sent herds north to Kansas; Spanish Fort in Montague County was a watering location on the way to the Chisholm Trail; and Doan's Adobe at Doan's Crossing in Wilbarger County was at a ford of the Red River on the Western Trail.

There are 21 national historic landmarks in Oklahoma, none of which relate directly to the Chisholm or Western trails. None of the 121 properties and districts in Oklahoma that are currently listed on the national register relate to either of the two trails.

Kansas has 24 national historic landmarks. None relate to the two cattle trails. There are currently 1,243 properties and districts on

the national register in Kansas. None of these properties or districts directly relates to the trails.

In Nebraska, none of the 20 national historic landmarks relates directly to the trails. Of the 1,016 properties and districts in Nebraska that are currently listed on the national register, only the Texas Trail Stone Corral in Chase County relates to either of the two trails. Ogallala was a terminus for the cattle trails and a significant shipping point. The character and success of Dodge City, Kansas, and Ogallala, Nebraska, were significantly determined by the cattle trails.

Communities such as Abilene, Caldwell, Dodge City, Ellsworth, and Wichita were locations where cattle were taken for shipment by rail to Kansas City, Chicago, St. Louis, and eastern markets and influenced the character and development of these towns. The hotels, saloons, bordellos, stores, and other businesses that catered to the cattle drivers, often separated from the rest of the community, brought significant capital to the "cow towns."

Kansas City, Kansas, developed into a major cattle market competing with St. Louis and Chicago. In 1870, stockyards were established at Kansas City to broker cattle not sold at the Kansas railheads. By 1890, nearly \$.5 million had been invested in the livestock trade and between 1871 and 1890 the stockyard receipts totaled over \$7 million (Skaggs 1973).

## Archeological Resources

Archeological resources are the remains of past human activity and records documenting the scientific analysis of these remains. Archeological resources include stratified layers of household debris and the weathered pages of a field notebook, laboratory records of pollen analysis and museum cases of polychrome pottery. Archeological features are typically buried but may extend above ground; they are commonly associated with prehistoric peoples but may be products of more

contemporary society. What matters most about an archeological resource is its potential to describe and explain human behavior. This topic is retained for further analysis because of the importance of these resources to the potential national historic trails.

Although there has been no comprehensive survey of the archeological resources along the trail routes, a review of literature related to the Chisholm and Western Trails and associated spurs to the main trails show there are potential archeological resources within the corridors of the cattle trails (Table 3).

Potential archaeological resources associated with the Chisholm Trail and the Western Trail include the following kinds of

sites: (1) remnants of the cattle trails; (2) graves of individuals who died during trail drives from drowning while crossing rivers and streams, fatal accidents and poisonous snakebites, fighting with rustlers or American Indians, lightning strikes, or illness; (3) cattle crossings of rivers and streams; (4) stone or wooden enclosures for holding and sorting cattle and horses; (5) frequently used campsites along the trails, typically beside rivers or streams; (6) ranches along the trail where trail drivers stopped; (7) stores and/or town sites where trail drivers were supplied; (8) stockyards beside railroads; (9) campsites near shipping points such as Abilene, Caldwell, Dodge City, Ellsworth, Fort Worth, Newton, Ogallala, and Wichita; and (10) specific districts in communities dedicated to the entertainment of trail drivers.

**TABLE 3. HISTORIC SITES RELATED TO THE CHISHOLM AND WESTERN TRAILS**

Resource Name	County	Associated Trail	Description
<b>Kansas</b>			
Arkansas River Crossing and Camp	Barton	Chisholm	Frequently used camp at the north side of the ford of the Arkansas River at Ellinwood (Kansas Pacific RR 1875)
Ash Creek Camp	Ellsworth	Chisholm	Frequently used camp at the head of Ash Creek (Kansas Pacific RR 1875)
Buck Creek Crossing and Camp	Ford	Western	Frequently used camp at the ford of Buck Creek (Hunter 1923)
Chikaskia River Crossing and Camp	Harper	Chisholm	Frequently used camp at the ford of the Chikaskia (Shawcaspah) River (Kansas Pacific RR 1875)
Cow Creek Camp	Barton	Chisholm	Frequently used camp (Kansas Pacific RR 1875)
Cox's Crossing and Camp	Harper	Chisholm	Frequently used camp at the ford of Bluff Creek (Gard 1954; Kansas Pacific RR 1875)
Earthen Mount Trail Markers	Various	Western	Trail markers for survey party commissioned by McCoy (Ridings 1936; Worcester 1980)
Indian Run Camp	Reno	Chisholm	Frequently used camp (Kansas Pacific RR 1875)
Long Horn Round Up	Clark	Western	Roadhouse owned by "Red" Clark on the bank of the Cimarron River (Hunter 1923)
Mailey's Roadhouse	Ford	Western	Roadhouse at the Buck Creek Crossing (Hunter 1923)
Manning's Store	Kingman	Chisholm	Supply stop by the South Fork of the Ninnescah River Crossing (Gard 1954)
Middle Fork of the Ninnescah River Crossing and Camp	Kingman	Chisholm	Frequently used camp at the north side of the ford of the Middle Fork of the Ninnescah River (Kansas Pacific RR 1875)
North Fork of Bluff Creek Crossing and Camp	Harper	Chisholm	Frequently used camp at the ford of the North Fork of Bluff Creek (Kansas Pacific RR 1875)
North Fork of the Ninnescah River Crossing and Camp	Reno	Chisholm	Frequently used camp at the ford of the North Fork of the Ninnescah River (Kansas Pacific 1875)

AFFECTED ENVIRONMENT

Resource Name	County	Associated Trail	Description
Plum Creek Camp	Ellsworth	Chisholm	Frequently used camp (Kansas Pacific 1875)
Rattlesnake Creek Camp	Stafford	Chisholm	Frequently used camp (Kansas Pacific 1875)
South Fork of Bluff Creek Crossing and Camp	Kingman	Chisholm	Frequently used camp at the ford of the South Fork of the Ninnescah River (Kansas Pacific 1875)
Stone's Store	Sumner	Chisholm	Supply stop at C.H. Stone's store, which was at the later site of Caldwell (Gard 1954)
Wilson's Creek Camp	Ellsworth	Chisholm	Frequently used camp (Kansas Pacific 1875)
Nebraska			
Texas Trail Stone Corral	Chase	Western	Stone corral
Oklahoma			
Baker's Ranch Site	Kingfisher	Chisholm	Watering place (Oklahoma State Historic Preservation Office [SHPO] Inventory)
Branch of Beaver Creek Crossing and Camp	Jefferson	Chisholm	Frequently used camp at the ford of the Branch of Beaver Creek (Gard 1954; Kansas Pacific RR1875)
Brigg's Ranch Site	Greer	Western	Watering place (Oklahoma SHPO Inventory)
Buffalo Springs	Garfield	Chisholm	Site of the Pat Hennessey massacre of July 4, 1874 (Oklahoma historical marker)
Canadian Crossing and Camp	Grady	Chisholm	Frequently used camp at the ford of the Canadian River (Gard 1954; Kansas Pacific RR 1875)
Chisholm Springs	Pottawatomie	Chisholm	Popular spring along the Chisholm Trail located close to a trading post owned by Jesse Chisholm
Council Grove Trading Post	Canadian	Chisholm	Trading post along the trail (Gard 1954)
Deer Creek Crossing and Camp	Canadian	Chisholm	Frequently used camp on the north side of the ford of Deer Creek (Gard 1954; Kansas Pacific RR 1875)
Elm Spring Crossing	Garvin	Chisholm	Ford of the Washita River
Fort Reno	Canadian	Chisholm	Fort Reno started as a military camp during the Indian Wars era but was also used as a supply store and stop-over along the Chisholm Trail
Fort Reno Crossing	Canadian	Chisholm	Ford of the South Canadian River
Fort Supply	Woodward	Western	Supply stop and cattle/beef distribution center for US Army
Hackberry Creek Camp	Garfield	Chisholm	Frequently used camp (Gard 1954; Kansas Pacific RR 1875)
Kingfisher Creek Crossing	Kingfisher	Chisholm	Frequently used camp at the ford of Kingfisher Creek (Gard 1954; Kansas Pacific RR 1875)
Little Washita River Crossing and Camp	Grady	Chisholm	Frequently used camp on the north side of the ford of the Little Washita River (Gard 1954; Kansas Pacific RR 1875)
Lone Tree Camp	Grant	Chisholm	Frequently used camp at the head of Pond Creek (Gard 1954; Kansas Pacific RR 1875)
Stinking Creek Crossing and Camp (Monument Rocks)	Jefferson	Chisholm	Frequently used camp at the ford of Stinking Creek (Gard 1954; Kansas Pacific RR 1875)
Monument Hill	Jefferson	Chisholm	Physical landmark along the Chisholm Trail
North Canadian River Crossing and Camp	Canadian	Chisholm	Frequently used camp on the north side of the ford of the North Canadian River (Gard 1954; Kansas Pacific RR 1875)
Pond Creek Stockade	Grant	Chisholm	Frequently used camp at the confluence of Pond Creek and Osage Creek

Resource Name	County	Associated Trail	Description
Pond Creek Ranch	Grant	Chisholm	Supply stop at ranch along the trail owned by Hopkins and Hance (Ridings 1936)
Red Fork Ranch	Kingfisher	Chisholm	Frequently used camp near the ford of the Cimarron River (Gard 1954; Kansas Pacific RR 1875)
Rock Crossing	Grady	Chisholm	Ford of the Washita River (Gard 1954; Kansas Pacific RR 1875)
Rock Island Park	Grant	Chisholm	Frequently used camp across the creek from Pond Creek Ranch (Ridings 1936)
Rush Creek Camp	Grady	Chisholm	Frequently used camp at the head of Rush Creek (Gard 1954; Kansas Pacific RR 1875)
Salt Fork Crossing and Camp	Grant	Chisholm	Frequently used camp at the ford of the Salt Fork of the Arkansas River (Gard 1954; Kansas Pacific RR 1875)
Sewell's Ranch and Stockade	Grant	Chisholm	Supply stop and stockade east of the Pond Creek Crossing (Gard 1954; Ridings 1936)
Skeleton Creek Camp	Garfield	Chisholm	Frequently used camp at Skeleton Creek (Gard 1954; Kansas Pacific RR 1875)
Skeleton Ranch	Garfield	Chisholm	Ranch and Stage Station on the trail (Oklahoma SHPO Inventory)
Beaver Creek Stage Station	Stephens	Chisholm	Frequently used camp on the East Fork of Beaver Creek (Gard 1954; Kansas Pacific RR 1875)
Sugg Ranch	Jefferson	Chisholm	Ranch on the trail (Oklahoma SHPO Inventory)
Turkey Creek Camp	Kingfisher	Chisholm	Frequently used camp on Turkey Creek (Gard 1954; Kansas Pacific RR 1875)
Walnut Creek Camp	Grady	Chisholm	Frequently used camp on Walnut Creek (Gard 1954; Kansas Pacific RR 1875)
Western Trail Segments	Ford	Western	Physical trace of the Western Trail that runs through a canyon on private property
Unknown Drover Grave	Canadian	Chisholm	1870 Grave of unknown drover killed by Indians (Hunter 1923)
Texas			
Bandera Pass	Bandera	Western	Most cattle traveled through this pass
Doan's Crossing	Wilbarger	Western	Supply stop and ford of the Red River (Gard 1954; Drago 1965; Hunter Vol. 2, 1923)
Fort Griffin / "The Flat"	Shackelford	Western	Supply stop and ford of the Clear Fork of the Brazos River (Gard 1954; Skaggs 1973)
Fort McKavett State Historic Site	Menard	Western	Fort and supply stop
Fort Worth	Tarrant	Chisholm	Supply stop and ford of the Trinity River (Gard 1954)
Kenedy Ranch	Kenedy	Chisholm and Western	Starting point for longhorn cattle that followed the cattle trails
Kimball's Crossing	Bosque	Chisholm	Ford of the Brazos River (Gard 1954)
King Ranch	Kleberg	Chisholm and Western	Starting point for longhorn cattle that followed the cattle trails
Llano River Crossing	Kimble	Western	Ford of the Llano River (Historical marker)
McGhee Crossing	Hays	Chisholm	Ford of the San Marcos River (Gard 1954)
Montopolis Ford	Travis	Chisholm	Ford of the Colorado River near Austin (Gard 1954)
Nolan River Crossing	Johnson	Chisholm	Ford of the Nolan River

Resource Name	County	Associated Trail	Description
Old Smiley Lake Camp	Gonzales	Chisholm	Frequently used watering site at Belmont (Historical marker)
Pegleg Crossing	Menard	Western	Ford of San Saba River at confluence with McDougal Creek (Historical marker)
Red River Station	Montague	Chisholm	Supply stop and ford of the Red River (Gard 1954; Drago 1965)
San Antonio	Bexar	Chisholm and Western	Supply stop and gathering location for herd using both trails (Gard 1954)
Sand Creek Crossing	Newton	Chisholm	Ford of the Sand Creek
Seymour	Baylor	Western	Supply stop (Skaggs 1973)
Sivell's Bend Crossing	Cooke	Chisholm	Ford of the Red River (Gard 1954)
Spanish Fort Camp	Montague	Chisholm	Frequently used camp near the ford of the Red River (Drago 1965)
Stone Cattle Crossing on the Aransas River	Refugio	Chisholm and Western	Ford of the Aransas River
Stonewall Saloon	Montague	Chisholm	Saloon visited by cattle drovers
Towash Crossing	McClennan	Chisholm	Ford of the Brazos River (Gard 1954)
Waco	McClennan	Chisholm	Supply stop and ford of the Brazos River (Gard 1954)

## Ethnographic Resources

Ethnographic resources are basic expressions of human culture and the basis for continuity of cultural systems. A cultural system encompasses both the tangible and the intangible. It includes traditional arts and native languages, religious beliefs, and subsistence activities. Some of these traditions are supported by ethnographic resources: special places in the natural world, structures with historic associations, and natural materials. An ethnographic resource might be a riverbank used as a Pueblo ceremonial site or a schoolhouse associated with Hispanic education, sea grass needed to make baskets in an African-American tradition, or a 19th-century sample of carved ivory from Alaska. While impacts to ethnographic resources are most likely to be beneficial, this topic is retained for further analysis because of the importance of these resources to the potential national historic trails.

**American Indian Tribes and the Cattle Trails.** The cattle trails cross traditional territories and reservation lands documented for several federally recognized

American Indian tribes, including the Arapaho, the Caddo, the Comanche, the Pawnee, the Kaw, the Kiowa, the Oglala Sioux, the Osage, the Cheyenne, the Southern Ponca, the Tonkawa, and the Wichita. Several other tribes, whose traditional lands and reservation lands are situated outside of the cattle trail corridors, also expressed interest in the proposed cattle trail system. These include the Ho-Chunk, the Citizen's Band of the Potawatomi, the Omaha, the Otoe-Missouria, the Santee, the Eastern Shoshone, the Taos Pueblo, the Fort Sill Apache, and the Mescalero Apache. Discussions of the territories occupied by all of the tribes listed above are presented in this section in alphabetical order.

***The Arapaho Nation***—The Arapaho Nation are Algonquin speakers who arrived on the Northern Plains by the early eighteenth century. They appear to be related to the Gros Ventre (*A'ani*), who lived in parts of northern Montana and Saskatchewan during the eighteenth and nineteenth centuries. According to Arapaho tradition their ancestral tribe once included the Gros Ventre and four other groups, the *Besawunena*, *Hinanaeina*, *Ha'anahawunena*,



and *Nawathinehena* (Fowler 2001), and may have once lived near the Cheyenne and Teton in parts of western Minnesota (Hanson 1998). The *Nawathinehena* merged with the *Hinanaeina* to become the Southern Arapaho (Fowler 2001).

The Arapaho are first mentioned in European accounts in 1794, when Europeans acquired horses from them. At this time, part of the tribe was living near the headwaters of the Cheyenne River in what is now eastern Wyoming (Trenholm 1970). The tribe occupied a territory that extended from the Black Hills northwest to the Yellowstone River in southern Montana, west to present-day Livingston, Montana, south along the Yellowstone River to about Jackson Hole, Wyoming, east along the Wind River toward the headwaters of the North Platte River near present-day Casper and Guernsey, Wyoming, and northeast across the northwest corner of Nebraska to the Black Hills (Fowler 2001). The Arapaho soon moved farther south, forging alliances with the Cheyenne and to a lesser degree with the Teton Sioux (Fowler 2001; Hanson 1998). They pushed the Kiowa and the Comanche south in the early 1800s.

By 1826, the Arapaho are known to have occupied portions of southwestern Nebraska south of the North Platte River. This territory extended from the forks of the Platte River south to the Arkansas River near present-day Dodge City, Kansas, west along the Arkansas River to the Rocky Mountains in central Colorado, north along the range to modern-day Casper, Wyoming, and then southeast to the forks of the Platte River. The Arapaho hunted in the Rocky Mountains, including the Estes Park area (Fowler 2001).

The Arapaho divided into northern and southern groups during the mid-nineteenth century. Three posts were established for the Arapaho and Cheyenne trade: Bent's Fort (1833) along the Santa Fe Trail's Mountain Route on the Arkansas River in southeast Colorado; Fort William (1839) on the North Platte River, which later became Fort John

(1841) and Fort Laramie (1846); and Fort St. Vrain (1837) on the South Platte River in northeast Colorado. By the 1840s, the Sioux were competing for bison in the North Platte River country and were making incursions into the South Platte River country. The Pikes Peak region was the heart of Arapaho hunting territory. By 1850, the Arapaho territory had shrunk to an area near the foothills of eastern Colorado, and the tribe had no choice but to maintain an uneasy alliance with the Sioux and Cheyenne (Fowler 2001).

In the Fort Laramie Treaty of 1851, the Arapaho agreed to curtail warfare between tribes, stop attacks on US citizens, and allow military posts on their territory. The US Government assigned the Arapaho and Cheyenne the territory described above for northeast Colorado, southwest Nebraska, northwest Kansas, and the southeast corner of Wyoming (Fowler 2001). Around 1858, the Northern Arapaho began to withdraw north of the Platte River into the Bighorn River country of Wyoming and Montana. The Southern Arapaho withdrew down the Arkansas River to the same territory as the Southern Cheyenne. In the Fort Wise Treaty of 1861, the Southern Arapaho and Southern Cheyenne ceded rights to the territory assigned to them in the 1851 treaty. They were given a smaller reservation on the south side of Big Sandy Creek (also known as Sand Creek) and north of the Arkansas River in southeast Colorado (Fowler 2001). In 1865, they were relocated to a new reservation on the south side of the Arkansas River extending south from the Kinsley, Great Bend, Hutchinson, Wichita, and Arkansas City areas in southern Kansas and north of the Salt Fork of the Arkansas River near White Eagle and Jefferson in northern Oklahoma. In the Medicine Lodge Treaty of 1867, the Southern Arapaho and Cheyenne moved south to a reservation between the Salt Fork of the Arkansas River and the Cimarron River in northern Oklahoma that extended from the confluence of the two rivers near Tulsa west along the rivers to near Nash in southwest Grant County and

Freedom in northwest Woods County, respectively.

In 1869, the two groups were once more relocated to a reservation situated near the Texas-Oklahoma border at present-day Arnett, Oklahoma, east to the Cimarron River near Hennessey, south to the Washita River near Chickasha west to the North Fork of the Red River around Granite, and northwest along the river to the Texas-Oklahoma border near Texola. In 1872, the southeastern part of the reservation east of Colony in northeast Washita County and south of the North Canadian River was ceded to the Wichita Tribe (Fowler 2001). Nearly all of this land was lost to them by fraudulent allotment in severalty (Moore et al. 2001).

***The Caddo Nation***—The Caddo Nation is a confederacy of several American Indian tribes that includes the Adai, Cahinnio, Eyeish, Hainai, Hasinai, Kadohadacho, Nebedache, Nabiti, Nacogdoche, Nadaco, Nanatsoho, Nasoni, Natchitoches, Nechaui, Neche, Ouachita, Tula, and Yatasi. They were previously known as the Caddo Tribe of Oklahoma. When the Caddo were first encountered by Spanish explorers in 1542, there were three identified confederacies, the Haisinai in East Texas, the Kadohadacho in the area where Texas, Oklahoma, and Arkansas meet, and the Natchitoches in northwestern Louisiana. The Caddo culture appears to have developed in this region about A.D. 800 and is distinctive because the tribes constructed flat-tipped temple mounds around central plazas (Smith et al. 1983).

By 1790, the Caddo in Arkansas were weakened by enemy raids and disease and moved down the Red River nearer to French trade centers. In 1808, Euroamericans began to flood into the lower Mississippi region, and by 1812, Euroamerican settlement extended up the Red River as far as Natchitoches. In the Treaty of 1835, the Kadohadacho confederacy groups situated east of the Sabine River in northwest Louisiana agreed to relocate to Spanish

Texas. In 1846, following Texas' statehood the previous year, members of the Kadohadacho and Hasinai were relocated to a reservation on the Brazos River with the Wichita, Waco, and Tawkonis tribes near present-day Graham. Other Caddo consolidated near Fort Arbuckle in south-central Oklahoma. In 1859, many of the Caddo were relocated to the Fort Arbuckle Indian community. The Caddo fled north into Kansas with the Wichita at the beginning of the Civil War. In 1866, they were concentrated once again on a reservation in present-day Oklahoma situated between the Washita and Canadian Rivers. They resisted the idea of allotment. In 1938, the Caddo organized as the Caddo Indian Tribe of Oklahoma.

***The Comanche Nation***—The Comanche Nation is a group of Central Numic speakers who occupied the Northern Plains by at least the 1500s. They moved southward and dominated the Southern Plains in the 1700s. Included are six divisions, Kotsotika, the Kwahada, the Nokoni, the Penatika, the Tenawa, and the Yamparika. The Comanche were first recorded by Spanish explorers in 1706. They were among the first American Indian tribes to obtain horses, breed and trade them to other tribes, and adopt a mounted lifeway (Kavanaugh 2001:886). By the 1730s, they displaced the Plains Apachians and took control of the trade with Spanish and Puebloan groups in New Mexico. In the 1740s, eastern Comanche groups established trade with the French in Illinois and Louisiana.

In the late 1700s, the Comanche controlled an immense territory that extended from around present-day Harriman in southeast Wyoming northeast to the vicinity of Burwell in central Nebraska, then south to near Minden, Nebraska, to Great Bend, Hutchinson, and Caldwell, Kansas, to near Lamoni, Reno, Anadarko, Lawton, and Devol, Oklahoma, to around Wichita Falls and Mineral Wells, Texas, then east to about the headwaters of the Trinity River by Dallas, then south to near Corsicana, then southeast to around Temple, Austin,

Bandera, and Concan, then northwest to near the confluence of the Pecos and Rio Grande Rivers by Langtry and near Toyah, Texas, then north along the Pecos River to around Carlsbad and Fort Sumner, New Mexico, and north along the east foothills of the Sangre de Cristo Mountains to near Folsom, New Mexico, then northeast along the Purgatoire River to its confluence with the Arkansas River by Las Animas in southeast Colorado, then northwest to around Canon City and Florissant, then northeast along the South Platte River to Greeley in northeast Colorado, and then north to Harriman, Wyoming.

The Comanche resisted attempts by other tribes, such as the Kiowa, Cheyenne, and Pawnee to trade directly with the Spanish. In 1806, however, the Comanche and Kiowa formed a strong alliance. By the late 1820s, pressure from the Teton, Cheyenne, and Arapaho forced the Comanche to a territory that lay south of the Arkansas River, but still included the area described above in southern Kansas, Oklahoma, Texas, eastern New Mexico, and southeast Colorado. By the 1830s, expansion of the Osage and the Wichita redefined the eastern boundary to the Cross Timbers area (Kavanaugh 2001).

By about 1840, the Comanche made peace with the Osage, Creek, Cheyenne, Arapaho, and Sioux, which protected them on the north and east. By this time the Comanche and Kiowa shared a territory that extended from about present-day Weskan, Kansas northeast to around Alton, then south-southeast to near Marquette and Wichita, Kansas and the vicinity of Stillwater, Oklahoma, then southwest to around Hess, Oklahoma, then west to about Vigo Park, Texas, then northwest to near Adrian, Texas, Nara Visa and Maxwell, New Mexico, and the vicinity of Walsenburg, Colorado, then northeast to near Weskan, Kansas (Levy 2001).

In the 1865 Treaty of the Little Arkansas River, the Comanche accepted a reservation with the Kiowa in western Oklahoma and Texas. The reservation included the

panhandle of Oklahoma from near Black Mesa east to around Freedom, then southwest along the Cimarron River to about Dover, then south to the Red River at about Terral, then west along the river to near Hess, Oklahoma, then southwest to the southeast corner of New Mexico near Kermit, Texas, then north along the west side of the Texas panhandle to the beginning point near Black Mesa (Levy 2001). The Comanche and Kiowa reservation was broken up into allotments in 1900, and by 1906 they had lost about 83% of their reserved lands.

*The Eastern Shoshone Tribe of the Shoshone Nation*—The Wind River Reservation is the contemporary home of the Eastern Shoshone Tribe and Northern Arapaho Nation. The Eastern Shoshone are one of three Shoshone divisions. The Northern Shoshone occupied eastern Idaho, western Wyoming, and northeastern Idaho. The Western Shoshone ranged throughout central Idaho, northwestern Utah, central Nevada, and Death Valley and Panamint Valley in California. The Shoshone speak a Shoshone-Comanche dialect. Current information suggests that the Eastern Shoshone moved into western Wyoming from the Great Basin region about 1500. They penetrated the High Plains over the next 200 years. By about 1700 they had obtained horses from the Comanche and forayed even farther into the Plains. Warfare and disease led to a westward retreat about 1780 to 1825, though groups of the Eastern Shoshone were reported in the early 1800s throughout the Northern Plains, often in the company of other tribes and occasionally in the Southern Plains (Shimkin 1986). They were divided into the Buffalo Eaters and the Mountain Sheep Eaters. The Buffalo Eaters core area was in the valleys of the Green and Wind Rivers, but they exploited a broad range of areas and resources. The Mountain Sheep Eaters occupied the central Rocky Mountain region, including the area around Yellowstone Lake, in the northwestern portion of the Eastern Shoshone territory. The overall territory of the Eastern Shoshone from about 1825 to 1880 included

all of western Wyoming, extending from the vicinity of Mount Douglas near the southern border of Montana east-southeast to about present-day Powell, Wyoming, then south to near Worland and Riverton, then southeast to about Muddy Gap, then southwest to around Green River, then south to the northern boundary of Utah, then northwest to near Lyman, then west to the vicinity of Evanston, then north to around Cokeville, Alpine, and Jackson Lake, then northeast to Thunderer Mountain in northwest Wyoming and Mount Douglas in Montana (Shimkin 1986).

The Wind River Reservation was established by the 1868 Treaty of Fort Bridger. The Northern Arapaho joined the Eastern Shoshone on these reserved lands in 1877 and continue to occupy the southeastern portion, at the east side of the central part of the territory the Eastern Shoshone once occupied. It includes the area extending from Thermopolis south to southeast of Riverton, then west to Wind River Range of the Rocky Mountains near Mount Baldy and Wolverine Peak, then north to about Bald Mountain and the Washakie Needles, then eastward to the Hamilton Dome and Thermopolis area (Shimkin 1986). In 1905, the reservation was divided up by allotment with approximately 1.5 million acres taken to be sold to settlers. Because much of the land was not purchased, nearly 1 million acres were returned to the Shoshone in 1934.

***The Fort Sill Apache of the Chiricahua Apache Nation***—The Fort Sill Apache tribe is one of four divisions of the Chiricahua Apache Nation. The divisions include the *Chihende* (Warm Springs Apache Band), the *Chukuneude* (Chiricahua Band), *Nde'ndai* (Pinery Apache Band), and the *Bidanku* (Bronco Apache Band). The Fort Sill Apache are descendants of the Chiricahua Apache, Warm Springs Apache, and Nde'ndai Apache that were held as prisoners of war by the United States from 1886 to 1914. They speak a Southern Athabascan dialect. The traditional territory of the Chiricahua-Warm Springs Apache included southwestern New Mexico from around present-day Red Hill

east to near Socorro, then south along the west side of the Rio Grande River to Las Cruces, New Mexico, El Paso, Texas, and Ciudad Juarez, Mexico, then south-southwest to west of El Sauz, then west to Madera and Sauharipa, then northwest to Hermosillo, then north to west of Nacozari de Garcia, Mexico, then northwest to near Nogales, Arizona, then northeast to about Safford and Clifton, and then north to near Edgar, Arizona, and Red Hill, New Mexico (Fort Sill Apache Tribe 2009). The Warm Springs Band occupied southwestern New Mexico, the Chiricahua Band lived in southeastern Arizona, and the Pinery Apache dwelled in the northern portions of the Mexican states of Sonora and Chihuahua. By 1886, the Pinery Apache moved north to live with the Chiricahua Apache (Jozhe n.d.).

The first recorded contact between Spanish explorers and the Chiricahua Apache, the Pinery Apache, and the Warm Springs Apache occurred around 1590 by Spanish explorers. In the 1848 Treaty of Guadalupe Hidalgo, Mexico ceded to the United States a large territory called the Mexican Cession, which included lands long occupied by the Chiricahua Apache and the Warm Springs Apache (Jozhe n.d.). In 1868, the Chiricahua Apache were settled on the Ojo Caliente Reservation in southwestern New Mexico (Opler and Opler 1950). In 1875, some 800 Apaches were relocated from Fort Apache southwest to the San Carlos Reservation in east-central Arizona. Another 800 were transferred to San Carlos a few years later, but about 600 remained at Fort Apache and became known as the White Mountain Apache (Anonymous 2008). In 1886, the Warm Springs Apache, Chiricahua Apache, and Pinery Apache were imprisoned at Fort Pickens and Fort Marion in St. Augustine, Florida. In 1888, they were transferred to the Mount Vernon Barracks near Mobile, Alabama. In 1894, the Apache were relocated to the Fort Sill Reservation by Lawton in southwest Oklahoma. The reserved lands were given to them by the Comanche, Kiowa, and Kiowa-Apache tribes. In 1913, the Fort Sill Apache were

released from prisoner of war status. Two-thirds chose to go to the Mescalero Reservation in New Mexico and became known as the Chiricahua Apache tribe. One-third remained at Fort Sill and purchased unused allotments from the former Comanche, Kiowa, and Kiowa-Apache Reservation in the area of Apache and Fletcher, Oklahoma (Jozhe n.d.). In 1976, the Fort Sill Apache Tribe was organized and a tribal headquarters was established north of Apache, Oklahoma (Coppersmith 2011).

***The Ho-Chunk Nation***—The Ho-Chunk, also known as the Winnebago, is a American Indian population whose Siouan language is closely related to the Chiwere language. Today there are two federally recognized, politically independent tribes: the Winnebago Tribe of Nebraska and the Ho-Chunk Nation of Wisconsin. Traditionally, the Ho-Chunk lived in east-central Wisconsin. In 1634 they were found by French explorers at present-day Green Bay and Lake Winnebago. By about 1665, however, they had been compelled to cluster in a single large settlement. Heavy losses by war, famine, and epidemics reduced the population to no more than 600 people. Brought to the edge of extinction, the surviving Ho-Chunk intermarried with neighboring tribes of Ojibwa, Potawatomi, Menominee, Sauk, and Meskwaki (Blair 1911-1912; Lurie 1978). By the 1700s, the Ho-Chunk had withdrawn from the Green Bay area to the north and west sides of Lake Winnebago by present-day Oshkosh. From this area, their territory expanded to an area extending from present-day Oshkosh southwestward along the west side of the Rock River into northern Illinois near Rock Falls, then northwestward into Wisconsin to around Dodgeville, then west to Prairie du Chien, then north along the east side of the Mississippi River to the mouth of the Black River north of La Crosse, then northeastward along the south side of the Black River to near Goodrich, then southeastward along the west side of the Wisconsin River to Portage, and northeastward to Oshkosh (Lurie 1978).

Beginning in 1821, the territory of the Ho-Chunk began to shrink through a series of treaties with the United States, first to cede land to eastern tribes being relocated into the Wisconsin Territory, and later for Euroamerican settlement. In 1829, the Ho-Chunk ceded the lands south of the Wisconsin River and generally west of the Sugar River. In 1832, they ceded their lands east of the 1829 cession. In exchange, the Ho-Chunk received reserved lands in southeastern Minnesota and northeastern Iowa that extended from present-day La Crescent, Minnesota south along the Mississippi River to near Prairie du Chien, then southeastward to north of the confluence of the Shell Rock and Cedar Rivers near Waverly, Iowa, then north along the Cedar River to around Orchard, and then northeastward to the Mississippi River (Lurie 1978). This was known as the Neutral Ground. The remaining land north of the Wisconsin River was lost by the Treaty of 1837.

While some Ho-Chunk moved to the Neutral Ground, another faction refused to leave and lived as fugitives for many years. In 1846, a new reservation was negotiated in central Minnesota that lay along the south side of the Long Prairie River from its confluence with the Mississippi River west to the vicinity of Alexandria, then southeast to the Sauk River near Cold Spring, then northeast to the Mississippi River at St. Cloud, and north along the Mississippi River (Lurie 1978). In 1855, this land was exchanged for a small reservation on the Blue Earth River south of Mankato in south-central Minnesota. In 1859, they sold the western half of the reservation to make improvements on the eastern half. In 1863, the Ho-Chunk were uprooted and forced to relocate at a new reservation on the Missouri River near Fort Thompson in central South Dakota. In 1865, the Ho-Chunk ceded that reservation for a new reservation in Thurston County situated north of the Omaha reservation in northeast Nebraska. They became identified as the Winnebago Tribe of Nebraska. Their lands were divided in severalty in 1887. The Ho-Chunk

generally leased their lands to white settlers. By 1913, almost two-thirds of their lands passed out of Indian ownership (Lurie 1978). From 1837 through 1865, many Ho-Chunk returned to Wisconsin. In 1874 they were allowed to homestead land in the state. Together they organized as the Ho-Chunk Nation of Wisconsin in 1963, with tribal headquarters in Black River Falls.

***The Kaw Nation***—The Kaw Nation is a Dhegiha-speaking American Indian society also known as the Kansa. Oral traditions suggest that the Kaw migrated west from the lower Ohio River to the Mississippi River and then north to the mouth of the Missouri River with the Omaha, the Ponca, and the Osage. At the mouth of the Osage River, the Kaw followed the Missouri River upstream towards the mouth of the Kansas River. They occupied both sides of the Missouri River as far north as Doniphan County in the northeastern corner of Kansas. This is the area in which they were encountered by explorers, fur trappers, and traders in the 1680s (Connelley 1928; Wedel 1959). The Pawnee kept the Kaw confined within a few miles west of the Missouri River until the mid to late 1700s, at which time the Pawnee began to concentrate their villages into north central Kansas. When the Pawnee ceased to defend the lower Kansas River Valley, the Kaw shifted their villages west about 80 miles to near the Little Blue River and Vermillion Creek (Connelley 1928).

Between 1828 and 1848, the Kaw established villages along the Kansas River from Mission Creek eastward to the confluence with the Wakarusa River in Kansas. Although the Kaw villages were in northeastern Kansas, their territory extended as far north as the headwaters of the Platte River (of Missouri) in southwest Iowa and the Big Nemaha River in southeastern Nebraska, east to near the confluence of the Grand River and Thompson River and the junction of Tabu Creek with the Missouri River in northwestern Missouri, and westward along the Republican, Saline, and Smoky Hill Rivers into eastern Colorado (Bailey and Young 2001). Between 1847 and 1873, the

Kaw placed their villages on a small reservation along the Neosho River at Council Grove in east-central Kansas. In 1873, greatly reduced by warfare, disease, and neglect by the US Government, the Kaw settled on a portion of the Osage Reservation in northern Oklahoma by the confluence of Beaver Creek with the Arkansas River.

***The Kiowa Nation***—The Kiowa Nation is a American Indian society who occupied the Plains region in historic times. They were a confederation of seven autonomous divisions: the Biters, the Elks, the Kiowa proper, the Big Shields, the Thieves or Plains Apache, the Black Boys, and the Pulling Up (Levy 2001). Kiowa tradition is that their ancestors lived in western Montana near the headwaters of the Yellowstone River. However, their language, Kiowa-Tanoan, suggests a possible southern origin of the Kiowa (Levy 2001). Spanish records report them on the Plains as early as 1732. They obtained horses from the Wichita and Caddo in the early 1700s and became highly mobile nomads. They moved east to live in the vicinity of the Black Hills of South Dakota. Then they shifted south to the area of the North Platte River in southeastern Wyoming by 1805. Pressure from the Cheyenne, Arapaho, and Sioux forced them farther south to the South Platte River in northeastern Colorado soon after. As previously discussed, in 1806, the Kiowa made an alliance with the Comanche and shared a common territory (Mooney 1898; Levy 2001). The Kiowa tended to occupy the northwest portion of the territory along and south of the Arkansas River. The Comanche usually resided near the Staked Plains in northern Texas.

By about 1840, the Kiowa made peace with the Osage, Creek, Cheyenne, Arapaho, and Sioux, which protected them on the north and east. By this time the territory shared by the Kiowa and Comanche included parts of southwestern Kansas, northwestern Oklahoma, the Texas Panhandle, northeastern New Mexico, and southeastern Colorado as previously described in the Comanche discussion (Levy 2001). The

Kiowa and Comanche accepted a reservation in western Oklahoma and Texas in 1865 (see the Comanche discussion). The Kiowa and Comanche reservation was broken up into allotments in 1900, and by 1906 they lost about 83% of their reserved lands.

*The Mescalero Apache Nation*—The Mescalero Apache is a American Indian society of southern Athabaskan speakers who traditionally occupied a vast territory in southern New Mexico, Northern Mexico, and west Texas. Ten subdivisions have been identified among the Mescalero Apache: the *Ch'laandé/Tslahahéndé*, the *Guhlkahéndé*, the *Dsithinahndé/Tsilnihéndé*, the *Natahéndé*, the *Nit'ahéndé*, the *Tahuundé/Tá'hui'ndé*, the *Tsebekinéndé*, the *Tsehitcihéndé*, the *Tuetinini*, and the *Tuintsundé*. They were first reported by Spanish explorers in eastern New Mexico and western Texas around 1590. By 1683, the Mescalero Apache were mounted on horses. They were first identified as the Mescalero in the mid-1700s because of their custom of eating baked mescal. At this time their territory included from the Pecos River in southeast New Mexico, north to the White Mountains around present-day Ruidoso, west to the Rio Grande in central New Mexico, and south through Coahuila and Chihuahua in Mexico (Opler and Opler 1950).

Between 1788 and 1790, the Spanish waged constant war with the Mescalero Apache and Lipan Apache. Beginning about 1821, the Mescalero Apache fought with the Comanche for the buffalo range. When New Mexico was ceded to the United States by the 1848 Treaty of Guadalupe Hidalgo, a large part of the Mescalero Apache territory came under US control.

A treaty was made with the Mescalero Apache in 1851, but not approved by Congress. A treaty was made in 1855 with the Mescalero Apache and the Mimbres group of the Chiricahua Band at Fort Thorn and a reservation was designated near Fort Stanton. The treaty, however, was not approved (Opler and Opler 1950). After

more than a decade of warfare with the United States and the Confederate States of America, in 1862 the Mescalero Apache were induced to go to a reservation at Bosque Redondo, a 40-square mile area on the Pecos River by Fort Sumner in east-central New Mexico (Opler and Opler 1950). In 1863, Navajo also were being relocated at Bosque Redondo. Conditions became so bad at the reservation that in 1865 the Mescalero left it for their former territory. The Mescalero Apache were induced to return to the Fort Stanton area and a new reservation was established near Fort Stanton in 1873. The present reservation is situated in the northeast corner of Otero County between the Sacramento Mountains on the south and the White Mountains in the north and in Lincoln County, just southwest of Ruidoso (Opler and Opler 1950). (The Navajo had been relocated to the Four Corners area in 1868.) In 1883, the Jicarilla Apache were brought to the reservation. Four years later, however, they were given their own reservation near Dulce in north-central New Mexico (Opler and Opler 1950). In 1913, a small group of Chiricahua Apache who had been held as prisoners at Fort Sill, Oklahoma, were invited to join the Mescalero Apache.

*The Oglala Tribe of the Great Sioux Nation*—The Teton (Lakota) is one of the three divisions of the Great Sioux Nation (*Oceti Sakowin* or 'Seven Council Fires'), which is composed of seven tribes sharing a common Siouan language and culture. The Teton division includes the Oglala, Brulé, Minicoujou, Hunkpapa, Sans Arc, Blackfeet, and Two Kettles bands. The second division is the Santee (Dakota), which includes the Mdewakanton, Wahpeton, Sisseton, and Wahpekute. The third division is comprised of the Yankton and Yanktonai (Nakota). The Assiniboine and Stoney tribes are close relatives of the Sioux, but were politically and ethnically distinct before the beginning of the eighteenth century (Parks and DeMallie 1992). Among the Oglala, the tribe was divided into the Northern Oglala and the Southern Oglala. Although the Great

Sioux Nation considers the Black Hills of western South Dakota to be the center of their spiritual and cultural world (Black Elk in DeMallie 1984; DeMallie 2001b), until the last half of the nineteenth century, the *Oceti Sakowin* (comprising all Dakota, Nakota, and Lakota bands) inhabited a tremendous territory predominantly east of the Black Hills region. According to DeMallie (2001b) all seven Teton (*Titowan*) Sioux bands used a common overall territory west of the Missouri River, with members from more than one band frequently coming together for communal hunts and religious ceremonies.

In the mid-1700s, the Oglala and Brulé crossed the Missouri around the mouth of the White River and occupied this territory (DeMallie 2001a). By 1770, the Oglala had large numbers of horses and assumed a fully nomadic lifestyle. In the beginning of the nineteenth century, the Oglala occupied the southern part of the Black Hills region, including from about present-day Belle Fourche, South Dakota, southeast to near Wasta, then south to around Pine Ridge, then southwest to around Marsland, Nebraska, then west to near Guernsey, Wyoming, then northwest to about Wright, Wyoming, then east to Belle Fourche (DeMallie 2001a).

By the 1840s, the Oglala controlled the territory from the forks of the Platte River to the forks of the Cheyenne River, including the Black Hills. In the Fort Laramie Treaty of 1868, the Great Sioux Reservation was created which extended across nearly 22 million acres and included essentially the western half of South Dakota from the Missouri River west to the Black Hills (DeMallie 2001b; Ostler 2004). The Teton Sioux and Arapaho specifically reserved the right to continue hunting buffalo along the North Platte and Republican Rivers in southern Nebraska and northern Kansas. As buffalo became scarce near the Missouri River, the Teton moved westward beyond the Black Hills to the Yellowstone and Powder River country of Wyoming (DeMallie 2001b).

***The Omaha Nation***—The Omaha Nation is a Dhegiha-speaking American Indian group in northeastern Nebraska. Oral traditions suggest that four related tribes—the Omaha, the Ponca, the Kaw or Kansa, and the Osage—migrated west from the lower Ohio River to the Mississippi River and then north to the mouth of the Missouri River. At the mouth of the Osage River in east-central Missouri, the Omaha and Ponca crossed the Missouri River and were joined by the Ioway. Together they traveled north-northwest along the tributaries of the Des Moines River until they reached the vicinity of the pipestone quarries in the southwest corner of Minnesota (Dorsey 1884). From this region, the three tribes moved west to the Big Sioux River in southeastern South Dakota, where they constructed a fortified earthlodge village. The Yankton Sioux pressured them out of the area, however, and they shifted west and south to a lake near the head of Chouteau Creek. Eventually they moved down the Missouri River. The Ponca split off as a separate group when they reached the mouth of the Niobrara River around 1715. The Omaha settled in the territory south of the Ponca near the Missouri River (Dorsey 1884; Fletcher and La Flesche 1911). The Ioway occupied lands to the east of the Omaha.

Omaha territory included an area generally west of the Missouri River extending north from the mouth of the Platte River to Sioux City, Iowa and northwest to around Niobrara, Nebraska, then west to about the mouth of the South Fork of the Elkhorn River, then southeastward to the headwaters of Shell Creek, southeast and east to the Platte River near Columbus, Nebraska, and along the north side of the Platte River to its mouth (Liberty et al. 2001).

In the early 1700s, the Omaha established a large village near the mouth of Bow Creek, known as Big Village. By mid-century, a new village, Little Big House, was occupied opposite the mouth of the Big Sioux River. In the later part of the century and during much of the first half of the nineteenth century, the Omaha resided at Big Village,



situated near the mouth of Omaha Creek. In 1800 to 1801, a smallpox epidemic decimated the village and the Omaha left to live year-round in tepees along the Niobrara River. They did not return to Big Village until after Lewis and Clark's Expedition in 1804 to 1806. Pressure from the Sauk and Ioway in the early 1800s led to the establishment of an earthlodge village on the Elkhorn River between 1819 and 1833. They returned to Big Village in 1833 but were driven out by the Sioux in 1841 and again in 1845. From there the Omaha moved south to a village near the mouth of the Platte River (Liberty et al. 2001). In 1854 the Omaha relinquished claims to the lands in Nebraska except for 300,000 acres along the Missouri River about 85 miles north of Bellevue. The Presbyterians established a boarding school and mission on the reservation in 1857. Unlike many tribes, the Omaha never were relocated from their lands in Nebraska. Three communities were established on the reservation: an earthlodge village on Blackbird Creek near Macy, a village of log cabins and frame houses near the Presbyterian mission, and a village on the Missouri River that focused on cutting firewood for steamboats. In 1865, the Omaha sold the north part of the reservation for use as the Winnebago Reservation (Schoen 2007). In 1882 each individual Omaha was allotted a parcel of land from the reservation. By 1889, all remaining land on the reservation had been allotted to women and children born since the first allotment (Fletcher and La Flesche 1911).

***The Osage Nation***—The Osage Nation is a Dhegiha-speaking American Indian population, which included five bands: the Big Hill, Little Osage, Hearts Stay, Thorny Thicket, and Upland Forest (Bailey 2001). In the 1800s, however, three bands were reported: the Great Osage, the Little Osage, and the Arkansas Band (Connelley 1928). The Arkansas Band was formed in 1796 when a fur trader, Pierre Chouteau, persuaded many young men to bring their families to settle on the Lower Verdigris River, a tributary of the Arkansas River in northeastern Oklahoma (Connelley 1928).

The Osage migrated west from the lower Ohio River to the Mississippi River and then north to the mouth of the Missouri River with the Omaha, the Ponca, and the Kaw according to oral traditions. Upon reaching the mouth of the Osage River, the Osage moved west along that river while the other four tribes continued northward. When French explorers encountered the Osage in 1673, they were living in several villages along the Osage River and its tributaries (the Little Osage River and the Marmaton River) in western Missouri (Bailey 2001).

In the early 1700s, villages also were present on the Missouri River between the mouth of the Kansas River and the confluence of the Grand River. Having greater access to firearms and metal axes and knives than neighboring tribes such as the Wichita, Pawnee, and other Caddoan groups, the Osage controlled by about 1770 a broad territory that included all of central and southwestern Missouri, northwestern Arkansas, northeastern Oklahoma, and southeastern Kansas (Bailey 2001). That hegemony was short-lived. Pressure by other immigrant tribes being relocated into the region and from Euroamerican settlers pushing westward forced the Osage to yield their territory. Under treaties signed in 1808, 1818, and 1825, the Osage ceded all of their lands in Missouri, Arkansas, and Oklahoma, approximately 80% of their former territory.

By 1815, the Osage began to move westward from their villages in the Vernon County, Missouri area to the Neosho River in southeastern Kansas (Connelley 1928). Though many Osage resisted moving their villages to reserved areas in Kansas, attacks by Cherokee warriors from Arkansas, Kiowa, Comanche, and Cheyenne from the west, and the decimation of game animals by Euroamerican settlers forced the Osage onto the reservation by 1839 (Bailey 2001). Following the end of the Civil War, settlement by Euroamericans in Kansas once again resulted in the Osage ceding reservation lands at the Canville Treaty of 1865. In 1870, the Osage sold their reserved lands in Kansas and purchased lands along

the Caney River, Salt Creek, Hominy Creek, and Bird Creek in northeastern Oklahoma for a new reservation. When Oklahoma became a state in 1907, the reservation was incorporated as Osage County (Bailey 2001).

***The Otoe-Missouria Nation***—The Otoe and closely related Missouria are Chiwere speakers who are officially recognized as the Otoe-Missouria tribe and are usually referred to as the Otoe. The Missouria retained their clan chiefs and customs in an effort to preserve their cultural distinctiveness in the 1800s, but were drastically reduced in number due to losses from attacks by enemy tribes and disease (Schweitzer 2001). Tribal legends place the origins of the Chiwere people north of the Great Lakes, but by the time European explorers reached the upper Mississippi River valley in the mid-1600s, the Otoe were identified in the area of north-central Iowa and south-central Minnesota along the Blue Earth River and headwaters of the Des Moines River. In 1703, Otoe villages were near the Blue Earth River. At this time, the Missouria were in northwest Missouri along the Missouri River near the confluence of the Grand River. In 1763, the Missouria moved northwest to join the Otoe in Nebraska. Otoe settlements were reported on Salt Creek about 30 miles west of the mouth of the Platte River in 1714. Apparently the Otoe remained west of the Missouri River near the Platte River in southeastern Nebraska until the mid-1800s (Schweitzer 2001). In 1842, the Otoe and Missouria occupied five small villages on the south side of the Platte River between the Missouri River and the mouth of the Elkhorn River.

The Otoe retained their hunting territory east of the Missouri River in Iowa in the Prairie du Chien Treaty of 1825, but ceded claims to lands in Minnesota, Missouri, and the western third of Iowa in the Prairie du Chien Treaty of 1830. In the Treaty of 1833, they ceded additional land to the United States in exchange for money and livestock and a promise to become wholly agricultural (Schweitzer 2001). A Baptist mission was

established at Bellevue for the Otoe, Omaha, and Pawnee. Pressure from settlers led the Otoe-Missouria to cede all of their lands west of the Missouri River in 1854, except for a ten-mile-wide strip in the Big Blue River Valley on the Kansas-Nebraska border. They moved to the Big Blue Reservation in 1855. The US government erected a house for the agent, erected saw and grist mills, and hired farmers to instruct them in farming. In 1878, the tribe petitioned to move to Indian Territory with the hope that they could retain a traditional hunting lifeway. They moved to a new reservation at Red Rock Creek in northern Oklahoma, beside the Ponca and Pawnee reservations, in 1881. In 1890, the government sought to allot the reservation land. The Otoe resisted, but by 1899 half of the land had been divided. The tribe requested that all children born since 1890 receive allotments and that the remaining land be divided among all tribal members. As a result, each individual received 280 to 290 acres. Although none of the reservation was opened for non-Indian settlement, many Otoe leased their allotments to Euroamerican settlers. Some allotments were sold (Schweitzer 2001).

***The Pawnee Nation***—The Pawnee Nation is a group of Caddoan-speaking people who occupied east-central Nebraska and portions of central Kansas from the seventeenth century until their removal to Indian Territory (Oklahoma) in 1876 (DeMallie 2001b; Parks 2001). The Pawnee are traditionally considered to include four bands: the Skiri, the Chawi, the Kitkahahki, and the Pitahawirata (Parks 2001). Throughout the eighteenth and early nineteenth centuries, the Skiri (also known as the Panimaha or Loup) maintained settlements along the north side of the Platte River as far west as the confluence of the North Platte and South Platte Rivers near North Platte, Nebraska. Skiri villages were predominantly located along the Loup River. The Chawi (Grand), Kitkahahki (Republican) and Pitahawirata (Tappage) bands were sometimes called the South Band Pawnee. The three groups spoke a dialect distinctly different from the Skiri. Each of

the three bands normally occupied a single village. The Chawi lived at several locations along the south side of the Platte River between the mouths of the Loup River (near present-day Columbus) and Skull Creek (near modern-day Linwood). The Kitkahahki occupied sites along the Republican River in southern Nebraska and north-central Kansas well into the late 1800s (Parks 2001). The Pitahawirata lived near the other two bands. The Wichita referred to their northern neighbors as the Harahey (Hodge 1907) and early explorers identified them as the Pana or Panimaha.

Although the Pawnee recognized a territory extending as far north as the Elkhorn River from present-day Norfolk to Bassett, Nebraska and along the Middle and North forks of the Loup River to about modern-day Thedford and Brownee, Nebraska, Parks (2001) argues that there is no evidence that the Skiri hunted north of the South Loup River or that the Chawi, Kitkahahki, and Pitahawirata hunted south of the Republican River. Roper (1991, 1992), however, contends that the Skiri hunting territory included the northern area after they acquired horses and that these three bands periodically may have hunted as far south as the Arkansas River in Kansas because this area was controlled by the Wichita, with whom they were on friendly terms. The smaller hunting range suggested by Parks may reflect the distance Pawnee traveled during winter hunts. The Pawnee were reported on the Platte and Loup Rivers by the French in the late 1600s. In 1806, Lieutenant Zebulon Pike visited the Kitkahahki village on the Republican River near present-day Red Cloud, Nebraska. In 1811, Major George Sibley visited a Skiri village on the Loup River and a South Band Pawnee village on the Platte River (Parks 2001). The Chawi, Kitkahahki, and Pitahawirata settled in a large combined village between Council Creek and Plum Creek on the north side of the Loup River in the 1830s. The Skiri moved to a new village at the mouth of Cedar Creek about four miles north of the combined bands' village around 1841. In 1846, new villages were

established on the south side of the Platte River near present-day Linwood, Nebraska (Parks 2001).

Following the Treaty of Table Creek in 1859, which established a 15 by 30 mile reservation on the Loup River, they were settled by the Pawnee Agency. The Skiri established two villages and the South Band occupied a third village at the mouth of Beaver Creek. By 1870, Pawnee occupation of central Nebraska was nearly at an end. Attacks by Oglala and Brulé Sioux in 1873 and 1874 led the Pawnee to give up their reservation for new lands in Indian Territory. In 1875 a new reservation was established in north central Oklahoma between the forks of the Arkansas and Cimarron Rivers south of the Osage reservation (Parks 2001).

***The Ponca Nation***—The Ponca Nation is a Dhegiha-speaking American Indian society which dwelled in northeastern Nebraska and southeastern South Dakota between about 1715 and 1877. Omaha and Ponca traditions and linguistic evidence indicate that the Ponca split off from the Omaha relatively late in their cultural history (Fletcher and La Flesche 1972), when the Ponca and Omaha reached the mouth of the Niobrara River around 1715 (Howard 1965). The Ponca occupied a territory that extended northwest along the south side of the Missouri River to the mouth of the White River, then west along the south side of the White River to around Interior, South Dakota, then southwest to around Chadron, Nebraska, then eastward along the north side of the Niobrara River to its mouth at Niobrara, Nebraska (Brown and Irwin 2001). The Ponca hunted as far west as the Black Hills country. The Ponca obtained horses from the Padouca (Plains Apache), who they encountered while hunting on the High Plains early in the 1700s. Eventually, the Ponca became adept horsemen and pressured the Plains Apache to move south of the Platte River (Brown and Irwin 2001).

In 1785, the Ponca established Backing Water Village on Bazile Creek near the mouth of the Niobrara River. The village was

continuously occupied until at least 1858 (Brown and Irwin 2001:416). Between 1790 and 1800 they occupied a fortified village on Ponca Creek, known as Nánza Village and Ponca Fort (Wood 1960). Some 30 Ponca sites have been identified from the late eighteenth to late nineteenth centuries, most along Ponca Creek in the vicinity of the Niobrara River. In 1858, the Ponca ceded most of their hunting lands to the United States and agreed to live on reserved lands on the Niobrara River. An agency was established in 1859. In the Fort Laramie Treaty of 1868, the Ponca reservation was mistakenly ceded to the Sioux. Rather than amend the error, the US government relocated the Ponca to the northeast corner of Indian Territory (Oklahoma) in 1877. The next year they were allowed to move to a new reservation on the Salt Fork River in north-central Oklahoma. A group of Ponca, led by Standing Bear, returned to Nebraska in 1878 and eventually (1880) won right to a portion of their reserved lands on the Niobrara in Knox County. This group became known as the Northern Ponca. The land was allotted in severalty to the tribal members. The Southern Ponca in Oklahoma were induced to take allotments in 1892 (Brown and Irwin 2001).

***The Potawatomi Nation***—The Potawatomi is an Algonquin-speaking American Indian society whose traditional territory included the region around Lake Michigan. Culturally and linguistically, they are related to the Ojibwe (or Chippewa) and Ottawa (Clifton 1978). The Potawatomi vacated southwestern Michigan (from the vicinity of present-day Muskegon southeast to around Battle Creek and Sturgis) about 1641 and resettled in the eastern peninsula of Wisconsin. They hunted in parts of the Upper Peninsula of Michigan and in the interior of northeastern Wisconsin. From this area, around 1665, the Potawatomi began to expand their control of a territory that by 1820 extended from north of present-day Green Bay southwest to around Madison, then northwest to near La Crosse, then south along the east side of the Mississippi River into Illinois as far south as

the confluence of the Illinois River north of St. Louis, then northeastward along the north side of the Illinois River to the confluence of the Fox River near Ottawa, then eastward into Indiana to around Wheatfield, then southeastward as far south as present-day Indianapolis, then northeastward into northwest Ohio around Defiance and Toledo into Michigan by Detroit. From Detroit their territory extended west to around Lansing, then northeastward to Grand River and westward to Lake Michigan (Clifton 1978).

As the United States expanded westward, the Potawatomi were pushed into an increasingly diminished territory. Although they resisted removal to west of the Mississippi River, in 1841 the Potawatomi in Michigan and Indiana signed a treaty that forced them onto a reservation along the south side of the Marais des Cygnes River in northeast Kansas, though some highly acculturated Potawatomi remained in small communities in Michigan (Clifton 1978). The Potawatomi in Wisconsin and Illinois also relocated to a reservation near Council Bluffs in western Iowa. Potawatomi who remained in Wisconsin were gradually pushed into the northern forests.

In 1847, the Potawatomi from the Kansas reservation (now known as the “Mission Band”) and those from the Council Bluff reservation (now called the “Iowa Band”) were brought together in a new reservation on the Kansas River near present-day Topeka. The more conservative Iowa Band became known as the “Prairie Band.” They held their reserved lands on Soldier Creek in common until 1890, when they were forced to take individual allotments of land in severalty. The members of this band, however, remained in Kansas. In contrast, members of the Mission Band agreed to allotment early and were quickly impoverished. In 1867, the Mission Band yielded their holdings in Kansas for a new reservation in Oklahoma. There they became known as the “Citizens’ Band.” Today the Citizen Potawatomi Nation is headquartered in Shawnee, Oklahoma. A community of

Potawatomi is present at Hannahville in the upper peninsula of Michigan and another community is located in Forest County in northern Wisconsin (Clifton 1978).

***The Santee Tribe of the Great Sioux Nation***

—The Santee (Dakota) is another of the three divisions of the Great Sioux Nation. The Santee division includes the Mdewakanton, Wahpeton, Sisseton, and Wahpekute Tribes. However, the Sisseton and Wahpeton did not consider themselves to be Santee (Albers 2001). In 1763, the Santee were consolidating their territory in the southern half of Minnesota and portions of western Wisconsin, the northern margin of Iowa, northeastern South Dakota, and the southeastern corner of North Dakota (Albers 2001). Specifically, this territory extended southeastward from present-day Wahpeton, North Dakota to around Alexandria, Minnesota, then eastward to near Cambridge, Minnesota, then southeast to about Cornell, Wisconsin, then southwest to around Wabasha, Minnesota and near Forest City, Iowa, the westward to the vicinity of Spirit Lake, then northwest to about Brookings and Webster, South Dakota, and then northeast to Wahpeton, North Dakota (Albers 2001). The Sisseton lived primarily west of Lac qui Parle, while the Wahpeton occupied the lower reaches of the Minnesota River. The Mdewakanton were concentrated along the Mississippi and lower Minnesota River. The Wahpekute lived from the Cannon River southwest to the Blue Earth River and west to Spirit Lake (Albers 2001).

In the Treaty of Prairie du Chien in 1830, the Santee ceded all of their lands between the Des Moines and Missouri Rivers in southwest Minnesota. In 1837, the Mdewakanton ceded their territory east of the Mississippi River (Albers 2001). In 1851, through the Treaty of Mendota and the Treaty of Traverse des Sioux, the Santee relinquished all of their land in Minnesota and Dakota Territory. They were relocated to a reserved corridor of land on either side of the Minnesota River extending northwest from near New Ulm to Browns Valley on the

western border of Minnesota. Over half of these lands were ceded in 1858. Following warfare in 1862, the US Government relocated Santee who were imprisoned at Fort Snelling and Mankato to the Crow Creek reservation in central South Dakota. In 1866, this group and other Santee who had been imprisoned in Davenport, Iowa were relocated to a place on the Niobrara River east of the town of Niobrara, Nebraska. Some Santee had fled west to live with the Lakota. In 1867, some of these Santee were settled on the Spirit Lake Reservation by Devil's Lake in northeast North Dakota, and others were placed on the Lake Traverse Reservation in the northeast corner of South Dakota.

In 1873, another group of Santee were sent to the Fort Peck Reservation at the confluence of the Poplar River and the Missouri River in northeast Montana. Some were placed at the Standing Rock Reservation on the Grand River and Missouri River in northern South Dakota. A large group of Santee fled to southern Manitoba Province in Canada. Eventually, some Santee returned to Minnesota to join the few Santee who were protected by sympathetic Euroamericans. In Minnesota, they formed small communities at Granite Falls (Upper Sioux Indian Reservation) and Morton (Lower Sioux Indian Reservation) in the Minnesota River Valley and at Prairie Island and Pryor Lake near Shakopee (Albers 2001).

***The Southern Cheyenne Nation***—The Cheyenne Nation are an Algonquin-speaking people, whose oral traditions indicate that they once lived west of the Great Lakes in present-day Minnesota. There they resided in villages of bark-covered lodges and subsisted on deer, wild rice, fish, and other plants and animals. Occasionally, they traveled to the prairies or plains to hunt buffalo. Pressured from the Assiniboiné and Ojibwe, who were acquiring guns through the fur trade, the Cheyenne moved westward, following the Minnesota River to northeastern South Dakota. Here, the tribe split, with some bands moving into

southeast North Dakota and the Missouri River (Moore et al. 2001). Some bands settled briefly and adopted horticultural lifeways, occupying villages between the mouths of the Heart River in North Dakota and the White River in South Dakota. Ethnohistoric accounts dating from the late eighteenth century place the Cheyenne along the Cheyenne River in central and southwestern South Dakota. Once on the plains, the Cheyenne began to trade and raid intensively with tribes to the south, such as the Plains Apache, Comanche, and Kiowa. They became middlemen, trading guns obtained from tribes to the north and east for horses gotten from tribes to the south and west. The Cheyenne bands unified in the Black Hills, an area rich with bison and other resources. The Cheyenne nation gradually spread out into a more dispersed territory during the early 1800s, inhabiting parts of eastern Wyoming, southwestern South Dakota, and portions of northwestern Nebraska. Expansion resulted in continuous warfare with the Eastern Shoshone, Crow, and Pawnee. The Cheyenne formed a close alliance with the Arapaho and an uneasy alliance with the Sioux at this time. The Cheyenne and Arapaho sometimes shared villages (Moore et al. 2001).

The tribe divided into two groups around 1833 when William Bent married into a prominent Cheyenne family and encouraged bands to occupy southeast Colorado. Bent and his brother built a trading post (Bent's Fort) along the Arkansas River and the Santa Fe Trail. The bands that moved to the territory centered along the Arkansas and Purgatoire Rivers in western Kansas and southeastern Colorado and became known as the Southern Cheyenne. The roughly triangular territory extended southeast from about present-day Haswell, Colorado southeast to almost Garden City, Kansas, then southwest to near Johnson, Kansas and Hoehne, Colorado, then northwest to Haswell (Moore et al. 2001). The division corresponded to the separation of the Arapaho into the Northern Arapaho and the Southern Arapaho during the same period.

The cessions and assigned territory resulting from the Fort Laramie Treaty of 1851 and the Fort Wise Treaty of 1861 are described above in the Arapaho discussion. In 1865, they were relocated on a new reservation on the south side of the Arkansas River extending south from around Kinsley, Great Bend, Hutchinson, Wichita, and Arkansas City in southern Kansas and north of the Salt Fork of the Arkansas River near White Eagle and Jefferson in northern Oklahoma. The reservation lands for the Southern Cheyenne and Arapahoe following the Medicine Lodge Treaty of 1867, the establishment of the Cheyenne-Arapaho Agency in 1869, and cession of the southeastern portion of the reservation to the Wichita tribe are described above in the Arapaho discussion (Moore et al. 2001).

***Taos Pueblo***—Taos Pueblo is the northernmost of 19 pueblos located in north-central New Mexico and one of the Eight Northern Pueblos. It is situated two miles north of the City of Taos on Red Willow Creek, also known as Rio Pueblo. The Puebloans here speak Taos, which, with Picuris spoken at Picuris Pueblo, are the two languages identified as Northern Tiwa, a Tanoan language. Taos Pueblo has been continuously occupied since about A.D. 1000. It includes Hlaauma (North House), the largest surviving multi-storied pueblo structure in the United States (Indian Pueblo Cultural Center 2007). Hlaukwima (South House), situated across the river, is nearly as old. The community was first recorded by Captain Hernando de Alvarado in 1540. In 1619, a Spanish-Franciscan mission was built called San Geronimo de Taos (Legends of America 2011). In 1680 and in 1696, the Puebloan Indians rose up to drive out Spanish settlers in the area. However, in 1692 and again in 1696, Don Diego de Vargas reasserted Spanish control of the land. From its beginnings through the mid-1800s, Pueblo Taos was an important center for traders from Mexico, the Comanche, the Kiowa, mountain men, and others. It is situated on the Chihuahua Trail which ran from northern New Mexico to Chihuahua, Mexico (Taos County Historical Society

2003). When the US Army occupied the community in the Mexican-American War, the Taos Puebloans rebelled against the troops in 1847 and killed the new Governor, Charles Bent. The US Army retaliated and subdued the uprising.

Taos Pueblo was designated a National Historic Landmark in 1960 and was added to the National Register of Historic Places in 1966. It was added to the World Heritage List of significant historical cultural landmarks in 1992 (Indian Pueblo Cultural Center 2007). In 1970, the US Government returned 48,000 acres of mountain land, including Blue Lake, which is a sacred site. Currently, the Taos Reservation includes three tracts. The main part of the reservation is on the west side of the Sangre de Cristo Mountains and is a roughly rectangular area extending north from near the present-day City of Taos to about Arroyo Seco then east into the mountains towards Eagles Nest, then south about 5 miles, then west about 10 miles back to Taos. A second tract is roughly triangular and is situated west of Rio Pueblo and east of the Rio Grande at the confluence of these two rivers. The third tract is a small triangular tract about two miles south of Arroyo Hondo and around two miles west of Arroyo Seco.

*The Tonkawa Tribe*—The people of the Tonkawa Tribe are considered to be the descendants of a group of eight independent sub-tribes that spoke the same language, also known as Tonkawa. There is some evidence to suggest that at least some of these sub-tribes actually spoke one or more different languages, but by 1800 had come to be considered as part of a single Tonkawa tribe (Jones 1961; Newcomb and Campbell 2001). The eight subtribes generally accepted as Tonkawa include the Cava, Emet, Ervipiame, Mayeye, Sana, Tohaha, Toho, and Yojuane (Bolton 1910). Together, these groups once occupied a region that extended from south-central Texas and western Oklahoma west to eastern New Mexico. The earliest recording of the Tonkawa was by the Juan de Oñate expedition in 1601. According to their informant, the Tonkawa lived at that time

somewhere between the Salt Fork of the Arkansas River and the Medicine Lodge River in southern Kansas and north-central Oklahoma. This area included, from a point on the Medicine Lodge River near present-day Medicine Lodge, an arc southeast to near Anthony, Kansas and Wakita, Oklahoma, then in an arc southwest to about Orienta and Seiling, then in an arc northwest to around Fort Supply, then in an arc northeast near Lookout, Oklahoma and Medicine Lodge, Kansas (Newcomb and Campbell 2001).

By 1691, they had moved south of the Red River. They were recorded below the Red River again in 1719 and 1723. The Tonkawa continued to move south into central Texas through the eastern margin Blackland Prairie, where they could take advantage of both the prairie and adjacent woodlands of east Texas. In the mid-eighteenth century, the Tonkawa territory included an area that extended from around present-day Denison, Texas southeast to about Crow, Tyler, and Jacksonville, then southwest to near Crockett and the confluence of the Little River with the Brazos River near Hearne, then west to about Cameron, then north-northwest to around Little River, Gatesville, Fairy, and Hico, then northeast to near Granbury, Bridgeport, Gainesville, and Denton (Newcomb and Campbell 2001).

The Tonkawa continued to shift southwestward from this territory in the late 1700s due to pressure from the displacement of the Apache from the central Texas highlands by the Comanche combined with declining population. In 1828, a Mexican survey party reported that the Tonkawa were allied with the Lipan Apache and noted a village midway between the Guadalupe and Colorado Rivers. At this time the Tonkawa territory extended from near present-day Goldthwaite east-southeast to about Little River, Hearne, and Iola, then south-southeast to around Conroe, then southwest to near Brookshire, Columbus, Hochheim, and Floresville, then westward to around Frio Town and Cline, then northeastward to near Barksdale, Roosevelt,

Menard, and Eden, then northeast to the Colorado River by Goldthwaite (Newcomb and Campbell 2001). In 1854, the Tonkawa agreed to move to a reservation at the junction of the Brazos River and Clear Fork of the Brazos River near present-day South Bend, Texas. Because of the hostility of Euroamerican settlers, in 1859, the army escorted the Tonkawa and other groups from this reservation to a new reservation north of the Red River in southwestern Oklahoma.

During the Civil War, the Tonkawa sided with the Confederacy and fled south into Texas to the vicinity of their 1854 reservation lands. They resided there near Fort Griffin with help from the US Army until 1885. That year the Tonkawa were moved to the recently abandoned Nez Perce reservation in northern Oklahoma at the confluence of the Chikaskia River and the Salt Fork of the Arkansas River at present-day Tonkawa (Newcomb and Campbell 2001). The small square of reserved lands included the area from Tonkawa north to about Blackwell, then west to around Deer Creek, then south to near Lamont, then east to Tonkawa. In 1891, they were forced to take allotments of 160 acres and the reservation was dissolved.

***The Wichita Nation***—The Wichita Nation is a consolidation of Northern Caddoan-speaking groups that inhabited central Kansas and Oklahoma and northeastern Texas. Before consolidation, the primary groups included the Iscani, the Kitsai, the Taovaya, the Tawakoni, the Waco, and the Wichita proper. The Iscani disappeared at the end of the 1600s and other groups are also believed to have become extinct. The Waco split from the Tawakoni to become a distinct village group in the 1820s. The Kitsai, who merged with the Wichita in 1854, spoke a different Northern Caddoan language more closely related to Pawnee (Parks 1979; Newcomb 2001). In Kansas, their territory extended from the headwaters of the Little Arkansas River southeast across the headwaters of the Walnut River to the eastern side of the Verdigris River and to the

southwest to near Ford, Kansas and southward. In Oklahoma, the western side of the territory continued south past present-day Woodward, Elk City, and Altus and the eastern side extended south past present-day Claremore, Shawnee, Ada, and Durant. In Texas, the eastern side of the territory continued southeast to around present-day Sulphur Springs, then south to near Crockett, then westward to about Temple, then northwestward to around Mineral Wells, then north to about Vernon, Texas (Newcomb 2001).

The Wichita were first encountered by Spanish explorer Francisco Vázquez de Coronado in 1541 towards the northern margin of their territory in south-central Kansas (Wedel 1959). In 1601, the Juan de Oñate expedition met a large group of Wichita on a bison hunt northeast of present-day Ponca City, Oklahoma and encountered an extensive village known as the Great Settlement near present-day Arkansas City, Kansas. The Spanish identified the Wichita as “Aguacanes” and “Jumanos,” while the French called them “Paniassa” or “Panipiqués.” In 1719, French explorers recorded villages along the Arkansas River in Oklahoma and Kansas and on the Verdigris River at present-day Neodesha. Before 1742 the Tawakoni and a band of Iscani were on the Canadian River. In the 1740s they moved farther south to establish a village on the Upper Sabine River about 50 miles east of present-day Dallas. By 1757, the villages on the Arkansas River moved south to the Red River west of the Western Cross Timbers. By about 1770, the Sabine River villages were abandoned, and they and other Wichita groups settled on the headwaters of the Navasota River and the middle reaches of the Trinity and Brazos Rivers. A village was at Spanish Fort, east of present-day Wichita Falls, in 1779.

At the beginning of the nineteenth century, the Wichita were scattered in small villages from southwestern Oklahoma to eastern Texas. Beginning in 1829, Euroamerican attacks against the Wichita drove them into central Texas (Newcomb 2001).



In 1853, lands were reserved on the upper Brazos River for the Kitsai, Waco and Tawakoni, but encroachment by settlers resulted in these groups being removed to a reservation on the Washita River in Oklahoma in 1859. Wichita groups elsewhere gathered with them. During the Civil War, the Wichita fled north to present-day Wichita, Kansas. After the war, they established villages between the Canadian and Washita Rivers by Anadarko. In 1882, the Wichita were settled at Rush Springs south of the Washita River. In 1901, the Wichita reserved lands broken up into allotments and opened for non-Indian settlement. They adopted a constitutional tribal organization in 1936 (Newcomb 2001).

## SOCIOECONOMICS

### Introduction

Socioeconomics impacts include those to minority and low-income communities as specified in *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*; (EO 12898; Feb. 11, 1994). A discussion of socioeconomic impacts includes impacts to employment, occupation, income, tax bases, and infrastructure. The action alternative could affect local economies through changes in visitation and associated visitor spending. Therefore this topic is retained for further analysis.

The study area for the proposed Chisholm National Historic Trail and Western National Historic Trail includes 109 counties: 56 in Texas, 18 in Oklahoma, 29 in Kansas, and 6 in Nebraska. This section summarizes population, income and poverty, labor force and education, ethnicity and race, and land ownership information. The information is described by state, highlighting data in the counties that are notable for each of the states. Additionally, a general overview of the economy and tourism is provided for each of the states.

### Rural or Urban Character

The cattle trail corridors cross metropolitan, micropolitan, and rural counties. These areas are defined by the Office of Management and Budget (2010) and used by the US Census Bureau. A metropolitan statistical area (metro area or MSA) contains a core urban area of 50,000 or more population, and a micropolitan statistical area (micro area) contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core (US Census 2011).

The corridor for the proposed Chisholm National Historic Trail and Western National Historic Trail generally begins in the most southern tip of Texas, in the Brownsville, Harlingen, McAllen, and Edinburg metropolitan counties of Starr, Hidalgo and Cameron. The multiple trails move north through Corpus Christi, Victoria and San Antonio metropolitan counties. At this point, the trails fork into an eastern, Chisholm, and western, Western trail. The eastern route, Chisholm Trail, moves through counties in the Austin, Dallas-Fort Worth, Killeen-Temple-Fort Hood, and Waco metropolitan areas. In Texas, the Western trail traverses Kerrville and Fredericksburg micropolitan counties, Abilene metropolitan area (Callahan County), and north to Vernon in the micropolitan county of Wilbarger.

In Oklahoma, the Western Trail moves northward through the Altus, Elk City, and Woodward micropolitan counties, while the Chisholm traverses Duncan micropolitan area, two counties in the Oklahoma City metropolitan area, and Enid micropolitan county of Garfield. In Kansas, the Chisholm traverses four micropolitan counties as well as three counties in the Wichita metropolitan area. The Chisholm Trail

terminates in Kansas, while the Western Trail moves through Kansas and terminates in Nebraska. The Western Trail passes through only two counties in micropolitan areas in Kansas: Garden City (Finney County) and Dodge City (Ford County). The Western Trail passes through six rural counties in the southwestern part of Nebraska, terminating in Keith County, Nebraska.

Figure 9 is a map index that shows the context of figures 10 through 12. The metropolitan and micropolitan counties are depicted in figures 10 through 12.

### Population

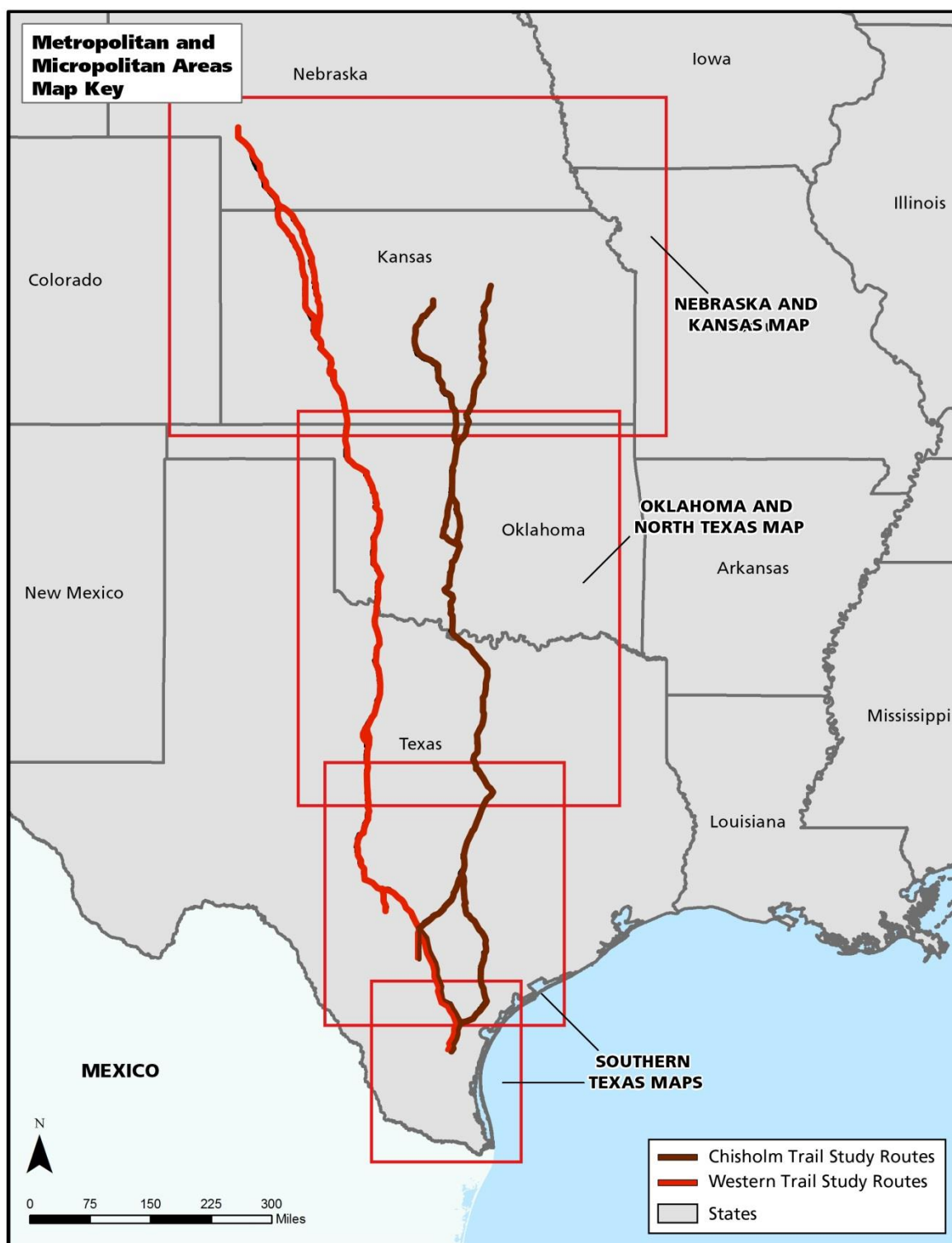
**Texas.** Total population for the 56 counties in Texas in the study area was approximately 9.3 million in 2010, although populations for the study area counties in Texas vary considerably. In 2010, the most populated counties were located in the larger metropolitan areas, including Tarrant County in Dallas-Fort Worth MSA (1,809,000 people); Bexar County in San Antonio MSA (1,715,000 people); Travis County in Austin-Round Rock MSA (1,024,000 people); Hidalgo County in McAllen-Edinburg-Mission MSA (775,000 people); and Denton County in Dallas-Fort Worth MSA (663,000 people). The least populated counties in 2010 were Kenedy County (416 people); Throckmorton County (1,614 people); Menard County (2,242 people); and Shackelford County (3,378 people).

In general, the metropolitan counties experienced considerable population growth between 2000 and 2010. Only 3 of the 35 metropolitan and micropolitan

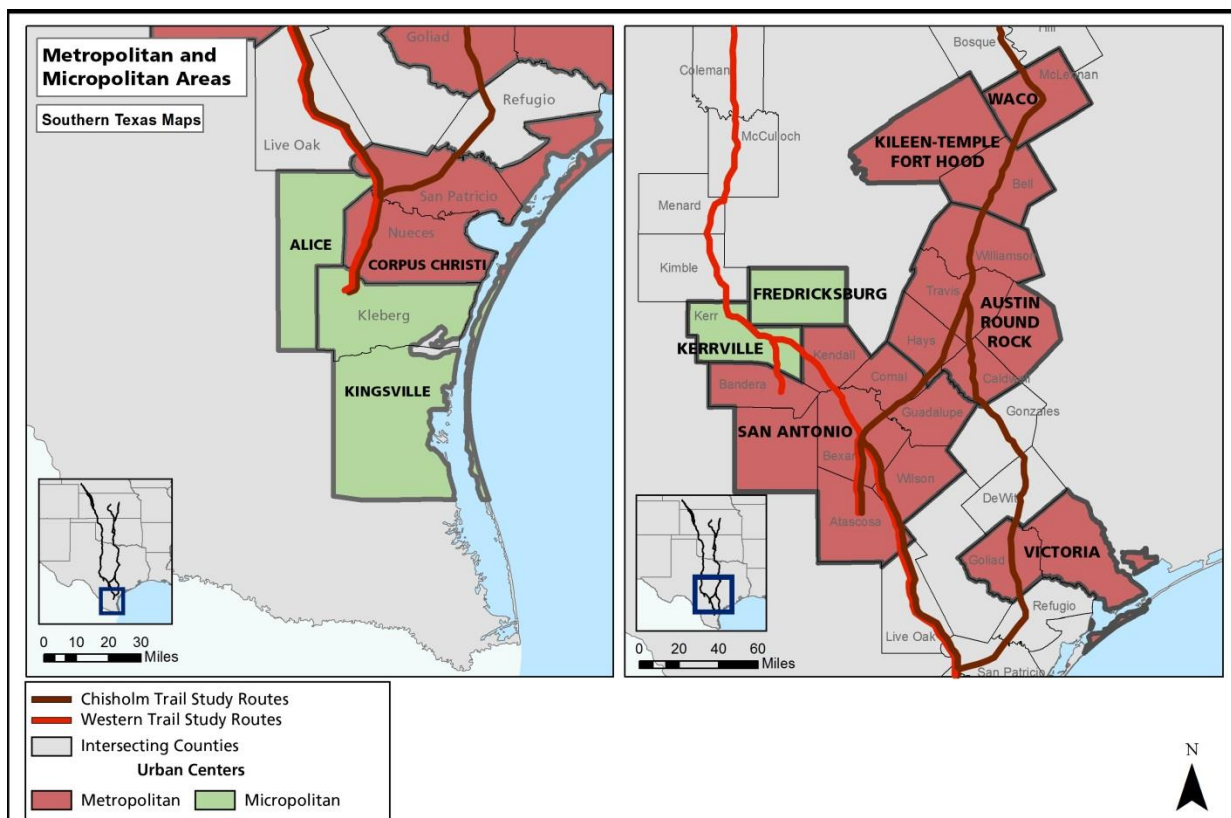
counties experienced declines. The highest population growth was in two Austin-Round Rock counties, Hays County (61% growth) and Williamson County (69% growth); and three San Antonio counties, Guadalupe County (48% growth), Comal County (39% growth), and Kendall County (41% growth). The Dallas Fort Worth metropolitan county of Denton has experienced 53% population growth over this period.

Ten of the twenty-one rural counties have experienced negative population growth during this 10-year period. Between 2000 and 2010, the largest population declines within the Texas study area counties have been in the rural counties: Baylor (9% decline); Brooks (9% decline); Duval (10% decline); and Throckmorton (11% decline). In comparison, the state of Texas grew by 21% during this period.

**Oklahoma.** Total population for the 18 counties in Oklahoma in the study area was approximately 444,000 in 2010. The largest county populations reside in metropolitan areas, including the Oklahoma City counties of Canadian (115,500 people) and Grady (52,000 people). Garfield County within the Enid micropolitan area had a population of approximately 61,000 in 2010. Canadian and Grady counties have also had the largest growth of these counties between 2000 and 2010, 32% and 15% respectively. The least populated counties within the Oklahoma study area include Harper (3,700 people), Ellis (4,200 people), and Grant (4,500 people). Grant County experienced a 12% decrease in population between 2000 and 2010. Tillman County experienced a 14% decline in population during this period. In comparison, the state of Oklahoma grew by 9% during this period.



**FIGURE 9. INDEX TO METROPOLITAN AND MICROPOLITAN STATISTICAL AREA MAPS**

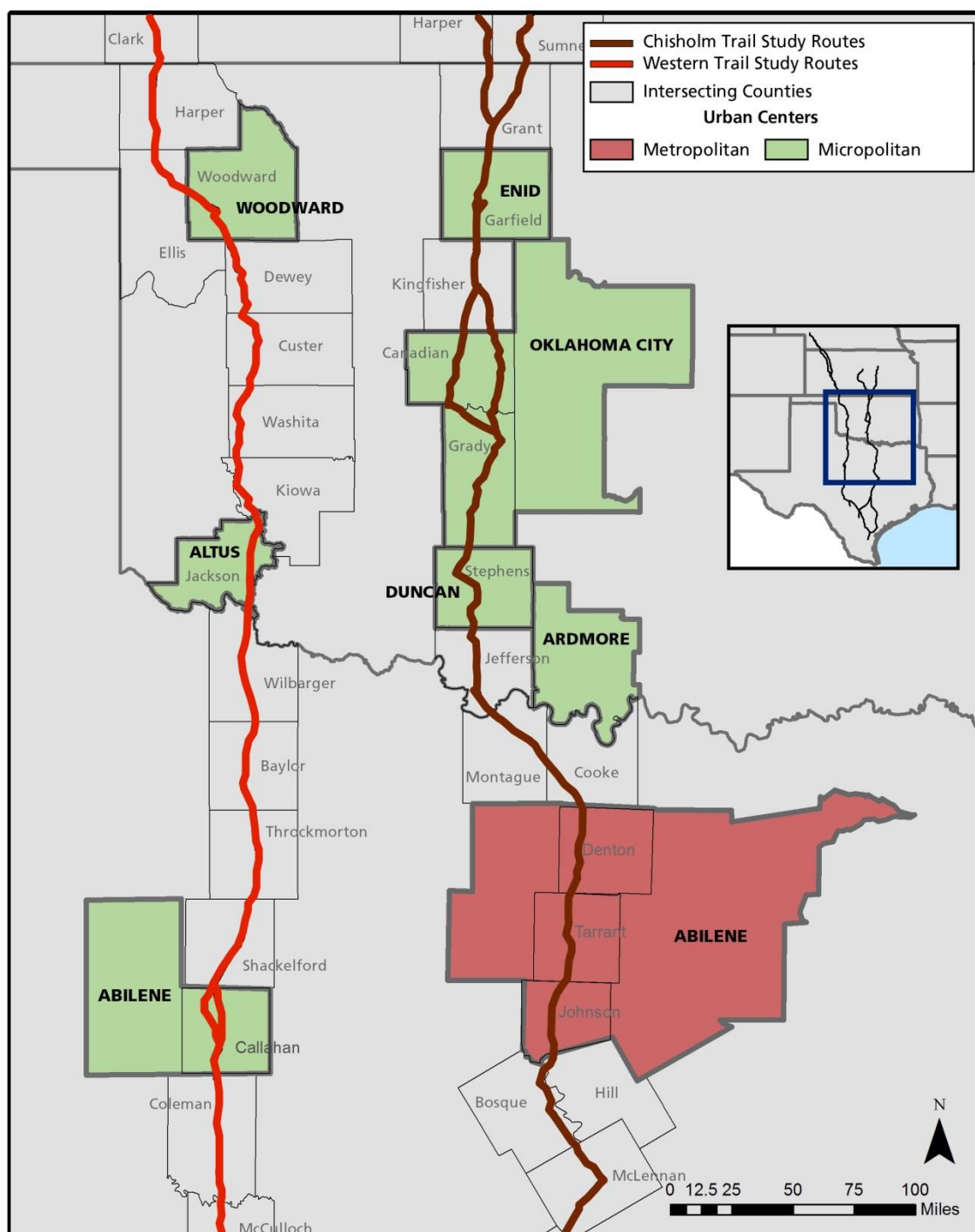


**FIGURE 10. METROPOLITAN AND MICROPOLITAN AREAS IN THE SOUTHERN TEXAS COUNTIES**

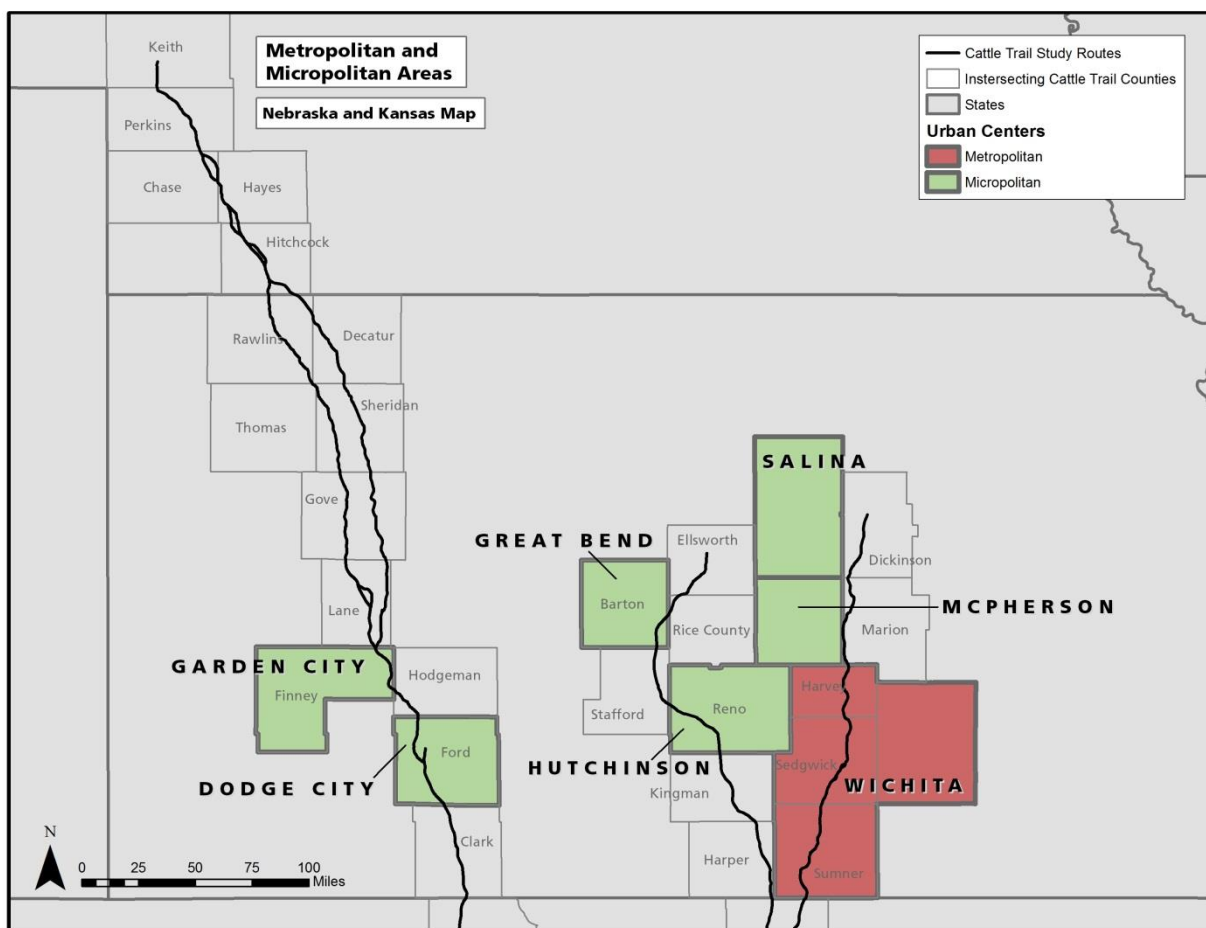
**Kansas.** Total population for the 29 counties in Kansas in the study area was approximately 908,000 in 2010. The largest county populations reside in metropolitan areas. Sedgwick County in Wichita MSA had a 2010 population of 498,000, the greatest number of people within the Kansas study area counties. Reno County within the Hutchinson micropolitan area had a population of approximately 65,000 in 2010, and Saline County in the Salina micropolitan statistical area had a population of approximately 54,000 in 2010. Only 5 of the 29 counties within Kansas experienced population growth between 2000 and 2010; four of these counties are in metro or micropolitan statistical areas. Sedgwick County experienced the highest growth—10%—during this period. A number of

counties within the northwestern part of the state had population declines between 2000 and 2010, including Cheyenne (-14%); Decatur (-15%); Lane (-19%); Rawlins (-15%); and Wallace (-15%). In comparison, the state of Kansas grew by 6% during this period.

**Nebraska.** There are six counties within the southwestern part of Nebraska in the study area with a total population of 21,000; all are rural counties. Keith County has the largest population of these six counties, with a population of 8,400 in 2010. All six counties had population declines between 2000 and 2010, with Dundey County having the largest decline, 12% during this period. In comparison, the state of Nebraska grew by 7% during this period.



**FIGURE 11. METROPOLITAN AND MICROPOLITAN AREAS IN THE NORTHERN TEXAS AND OKLAHOMA COUNTIES**



**FIGURE 12. METROPOLITAN AND MICROPOLITAN AREAS IN THE KANSAS AND NEBRASKA COUNTIES**

### Income and Poverty

**Texas.** Of the 56 Texas study area counties, 14 had populations with greater than 20% living below the poverty thresholds in 2009. A number of the counties with the highest poverty populations are in the very southern part of the study area, including Cameron (36%), Hidalgo (36%), Starr (40%), Willacy (47%), Brooks (35%), Duvall (30%), Kleberg (26%), Jim Wells (25%), and Kenedy (52%) counties. In 2009, Coleman and McCulloch counties in the central part of the state within the area of the Western Trail had 31% and 23% of their population living below the poverty level. McLennan and Falls counties, located within the central part of the state on the Chisholm Trail have poverty populations of 21% and 32%, respectively. Wilbarger County, the northern-most county in Texas on the Western route had 25% of its

population living below the poverty level in 2010.

In 2009, the highest median household income was in counties within the large metropolitan areas. The highest median household incomes in the Texas study area counties were Kendall (\$68,000), Comal (\$64,000), Guadalupe (\$59,000), and Wilson (\$59,000) in San Antonio MSA; Denton County (\$70,000) in Dallas-Ft. Worth MSA; and Williamson County (\$69,000) in Austin-Round Rock MSA. In comparison, the Texas median household income was \$48,000 in 2009.

**Oklahoma.** Of the 18 Oklahoma study area counties, two had populations with greater than 20% living below the poverty thresholds in 2009. In 2009, Custer and Tillman counties in Oklahoma within the

Western Trail study area had 21% of their population living below the poverty level. The highest median household incomes were in counties within the large metropolitan areas. The highest median household incomes in the Oklahoma study area counties were Canadian (\$59,000) and Grady (\$44,000) counties in Oklahoma City MSA and Woodward County (\$46,000) in Woodward micropolitan statistical area. Kingfisher County in the middle part of the state also had a relatively higher median household income of \$49,000 in 2009. In comparison, the Oklahoma median household income was \$42,000 in 2009.

**Kansas.** Of the 29 Kansas study area counties, none had populations with greater than 20% living below the poverty level in 2009. In 2009, the counties with the highest poverty populations within the Kansas study area were within the Western route and included Ford (17%), Lane (17%), Decatur (16%), and Stafford (16%) counties. The highest median household incomes were in counties within the large metropolitan areas. The highest median household incomes in the Kansas study area counties were Sumner (\$49,000), Sedgwick (\$48,000), and Harvey (\$47,000) counties in Wichita MSA; McPherson County (\$51,000) in McPherson micropolitan statistical area; and Finney County (\$49,000) in Garden City micropolitan statistical area. Rural Scott County also had a relatively higher median household income of \$58,000 in 2009. In comparison, Kansas median household income was \$48,000 in 2009.

**Nebraska.** Of the six Nebraska study area counties, Hitchcock County had the highest portion of its population living in poverty, at 13%. The county with the highest household income was Perkins County, with a median income of \$46,000 in 2009. In comparison, Nebraska median household income was \$48,000 in 2009, with 12% of its population living below the poverty level.

## Labor Force and Education

**Texas.** In 2010, the total employed workforce in the Texas study area counties was approximately 4.8 million, while total population for these counties was approximately 9.3 million. The counties with the largest employed workforce include Bexar, Denton, Hidalgo, Tarrant, and Travis counties (US Bureau of Labor Statistics [USBLS] 2011).

In 2010, the unemployment rate across the state of Texas was 8.2%, which was lower than the nation's unemployment rate of 9.6%. Within the 56 Texas study area counties, 16 counties had higher unemployment rates than that of the state, while the remaining 40 counties have similar or lower rates of unemployment. Counties with the highest rates of unemployment are located in the southern part of the study area on the Mexico border, including Hidalgo, Cameron, Starr and Willacy counties (USBLS 2011).

The portion of Texas population with at least a high school degree is 79%, compared to the national average of 85%. Ten of the Texas study area counties have populations with less than 70% having high school degrees. Most of these are located in the southern part of the study area. Twenty-three of the study area counties have more than 79% of their population with high school degrees (US Census 2011e).

Approximately 25% of the Texas population has at least a bachelor's degree. These statistics vary by county, ranging from Karnes County, with 7% of its population with at least a bachelor's degree to Travis County in Austin-Round Rock MSA, where 43% of its residents have at least a bachelor's degree (US Census 2011e).

**Oklahoma.** In 2010, the total employed workforce in the Oklahoma study area counties was approximately 204,000, while the total Oklahoma study area population was 444,000. Approximately a quarter of the employed workforce reside in Canadian



County within the Oklahoma City metropolitan area (USBLS 2011).

In 2010, the unemployment rate across the state of Oklahoma was 7.1%, which was lower than the nation's unemployment rate of 9.6%. Within the study area counties, only two had higher unemployment rates than that of the state: Greer (8.7%), and Jefferson (8.2%) counties, both in rural areas. Additionally, six of the 18 counties within the Kansas study area counties had unemployment rates below 5% (USBLS 2011).

The portion of Oklahoma's population with at least a high school degree is 85%, which is consistent with the national average of 85%. The Oklahoma study area counties are fairly consistent with the majority of the counties having high school graduation percentages of greater than 81%. Three counties have slightly smaller portions of their populations with high school degrees: Greer County (76%); Jefferson County (77%); and Tillman County (73%). Approximately 22% of the Oklahoma population has at least a bachelor's degree. Four of the 18 Oklahoma study area counties have bachelor degree percentages higher than the state average: Canadian (24%); Custer (23%); Ellis (23%); and Grant (23%) counties. The lower portions of the population with a bachelor's degree within the Oklahoma study area counties are in Jefferson County (12%) and Dewey County (15%) (US Census 2011e).

**Kansas.** In 2010, the total employed workforce in the Kansas study area counties was approximately 444,000, more than half of whom reside in Sedgwick County within the Wichita metropolitan area. In comparison, total population of Kansas study area counties was approximately 908,000 in 2010. Many of the counties in the northwestern part of the state had a small employed workforce, some less than 1,200 per county; however, unemployment rates were low in these areas (USBLS 2011). In 2010, the unemployment rate across the state of Kansas was 7%, which was lower than the nation's unemployment rate of

9.6%. Within the study area counties, only three had higher unemployment rates than that of the state: Harvey (7.4%), Sedgwick (8.7%), and Sumner (8.9%) counties, all in the Wichita MSA. Nine counties within the Kansas study area counties had unemployment rates below 4% (USBLS 2011).

The portion of Kansas' population with at least a high school degree is 89%, compared to the national average of 85%. The Kansas study area counties are fairly consistent; the majority of the counties have high school graduation percentages of greater than 85%. Three counties have slightly smaller portions of their populations with high school degrees: Finney County (71%); Ford County (76%); and Wallace County (83%). Approximately 29% of the Kansas population has at least a bachelor's degree. The Kansas study area counties are consistently lower than this state average, ranging from Logan County (14%) to Sedgwick County (27%) (US Census 2011e).

**Nebraska.** In 2010, the total employed workforce in the Nebraska study area counties was approximately 11,000. Four thousand of these people reside in Keith County. In comparison, total population in the Nebraska study area counties was 21,000. In 2010, the unemployment rate across the state of Nebraska was 4.7%, which was considerably lower than the nation's unemployment rate of 9.6%. All study area counties had lower unemployment rates than that of the state; Chase County had the highest unemployment rate within the Nebraska study area counties, at 5% (USBLS 2011).

The portion of Nebraska's population with at least a high school degree is 90%, compared to the national average of 85%. The Nebraska study area counties are fairly consistent; all counties have high school graduation percentages between 84 and 92%, with four of the six counties with high school graduation rates less than 90%. Approximately 27% of the Nebraska population has at least a bachelor's degree.



Regarding higher education, the Nebraska study area counties are consistently lower than this state average ranging from Hitchcock County (13%) to Dundee County (25%) (US Census 2011e).

## Ethnicity and Race<sup>1</sup>

**Texas.** Texas, due to its proximity to Mexico, has a considerably larger Hispanic population than the other three states in the study area. Similarly, counties in the southern part of the Texas study area have a greater percentage of the population that identify themselves as Hispanic than do counties in the northern part of the state. Of the 56 counties in the study area in Texas, 37 counties have more than 30% of their populations identified as non-white, and 20 of the counties have more than 50% of their populations identified as non-white. In comparison, 55% of the population of Texas is identified as non-white.

Many of the southern counties in Texas have more than 80% of their populations identified as Hispanic. Falls, Bell, and Tarrant counties also have 25%, 20%, and 15% of their populations identified as

African American, respectively (US Census 2011b).

**Oklahoma.** Across the state, Oklahoma's population is approximately 31% non-white or minority. Within the study area counties, Tillman County has the highest population identified as Hispanic, 22%. Other counties with a relatively high portion of Hispanic populations include Harper (18%); Jackson (21%); and Custer (14%) counties (US Census 2011b).

**Kansas.** Across the state, Kansas' population is approximately 22% non-white or minority. Within 29 study area counties in Kansas, three counties have more than 30% of their populations identified as non-white: Sedgwick (30%); Finney (54%); and Ford (56%) counties. Sedgwick County population, within the Wichita MSA, comprises 13% Hispanic, 9% African American, and 4% Asian American (US Census 2011b).

**Nebraska.** Across the state, Nebraska's population is approximately 18% non-white or minority. None of the Nebraska study area counties comprise minority populations that are higher than the state average. Chase County comprises 12% minority populations, 11% of whom are identified as Hispanic ethnicity (US Census 2011b).

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<sup>1</sup> The categories, listed in appendix **table 3**, include American Indian and Alaska Native, Asian, Black, Native Hawaiian and Other Pacific Islander, Some Other Race alone, Two or More Races, and White. Those are all categories of race. Hispanic or Latino is a classification of ethnicity. A classification of ethnicity is separate from a racial classification. A person or a group of people who are classified into a race can also, separately, be classified into an ethnic group. Therefore, Hispanic or Latino population can also be part of a race. However, for the purposes of this analysis persons in the Hispanic or Latino category are not counted in the racial categories listed in appendix **table 3**. The populations shown in these racial categories exclude those populations that identify themselves as Hispanic or Latino. Therefore, the population percentages in these categories only identify the non-Hispanic populations of a race. For example, the percent Black or African American alone category is the percentage of the population that is Black or African American alone and is not Hispanic. A person is identified as a minority if they identify themselves as a race other than White alone (non-Hispanic) or if they identify themselves as Hispanic or Latino. Additionally, the term "non-white" refers to any person or population that is not Non-Hispanic, White alone.

## Land Ownership

Land ownership across the study area counties is primarily private, as shown in table 4. The study area counties within Texas have the highest portion of federal land, 2.9%. The Nebraska study area counties have the least amount of federal land, comprising 0.3% of these counties. Although state-owned land percentages could not be obtained by county, these state-wide proportions are likely to roughly reflect state-owned percentages within the study area counties. There is a very small portion of state-owned lands within these states, ranging from 0.5% in Nebraska and Texas to 1% in Oklahoma.

**TABLE 4. LAND OWNERSHIP IN THE STUDY AREA COUNTIES AND STATES IN 1995**

State	Square Miles of Federal Lands within Study Area	Square Miles of Counties within Study Area	Percent Federal Lands within Study Area Counties	Percent of State's Area Owned by the State
Kansas	218.8	27,343.2	0.8%	0.6%
Nebraska	15.5	5,244.5	0.3%	0.5%
Oklahoma	162.9	17,445.5	0.9%	1.0%
Texas	1,552.8	53,942.7	2.9%	0.5%
Total	1,950.1	103,975.9	1.9%	NA

Source: US Geological Society 1998; National Wilderness Institute 1995.

### **Economy and Tourism**

**Texas.** Texas is a large and diverse state; its economy is the second largest in the nation and the 15th largest in the world based on gross domestic product figures (US Bureau of Economic Analysis [USBEA] 2011). As the largest exporter of goods in the United States, Texas currently grosses more than \$100 billion a year in trade with other nations.

The state is the leading US producer of oil, natural gas, and natural-gas liquids. It is also a major producer of helium, salt, sulfur, sodium sulfate, clays, gypsum, cement, and talc. Texas manufactures a large variety of products, including chemicals and chemical products, petroleum, food and food products, transportation equipment, machinery, and primary and fabricated metals. The development and manufacturing of electronic equipment, such as computers, has in recent decades become one of the state's leading industries (Columbia Electronic Encyclopedia 2007).

Agriculturally, Texas is one of the most important states in the country. It easily leads the nation in producing cattle, cotton, and cottonseed. Principal crops are cotton lint, grains, sorghum, vegetables, citrus and other fruits, and rice. Texas also has an important commercial fishing industry. Principal catches are shrimp, oysters, and menhaden (Columbia Electronic Encyclopedia 2007).

Travel and tourism is an important industry in Texas, and the state is a favorite destination for both domestic and international visitors. Generally, recreation opportunities include sand dunes and deserts to the west, beaches on the coast, semi-tropical climates in the south, and canyons in the panhandle. In 2010, 529,000 jobs were directly generated by the travel and tourism industry. Texas had an estimated 198 million visitors at tourism destinations in 2010, and the state travel industry's gross domestic product was \$22.4 billion in 2009 (Dean Runyan Associates 2009).

**Oklahoma.** Oil and gas, agriculture, and manufacturing are important industry sectors in Oklahoma. Agriculture production includes cotton, wheat, and livestock. After the first well was drilled in 1888, the petroleum industry grew greatly and Oklahoma City and Tulsa were among the largest natural gas and petroleum centers in the United States. Oil and gas development and production activities remain important economic drivers of the Oklahoma economy, accounting for 5% of employment in 2009 (USBEA 2011). Many of Oklahoma's factories process local foods and minerals, but the state is known for its manufacturing of nonelectrical machinery and fabricated metal products (Columbia Electronic Encyclopedia 2007).

Tourism is an important contributor to the economy in Oklahoma; in 2008, the industry employed nearly 76,000. In 2008, Oklahoma's tourism industry generated more than \$6.1 billion in direct traveler

expenditures, making it Oklahoma's third largest industry (Oklahoma Tourism and Recreation Department 2010).

**Kansas.** Kansas is historically an agricultural state. Manufacturing and services have surpassed agriculture as income producers, but farming is still important to the state's economy. The nation's top wheat grower, Kansas is also a leading producer of grain sorghum and corn; however, cattle and calves constitute the single most valuable agricultural item. Food processing ranked as the state's third largest industry in the 1990s (Columbia Electronic Encyclopedia 2007). Today, food manufacturing accounts for 3% of the gross domestic product in the state (USBEA 2011).

The manufacturing of transportation equipment is the leading manufacturing industry in the state. Wichita is a center of the aircraft industry, producing chiefly private planes. Other important manufactures are petroleum and coal products and nonelectrical machinery. The state is a major producer of crude petroleum and has large reserves of natural gas and helium (Columbia Electronic Encyclopedia 2007).

Tourism is an important part of the Kansas economy. Based on jobs, tourism is the third largest industry in the state, directly supporting 125,000 jobs or 9.3% of non-farm employment in 2009 (Global Insight 2010).

**Nebraska.** Agriculture is Nebraska's dominant occupational pursuit. The state's chief farm products are cattle, corn, hogs, soybeans, and wheat. Nebraska's largest industry is food processing, notably beef production. The state has diversified its industries since World War II. The manufacturing of electrical machinery, primary metals, and transportation equipment are important industries today. Oil and gas production also contribute to the state's economy. Omaha and Lincoln are centers for the insurance and telecommunications industries (Columbia Electronic Encyclopedia 2007).

Tourism is Nebraska's third largest earner of revenue from outside the state after agriculture and manufacturing (Nebraska Department of Economic Development 2010). Jobs attributable to travel spending in Nebraska were approximately 45,000 in 2009 or 3.7% of total employment in 2009 (USBEA 2011). Four out of five of the travel-related jobs were in leisure and hospitality. Although most of the Nebraska travel industry is concentrated in metropolitan Omaha and Lincoln, many other areas of the state are dependent on the travel industry in generating earnings, employment and tax revenues for their local economies (Dean Runyan Associates 2009).

## VISITOR USE AND EXPERIENCE

### Introduction

The provision of high quality visitor experience has always been an important component in National Park Service administration and management. Visitor use and experience impacts evolve from visitor behavior, use levels, types of use, timing of use, and the location of use. While impacts to visitor use and experience are most likely to be beneficial, this topic is retained for further analysis, because of the importance of this topic to the potential national historic trails and its emphasis within the National Trails System Act.

Visitor use describes the multiple ways in which a site is used. In this context, the site is the overall region with a specific focus on visitor resources in proximity or having particular relevance to the interpretive story of the trails.

Visitor experience is the overall perception of a place and is, in this context, informed by factors such as adjacent attractions, proximity and relevance to the trails, and public access. The aesthetics and soundscapes of a site also help inform visitor experience, influencing how a visitor perceives the site.

## Regional Characteristics

Most of the trails' routes are contained within the Southwest and Midwest regions of the United States, characterized by large expanses of prairie steppe and grasslands. The region is steeped in history from initial European settlement, the Mexican-American War, the Civil War, pioneer settlement, to free range cattle ranches (Texas Historical Commission 2002). Visitors are attracted for the region's historic, cultural heritage, and scenic resources as well as the recreational opportunities that the region's numerous parks and other public lands offer.

Visitor use opportunities with relevance or within reasonable proximity to the trails include federal, state, and local lands, as well as commercial land. Current visitor use opportunities include driving on designated trail sections that are now roadways, viewing trail markers, touring relevant historic sites, and visiting museums and other interpretive sites. Several of these opportunities relate to both the Chisholm Trail and the Western Trail and are characterized in table 5. Numerous special events exist around the region to commemorate the history of the trails and are discussed further in the relevant trail sections.

**TABLE 5. VISITOR USE OPPORTUNITIES IN PROXIMITY TO AND/OR RELEVANT TO BOTH THE CHISHOLM TRAIL AND THE WESTERN TRAIL**

Name	Management	Location	Resources
Texas			
Butler Longhorn Museum	Butler Longhorn Museum	League City, Galveston County	Educational
Falcon State Park	Texas Parks and Wildlife Department	Falcon Heights, Starr County	Recreational
George Ranch Historical Park	Fort Bend County Museum Association and the George Foundation	Richmond, Fort Bend County	Educational and historical
Goliad State Park	Texas Parks and Wildlife Department	Goliad, Goliad County	Natural, recreational, and historical
Government Canyon State Natural Area	Texas Parks and Wildlife Department	San Antonio, Bexar County	Natural
Guadalupe River State Park	Texas Parks and Wildlife Department	Spring Branch, Comal County	Recreational
Honey Creek State Natural Area	Texas Parks and Wildlife Department	Spring Branch, Comal County	Natural
Kenedy Ranch Museum of South Texas	John G. and Marie Stella Kenedy Memorial Foundation	Sarita, Kenedy County	Educational
King Ranch	King Ranch	Kingsville, Kleberg County	Natural, historical, and recreational
King Ranch Museum	King Ranch	Kingsville, Kleberg County	Educational
Laguna Atascosa National Wildlife Refuge	US Fish and Wildlife Service (USFWS)	Los Fresnos, Cameron County	Natural and recreational
Lake Corpus Christi State Park	Nonprofit	Mathis, San Patricio County	Recreational
Land Heritage Institute	Land Heritage Institute Foundation	San Antonio, Bexar County	Natural, recreational and historical
Lower Rio Grande Valley National Wildlife Refuge	USFWS	Alamo, Hidalgo County	Natural and recreational

Name	Management	Location	Resources
Lyndon B. Johnson National Historical Park	NPS	Johnson City, Blanco County, Texas	Historic
McAllen Heritage Center*	Local	McAllen, Hidalgo County	Historic
Museum of South Texas History	Museum of South Texas History	Edinburg, Hidalgo County	Educational
Palo Alto Battlefield	NPS	Brownsville, Cameron County	Historic
Panhandle-Plains Historical Museum	West Texas A&M University	Canyon, Randall County	Educational
Pioneer Trail Drivers Museum	City of San Antonio	San Antonio, Bexar County	Educational
Presnall Watson Heritage Site/Farmstead	Land Heritage Institute Foundation	San Antonio, Bexar County	Educational
Raymondville Historical Museum	City of Raymondville	Raymondville, Willacy County	Educational
San Antonio Missions National Historic Park	NPS	San Antonio, Bexar County	Historic
Santa Ana National Wildlife Refuge	USFWS	Alamo, Hidalgo County	Natural
Texas Tech University – Southwest Collection / Special Collections Library	Texas Tech University	Lubbock, Lubbock County	Educational
Oklahoma			
Wichita Mountains National Wildlife Refuge	USFWS	Indiahoma, Comanche County	Natural and wildlife
Santa Fe National Historic Trail	NPS	Colorado, Kansas, Missouri, New Mexico, Oklahoma	Historic
Kansas			
Fort Larned National Historic Site	NPS	Larned, Pawnee County	Historic
Old Cowtown Museum	City of Wichita	Wichita, Sedgwick County	Educational
Tallgrass Prairie National Preserve	NPS	Strong City, Chase County	Natural, recreational and wildlife

\*Sites with known thematic connection to trails.

Sources: NPS 2011a; USFWS 2011c, Texas Parks and Wildlife 2011; Oklahoma Tourism, and Recreation Department 2011; Kansas Department of Wildlife, Parks, and Tourism 2011; Texas Historical Commission 2002

Visitor use estimates have not been developed yet for either for the Chisholm Trail or the Western Trail. However, some measure of interest in sites along the trail may be the number of visitors in 2010 to NPS units in the vicinity of the trail corridors, which ranged from 3,448 visitors

at Nicodemus National Historic Site to 1,304,690 visitors at San Antonio Missions National Historical Park (NPS 2011b). It is anticipated that some of these visitors to other NPS units can be expected to visit the Chisholm Trail and the Western Trail due to interest and proximity (table 6).

**TABLE 6. NUMBER OF RECREATIONAL VISITORS IN 2010 AT NPS UNITS NEAR THE CHISHOLM TRAIL AND THE WESTERN TRAIL**

NPS Park Unit	State	2010 Recreational Visits
Brown v. Board of Education National Historic Site	Topeka, Shawnee County, Kansas	17,808
Chickasaw National Recreation Area	Sulphur, Murray County, Oklahoma	1,253,637
Fort Larned National Historic Site	Larned, Pawnee County, Kansas	29,423
Lyndon B. Johnson National Historical Park	Johnson City, Blanco County, Texas	112,680
Nicodemus National Historic Site	Nicodemus, Graham County, Kansas	112,680
Palo Alto Battlefield	Brownsville, Cameron County, Texas	26,865
San Antonio Missions National Historic Park	San Antonio, Bexar County, Texas	1,304,690
Tallgrass Prairie National Preserve	Strong City, Chase County, Kansas	22,047
Washita Battlefield National Historic Site	Butler, Custer County, Oklahoma	12,552

Source: NPS 2011b

### The Chisholm Trail

The Chisholm Trail and surrounding attractions offer visitors the opportunity to participate in recreational activities, investigate historic resources, and engage in heritage tourism. Wildlife refuges, state parks, and recreational areas provide scenic views, natural resources and wildlife viewing opportunities, and spaces to enjoy recreational activities. Historic sites and museums enable visitors to understand and

experience what life would have been like on the trails in the nineteenth century. Many of these attractions also afford visitors the opportunity to see and interact with longhorn cattle, a regional icon. Several attractions relate specifically to the Chisholm Trail and to Jesse Chisholm, its founder, and could be connected to interpretive themes of the Chisholm Trail. Specific visitor use opportunities related to the Chisholm Trail are identified in table 7.

**TABLE 7. VISITOR USE OPPORTUNITIES IN PROXIMITY TO AND/OR RELEVANT TO THE CHISHOLM TRAIL**

Name	Management	Location	Resources
Texas			
Aransas National Wildlife Refuge	USFWS	Austwell, Refugio County	Natural and recreational
Attwater Prairie Chicken National Wildlife Refuge	USFWS	Eagle Lake, Colorado County	Natural
Balcones Canyonlands National Wildlife Refuge	USFWS	Marble Falls, Burnet County	Natural
Bastrop State Park	Texas Parks and Wildlife Department	Bastrop, Bastrop County	Recreational
Buescher State Park	Texas Parks and Wildlife Department	Smithville, Bastrop County	Recreational
Caddo / LBJ National Grasslands	US Forest Service	Decatur, Wise County	Natural and recreational
Chisholm Trail Heritage Museum*	Local	Cuero, DeWitt County	Historic
City of Belton Hike and Bike Trail	City of Belton	Belton, Bell County	Recreational and natural

Name	Management	Location	Resources
Cleburne State Park*	Texas Parks and Wildlife Department	Cleburne, Johnson County	Recreational
Goliad State Park and Historic Site*	Texas Parks and Wildlife Department	Goliad, Goliad County	Recreational and historic
Hagerman National Wildlife Refuge	USFWS	Sherman, Grayson County	Natural and recreational
Kenedy Ranch Museum of South Texas*	Private	Sarita, Kenedy County	Historic
King Ranch Museum*	Commercial	Kingsville, Kleburg County	Historic
Lake Whitney State Park	Texas Parks and Wildlife Department	Whitney, Hill County	Recreational
Lipantitlan State Historic Site	Texas Parks and Wildlife Department	Mathis, San Patricio County	Historic
Lockhart State Park	Texas Parks and Wildlife Department	Lockhart, Caldwell County	Recreational
Lyndon B. Johnson National Historical Park	NPS	Johnson City, Gillespie County	Historic
McKinney Falls State Park	Texas Parks and Wildlife Department	Austin, Travis County	Historic, natural, and recreational
Meridian State Park	Texas Parks and Wildlife Department	Meridian, Bosque County	Natural and recreational
Monument Hill & Kreische Brewery State Historic Sites	Texas Parks and Wildlife Department	La Grange, Fayette County	Historic
Mother Neff State Park	Texas Parks and Wildlife Department	Moody, McLennan County	Natural and recreational
Palmetto State Park*	Texas Parks and Wildlife Department	Gonzales, Gonzales County	Recreational
Ray Roberts Lake State Park	Texas Parks and Wildlife Department	Pilot Point, Denton County	Natural and recreational
Sebastopol House State Historic Site	Texas Parks and Wildlife Department	Seguin, Guadalupe County	Historic
Stonewall Saloon Museum	Stonewall Saloon Museum	Saint Jo, Montague County	Historic
Williamson Museum	Local	Georgetown, Williamson County	Historic
Oklahoma			
Chickasaw National Recreational Area	NPS	Sulphur, Murray County	Natural and recreational
Chisholm Trail Heritage Center*	Local	Duncan, Stephens County	Historic
Chisholm Trail Museum & Governor Seay Mansion*	Oklahoma Tourism and Recreation Department	Kingfisher, Kingfisher County	Historic
Chisholm Trail Watering Hole & Historic Marker*	Oklahoma Tourism and Recreation Department	Yukon, Canadian County	Historic
Duncan Convention & Visitors Bureau*	Oklahoma Tourism and Recreation Department	Duncan, Stephens County	Historic
Historic Fort Reno*	Oklahoma Tourism and Recreation Department	El Reno, Canadian County	Historic

Name	Management	Location	Resources
Jesse Chisholm Grave Site*	Oklahoma Tourism and Recreation Department	Geary, Canadian County	Historic
Oklahoma City National Memorial	NPS	Oklahoma City	Historic
Redbud Park*	Oklahoma Tourism and Recreation Department	Marlow, Stephens County	Recreational
Salt Plains National Wildlife Refuge	USFWS	Jet, Alfalfa County	Natural and recreational
Kansas			
Brown v. Board of Education National Historic Site	NPS	Topeka, Shawnee County	Historic
Cheney State Park	Kansas Department of Wildlife, Parks, and Tourism	Cheney, Kingman, Reno, and Sedgwick counties	Recreational
Clearwater Historical Museum	Clearwater Historical Society	Clearwater, Sedgwick County	Historic and educational
Hodgden House Museum Complex	City of Ellsworth	Ellsworth, Ellsworth County	Historic and educational
JL Canyon Ranch	JL Canyon Ranch	Brookville, Saline County	Recreational and educational
Kanopolis State Park	Kansas Department of Wildlife, Parks, and Tourism	Marquette, Ellsworth County	Recreational
Mushroom State Park	Kansas Department of Wildlife, Parks, and Tourism	Marquette, Ellsworth County	Recreational
Old Historic Abilene Town	Historic Abilene, Inc.	Abilene, Dickinson County	Historic and cultural
Quivira National Wildlife Refuge	USFWS	Stafford, Stafford County	Natural and recreational
Sand Hills State Park	Kansas Department of Wildlife, Parks, and Tourism	Hutchinson, Reno County	Recreational
Tallgrass Prairie National Preserve	NPS	Strong City, Chase County	Natural

\*Sites with known thematic connection to trails.

Sources: NPS 2011a; USFWS 2011c; Texas Parks and Wildlife 2011; Oklahoma Tourism, and Recreation Department 2011; Kansas Department of Wildlife, Parks, and Tourism 2011; Texas Historical Commission 2002

## The Western Trail

The Western Trail and surrounding attractions offer visitors' similar historic,

recreational, and natural resources as those related to the Chisholm Trail. Specific visitor use opportunities related to the Western Trail are identified in table 8.

**TABLE 8. VISITOR USE OPPORTUNITIES IN PROXIMITY TO AND/OR RELEVANT TO THE WESTERN TRAIL**

Name	Agency	Location	Park Resources
Texas			
Enchanted Rock State Natural Area	Texas Parks and Wildlife Department	Fredericksburg, Gillespie County	Natural and recreational



Name	Agency	Location	Park Resources
Hill Country State Natural Area	Texas Parks and Wildlife Department	Bandera, Bandera County	Natural and recreational
Lyndon B. Johnson State Park and Historic Site	Texas Parks and Wildlife Department	Stonewall, Gillespie County	Historic and recreational
South Llano River State Park	Texas Parks and Wildlife Department	Junction, Kimble County	Recreational
Western Trail Heritage Center	Local	Wichita Falls, Wichita County	Historic
Oklahoma			
Boiling Springs State Park	Oklahoma Tourism and Recreation Department	Woodward, Woodward County	Natural and recreational
Foss State Park	Oklahoma Tourism and Recreation Department	Foss, Washita County	Recreational
Great Plains State Park	Oklahoma Tourism and Recreation Department	Mountain Park, Kiowa County	Recreational
Washita Battlefield National Historic Site	NPS	Cheyenne, Roger Mills County	Historic
Washita National Wildlife Refuge	USFWS	Butler, Custer County	Natural and recreational
Kansas			
Nicodemus National Historic Site	NPS	Nicodemus, Graham County	Historic
Scott State Park	Kansas Department of Wildlife, Parks, and Tourism	Scott City, Scott County	Recreational
Nebraska			
Boot Hill*	Local	Ogallala, Keith County	Historic
Champion Lake State Recreation Area	Nebraska Game and Parks Commission	Enders, Chase County	Recreational
Champion Mill State Historic Park	Nebraska Game and Parks Commission	Enders, Chase County	Historic
Enders Reservoir State Recreation Area	Nebraska Game and Parks Commission	Enders, Chase County	Recreation
Front Street and Cowboy Museum*	Private	Ogallala, Keith County	Historic
Hitchcock County Museum	Local	Trenton, Hitchcock County	Historic
Lake McConaughy State Recreation Area	Nebraska Game and Parks Commission	Ogallala, Keith County	Recreational
Lake Ogallala State Recreation Area	Nebraska Game and Parks Commission	Ogallala, Keith County	Recreational
Rock Creek Lake State Recreational Area	Nebraska Game and Parks Commission	Enders, Dundy County	Recreational
Swanson Reservoir State Recreation Area	Nebraska Game and Parks Commission	Stratton, Hitchcock County	Recreational

\*Sites with known thematic connection to trails.

Sources: NPS 2011a; USFWS 2011c; Texas Parks and Wildlife 2011; Oklahoma Tourism, and Recreation Department 2011; Kansas Department of Wildlife, Parks, and Tourism 2011; Nebraska Game and Parks Commission 2011a, Texas Historical Commission 2002

## Special Events

Trail heritage and history are important in the region. There are numerous heritage festivals and other special events related to both the Chisholm Trail and the Western Trail that commemorate the historic cattle drives and give visitors the chance to experience first-hand what a cattle drive would have been like.

Events include county fairs, trail and cowboy heritage festivals and programs, pioneer days, symposia, picnics, and historical reenactments. There are events associated with museums and state parks and many of the sites listed above. Several ranches sponsor trail-related or potentially trail-related events including cattle drives. Example events are listed below:

- Chuckwagon dinner and gunfight reenactments, Boothill Museum, Dodge City, Kansas
- Cultural Heritage Program, Hoffman H30 Ranch, Corpus Christi, Texas
- Chisholm Trail Festival, Caldwell, Kansas
- Historical Reenactments, the Old Cowtown Museum, Wichita, Kansas
- Pioneer Days, Chisholm Trail Outdoor Museum, Wardville, Texas
- Chisholm Trail Extravaganza, Wardville County Courthouse, Cleburne, Texas
- National Cowboy Symposium and Celebration, Lubbock, Texas

## IMPACT TOPICS CONSIDERED BUT NOT ANALYZED IN DETAIL

This section identifies the issues and impact topics dismissed from detailed analysis in this feasibility study / environmental assessment and provides the rationale for not analyzing these topics further. Generally, issues and impact topics are dismissed from detailed analysis for one or more of the following reasons:

- The resource does not exist in the analysis area.
- The resource would not be affected by the proposal, or the likelihood of impacts are not reasonably expected (i.e., no measurable effects).
- Through the application of mitigation measures, there would be minor or less effects (i.e., no measurable effects) from the proposal, and there is little controversy on the subject or reasons to otherwise include the topic.

The National Park Service uses the concept of “no measurable effects” to determine whether impact topics are dismissed from further evaluation to concentrate its analyses on issues that are truly significant to the action in question, rather than amassing needless detail (CEQ NEPA regulations, 40 CFR 1500.1(b)). For each issue or topic presented below, if the resource is found in the analysis area or the issue is applicable to the proposed action, then a limited analysis of effects is presented with the dismissal discussion.

National historic trails are true partnership ventures. There is no new federal ownership of lands or trail routes. Any developments or actions that would take place because of designation of a national historic trail would have to be by request of the landowner or manager of those lands or trail routes. Landowners and land-managing agencies retain complete control over their lands and management responsibilities. The national trails program only works in cooperation and partnership with those who decide to participate in the national trails program. Proposed actions (in the alternatives) are limited because there is no certainty as to who or what entities would wish to participate.

The following impact topics are dismissed from further consideration in this study.

## **Cultural Resources**

**Museum Collections.** There are numerous institutions along both trail routes with exhibits and museum collections dedicated to the history surrounding the cattle trails or to the period. These institutions could be potential qualified trail partners, and include entities such as the Red River Valley Museum in Vernon, Texas, the Chisholm Trail Heritage Museum in Cuero, Texas, and the Chisholm Trail Heritage Center in Duncan, Oklahoma.

It is not anticipated that new artifact-based museum collections would be developed as a result of the designation as national historic trails. Surveys, excavations, and improvements associated with the trails would be limited and localized, and no large yields of artifacts are therefore anticipated. Collection and management of artifacts would be conducted in accordance with a management plan that would be developed should the trails be granted national historic trail status.

Little or no impact is anticipated and this topic has been dismissed for the following reasons: because no archeological disturbance would be directly associated with the designation of the trails, because only a very small amount of disturbance is anticipated in the future during implementation of future trail-related projects and because future improvements would be conducted in accordance with any existing management plans and applicable policies and regulations, and because plans would be in place to properly care for museum collections and artifacts, little or no impact is anticipated and this topic has been dismissed.

**Cultural Landscapes.** Cultural landscapes are complex resources that range from large rural tracts covering several thousand acres to formal gardens of less than an acre. Natural features such as landforms, soils, and vegetation are not only part of the cultural landscape, they provide the framework within which it evolves. In the

broadest sense, a cultural landscape is a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions. Cultural landscapes exist along and surrounding the routes of the cattle trails under study. They are intruded upon by modern-day interstate highways, power lines, billboards, and modern-day towns and cities. Yet in some locations the landscape is virtually unchanged, except in its vegetative cover, from 120 years ago. If designation is selected and new structures were proposed, they would be small and low key, such as interpretive kiosks and restrooms. Roadside pullouts and structures would be designed to blend into the surrounding landscape with materials and colors that do not detract from the natural environment. Adverse impacts are anticipated to be negligible. Any slight impacts would be mitigated with site specific compliance and planning if the need occurs after designation. The majority of land ownership of the trails is in private hands and trail administration would have a very limited role in the ability to protect. Therefore, this topic is dismissed.

**Sacred Sites.** Specific sacred sites along the trail routes were not identified during the planning process. Therefore, this topic is dismissed at this time but may need to be included in future more detailed compliance documents if a trail is designated. To date, ongoing consultation with American Indian tribes have not identified any sacred sites or traditional cultural properties along the study routes. As indicated above, if designation is selected and new structures were proposed, they would be small and low key, such as interpretive kiosks and restrooms. Trail administrators would recommend that any roadside pullouts and structures would be designed to blend into the surrounding landscape with materials

and colors that do not detract from the natural environment. Adverse impacts are anticipated to be negligible.

The administrative act of designating the cattle trail routes as one or more national historic trails would not affect sacred sites along the trail routes. Should trails along sacred sites be designated as part of a national historic trail, consultation with tribes during that process would ensure that although the trail routes may pass by or through sacred sites, impacts to such areas would be avoided during implementation of trail projects. This topic has therefore been dismissed at this time, but should national historic trail status be granted, future improvements would be considered, in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate.

**Paleontological Resources.** Paleontological resources (fossils and their associated data) are a major source of evidence of past life. They are the basis for our understanding of the history of life on Earth, and are an integral part of our planet's biodiversity. It is not anticipated that paleontological resources would be impacted by the designation of the cattle trail routes as one or more national historic trails, and future surveys or improvement projects associated with trail implementation would be conducted in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. Therefore, potential impacts on paleontological resources from the alternatives under consideration in this plan were not analyzed in further detail.

## Natural Resources

**Geologic Resources.** NPS *Management Policies* (2006) require consideration of the impacts of proposed NPS actions on geological resources. The geology of the region over which the cattle trails existed is varied, and it changes significantly from south to north. The designation of the cattle

trail routes as one or more national historic trails is a programmatic action, however, and would not affect geologic resources, and there are no anticipated projects associated with the trails that would affect geologic resources other than soils, such as requiring cut and fill at a building site or excavations for building foundations. This topic has therefore been dismissed.

**Soils.** Because the trail routes cover such a large area, the soils and associated geology vary greatly along the route, although most soils are associated with the plains, prairie and grasslands under which they lay. The soils in the south around San Antonio are underlain by limestone, and caves and sinkholes are characteristic of the area. Many of these features are natural landmarks and home to rare or unusual species. Much of north Texas and Oklahoma are semi-arid and are considered part of the Great Plains. There are large expanses of prairie-steppe and grasslands all along the trail corridor.

Similar to plants and animals, soils are classified at different levels. The highest level of soil taxonomy is soil order, which is used in this discussion, given the scale of the study area, the general location of the trail corridors, and the previous use by cattle that covered large swaths of land.

The counties south of San Antonio, in the cattle procurement area, are in the coastal plain of Texas and are characterized by a mix of soil orders known as vertisols, alfisols, and mollisols. Mollisols and alfisols are found east of the Rocky Mountains, in the plains, and in areas strongly influenced by fire. Mollisols tend to drain freely, have high fertility, near-neutral pH, and topsoil layers that are high in organic matter, suitable for cultivation. They are known as one of the most economically important soil orders, due to their fertility and productivity. Alfisols also have distinct horizons, neutral to slightly acidic pH, and subsoil that is high in clay and nutrients. These soils also have relatively high fertility for crop cultivation (USDA n.d., 2006). Little information is available on erodibility for either soil order.

Vertisols are an order of soils that contain a high content of expansive clay that forms deep vertical cracks during drier periods. These soils tend to form from highly basaltic rocks in climates that are subject to periods of extreme drought and flood, or to poor drainage. As with mollisols, vertisols form under grasslands and savannahs. These soils do not support the growth of trees very well. The swelling and shrinking of these soils can lead to damage to buildings and roads, and can lead to subsidence (USDA n.d. 2006).

From San Antonio north, the percentage of coverage by mollisols increases, although there continue to be a combination of vertisols and alfisols north through Texas and into Oklahoma. Mollisols are the principal soil order in Kansas in the vicinity of the trails.

In Nebraska, a different soil order, entisols, appears and covers much of the state. Unlike mollisols, entisols are often sandy and shallow soils and have little or no evidence of organic horizons, and are often ochre in color. The parent material is often unconsolidated sediment or rock. Erosion is common on slopes (USDA n.d. 2006).

The designation of the trail routes as part of the national historic trail system would not directly impact soils. Soils are an important resource for the trails, and are important to the trail mission, and can easily be affected during small-scale improvement projects that might be associated with the trail in the future, should these corridors be granted national historic trail status. Any individual undertaking that might be proposed in the future, should the additional routes be designated, would be done in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. Therefore this impact topic is dismissed from further analysis.

**Vegetation.** In the rural sections of the trails, vegetation communities may be very similar to what was present during the time of the

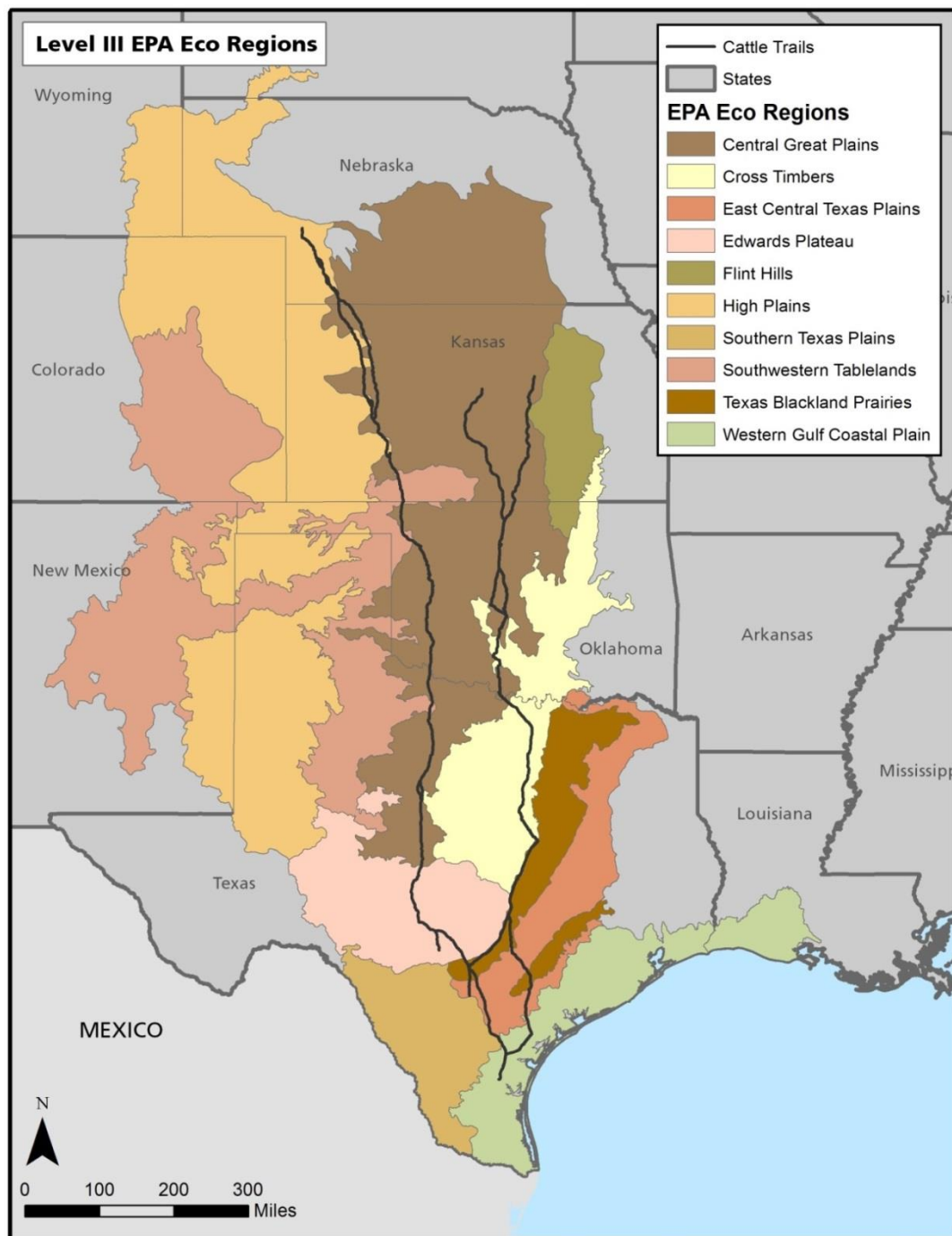
cattle drives. There are several important plant communities in the trail corridors. Vegetation along the Chisholm and Western Trails was described and mapped in May 2011 (Wiken et al. 2011). Based on the draft data, ten vegetation types were classified using the North American Terrestrial Ecoregions – Level III. Vegetation ranges from tallgrass prairie and savanna in the southern and coastal regions of Texas with some deciduous forest in east-central Texas, to mostly short to midgrass prairie vegetation throughout central and northern Texas, Oklahoma, Kansas, and into Nebraska. Agriculture, grazing, oil and gas extraction, urbanization, and recreational activities have shaped and continue to shape the plant communities (Wiken et al. 2011). Most of the prairies are now used for crop production or cattle production on pasture and rangeland with oil and gas production in many areas.

Climatic factors shape the distribution of vegetation types. Vegetation types in southern and east-central Texas are dominated by species adapted to a humid subtropical climate with hot summers and mild winters while vegetation types dominated by species adapted to a dry climate with hot summers and cold winters occur in Kansas and Nebraska. Vegetation types are described geographically from Texas to Kansas and Nebraska and shown in figure 13.

**Rare or Unusual Vegetation.** Pursuant to Section 4.4 of the NPS *Management Policies 2006*, vegetation will be maintained as a part of the natural ecosystem of the park or park unit. Vegetation, and specifically rare and unusual vegetation, would not be affected by the designation of the cattle trail routes as national historic trails, although there is potential for general vegetation impacts as a result of designation once the trail is implemented. Most vegetation impacts would occur as a result of small improvement projects associated with visitor amenities and trail markers. These projects would be conducted in accordance with a future comprehensive management plan for

the trail, and would be done in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. It is expected that areas with rare or unusual vegetation would be avoided. In addition, the national

historic trails are not usually considered national park units, and unless designated as such this impact topic would not apply. Therefore, potential impacts on rare or unusual vegetation are not analyzed in further detail.



**FIGURE 13. ECO REGIONS IN THE TRAIL CORRIDORS**

**Western Gulf Coastal Plain.** The Western Gulf Coastal Plain Ecoregion occurs in the coastal region of Texas from Brownsville to northeast of Houston. The ecoregion has a mild mid-latitude humid subtropical climate, marked by hot summers and mild winters. Vegetation is dominated by tallgrass prairies in the north with little and big bluestems (*Schizachyrium scoparium* and *Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), brownseed paspalum (*Paspalum plicatulum*) mixed with numerous herbaceous species. Central areas also had tall dropseed (*Sporobolus microspERMUS*), silver bluestem (*Bothriochloa saccharoides*), common curleymesquite (*Hilaria belangeri*), and plains bristlegrass (*Setaria vulpiseta*). The sandier plains in the southern portion of Texas are dominated with southern live oak (*Quercus fusiformis*), honey mesquite (*Prosopis glandulosa*), Texas persimmon (*Diospyros texana*), little bluestem, and sand dropseed (*Sporobolus cryptandrus*).

**Southern Texas Plains.** The Southern Texas Plains Ecoregion occurs in southern Texas from the south border to the San Antonio area. The ecoregion has a dry subtropical steppe climate, with hot summers and mild winters. The lightly to moderately dissected irregular plains are dominated by grassland and savanna species with areas of shrubs that are mostly predominated by thorny brush species due to a long history of grazing including honey mesquite, brasil (*Caesalpinia violacea*), lotebush (*Ziziphus obtusifolia*), kidneywood (*Eysenhardtia texana*), coyotillo (*Karwinskia humboldtiana*), Texas paloverde (*Parkinsonia texana*), anacahuita (*Cordia boissieri*), and various species of cacti with areas of blackbrush (*Coleogyne ramosissima*), guajillo (*Acacia berlandieri*), and cenizo (*Tetrazygia urbanii*). Some scattered live oak (*Quercus virginiana*) and post oak (*Quercus stellata*) occur in the far northern portion of this ecoregion with scattered areas of tall and midgrass prairie.

**East Central Texas Plains.** The East Central Texas Plains Ecoregion occurs in east-central Texas near San Antonio to the Red

River. The ecoregion has a mild mid-latitude humid subtropical climate, marked by hot summers and mild winters. Vegetation occurs on nearly level to rolling irregular plains that are dissected by broad river systems. The vegetation is dominated by post oak savanna with areas oak-hickory forest dominated by post oak, blackjack oak (*Quercus marilandica*), black hickory (*Carya texana*), with herbaceous grass species grasses including little bluestem, purpletop (*Tridens flavus*), curly threeawn (*Aristida desmantha*), and yellow Indiangrass. Savanna and forest understory species including yaupon (*Ilex vomitoria*), eastern red cedar (*Juniperus virginiana*), winged elm (*Ulmus alata*), American beautyberry (*Callicarpa americana*), and farkleberry (*Vaccinium arboreum*). The far northern portion of this ecoregion near the Red River have some scattered live oak and post oak with scattered areas of tall and midgrass prairie.

**Texas Blackland Prairies.** The Texas Blackland Prairies Ecoregion occurs along the Chisholm Trail from San Antonio to near the Oklahoma border. The ecoregion has a mild mid-latitude humid subtropical climate, marked by hot summers and mild winters. Vegetation occurs on nearly level to gently sloping plains that were dominated by tallgrass prairie of little bluestem, big bluestem, yellow Indiangrass, tall dropseed, eastern gamagrass (*Tripsacum dactyloides*) and a diversity of forbs such as asters, clovers, and black-eyed susan (*Rudbeckia hirta*). Most all of the prairie has been converted to cropland, pasture, rangeland, and urban uses. Riparian vegetation species in areas along intermittent and perennial streams include bur oak (*Quercus macrocarpa*), Shumard oak (*Quercus shumardii*), sugar hackberry (*Celtis laevigata*), elm (*Ulmus* sp.), ash (*Fraxinus* sp.), eastern cottonwood (*Populus deltoides*), and pecan (*Carya illinoensis*).

**Edwards Plateau.** The Edwards Plateau Ecoregion occurs along the Western Trail in central and west-central Texas from San Antonio to the north and west near Kerrville



and Menard. The ecoregion has some transitional climates, with dry subtropical steppe in the south, mid-latitude steppe to the north, and mild mid-latitude humid subtropical on the east. The ecoregion is mostly a dissected limestone plateau that is hillier in the south and east and sparsely dissected by perennial streams. The topography is rolling with broad valleys and ridges and canyons common in some areas. Vegetation was dominated by grassy savannas including juniper-oak and mesquite-oak savanna with grasslands of little bluestem, yellow Indiangrass, and sideoats grama (*Bouteloua curtipendula*), with scattered groves of plateau live oak, Texas oak, and Ashe juniper (*Juniperus ashei*). With its rapid seed dispersal, low palatability to browsers and in the absence of fire, Ashe juniper has increased in some areas, reducing the extent of grassy savannas.

**Cross Timbers.** The Cross Timbers Ecoregion occurs along the Chisholm Trail from north-central Texas, central Oklahoma, into southeastern Kansas. The ecoregion has a mild mid-latitude humid subtropical climate, marked by hot summers and mild winters. The ecoregion is mostly rolling plains, some rounded hills, ridges, and cuesta topography crossed by several large rivers including the Red River. Vegetation is dominated by transitional “cross-timbers” vegetation consisting of grassland dominated by little bluestem with scattered blackjack oak and post oak trees. Other grass species include big bluestem, Indiangrass, switchgrass (*Panicum virgatum*), elm, black hickory, greenbriar (*Smilax* sp.), and Virginia creeper (*Parthenocissus quinquefolia*). In areas without fire, grassland species decrease and a dense woody understory forms.

**Southwestern Tablelands.** The Southwestern Tablelands Ecoregion occurs along the Western Trail from the panhandles of Texas and Oklahoma into southwest Kansas. The ecoregion has a dry mid-latitude steppe climate, marked by hot summers and cool winters. The ecoregion is

mostly elevated tablelands with red-hued canyons, mesas, badlands, gorges, and dissected river breaks with some broad rolling plains, piedmonts, and flat plains and elevations that range from 350 meters to 2,650 meters. Vegetation is dominated by shortgrass and midgrass prairie with blue grama (*Bouteloua gracilis*), black grama (*Bouteloua eriopoda*), sideoats grama, sand dropseed, threeawns (*Aristida* sp.), little bluestem, western wheatgrass (*Pascopyrum smithii*), buffalograss (*Bouteloua dactyloides*), galleta (*Pleuraphis jamesii*), alkali sacaton (*Sporobolus airoides*) often mixed with sand sagebrush (*Artemisia filifolia*), yucca (*Yucca angustissima*), and cholla (*Cylindropuntia* sp.).

**Central Great Plains.** The Central Great Plains Ecoregion occurs along both the Chisholm Trail and Western Trail from north-central Texas, through central Oklahoma and Kansas, into central Nebraska. The ecoregion has severe to mild mid-latitude climates north to south and more humid to dry steppe climates from east to west with hot summers and mild to severe winters. The ecoregion is nearly level to irregular plains, broad alluvial valleys, with some hilly, dissected plains crossed by several larger rivers including the Red River and Arkansas River. Vegetation was a transitional vegetation type that was mostly mixed-grass prairie, with some scattered low trees and shrubs in the south dominated by little bluestem, big bluestem, sideoats grama, blue grama, Indiangrass, sand bluestem (*Andropogon hallii*), sand dropseed to the north with Texas wintergrass (*Nassella leucotricha*), buffalograss, white tridens (*Tridens albescens*), along with some honey mesquite, lotebush (*Ziziphus obtusifolia*), sand sagebrush, and yucca in the south. Most of the vegetation has been converted to dryland and irrigated cropland with some pasture and rangeland.

**Flint Hills.** The Flint Hills Ecoregion occurs along a small portion of the Chisholm Trail in Kansas north of Wichita. The ecoregion has a severe mid-latitude, humid continental climate, marked by hot summers and mild to



severe winters. The ecoregion consists of rolling hills, cuernas, and relatively narrow steep valleys with elevations ranging from 245 meters to 495 meters. Vegetation in the Flint Hills is dominated by tallgrass prairie species including big bluestem, switchgrass, Indiangrass, and little bluestem.

**High Plains.** The High Plains Ecoregion occurs along the Western Trail from the panhandles of Texas and Oklahoma, through western Kansas and Nebraska. The ecoregion has a dry mid-latitude steppe climate that is drier than the Central Great Plains to the east, and is marked by hot summers and cold winters. The topography is mostly smooth to slightly irregular plains, crossed by the Arkansas River in southwest Kansas and the Platte River near the end point of the Western Trail in Nebraska. Vegetation is dominated by short and midgrass prairie, much of which is greatly altered. Shortgrass prairie species include blue grama, buffalograss, fringed sage and midgrass prairies are dominated by sideoats grama, western wheatgrass, and little bluestem.

The designation of the trail routes as part of the national historic trail system would not directly impact vegetation. Vegetation can easily be affected during small-scale improvement projects that might be associated with the trail in the future, should these corridors be granted national historic trail status. While vegetation is an important resource for conveying the history of the cattle trails, none of the alternatives propose or imply activities that would impact vegetation. Any individual undertaking that might be proposed in the future, should the routes be designated, would be done in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. This impact topic is therefore dismissed from further analysis.

**Air Quality.** Vehicles on major travel routes and in metropolitan areas are significant sources of nitrogen oxides. There are several pollutants of concern for air quality: ozone,

carbon monoxide, sulfur dioxide, nitrogen oxides and particulate matter. Air pollution tends to be worse in more urbanized areas (such as the Dallas-Fort Worth area), where there are more vehicles, more industry, and a higher demand for power resulting in more power plants. Emissions from these sources result in deposition of nitrogen and sulfur compounds in the air. Air quality monitoring programs across the affected regions indicate concentrations of sulfur dioxide have generally decreased, while concentrations of nitrogen oxides have generally remained stable or increased slightly. Under alternative B, there is a slight possibility of increased dust emission from increased travel on unpaved roads. A slight increase in travel due to the action alternative could also be anticipated. The numbers of vehicles, projected to be less than 15 per day, would contribute insignificantly to degradation of air quality. Traffic as a result of the action alternative would be minimal and would have an insignificant impact on air quality.

Air quality in the proposed national historic trail corridors is generally good. Of the 109 counties in the study area, only two counties in Texas are listed as being in nonattainment areas for Ozone (8-hour). Both counties are in the Dallas-Fort Worth metropolitan area. The remaining 107 counties are in attainment for ozone. All 109 counties are in attainment for carbon monoxide, lead, and particulate matter (U. S. Environmental Protection Agency (EPA) 2011).

Any proposed projects related to the trail in those counties that are designated as non-attainment areas are required to demonstrate compliance with the general conformity guidelines established in 40 CFR Part 93, *Determining Conformity of Federal Actions to State or Federal Implementation Plans* (the Rule). However, no improvements are associated with the designation of the cattle trails as national historic trails, and potential future improvements related to implementation of the trails would be very small in scale (markers, signs, kiosks, and possibly small structures such as restrooms).

Impacts on air quality would be localized and short term and would not significantly contribute to regional air quality issues. Further, any improvements would be in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. This topic has therefore been dismissed.

**Wetlands and Floodplains.** Executive Order 11988 and NPS policy require that impacts on floodplains be considered in NPS undertakings. The intent of the order, policy, and associated guidelines is to provide for human safety and protect floodplain functions by preventing development in 100-year floodplain. Similarly, Executive Order 11990 and NPS policy require that impacts on wetlands be considered in NPS undertakings. The intent of the order, policy, and associated guidelines related to wetlands is to protect the high resource values found in wetlands by requiring an evaluation of alternatives and that mitigation be designed prior to development in wetlands.

Wetlands and floodplains do exist along the trail corridors and the floodplain figured prominently in the history of the trails, as opportunities for safe and successful river crossings could dictate the trail routes. Major rivers crossed along the routes included the Colorado and Brazos Rivers in Texas, the Red River on the Texas-Oklahoma border, the Arkansas and Smoky Hill Rivers in Oklahoma, and the Republican and Platte Rivers in Nebraska.

The trail study routes traverse lands that include wetland and floodplain resources. Areas recognized or designated as riparian zones are included with wetlands. Wetlands and riparian areas are typically associated with perennial streams, rivers, and other drainages or with lakes, ponds, or other surface waters. Small wetlands are often associated with springs and seeps, which often occur in drainage bottoms and lower slopes. Wetlands tend to increase in number and size with increased elevation. The presence of surface water or shallow

groundwater during the growing season is essential for controlling the presence and characteristics of wetlands. Wetlands or riparian areas often occur in floodplains. Botanical quality and species composition would be determined largely by the prevailing land uses and management strategies.

Wetland quality ranges from excellent where lands are protected from development and excessive livestock grazing to severely degraded where wetlands are subject to poor conservation practices or extensive livestock grazing. Wetlands, riparian areas, and floodplains are generally protected or given special resource management protection or consideration by federal land management agencies because of their recognized values for flood prevention, wildlife habitat, water quality protection, and erosion control.

A floodplain is a relatively flat surface next to a stream. During floods, when the stream overflows its banks, water flows over the floodplain. Floodplain conditions vary substantially throughout the trail routes. The largest and most readily recognizable floodplains are associated with the major rivers of the region, where the floodplain can be several hundred feet wide. Some of the larger rivers associated with the study routes include the Red River, the Cimarron River, and the Canadian River. Both routes crossed numerous small streams. Many floodplains are subject to flash flooding that occurs during high-intensity late spring and summer thunderstorms. These events establish the size, location, and shape of the floodplain.

If the study routes become national historic trails, future actions could include small-scale construction projects such as the installation of exhibits, interpretive kiosks or trails, and roadside pullouts. These projects would typically occur in upland areas and would not have the potential to affect wetlands or floodplains. Site specific and appropriate compliance would occur should the study routes be designated. Whenever it is necessary to locate project features near

wetlands or floodplains, careful siting would be used to keep all disturbances or structures outside of these important ecological areas and to avoid all impacts. However important these crossings were, granting the cattle trails status as one or more national historic trails would have only long-term, negligible, adverse effects on either wetlands or floodplains. Improvements associated with trails would be modest and localized, done in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. Such projects would avoid disturbing wetlands or floodplains unless such impacts were unavoidable and consistent with federal policy (such as construction of a walking trail to access a river). This impact topic has therefore been dismissed.

**Water Resources.** Although there are water bodies along the cattle trail routes that have been listed by the states as being impaired for one or more pollutants in their water quality assessments required under the Clean Water Act, there would be no anticipated impacts on water resources from the designation of the cattle trail routes as one or more national historic trails. Water quality impacts are usually generated by discharge of pollutants into a water body, soil erosion carrying sediments and nutrients into lakes, streams, and rivers, increases in impervious surface that increase the volume and velocity of stormwater runoff, and poorly controlled stormwater. There are no improvements currently anticipated with the trail, other than the potential for small scale projects, mostly installing markers and signs.

There are no anticipated projects associated with designation of the trails as national historic trails and future projects associated with implementation of the trails that would, in all probability, significantly change the amount of impervious surface or directly impact water bodies. All of these projects would be carried out in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate, and larger projects would

incorporate sediment and erosion control measures and stormwater management best management practices for water quantity and quality. This topic has therefore been dismissed.

**Wildlife and Wildlife Habitat.** Wildlife habitat, ranging across five states, 109 counties and 1,000 miles from south to north, is varied and includes a variety of terrain that provides home to many species of wildlife, including large mammals, such as coyote, elk, and gray wolf; smaller mammals, such as armadillo; amphibians, such as the Houston toad; fish such as various species of shiner and the pallid sturgeon; and reptiles, such as the Texas horned lizard and bullsnakes (TPWD 2011; ODWC 2011; NEGPC 2011b). The corridor is also home to several species of birds, many of which use this part of the United States as a migration corridor. Both bald and golden eagles are found in the area and Nebraska and Kansas support breeding grounds for the piping plover and the interior population of the least tern, both federally threatened migratory bird species.

Future projects related to the implementation of the trail could include some small-scale construction projects, such as installation of kiosks, markers, and possibly comfort stations. Grading and other disturbances could result in disturbance of habitat and construction noise could temporarily disturb wildlife, although impacts would be negligible to minor. No impacts would be associated with the designation of the cattle trails as one or more national historic trails. This impact topic has therefore been dismissed.

**Threatened or Endangered Species or Species of Concern.** There are many threatened, endangered, or species of special concern in the four states through which the trail corridors pass. The USFWS list includes mammals, fish, several species of mussels, amphibians, birds, reptiles, invertebrates, and several plants. State natural heritage programs also maintain lists, focusing on animals and plants of concern in each state

that may or may not be of concern elsewhere. The list of species found in proximity to the study routes is found in appendix C.

**Flora.** The US Fish and Wildlife Service lists a total of 39 threatened or endangered plant species in the states through which the cattle trail routes cross. Allowing for species that are found in more than one state, 29 of those plant species occur in the state of Texas, two in Oklahoma, three in Kansas, and five in Nebraska. Although some of these plants occur in parts of the states through which the cattle trails did not pass, there is potential for several species to be located in areas through which the cattle trails did pass. There are several listed species of cactus, orchids, and other plants (USFWS 2011a).

**Fauna.** The USFWS list of threatened and endangered species includes a total of 112 species in the four states through which the cattle trail routes cross, although many of these species, such as the humpback whale, do not occur in the vicinity of the trail corridor. These include 64 species in Texas, 18 in Oklahoma, 15 in Kansas, and 15 in Nebraska. This list includes several species of bats and other mammals, several beetles, fish, birds, mussels, and amphibians. Critical habitat in counties in the trail corridor has been identified for at least 22 of the species on the list, and in at least nine counties, although it is not clear if the critical habitat for these species is near the trail corridors (USFWS 2011a, 2011b).

It is likely that the habitat in at least some of the areas within the trail corridors would support some of these species that could occur in the trail corridor. Habitat loss, such as from development and other land disturbance, is a principal factor related to jeopardizing species. Potential future improvements associated with the trails would be small and localized and they would be designed and situated to avoid critical habitats and any impacts to those habitats. Species surveys would occur in areas suspected of supporting specific species to confirm their presence. Specific future

projects associated with the trails would be carried out in accordance with any existing management plans, policies, and regulations, including NEPA and consultation requirements, as appropriate.

Neither alternative A nor alternative B affect any endangered or threatened species or their critical habitats, either beneficially or adversely. Potential future features associated with the potential Chisholm National Historic Trail and Western National Historic Trail, such as exhibits or walking trails, would be sited to avoid habitats for endangered or threatened species. Some low-key construction might occur (e.g., for interpretive kiosks and restrooms) but it would be designed to ensure that effects on endangered or threatened species and their critical habitat would not occur. It would be normal practice to conduct species surveys of areas that are suspected of supporting populations of one of these species to confirm actual species status. If a population is detected at the project level, then mitigating measures would be incorporated into the project proposals, through consultations with the US Fish and Wildlife Service and state and tribal natural resource departments, to address any concerns with these species. Therefore, this topic is not further analyzed in this document.

## **Other Resources, Values, and Issues**

**Ecologically Critical Areas and National Natural Landmarks.** The corridors for both the Western and Chisholm trails pass through counties containing several ecologically critical areas and national natural landmarks, particularly in the southern half of the trails, where the geology of central Texas lends itself to caves and sinkholes that are home to unusual faunal communities. There are 12 designated national natural landmarks in trail counties, 11 of which are in Texas.

These properties are managed mostly by state agencies or private landowners. It is

anticipated that there would be no impact on either national natural landmarks or ecologically critical areas from the designation of the cattle trail corridors as national historic trails. Many of the national natural landmarks are on state or private property and the national historic trail program relies heavily upon voluntary partnership. There would therefore be no anticipated trail-related changes to these landmarks. Any actions that might be proposed that would affect these areas would be subject to the permission of the landowner. Furthermore, any improvements associated with the trail would be conducted in accordance with any existing management plans, policies, and regulations, including NEPA requirements, as appropriate. This impact topic has therefore been dismissed.

**Unique Ecosystems, Biosphere Reserve, and World Heritage Sites.** Section 4.3 of the *NPS Management Policies 2006* states that the National Park Service recognizes that special designations apply to parts or all of some park units to highlight the additional management considerations warranted by those designated areas. However, the proposed trail or trails would not be designated as park units. There are no World Heritage Sites or Biosphere Reserves in the trail corridors, and no recorded unique ecosystems, so this topic has been dismissed.

**Wilderness.** There are no designated wilderness areas or wilderness study areas in the counties in the trail study areas (University of Montana 2011). There would therefore be no impacts on wilderness areas or study areas, so this impact topic has been dismissed.

**Wild and Scenic Rivers.** The Wild and Scenic Rivers Act was passed in October of 1968 (Public Law 90-542, as amended 16 USC 1271-1287). The goal of the wild and scenic river designation is to preserve the character of the river. Developments not damaging to the resources of a designated river or curtailing its free flow are usually allowed. There are no designated wild and

scenic rivers in either the Chisholm Trail corridor or the Western Trail corridor, or in any of the trail spurs. Both the Niobrara and Missouri Rivers in Nebraska, the two rivers closest to the trail with segments designated as national scenic or national recreational rivers, are north of Ogallala, Nebraska, and would not be affected by national historic trail designation for the cattle trails. This topic has therefore been dismissed.

**Lightscares.** Light pollution is a real concern in the United States and, more specifically, in national park units. National Park Service discussions on light pollution state that two-thirds of the US population lives where the Milky Way is not visible as the result of intrusion of artificial light. The National Park Service recognizes the importance of nightscapes and has made it policy to preserve the night sky by preserving or minimizing the intrusion of artificial light into the ecosystems of the park units (NPS 2011d). Should the cattle trails be granted national historic trail status, there would be minimal, scattered, and localized improvements along the trail routes, most of which would not require exterior lighting. In situations where exterior lighting is appropriate or needed, it would be installed in a manner consistent with a comprehensive management plan, and in such a way that minimizes light pollution by minimizing the number of lights and using shielded fixtures with high quality optics that direct light downward and reduce glare, allowing trail visitors to experience the night sky over the trail corridor in approximation of how it would have been in the mid-to-late nineteenth century at the time of the cattle drives. Impacts on lightscares would be negligible. This topic has therefore been dismissed.

**Soundscapes.** Soundscapes, like lightscares, are important to visitor use and enjoyment in national park units, and NPS management policies and Director's Order 47 note that it is an important part of the mission to preserve and restore natural resources in parks and park units, including the soundscapes. The Chisholm and Western

cattle trail routes extend for nearly 1,000 miles, traversing four states, and in many places the landscape where the trails passed through has changed significantly since the historic era of the trail, having been encroached upon by modern development with its associated noises from traffic, industry, and other sources. Parts of the trails remain very rural so that the sounds of the natural environment are dominant with fewer intrusions and fewer alterations of soundscapes.

Trail designation would not affect soundscapes. Designation of the trail routes as national historic trails would not result in measurable increases in noise that would adversely affect enjoyment of the natural soundscape. Construction of any improvements or installation of markers or signs could result in temporary, localized, and minimal impacts, and any noises generated would cease once the projects are completed. This topic has therefore been dismissed.

#### **Prime and/or Unique Farmland.**

According to the Farmland Protection Policy Act (FPPA), “farmland” includes prime farmland, unique farmland, and land of statewide or local importance. Prime and unique farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available and has at some point been used for these purposes. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, although it may not be water or urban built-up land. There is likely to be prime or unique farmland or farmland of state or local importance subject to FPPA requirements within the nearly 1,000-mile long corridors of the trails. These lands also would have been important in supporting the cattle being driven to the railheads.

Implementation of the trail corridors as national historic trails, however, would not have any effects on prime farmland, as it would not change ownership or land use of

the lands along the trail, and implementation of any possible projects, such as installing markers or interpretive kiosks, would not be likely to affect such farmlands. In additions, such projects would be conducted in accordance with any existing management plans and in accordance with any applicable policies and regulations, including NEPA requirements, as appropriate. Therefore, this topic has been dismissed.

**Public Health and Safety.** The NPS *Management Policies 2006* states that the National Park Service and its concessioners, contractors, and cooperators would seek to provide a safe and healthful environment for visitors and employees. No identifiable adverse impact to public health and safety would result from granting the cattle trail routes national historic trail status. There would be no projects associated with the trails that would create drinking water, sanitary, recreational, or chemical hazard problems. Traffic hazards are also not anticipated. The public is most likely to access the trail by vehicle; and markers may be placed along existing roadways but are not expected to contribute to the number of accidents in the states through which the trail routes pass. Any roadside pulloffs or other improvements would be designed to be safe. This topic has therefore been dismissed.

**Environmental Justice.** Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires each federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations. Executive Order 12898 further stipulates that the agencies conduct their programs and activities in a manner that does not have the effect of excluding persons from participation in, denying persons the benefits of, or subjecting persons to

discrimination because of their race, color, or national origin.

### ***Environmental Justice Screening***

**Analysis**—Evaluating whether a proposed action has the potential to have disproportionately high and adverse impacts on minority and/or low income populations typically involves (1) identifying any potential high and adverse environmental or human health impacts, (2) identifying any minority or low income communities within the potential high and adverse impact areas, and (3) examining the spatial distribution of any minority or low income communities to determine if they would be disproportionately affected by these impacts.

Guidelines provided by the CEQ (1997) and EPA (1998) indicate that a minority community may be defined where either (1) the minority share of the population comprises more than 50% of the total population, or (2) the minority population of the affected area is meaningfully greater than the minority share of the population in the general population of an appropriate benchmark region used for comparison. In this case, that benchmark population is in the states of Texas, Oklahoma, Kansas, and Nebraska. Minority communities may consist of a group of individuals living in geographic proximity to one another, or a geographically dispersed set of individuals who experience common conditions of an environmental effect. Further, a minority population exists if there is “more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds” (CEQ 1997).

The CEQ and EPA guidelines indicate that low income populations should be identified based on the annual statistical poverty thresholds established by the US Census Bureau. Like minority populations, low income communities may consist of individuals living in geographic proximity to one another, or a geographically dispersed set of individuals who would be similarly

affected by the proposed action or program. The US Census Bureau defines a poverty area as a census tract or other area where at least 20% of residents are below the poverty level (US Census 2011g).

There are 35 counties in the study area with very high percentages of minority populations (mostly Hispanic or Latino, comprising as much as 96% of the population in Starr County, Texas) and several counties with poverty rates well above 20% of the population, including Kingsville County, Texas, which has a poverty rate of 52% of the population (US Census 2011g).

However, the designation of the cattle trails as national historic trails would not result in disproportionate and adverse effects on the populations in these counties. There may be minor construction activities and increased tourism in areas where trail areas are improved. This is likely to result in beneficial economic effects to local economies through construction and tourism job and income opportunities and in indirect and induced stimulus created from increased visitor spending. However, since this is a programmatic and planning EA, locations of exact impacts cannot be projected. There would be no identifiable human health impacts and no identifiable impacts on the natural or physical environment. All possible projects associated with the national historic trail would be small in scale, such as placing markers and signs and developing roadside pull-offs. Impacts from these projects would be localized and non-intrusive with mostly temporary negligible adverse effects on the physical environment. Since negligible to no adverse impacts would occur, the alternatives would not result in any disproportionate and adverse effects on low income or minority populations. In addition, the study team would work with the American Indian Tribes along the trail corridors as necessary through cooperative efforts. No adverse effects have been identified and this topic has therefore been dismissed.

**Urban Quality and Design of the Built Environment.** Consideration of this topic is required by 40 CFR 1502.16. The quality of urban areas is not a concern in this feasibility study. If designation is selected, vernacular architecture and compatible design would be taken into consideration if new structures are proposed; however, such structures would be small and low key, such as interpretive kiosks and restrooms. Emphasis would be placed on designs and materials and colors that blend in and do not detract from the natural and built environment. Therefore, adverse impacts are anticipated to be negligible. No further consideration of this topic is necessary.

**Indian Trust Resources.** Secretarial Order 3175 and Environmental Compliance Memorandum No. ECM97-2 dated May 8, 1997 require that any anticipated impacts on Indian trust resources from a proposed project or action by agencies of the Department of the Interior be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. Indian trust resources include land, minerals, timber, and other natural resources that are held in trust by the Secretary of the Interior for the benefit of an Indian tribe or an individual Indian. If designated, participation in the Chisholm National Historic Trail and Western National Historic Trail administration would be voluntary and up to landowners/managers. The National Trails System Act contains no authority to impact

Indian Trust Resources in any way. There would not be any restrictions placed on any Indian Trust Resources through actions of designating national historic trails. Therefore this impact topic is dismissed.

**Energy Requirements and Conservation Potential.** The National Environmental Policy Act and Executive Orders such as Executive Order 13514, *Federal Leadership in Environmental Energy and Economic Performance*, require federal agencies to consider energy efficiency in actions and analyze it in NEPA documents. Any improvements pursuant to trails designation would be minimal and localized and conservation measures consistent with those called for in Executive Order 13514 would be used. This topic has therefore been dismissed.

**Natural Depletable Resource Requirements and Conservation Potential.** Natural depletable resources include oil, gas, and other mineral resources or any resources that are not renewable. It is not anticipated that there would be extraction of any depletable resources as a result of designation of the national historic trails. Ecological principles would be applied to ensure that all trail related resources are maintained and protected and designation of the trails or any project related to the trails would be designed to be as sustainable as possible and minimize energy and water consumption in accordance with Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, which requires that federal agencies reduce petroleum consumption and increase energy efficiency.





Cheyenne-Arapaho camp on the North Canadian River in the Fort Reno-Darlington area, Indian Territory, circa 1890. Photo courtesy of the Western History Collections, University of Oklahoma.

## SECTION 5 ENVIRONMENTAL CONSEQUENCES



# ENVIRONMENTAL CONSEQUENCES

## INTRODUCTION

The National Environmental Policy Act 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 environment. Because this document is a feasibility study, the impacts are presented as an overview of potential impacts relating to the proposed program for each alternative. If national historic trails are designated, a more detailed comprehensive management plan and implementation plans would be developed subsequent to this study. Any subsequent document would be guided by the framework set by this feasibility study. This relationship between documents is known as tiering.

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 is also general in nature. National Park Service planning guidelines stipulate that an environmental assessment would be prepared for all national trail studies to evaluate the environmental implications of the alternatives. This environmental assessment would serve as the document from which subsequent NEPA documents are tiered. The National Park Service 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 and consultations with the Environmental Protection Agency, US Fish and Wildlife Service, tribal and state historic preservation officers, the Advisory Council on Historic Preservation, concerned American Indian tribes, and other state and federal agencies. It is anticipated that such documents would reflect a considerable shift in emphasis from qualitative to quantitative analysis. Under the National Environmental Policy Act, a tiering process is recommended, working from broad, general documents to more site-specific ones. More specific NEPA documents prepared in conjunction with the development plans are tiered or procedurally connected to the large-scale, broader NEPA document.

Environmental impact topics are 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 could result from each alternative. Impact topics considered relevant to this study are cultural resources, socioeconomic conditions, and visitor use. The National Environmental Policy Act requires consideration of context, intensity, duration, cumulative impacts, and measures to mitigate impacts.

This section is organized to be consistent with the impact topics described in “Section 4 Affected Environment.”

## GENERAL METHODOLOGY FOR ASSESSING IMPACTS

All alternatives were evaluated for their effects on the resources and values determined during the scoping process and impact topics were identified. For each

impact topic, 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. Adverse impacts are qualified per the thresholds in each resource analysis.

**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 within a short period of time (generally one or two years but no more than five years) would no longer be detectable 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 to pre-disturbance condition or appearance and lasts beyond five years or is permanent.

### **Cumulative Impacts**

A cumulative impact is described in the Council on Environmental Quality regulation (40 CFR 1508.7) as follows:

*Cumulative impacts* are the impacts that result from incremental impacts of the action when added to other past, present, and reasonably foreseeable actions, regardless of what agency (federal or nonfederal) or person undertakes such other action. Cumulative impacts can result from

individually minor, but collectively significant, actions taking place over time.

**Cumulative Impact Scenario.** The following conditions and trends along the length of the cattle trails routes were identified for the purposes of conducting the cumulative effects analysis:

Undeveloped lands are being developed for housing, commercial activities, and roadway construction. There is potential for new oil, gas, and mineral exploration; agriculture; off-road vehicle use; and erosion due to both natural and man-made processes. It is also reasonable to expect that new housing, commercial, and roadway development would result in new recreational development and possibly new museums or other tourist sites that could attract visitors.

### **CULTURAL RESOURCES**

In the National Historic Preservation Act of 1966, Congress declared, “the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.” The act requires federal agencies to establish programs for evaluating and nominating properties to the National Register of Historic Places (national register) and to consider the effects of their undertakings on listed or eligible properties.

Section 106 of the National Historic Preservation Act mandates that federal agencies take into account the effects of their actions on properties listed or eligible for listing in the national register and give the Advisory Council on Historic Preservation a reasonable opportunity to comment. Although it does not require the preservation of such properties, it does require that their historic or prehistoric values be considered in weighing the benefits and costs of federal undertakings to determine what is in the public interest. Its practical effect is to encourage agencies to seek ways to avoid or minimize damage to

cultural resources. Agencies must recognize properties important to communities as well as to the nation as a whole, so they need to be aware of the interests of local groups and individuals. 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.

Section 110 of the law gives federal agencies positive responsibility for preserving historic properties in their ownership or control. It calls for them to use such properties where feasible and compatible with their preservation, in preference to acquiring, constructing, or leasing others. Agencies are also directed to establish preservation programs to identify, evaluate, protect, and nominate to the national register historic properties under their ownership or control, whether they are of national, state, or local significance. The law emphasizes cooperation with state historic preservation officers in establishing such programs.

Cultural resources that may be affected by trail designation, development, and use are archeological resources, historic resources (namely historic districts and structures, and ethnographic resources).

### **General Methodology for Assessing Impacts on Cultural Resources**

In accordance with Section 106 of the National Historic Preservation Act (36 CFR 800), "Protection of Historic Properties," impacts on cultural resources should be identified and evaluated by (1) determining the geographical area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed in or eligible to be listed in the national register ; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the national register ; and (4) considering ways to avoid, minimize, or mitigate adverse effects. Under Advisory Council on Historic Preservation (Advisory Council) regulations, a

determination of either adverse effect or no adverse effect must also be made for both affected national register listed and national register eligible cultural resources.

Additionally, Section 110(f) of the National Historic Preservation Act (36 CFR 800.10) includes special requirements for undertakings that could involve impacts to National Historic Landmarks. If the trail is designated a National Historic Landmark in the future, these requirements and applicable processes would also apply.

An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the national register (e.g., diminishing the integrity of resource location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the preferred alternative that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5, "Assessment of Adverse Effects"). A determination of no adverse effect means there may be an effect, but the effect would not diminish in any way the characteristics of the cultural resources that qualify it for inclusion in the national register.

Council on Environmental Quality regulations and the NPS Director's Order 12, *Conservation Planning, Environmental Impact Analysis and Decision-making*, call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact from major to moderate or minor. Any resulting reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under the NEPA only. It does not suggest that the level of effect as defined by section 106 is similarly reduced. Although adverse effects under section 106 may be mitigated, the effect remains adverse. Detailed section 106 compliance would occur separately as specific projects arise.

## Historic Resources

**Methodology and Assumptions.** A purpose of this study is to assess the effects of the proposed alternatives to historic resources, which in this document is assumed to mean historic structures and districts, located within or near the cattle trail study area.

As in the case of archeological resources, part of the process for the proposed undertaking would involve identification of historic structural and architectural resources that could be affected by the proposed national historic cattle trails. While structures and districts associated with the cattle driving industry would be the primary focus, other historic structures and districts may be present that also need to be considered because their viewshed or setting may be affected.

Structures and districts that might be associated with the cattle trails include stone and wooden enclosures used for holding and sorting cattle and horses; road ranches or stores where cattle drivers bought supplies; historical markers for the cattle trail or events along the trails; railroad sidings and stockyards used to load cattle onto trains for shipment; and hotels, saloons, restaurants, bordellos, and banks that catered to the needs of the cattle drovers. In some communities, such as Ellsworth, Abilene, Newton, and Wichita, segments of the towns that were centers of business for cattle drovers have the potential to be identified as historic districts. Once a national trail corridor has been established and a specific area of potential effect is identified, additional records research; examination of historic maps; interviews with landowners, trail advocates, and local preservation organizations; and field surveys would be needed to identify the specific national register-eligible historic resources associated with the cattle trails.

After specific historic resources have been identified, those resources within the area of potential effect not already evaluated for national register eligibility would have to be

investigated sufficiently to determine whether the building or structure is potentially eligible for listing in the national register. Only those structures and districts determined eligible or potentially eligible for listing in the national register must be taken into account when applying the criteria of adverse effect and for consideration of ways to avoid, minimize, or mitigate adverse effects.

It is assumed that access can often be obtained to historic maps of cattle trails as well as to databases containing historic structure or building information in the states through which the trail crosses and to the land on which associated buildings and structures may be present so that such sites can be identified and evaluated through architectural survey and documentation.

**Study Area.** As with archeological resources, the study area for historic resources consists of a variety of land survey sections of the southern counties in Texas where herds were gathered specifically for trailing north to trailheads for shipment; a linear series of land survey sections within counties in eastern central Texas, central Oklahoma, and south-central Kansas associated with the primary route of the Chisholm cattle trail to the important trailheads at Abilene, Ellsworth, Newton, and Wichita in Kansas; and a linear series of land survey sections within counties in central Texas, western Oklahoma, western Kansas, and southwestern Nebraska associated with the primary route of the Western cattle trail to the important trailheads at Dodge City, Kansas, and Ogallala, Nebraska. Currently, the specific boundaries of the proposed national cattle trail corridors have not been established. Once the corridors have been established, the study area for historic resources would be refined appropriately.

**Impact Thresholds.** For an historic district or structure to be listed on the national register, it must possess significance (the meaning or value ascribed to the historic district or structure) and have integrity of

those features necessary to convey its significance. For purposes of analyzing potential impacts to historic districts and structures, the thresholds for the intensity of an adverse impact are defined as follows:

**Negligible:** Impacts would be at the lowest levels of detection—barely perceptible and measurable. For purposes of section 106, the determination of effect would be no adverse effect.

**Minor:** Impacts would affect character defining features but would not diminish the overall integrity of the building or structure. For purposes of section 106, the determination of effect would be no adverse effect.

**Moderate:** Impacts would alter a character-defining feature(s), diminishing the overall integrity of the building or structure to the extent that its national register eligibility could be jeopardized. For purposes of section 106, the determination of effect would be adverse effect.

**Major:** Impacts would alter character defining features, diminishing the integrity of the building or structure to the extent that it would no longer be eligible to be listed on the national register. For purposes of section 106, the determination of effect would be adverse effect.

### **Impacts of Alternative A—The No Action Alternative**

**Analysis.** For the no action alternative, national historic trails would not be designated and a comprehensive management plan would not be prepared. No survey of buildings and structures would be conducted. Architectural resources would remain as they are and managed as they currently are by tribes; federal, state, and local governments; and private landowners. Inadvertent activities on private land could destroy unknown buildings or structures. Unknown resources could deteriorate through natural processes or be

sufficiently altered to lose their historic significance. No protection beyond what is in place would result from implementing this alternative. Limitations on public access to private lands might result in indirect resource protection. Architectural resources could be adversely impacted by incremental development on private land. The impacts of the no action alternative would result in a long-term negligible adverse effect on historic resources, because no additional protection or plans for managing historic resources would be put in place. However, there would not be additional visitation associated with a designated national historic trail.

**Cumulative Impacts.** Federal, state, and tribal laws govern historic architectural and structural resources. The greatest effect on historic resources would be noncompliance with these laws. Some surveys of buildings and structures have been done but this information and these laws could be ignored and resources could be destroyed.

Although the threat is mitigated through compliance with laws, development of lands for housing and commercial activities; renovation of structures and districts; construction of roadways and bridges; oil and mineral exploitation; intensive agriculture; and severe erosion are continuing threats to architectural resources. In addition, roadways and highways would be expanded or moved and could destroy or threaten historic resources. Resources on private land are not as well covered by law and resources could be lost.

The actions described above, combined with the impacts of implementing alternative A, would result in long-term negligible adverse cumulative effects.

**Conclusion.** Alternative A would have a long-term, negligible adverse effect on historic architectural resources. Activities considered under the cumulative scenario would also result in long-term, negligible adverse cumulative impacts. Resources would continue to be managed as they are

and although there is some risk of inadvertent harm or damage, existing laws largely protect structural historic resources.

### **Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit**

**Analysis.** If alternative B is selected, a comprehensive management plan would be prepared for the historic trails. Potential field surveys, archival research, and interviews would contribute to historic architectural resource inventories. The plan would define strategies to protect and enhance the historic structures and building resources identified through inventories. The plan would also define working relationships with the state and tribal historic preservation officers of the respective jurisdictions concerned. Compliance with the National Historic Preservation Act would be required. The trail administration partnership among the Secretary of the Interior, the tribes, and others could lead to greater awareness of the need to protect trail resources. All contributing segments of the trail would be considered in the comprehensive management plan, which would leave less opportunity for piecemeal development. The Secretary of the Interior may provide expertise and technical assistance for cultural resource protection and interpretation. Methods for minimizing impacts on architectural resources could be included in the comprehensive management plan and implemented over time. The Secretary of the Interior, along with tribal and state historic preservation officers and private interest groups, would emphasize the importance of natural and cultural resources protection while providing for public use on the trail.

Visitation and use could be higher than in alternative A, and therefore, may lead to greater public awareness of historic architectural resources by a larger audience. Increased awareness may also result in actions that protect the historic resources

while at the same time using the buildings or structures for businesses that commemorate the cattle trail industry. The comprehensive management plan should consider these factors.

Implementing alternative B would assist in the preservation of historic architectural resources through identification of historic buildings and districts and the need to comply with preservation law. Surveys done as a result of this alternative would add to the preservation and information database of historic architectural resources in the trail corridor. Any improvements associated with the trail would be conducted in accordance with any existing management plans and in applicable policies and regulations, including NEPA requirements, as appropriate. The impacts of designating the national historic trail on historic resources would therefore be long term and beneficial.

**Section 106 Summary.** For the purposes of section 106, there would be no adverse effect to historic resources either listed or eligible for listing on the National Register of Historic Places.

**Cumulative Impacts.** Federal, state, and tribal laws govern historic architectural resources. The greatest effect on architectural resources would be noncompliance with these laws. Some surveys of resources have been done but survey information and laws could be ignored and resources could be destroyed.

Although the threat is mitigated through compliance with laws, development of lands for housing and commercial activities; renovation of structures and buildings; construction of roadways and bridges; oil and mineral exploitation; intensive agriculture; and severe erosion are continuing threats to historic structures and districts. Resources on private land are not as well covered by law and resources could be lost.

Additional development of lands and other activities that pose a low level of threat to



historic resources could result in a long-term negligible adverse effect. However, these actions, combined with the impacts of designation of the cattle trails as two national historic trails, would result in long-term beneficial cumulative effects.

**Conclusion.** Alternative B would have a long-term beneficial effect on historic architectural resources because there would be increased opportunities to protect historic districts and resources as a result of implementing projects associated with the trail. The additional development of land along the trail corridor in the cumulative scenario, although posing a long-term negligible adverse effect, would still result in long-term beneficial cumulative effects when benefits resulting from the implementation of alternative B are taken into account. Under section 106 of the National Historic Preservation Act there would be no adverse effect.

## Archeological Resources

**Methodology and Assumptions.** One purpose of this study is to assess the effects of the proposed alternatives on archeological resources within the cattle trail study area. As part of this process, archeological resources in the proposed undertaking project area must first be identified. For the feasibility study, the kinds of archeological resources that might be present within the proposed cattle trail study area were identified based on review of the literature, associated historic site markers, and available state and national registers. These resources include linear and generally parallel depressions created by herds of cattle, horses, and wagons along frequently used cattle trail segments; commonly used fords of rivers and streams along the trail; remnants of stone or wooden enclosures for holding and sorting cattle and horses; frequently used campsites; remains of road ranches or stores where cattle drivers bought supplies; and graves of individuals who died while during trail drives from drowning while crossing rivers and streams,

fatal accidents, poisonous snakebites, illness, lightning strikes, or fighting with rustlers or American Indians. Once national trail corridors have been established and a specific area of potential effect has been defined, additional records research; examination of historic maps, aerial photographs, and LiDAR imagery; interviews with landowners, trail association members, tribal elders, and local preservation organizations; and field survey would be needed to identify the specific locations of archeological sites associated with the cattle trails.

After specific archeological resources have been identified, those resources within the area of potential effect not already evaluated for national register eligibility would have to be tested sufficiently to determine whether the resource is potentially eligible for listing in the national register. Only those resources determined eligible or potentially eligible for listing in the national register must be taken into account when applying the criteria of adverse effect and for consideration of ways to avoid, minimize, or mitigate adverse effects.

It is assumed that, although useful maps are not always available, access to historic maps of cattle trails and access to databases containing archeological site information in the states through which the trail crosses can often be obtained, so that associated sites can be identified and evaluated through archeological survey and subsurface testing. Geophysical survey (ground penetrating radar, electrical resistance, or magnetic field gradient) may be used to augment archeological survey.

**Study Area.** For the purposes of this document, the study area consists of a variety of land survey sections of the southern counties in Texas where herds were gathered specifically for trailing north to trailheads for shipment; a linear series of land survey sections within counties in eastern central Texas, central Oklahoma, and south-central Kansas associated with the primary route of the Chisholm cattle trail

to the important trailheads at Abilene, Ellsworth, Newton, and Wichita in Kansas; and a linear series of land survey sections within counties in central Texas, western Oklahoma, western Kansas, and southwestern Nebraska associated with the primary route of the Western cattle trail to the important trailheads at Dodge City, Kansas, and Ogallala, Nebraska. Currently, the specific boundaries of the proposed national cattle trail corridor have not been established. Once the corridor has been established, the study area for archeological resources would be refined appropriately and analyzed in accordance with applicable plans and policies as implementation projects are carried out.

**Impact Thresholds.** For purposes of analyzing potential impacts to archeological sites, the thresholds for the intensity of an adverse impact are defined as follows:

**Negligible:** Impact is at the lowest level of detection. Impacts would be measurable but with no perceptible consequences. For purposes of section 106, the determination of effect would be no adverse effect.

**Minor:** Disturbance of a site(s) results in little loss of integrity. The impact does not affect the character-defining features of a National Register of Historic Places eligible or listed archeological site. The determination of effect for section 106 would be no adverse effect.

**Moderate:** Site(s) is disturbed but not obliterated. The impact changes one or more character-defining feature (s) of an archeological resource but does not diminish the integrity of the resource to the extent that its national register eligibility is jeopardized. The determination of effect for section 106 would be adverse effect.

**Major:** Site(s) is obliterated. The impact is severe or of exceptional benefit. For national register eligible or listed archeological sites, the impact changes one or more character defining feature of an archeological resource, diminishing the integrity of the

resource to the extent that it is no longer eligible for listing in the national register. The determination of effect for section 106 would be adverse effect.

### **Impacts of Alternative A—The No Action Alternative**

**Analysis.** Under the no action alternative, national historic trails would not be designated and a comprehensive management plan would not be prepared. No survey of archeological resources in relation to the cattle trails would be conducted. Archeological sites would remain as they are and managed as they currently are by tribes; federal, state, and local governments; and private landowners. Inadvertent activities on private land could destroy unknown material. Unknown sites would remain protected from illegal collection, but could deteriorate through natural processes. No protection beyond what is in place would result from implementing this alternative. Limitations on public access to private lands might result in indirect resource protection. Archeological resources could be adversely impacted by incremental development on private land. Overall impacts would therefore be long term, negligible, and adverse, as there would be no significant change in management, no additional visitation associated with a designated national historic trail, and although some harm to resources is possible, existing laws protect the resources from harm, mostly on public lands.

**Cumulative Impacts.** For the most part, federal, state, and tribal laws govern archeological resources. The greatest effect on archeological resources would be noncompliance with these laws. Some surveys of trail-related resources have been made but survey information and laws could be ignored and resources could therefore be destroyed.

Although the threat on public land is mitigated through compliance with laws,

development of lands for housing and commercial activities; construction of roadways and bridges; oil and mineral exploitation; intensive agriculture; intensive off-road vehicle use; and severe erosion are continuing threats to archeological resources. Resources on private land are not as well covered by law and resources could be lost.

The actions described above, combined with the impacts of implementing alternative A, would result in long-term negligible adverse cumulative effects.

**Conclusion.** Alternative A would have a long-term negligible adverse effect on archeological resources. Resources would continue to be managed as they are, and although there is some risk of inadvertent harm or intentional looting or damage, existing laws largely protect archeological resources.

### **Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit**

**Analysis.** If alternative B is selected, a comprehensive management plan would be prepared for the historic trails. Potential field survey, archival research, and interviews would contribute to archeological resource inventories. The plan would define strategies to protect and enhance the archeological resources identified through the inventories. The plan would define working relationships with the state and tribal historic preservation officers of the respective jurisdictions concerned. Compliance with the National Historic Preservation Act would be required. The trail administration partnership among the Secretary of the Interior, the tribes, and others could lead to greater awareness of the need to protect trail resources. All contributing segments of the trail would be considered in the comprehensive management plan, which would leave less opportunity for piecemeal development. The Secretary of the Interior may provide

expertise and technical assistance for cultural resource protection and interpretation. Methods for minimizing impacts on archeological resources could be included in the comprehensive management plan and implemented over time. The Secretary of the Interior, along with tribal and state historic preservation officers and private interest groups, would emphasize the importance of natural and cultural resources protection while providing for public use on the trail.

Visitation and use could be higher than in alternative A and could have a greater potential to inadvertently cause adverse impacts to archeological resources because trail projects and higher visitation could bring more people in proximity with currently undisturbed archeological resources. These adverse effects might be offset, however, by the greater public awareness afforded by the larger audience this alternative could be expected to attract. The comprehensive management plan would be likely to consider these factors.

Considering benefits and potential for adverse effects, the impacts of this project would be long term and beneficial because there would be a plan in place to address greater visitation to archeological resources (including identification of unreported archeological resources) and the potential benefit is greater than the potential for adverse effects.

**Section 106 Summary.** For the purposes of section 106 there would be no adverse effect to archeological resources either listed or eligible for listing on the National Register of Historic Places.

**Cumulative Impacts.** Federal, state, and tribal laws govern archeological resources. The greatest effect on archeological resources would be noncompliance with these laws. Some surveys of resources have been done but survey information and laws could be ignored and resources could therefore be destroyed.

Although the threat on public land is mitigated through compliance with laws, development of lands for housing and commercial activities; construction of roadways and bridges; oil and mineral exploitation; intensive agriculture; intensive off-road vehicle use; and severe erosion are continuing threats to archeological resources. Resources on private land are not as well covered by law and resources could be lost.

Implementing alternative B would assist in the preservation of resources through identification of the physical characteristics of the trail, increased information about the locations of trail segments, identification of archeological resources, and the need to comply with preservation law. Surveys done as a result of this alternative would add to the preservation and information database of archeological resources in the trail corridor. Any improvements associated with the trail would be conducted in accordance with applicable management plans and in applicable policies and regulations, including NEPA requirements.

The actions described above, combined with the impacts of implementing alternative B, would result in long-term beneficial cumulative effects.

**Conclusion.** Alternative B would have a long-term beneficial effect on archeological resources because plans for addressing and protecting archeological resources associated with the trail and with trail projects would be completed. When considered with cumulative effects on archeological resources, there would continue to be long-term beneficial impacts. There would be no adverse effect under section 106 of the National Historic Preservation Act.

## **Ethnographic Resources**

**Methodology and Assumptions.** Another purpose of this study is to assess the effects of the proposed alternatives to ethnographic

resources within the cattle trail study area. As in the case of archeological resources and historic structure and building resources, ethnographic resources in the proposed undertaking project area must first be identified. For the feasibility study, the kinds of ethnographic resources that might be present within the proposed cattle trail study area were identified based on review of the literature about tribal groups and historic maps. These resources include traditional tribal territories, reserved lands for tribal groups, government agencies established for specific tribes, recorded battle locations, and recorded village locations. The agencies, village locations, and battlefields could also be considered archeological sites; however, these sites tend not to be directly associated with the cattle trail activities (though some exceptions may be found to apply) and are not included with the archeological resources discussed above.

As noted in the “Affected Environment” section, research indicates that several American Indian tribes recognized by the federal government have historically occupied lands crossed by segments of the Chisholm and Western cattle trails. These tribes include the Arapaho, the Caddo, the Comanche, the Fort Sill Apache, the Kaw, the Kiowa, the Mescalero Apache, the Ogalala, the Osage, the Otoe-Missouria, the Pawnee, the Ponca, the Potawatomi, the Southern Cheyenne, the Tonkawa, and the Wichita. Once national trail corridors have been established and a specific area of potential effect has been defined, additional records research; examination of historic maps; interviews with tribal elders and landowners; and field survey would be needed to identify the specific locations of ethnographic resources associated with the cattle trails.

After specific ethnographic resources have been identified, those resources within the area of potential effect not already evaluated for national register eligibility would have to be studied sufficiently to determine whether the resource is potentially eligible for listing in the national register. Only those

resources determined eligible or potentially eligible for listing in the national register, must be taken into account when applying the criteria of adverse effect and for consideration of ways to avoid, minimize, or mitigate adverse effects.

It is assumed that access can be obtained to historic maps of American Indian territories, reservations, agencies, battle sites, and villages; to databases containing archeological site information in the states through which the trail crosses; and to the land on which associated sites may be present so that such resources can be identified and evaluated through documentation.

**Study Area.** The study area for ethnographic resources is the same as for the other cultural resources, and consists of land survey sections of the southern counties in Texas where herds were gathered specifically for trailing north to trailheads for shipment; a linear series of land survey sections within counties in eastern central Texas, central Oklahoma, and south-central Kansas associated with the primary route of the Chisholm Trail to the important trailheads at Abilene, Ellsworth, Newton, and Wichita in Kansas; and a linear series of land survey sections within counties in central Texas, western Oklahoma, western Kansas, and southwestern Nebraska associated with the primary route of the Western Trail to the important trailheads at Dodge City, Kansas and Ogallala, Nebraska. Currently, the specific boundaries of the proposed national cattle trail corridor have not been established. Once the corridor has been established the study area for ethnographic resources would be refined appropriately.

**Impact Thresholds.** For purposes of analyzing potential impacts to ethnographic resources, the levels of impact for the intensity of an adverse impact are defined as follows:

***Negligible:*** Impacts would be at the lowest levels of detection and barely perceptible.

Impacts would neither alter resource conditions, such as traditional access or site preservation, nor alter the relationship between the resource and the associated group's body of practices and beliefs. For purposes of section 106, the determination of effect would be no adverse effect.

***Minor:*** Impacts would be slight but noticeable and would neither appreciably alter resource conditions, such as traditional access or site preservation, nor alter the relationship between the resource and the associated group's body of beliefs and practices. For purposes of section 106, the determination of effect would be no adverse effect.

***Moderate:*** Impacts would be apparent and would alter resource conditions or interfere with traditional access, site preservation, or the relationship between the resource and the associated group's beliefs and practices, even though the group's practices and beliefs would survive. For purposes of section 106, the determination would be adverse effect.

***Major:*** Impacts would alter resource conditions. Proposed actions would block or greatly affect traditional access, site preservation, or the relationship between the resource and the associated group's body of beliefs and practices to the extent that the survival of a group's beliefs and/or practices would be jeopardized. For purposes of section 106, the determination would be adverse effect.

### **Impacts of Alternative A—The No Action Alternative**

**Analysis.** For the no action alternative, the national historic cattle trails would not be designated and a comprehensive management plan would not be prepared. No survey of ethnographic resources associated with the cattle trails would be made. Ethnographic resources would remain as they are and would be managed as they currently are by tribes; federal, state, and local governments; and private

landowners. Unknown resources presumably would remain protected from illegal activities. No new protection would result from implementing this alternative. Limitations on public access to tribal and private lands might result in indirect resource protection. Ethnographic resources could be adversely impacted by incremental development on private land.

**Cumulative Impacts.** Ethnographic resources that have not been identified or that are not on a tribal, state, or national inventory list probably would not be inventoried, although they might be identified through consultation. Although they are protected by preservation laws, they often are overlooked and the effects are not considered or analyzed.

Development for residential, commercial, and industrial activities is ongoing and would continue in the cattle trail corridor. Roadways and highways would be expanded or moved and could destroy or threaten ethnographic resources. Alternative A proposes no surveys or identification of these resources. Impacts on ethnographic resources from cumulative projects would be long term, negligible, and adverse because there would be no significant change in management. Although some harm to the resources is possible, existing laws protect the resources, especially on public lands. Unknown resources would probably remain protected from illegal activities.

**Conclusion.** Alternative A would have a long term, negligible, and adverse effect on ethnographic resources because there would be no significant change in management and although some harm to the resources is possible, existing laws protect the resources, especially on public lands. Unknown resources would probably remain protected from illegal activities.

Cumulative impacts also would be long term, negligible, and adverse effects because there would be no important changes in management planning or procedures. Unknown resources would probably remain protected and existing cultural resource laws

would protect resources on public lands and in situations where federal permits or funding require implementation of the section 106 process.

### **Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit**

**Analysis.** If alternative B is selected, a comprehensive management plan would be prepared for the historic trails. Field survey, archival research, and interviews would contribute to ethnographic resource inventories. The plan would define strategies to protect and enhance the ethnographic resources identified through the inventories. Tribes would retain sensitive information to protect ethnographic resources as outlined in the management plan. Information relating to the ethnohistory of a particular tribe identified in section 3 would be preserved. The plan would define working relationships with the state and tribal historic preservation officers of the respective jurisdictions concerned. Compliance with the National Historic Preservation Act would be required. The trail administration partnership among the Secretary of the Interior, the tribes, and others could lead to greater awareness of the need to protect trail resources. All contributing segments of the trail would be considered in the comprehensive management plan, which would leave less opportunity for piecemeal development. The Secretary of the Interior may provide expertise and technical assistance for cultural resource protection and interpretation. Methods for minimizing impacts on ethnographic resources could be included in the comprehensive management plan and implemented over time. The Secretary of the Interior, along with tribal and state historic preservation officers and private interest groups, would emphasize the importance of natural and cultural resources protection while providing for public use on the trail.

Visitation and use could be higher than under alternative A, and therefore, could have a greater potential to adversely impact ethnographic resources. These impacts would be minor and would not appreciably alter resource conditions. These adverse effects might be offset by a greater public awareness afforded by the larger audience this alternative could be expected to attract and the historic trail could be used as a venue for greater public education about the value of protecting ethnographic resources. The comprehensive management plan should consider these factors.

In addition to identifying and evaluating ethnographic resources, implementing alternative B would increase awareness of these resources and encourage the preservation of physical elements of the resource and the oral histories associated with the cattle trail and the occupation of the land by the tribe. Any improvements associated with the trail would be conducted in accordance with any existing management plans and in applicable policies and regulations, including NEPA requirements, as appropriate.

Therefore, the opportunities to improve appreciation of ethnographic resources would result in long-term beneficial impacts on ethnographic resources through the designation of two national historic trails.

**Section 106 Summary.** For the purposes of section 106, there would be no adverse effect to ethnographic resources either listed or eligible for listing on the National Register of Historic Places.

**Cumulative Impacts.** Ethnographic resources that have not been identified or which have not been evaluated could be investigated through consultation with tribes. Although these resources are protected by federal, state, and tribal laws, the resources are often overlooked and the effects are not considered or analyzed.

As with other cultural resources, development of lands for housing and

commercial activities; construction of roadways and bridges; oil and mineral exploitation; intensive agriculture; intensive off-road vehicle use; and severe erosion are continuing threats to ethnographic resources, although the threat is mitigated through compliance with laws. Resources on private land are not as well covered by laws and resources could be lost.

The actions described above, combined with the impacts of implementing alternative B, would result in long-term beneficial cumulative effects.

**Conclusion.** Implementing alternative B would result in long-term beneficial effects on ethnographic resources because of increased opportunities to improve appreciation of ethnographic resources; cumulative effects would also be long term and beneficial. Under Section 106 of the National Historic Preservation Act there would be no adverse effect.

## SOCIOECONOMICS

Development proposed by the action alternative could have a direct effect on some parts of the social and economic environment in the affected municipalities and larger region. Planning team members applied logic, experience, and professional expertise and judgment to analyzing the impacts of each alternative on the social and economic setting. A qualitative analysis of the effects of each alternative was completed.

Issues of concern with regard to socioeconomic conditions included (1) effects of visitor spending on local economies from visitors who are attracted to the area because of the presence of the Chisholm National Historic Trail and Western National Historic Trail, supporting jobs and income primarily in the retail sales, food and beverage, and accommodations sectors; (2) implementation expenditures in the administration of the Chisholm National Historic Trail and Western National Historic Trail; and (3) effects on real estate, such as changes in land and property values and the sale of land or easements.

## Methodology and Assumptions

This section analyzes the relationships among the options for designating a national historic trail and socioeconomic variables in the trail corridors. The relevant socioeconomic variables identified in this analysis include the potential number of recreational visits, the economic impacts of trail usage and tourism on spending, expenditures related to the implementation and operation of trail activities, income and jobs in the local economy, and the social values of local communities, visitors, and adjacent private landowners.

In this analysis, impacts were determined based on professional judgment. Quantitative assessment was not used due to the inherent lack of precision in quantitative estimates that would result from applying broad assumptions to a general

programmatic action such as the designation of a national historic trail. Current policies and prevailing conditions provide the basis for constructing baseline conditions in the no-action alternative. The action alternative is assessed relative to the no-action alternative.

Impacts to socioeconomic resources discuss the relative magnitude (often relative to other alternatives) and duration of social and economic effects resulting from the alternatives under consideration. Economic impacts are those that individuals, groups, properties, businesses or institutions would experience from a change—positive or negative—in business and economic activity from each of the alternatives under consideration.

## Study Area

The study area for the Chisholm National Historic Trail and Western National Historic Trail includes dozens of communities within the 109 counties: 56 in Texas; 18 in Oklahoma; 29 in Kansas; and 6 in Nebraska.

## Impact Thresholds

Intensity thresholds were developed to assess the magnitude of socioeconomic effects resulting from the alternatives under consideration. In the development of these thresholds, it was assumed that beneficial impacts are those that individuals or groups would accept or recognize through increased economic activity, either in general or for a specific group of people, businesses, organizations, or institutions. The siting of the proposed Chisholm National Historic Trail and Western National Historic Trail would result in visitor patronage to new locations over existing conditions. As a result, it is anticipated that such patronage would result in some change in the level of economic activity in the affected municipalities. Adverse impacts are those that most individuals or groups would generally



recognize as diminishing economic welfare, either in general or for a specific group of people, businesses, organizations, or institutions. Examples of adverse effects include fewer job opportunities and increases in cost of living without matching increases in income. Adverse effects are described using the following thresholds:

**Negligible:** Effects would be below detectable levels or detectable only through indirect means and with no discernible effect on the character of the social and economic environment.

**Minor:** Effects would be detectable, but localized in geographic extent or size of population affected and would not be expected to alter the character of the established social and economic environment.

**Moderate:** Effects would be readily detectable across a broad geographic area or segment of the community and could have an appreciable effect on the social and economic environment.

**Major:** Effects would be readily apparent, affect a substantial segment of the population, extend across the community or region, and would likely have a noticeable effect on the social and economic environment.

### **Impacts of Alternative A—The No Action Alternative**

**Analysis.** Under the no action alternative, continuation of current conditions would result in no substantial changes to the socioeconomic environment. There would be no local economic benefits from implementing this alternative. In the absence of national historic trail designation, new tourism opportunities would not occur. Lack of federal coordination, technical assistance, and funding opportunities might eliminate some future tourism activities from consideration. Any trail or trail-related development activities would be restricted

to “grassroots” efforts with limited ability to improve local economic conditions. Current land use trends under alternative A would continue. Land uses on trail sites or segments on private land would remain subject to development. As a result, the no action alternative would have long-term negligible, and barely perceptible, adverse effects on socioeconomic conditions.

**Cumulative Impacts.** Although there would be additional development of lands for housing and commerce, there would be no cumulative impacts from additional development of land for residential and commercial uses and roads associated with the no action alternative, as there would be no measurable impacts on socioeconomic resources from the no action alternative.

**Conclusion.** Alternative A would have negligible and barely perceptible adverse effects on socioeconomic conditions. There would be no cumulative impacts.

### **Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit**

**Analysis.** Designation of two national historic trails would result in new visitor experience opportunities that would be developed and/or initiated through coordinated partnerships between the Secretary of the Interior and interested parties. This national historic trail might lead to increased visitation and visitor spending, which could create jobs and income in retail trade and other service sectors in the communities along the trail route. These increases probably would not be perceptible at the county level in any of the 109 counties in the study area, but they could be important locally, producing an indirect, long-term, beneficial effect on local economies. The proposed coordination of trail-related visitor services and interpretation probably would increase tourism and related revenues beyond those that would be expected under an uncoordinated implementation approach.

Government, private, and non-profit expenditures in the administration and implementation of the Chisholm National Historic Trail and Western National Historic Trail could provide some local economic stimulus. Although partner agencies and organizations, such as states, counties, friends groups, and others are expected to undertake the majority of the implementation activities, the implementation expenditures are expected to provide minimal economic benefits to local communities. Although the monetary amounts probably would not be perceptible in such terms as numbers of jobs or values of tax revenues at any county levels, the increase in local area economic activity would provide long-term beneficial effects on local economies.

Alternative B would have negligible effects on land values in the vicinity of the project corridor. Little or no land acquisition would be carried out under the implementation program. Federal land acquisition, if any, would be limited to willing sellers only under the type of restrictive language used in other trail designation legislation.

Potentially, local government agencies might prohibit incompatible development that would otherwise adversely impact trail-related resources. Landowners and developers might be adversely affected by such actions; however, owners of adjacent properties might benefit because local trail segments with cultural and historic values might increase their property values. Any such adverse impacts might be minimized by involving affected landowners and other stakeholders in the protection of the trail and nearby resources.

### **Cumulative Impacts**

Across the study area, development of new recreational facilities and other recreational developments are expected to occur, along with other types of development. This may include establishment of museums and cultural centers that could draw visitors.

Similarly, national park system areas in addition to other museums, may also present special programs and exhibits, thereby attracting increased visitation. In all cases, the increase in visitors to the facilities and the area would not be expected to be substantial. Additionally, the residential and commercial developments in the study area are not expected to have cumulative effects on land values because there would be no measurable impacts on socioeconomic resources from alternative B. The designation of the Chisholm National Historic Trail and Western National Historic Trail would add a small amount of visitation and resulting expenditures to these existing facilities and the surrounding areas. The effect of these actions, combined with the effect of implementing this alternative, would be direct and indirect, long-term beneficial cumulative effects.

### **Conclusion**

Alternative B would have indirect long-term minor beneficial effects due to expanded recreational opportunities, increased visitor spending which would support retail trade, food and beverage, lodging, and other service sectors within local economies. Additionally, Chisholm National Historic Trail and Western National Historic Trail administration and implementation expenditures, primarily through partner agencies and organizations that could include educational and interpretation signage and trailhead or trail development, would also have short-term minor beneficial effects on local economies through construction and installation employment and income. Effects on land values would be long term, beneficial, and negligible. Cumulative effects would be beneficial and long term.

## VISITOR USE AND EXPERIENCE

### Methodology and Assumptions

The purpose of this impact analysis is to assess the effects of the proposed alternatives on visitor use and experience in the study area. The analysis for this resource area is focused on critical characteristics of the visitor experience including new visitor experience opportunities, possible connections to existing opportunities, and interpretive and educational program opportunities. To determine impacts, the number of visitor use opportunities was considered as well as any expected changes in visitor use levels or visitor satisfaction.

### Study Area

The study area for the Chisholm National Historic Trail and Western National Historic Trail includes tracts of land starting in southern Texas through Oklahoma, Kansas, and Nebraska. Adjacent existing visitor experience opportunities are also included in the study area.

### Impact Thresholds

The following thresholds were defined for adverse effects on visitor use and experience:

**Negligible:** Visitors would likely be unaware of any effects associated with implementation of the alternative. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior.

**Minor:** Changes in visitor use or experience would be slight but detectable but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.

**Moderate:** Few critical characteristics of the desired visitor experience would change and/or the number of participants engaging

in an activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and would likely be able to express an opinion about the changes. Visitor satisfaction would begin to decline as a direct result of the effect.

**Major:** Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementation of the alternative and would likely express a strong opinion about the change. Visitor satisfaction would markedly decline.

### Impacts of Alternative A—The No Action Alternative

**Analysis.** Under the no action alternative, national historic cattle trails would not be designated and a comprehensive management plan would not be prepared. Visitor experience opportunities would continue to be provided by existing private and public local and state facilities. No additional visitor use opportunities or interpretation and education opportunities would be identified. Visitor use statistics and visitor satisfaction would remain constant resulting in long-term negligible adverse impacts to visitor use and experience.

**Cumulative Impacts.** Development of new visitor experience opportunities in the cattle trail corridors is possible as other types of new development occur. In addition, roadways and highways may be expanded and moved, which may provide increased access to visitor experience opportunities resulting in increased visitation. There would be long-term beneficial impacts to visitor use and experience as a result of the potential increased access and visitation. These beneficial impacts, in combination with the long-term negligible adverse impacts from the no action alternative, would result in slight long-term beneficial impacts to visitor use and experience.

**Conclusion.** Under alternative A, there would be long-term negligible adverse impacts to visitor use and experience as a result of no increased visitor experience opportunities and no changes to visitor satisfaction or use levels. These long-term negligible adverse impacts resulting from alternative A, in combination with the long-term beneficial impacts from potential development and increased access in the area, would result in long-term slight beneficial cumulative impacts to visitor use and experience.

### **Impacts of Alternative B—Designate Two National Historic Trails as One Administrative Unit**

**Analysis.** Under alternative B, two national historic trails would be designated to commemorate the movement of cattle from Texas to railheads in Kansas and Nebraska. Additionally, new visitor experience opportunities would be developed and initiated through coordinated partnerships between the Secretary of the Interior and interested parties. New interpretation and education programs would be developed to emphasize the cattle trail history and heritage. New visitor opportunities would also be connected to existing opportunities in the area to enhance the thematic and historic connections as well as to increase visitor access to these resources. As a result of increased visitor experience opportunities and likely increases in visitor satisfaction and visitor use levels, alternative B would result

in long-term beneficial impacts to visitor use and experience.

**Cumulative Impacts.** Cumulative impacts would be similar to those under the no action alternative. There would be long-term beneficial impacts to visitor use and experience as a result of potential increases in visitor experience opportunities and increased visitation. These beneficial impacts, in combination with the long-term beneficial impacts from alternative B, would result in long-term beneficial impacts to visitor use and experience.

**Conclusion.** Under alternative B, there would be long-term beneficial impacts to visitor use and experience as a result of increases in visitor experience opportunities and also increases to visitor use levels and in visitor satisfaction. These long-term beneficial impacts resulting from alternative B, in combination with the long-term beneficial impacts from potential development in the area, would result in long-term beneficial cumulative impacts to visitor use and experience.

### **SUMMARY OF IMPACTS**

The table on the following pages provides a summary of environmental consequences for each resource area analyzed in “Section 5: Environmental Consequences.” There would be no impairment to any resources resulting from the implementation of the action alternative.

**TABLE 9. SUMMARY OF IMPACTS (ENVIRONMENTAL CONSEQUENCES)**

Resource Area		No Action Alternative	Action Alternative
Cultural Resources	Archeological Resources	<p>Alternative A would have a long-term negligible adverse effect on archeological resources. Resources would continue to be managed as they are and although there is some risk of inadvertent harm or intentional looting or damage, existing laws largely protect archeological resources, mostly on public lands.</p> <p>Cumulative Impacts: There would be long-term negligible adverse cumulative effects associated with regional development.</p>	<p>Alternative B would have a long-term beneficial effect on archeological resources because plans for addressing and protecting archeological resources associated with the trail and with trail projects would be completed. There would be no adverse effect under Section 106 of the National Historic Preservation Act.</p> <p>Cumulative Impacts: Although cumulative projects pose potential threats to archeological resources, when considered with cumulative effects on archeological resources, there would continue to be long-term beneficial impacts.</p>
	Historic Resources	<p>Alternative A would have a long-term, negligible adverse effect on historic resources. Resources would continue to be managed as they are and although there is some risk of inadvertent harm or damage, existing laws largely protect structural historic resources.</p> <p>Cumulative Impacts: Activities considered under the cumulative scenario would also result in long-term, negligible, adverse cumulative impacts.</p>	<p>Alternative B would have a long-term beneficial effect on historic architectural resources because there would be increased opportunities to protect historic districts and resources as a result of implementing projects associated with the trail. Under Section 106 of the National Historic Preservation Act there would be no adverse effect.</p> <p>Cumulative Impacts: The additional development of land along the trail corridor in the cumulative scenario, although posing a long-term negligible adverse effect, would still result in long-term beneficial cumulative effects, when benefits resulting from the implementation of alternative B are taken into account.</p>
	Ethnographic Resources	<p>Alternative A would have a long-term, negligible, and adverse effect on ethnographic resources because there would be no significant change in management and although some harm to the resources is possible, existing laws protect the resources, especially on public lands. Unknown resources would probably remain protected from illegal activities.</p> <p>Cumulative Impacts: Cumulative impacts also would be long term, negligible, and adverse effects because there would be no important changes in management planning or procedures. Unknown resources would probably remain protected, and existing cultural resource laws would protect resources on public lands and in situations where federal permits or funding require implementation of the section 106 process.</p>	<p>Implementing alternative B would result in long-term beneficial effects on ethnographic resources because of increased opportunities to improve appreciation of ethnographic resources. Under Section 106 of the National Historic Preservation Act there would be no adverse effect.</p> <p>Cumulative Impacts: Cumulative effects would also be long term and beneficial.</p>

## ENVIRONMENTAL CONSEQUENCES

Socioeconomics	Alternative A would have long-term negligible and barely perceptible adverse effects on socioeconomic conditions. There would be no cumulative impacts.	Alternative B would have indirect long-term minor beneficial effects due to expanded recreational opportunities, increased visitor spending which would support retail trade, food and beverage, and other service sectors within local economies. Additionally Chisholm National Historic Trail and Western National Historic Trail administration and implementation expenditures, primarily through partner agencies and organizations that could include educational and interpretation signage and trailhead or trail development, would also have short-term minor beneficial effects on local economies through construction and installation employment and income. Effects on land values would be long term, beneficial, and negligible. Cumulative Impacts: Cumulative effects would be beneficial and long term.
Visitor Use and Experience	Under Alternative A, there would be long-term negligible adverse impacts to visitor use and experience as a result of no increased visitor experience opportunities and no changes to visitor satisfaction or use levels. Cumulative Impacts: These long-term negligible adverse impacts resulting from alternative A, in combination with the long-term beneficial impacts from potential development and increased access in the area, would result in long-term slight beneficial cumulative impacts to visitor use and experience.	Under alternative B, there would be long-term beneficial impacts to visitor use and experience as a result of increases in visitor experience opportunities and also increases to visitor use levels and in visitor satisfaction. Cumulative Impacts: These long-term beneficial impacts resulting from alternative B, in combination with the long-term beneficial impacts from potential development in the area, would result in long-term beneficial cumulative impacts to visitor use and experience.



The Drover's Cottage in Ellsworth, Kansas, circa 1873. The Cottage was the center of Business activity on the Northern end of the Chisholm Trail. Photo courtesy of the Western History Collections, University of Oklahoma

## SECTION 6 CONSULTATION AND COORDINATION





## **CONSULTATION AND COORDINATION**

### **Public Involvement**

Public involvement has been integral to the development of this feasibility study. The NPS planning team has engaged interested and affected individuals, organizations, and public agencies, as well as American Indian tribes. A newsletter, which included a summary of the purpose and scope of the study, was sent out in May of 2010 during the initial phase of the study. The newsletter also served as a vehicle to solicit comments and feedback about the feasibility study.

The scoping comment period was open from May 7, 2010 to July 23, 2010. Press releases were also sent out to various media agencies to inform the public about the study and the public scoping meetings. In June of that year, the National Park Service held twelve scoping meetings along the proposed routes. The main purpose of the scoping meetings was to solicit input and information pertaining to sites and route location, as well as opinions about the proposed designation.

The NPS held public scoping meetings during June of 2010 in the following locations:

June 8 – Fort Worth, Texas  
June 9 – Austin, Texas  
June 9 – San Antonio, Texas  
June 10 – Menard, Texas  
June 11 – Albany, Texas  
June 12 – Altus, Oklahoma  
June 12 – Duncan, Oklahoma  
June 21 – Ogallala, Nebraska  
June 22 – Dodge City, Kansas  
June 23 – Oklahoma City, Oklahoma  
June 24 – Wichita, Kansas  
June 25 – Abilene, Kansas

Additional information about the scoping meetings can be found in the Scoping Report at <http://parkplanning.nps.gov/ntir>.

### **Consultation**

Informal consultation with the appropriate federal, state, and local agencies has been conducted in the preparation of this study and would be ongoing. Interested members of the public, government agencies, and American Indian tribes were all notified of the study and were invited to participate in the planning process by providing any input, information and/or comments that they had about the feasibility study. All have had an opportunity to provide input during the development of the draft document. The planning team consulted with various trail experts throughout the development of this feasibility study to obtain additional information about the history and location of sites and segments along the proposed routes. Appropriate agencies and associated tribes will have opportunities to formally comment and consult on the draft feasibility study when it is released to the public.

### **Consultation with American Indian Tribes**

A newsletter and formal letter was sent to all federally-recognized tribes in Texas, Oklahoma, New Mexico, Kansas, Nebraska, Wyoming, Montana, South Dakota, and North Dakota that currently reside or traditionally resided along the proposed routes. The tribes in New Mexico, Wyoming, Montana, South Dakota, and North Dakota were included as various cattle distribution routes were considered for addition to the national historic trail and their input was sought on this possibility. Newsletters were sent out on May 6<sup>th</sup>, 2010. The formal government-to-government consultation letter was sent out on February 5, 2011. In addition, a follow-up telephone call was made to each tribe. Each tribe was sent the draft document and asked to formally review and comment on the feasibility findings and recommendations. The National Trails Intermountain Region

tribal liaison has been in regular contact with those tribes expressing interest in this possible designation.

### **American Indian Tribes Consulted**

#### **Oklahoma**

Kiowa Tribe – Oklahoma  
Caddo Tribe of Oklahoma – Oklahoma  
Cheyenne and Arapaho Tribes - Concho, Oklahoma  
Otoe-Missouri Tribe – Red Rock, Oklahoma  
Osage Nation of Oklahoma – Pawhuska, Oklahoma  
Ponca Tribe – Ponca City, Oklahoma  
Pawnee Tribe – Pawnee, Oklahoma  
Comanche Nation – Lawton, Oklahoma  
Ft. Sill Apache – Apache, Oklahoma  
Wichita and Affiliated Tribes – Anadarko, Oklahoma  
The Kaw Nation – Kaw City, Oklahoma  
Citizen Potawatomi Nation, Oklahoma

#### **New Mexico**

Pueblo of Taos – Taos, New Mexico  
Jicarilla Apache – Dulce, New Mexico  
Mescalero Apache – Mescalero, New Mexico

#### **Kansas**

Prairie Band of Potawatomi – Mayetta, Kansas

#### **Nebraska**

Ponca Tribe of Nebraska – Niobrara, Nebraska  
Santee Sioux Tribal Council – Niobrara, Nebraska  
Omaha Tribal Council – Macy, Nebraska  
Winnebago Tribe of Nebraska (Ho-Chunk Nation)

#### **Wyoming**

Eastern Shoshone – Fort Washakie, Wyoming  
Northern Arapahoe – Fort Washakie, Wyoming

#### **Montana**

Northern Cheyenne – Lama Deer, Montana  
Crow Nation – Crow Agency, Montana

#### **South Dakota**

Lower Brule Sioux Tribe – Lower Brule, South Dakota  
Cheyenne River Sioux Tribe – Eagle Butte, South Dakota  
Oglala Sioux Tribe – Pine Ridge, South Dakota  
Crow Creek Sioux – Ft. Thompson, South Dakota  
Yankton Sioux Tribe – Marty, South Dakota  
Rosebud Sioux Tribe – Rosebud, South Dakota  
Sisseton Waahpeton – Agency Village, South Dakota

#### **North Dakota**

Standing Rock Sioux – Fort Yates, North Dakota

#### **Texas**

Alabama-Coushatta Tribe – Livingston, Texas  
Kickapoo Traditional Tribe – Eagle Pass, Texas

There were several representatives of some of these tribes that spoke on behalf of their tribe at some of the scoping meetings.

The planning consultant who wrote the affected environment and environmental consequences sections of this document did not consult directly with any tribes, but used ethnographic and published historic references. The NTIR tribal liaison, Otis Halfmoon, and the study team contacted the above tribes by mail, phone, and in some cases in person to ask for comments on the study. Additional comments from tribal representatives will be included from review of the draft document.

### **Section 7 Consultation**

The National Park Service led formal consultation with the US Fish and Wildlife Service (USFWS). The planning consultant visited the USFWS website to review the lists of rare, threatened, and endangered species, as well as the websites for the natural heritage programs in each state.

Pursuant to the requirements of the Endangered Species Act and NPS management policies, after several informal contacts via phone and email in 2011 and 2012, a formal letter initiating consultation with the USFWS was sent on February 13, 2013 to the affected field offices. National Park Service staff were directed to obtain species lists from the USFWS website at <http://www.fws.gov/endangered/>.

Species potentially found in association with the cattle trails study routes are listed in appendix C.

The USFWS offices consulted include the Kansas Ecological Services Field Office, Nebraska Field Office, and the Southwest Region Field Office.

### **Section 106 Consultation**

In accordance with Section 106 of the National Historic Preservation Act of 1966, the National Park Service initiated consultation with the state historic preservation offices (SHPO) in Kansas, Nebraska, Oklahoma, and Texas. State historic preservation offices were initially contacted in April 2010 via email and letter that included the study newsletter and were informed about the study. National Park Service staff met with state historic preservation office staff in person in Austin, Texas, on June 9, 2010 and in Oklahoma City, Oklahoma, on June 23, 2010. In July and August of 2013, state historic preservation offices in Texas, Oklahoma, and Nebraska, met with the NTIR superintendent and tribal liaison and were shown a preliminary copy of the draft and informal comments were solicited. When the draft is completed a formal letter will be sent to the four affected state historic preservation offices with a request for concurrence with the study's findings relevant to the section 106 findings of no adverse effect. The draft will also be sent to the Advisory Council for Historic Preservation for their review and comment.

The National Park Service is conducting formal consultation with state historic preservation offices in Texas, Oklahoma, Kansas, and Nebraska. In addition to formal consultation and contacts made during the scoping process, the planning team had informal contact with the state historic preservation offices in each of the four states to seek information about cattle trail remnants and associated historic resources.

The EA contractor cultural resources specialist spoke to Timothy Weston in the Kansas state historic preservation office, Brent Cruz, an archeologist in the Texas Historical Commission, and Terry Steinacher, archeologist with the Nebraska state historic preservation office on September 28, 2011, and with Timothy Baugh, historic archeologist and section 106 coordinator with the Oklahoma state historic preservation office, on October 4, 2011. He also accessed the database for the Texas Historical Commission and the Kansas archeological database. There was also a review of the website for the National Register of Historic Places, the state register and national register for each state, and state historic landmarks for each state to identify known historic resources associated with the cattle trails.

### **National Landmarks Committee**

In 2012, the NPS study team historian presented the national significance statement for the Chisholm National Historic Trail and Western National Historic Trail to the National Park Service's National Landmarks Committee for their review and consideration. The committee concurred with the findings of national significance for the Chisholm and Western Trails as appropriate for designation as national historic trails based on their significance. The national significance statement was reviewed and vetted by professional historians in Texas and with the state historic preservation office in each state.

## **List of Agencies, Organizations, and Individuals Notified of this Feasibility Study**

### **Federal Government**

Federal Highway Administration  
US Army Corps of Engineers

### **National Park Service**

Intermountain Region Office, Denver, Colorado  
Washington Support Office, Washington D.C.  
Chickasaw National Recreation Area, Oklahoma  
Washita Battlefield National Historic Site, Oklahoma  
Lyndon B. Johnson National Historical Park, Texas  
Palo Alto Battlefield National Historic Site, Texas  
San Antonio Missions National Historical Park, Texas  
Fort Larned National Historical Site, Kansas  
Tallgrass Prairie National Preserve, Kansas

### **US Fish and Wildlife Service**

Washita National Wildlife Refuge, Oklahoma  
Salt Plains National Wildlife Refuge, Oklahoma  
Balcones Canyon National Wildlife Refuge, Texas  
Laguna Atascosa National Wildlife Refuge, Texas  
Lower Rio Grande National Wildlife Refuge, Texas  
Kansas Ecological Services Field Office  
Nebraska Field Office  
Southwest Region Field Office

### **USDA Forest Service**

Black Kettle National Grasslands, Oklahoma  
Lyndon B. Johnson National Grasslands, Texas

### **State Agencies**

Kansas Department of Transportation  
Kansas Department of Wildlife and Parks  
Nebraska Department of Roads

Nebraska Game and Parks Commission  
Oklahoma Department of Transportation  
Oklahoma Parks, Resorts, and Golf  
Texas Department of Transportation  
Texas State Historical Association  
Texas Wildlife and Parks Department

### **State Historic Preservation Offices**

Kansas State Historical Society  
Nebraska State Historical Society  
Texas Historical Commission  
Oklahoma State Historic Preservation Office

### **Historical Societies**

The Oklahoma Historical Society, Oklahoma  
Grady County Historical Society, Oklahoma  
Clark County Historical Society, Kansas  
Dallas Historical Society, Texas  
Midwest Historical Society, Kansas  
Sherman County Historical Society, Kansas  
Gove County Historical Association  
Museum, Kansas

### **State Parks**

Foss State Park, Oklahoma  
Lake Scott State Park, Kansas  
Lake Whitney State Park, Texas  
LBJ State Park and Historic Site, Texas  
Quartz Mountain State Park, Oklahoma

### **Trail Associations**

Great Western Cattle Trails Association  
International Chisholm Trail Association  
Santa Fe Trail Association  
El Camino Real de los Tejas National  
Historic Trail Association

A copy of the newsletter was also sent out to city governments, chambers of commerce, and museums situated on or near the route. Media outlets along the trail were also notified via a press release. A number of these organizations attended scoping meetings or submitted comments.

## **Senators and Congressional Delegates Contacted**

The following US Senators and US Representatives were contacted at the beginning of the study process and received

a newsletter and notification of the scoping meetings:

**Kansas**

**Senators:** Sam Brownback (R), Pat Roberts (R)

**Representatives:** Jerry Moran (R, Dist. 1), Todd Tiahrt (R, Dist. 4)

**Nebraska**

**Senators:** Mike Johanns (R), Ben Nelson (D)

**Representative:** Adrian Smith (R, Dist. 3)

**Oklahoma**

**Senators:** Tom Coburn (R), James Inhofe (R)

**Representatives:** Frank Lucas (R, Dist. 3), Tom Cole (R, Dist. 4), Mary Fallin (R, Dist. 5)

**Texas**

**Senators:** John Cornyn (R), Kay Bailey Hutchison (R)

**Representatives:** Ciro Rodríguez (D, Dist. 23), Charles Gonzáles (D, Dist. 20), Joe Barton (R, Dist. 6), Michael T. McCaul (R, Dist. 10), K. Michael Conaway (R, Dist. 11), Kay Granger (R, Dist. 12), Mac Thornberry (R, Dist. 13), Rubén Hinojosa (D, Dist. 15), Chet Edwards (D, Dist. 17), Randy Neugebauer (R, Dist. 19), Lamar S. Smith (R, Dist. 21), Lloyd Doggett (D, Dist. 25), Michael C. Burgess (R, Dist. 26), Solomon P. Ortiz (D, Dist. 27), Henry Cuellar (D, Dist. 28), John Carter (R, Dist. 31)

The following Senators and Congressional Delegates were sent a copy of the draft feasibility document for their review and comment:

**Kansas**

**Senators:** Jerry Moran (R), Pat Roberts (R)

**Representatives:** Tim Huelskamp (R, Dist. 1), Mike Pompeo (R, Dist. 4)

**Nebraska**

**Senators:** Mike Johanns (R), Deb Fischer (R)

**Representative:** Adrian Smith (R, Dist. 3)

**Oklahoma**

**Senators:** Tom Coburn (R), James Inhofe (R)

**Representatives:** Frank Lucas (R, Dist. 3), Tom Cole (R, Dist. 4), James Lankford (R, Dist. 5)

**Texas**

**Senators:** John Cornyn (R), Ted Cruz (R)

**Representatives:** Joe Barton (R, Dist. 6), Michael T. McCaul (R, Dist. 10), K. Michael Conaway (R, Dist. 11), Kay Granger (R, Dist. 12), Mac Thornberry (R, Dist. 13), Rubén Hinojosa (D, Dist. 15), Bill Flores (R, Dist. 17), Randy Neugebauer (R, Dist. 19), Joaquin Castro (D, Dist. 20), Lamar S. Smith (R, Dist. 21), Pete Gallego (D, Dist. 23), Roger Williams (R, Dist. 25), Michael C. Burgess (R, Dist. 26), Blake Farenthold (R, Dist. 27), Henry Cuellar (D, Dist. 28), John Carter (R, Dist. 31)





Dodge City in 1878. Photo courtesy of the Anon Carter Museum of American Art

## APPENDIXES, REFERENCES, PLANNING TEAM AND PREPARERS





## **APPENDIX A: CHISHOLM NATIONAL HISTORIC TRAIL AND WESTERN NATIONAL HISTORIC TRAIL LEGISLATION**

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

PUBLIC LAW 111-11 – MAR. 30, 2009

SEC. 5303. CHISHOLM TRAIL AND GREAT WESTERN TRAILS STUDIES.

Section 5(c) of the National Trails System Act (16 USC 1244(c)) is amended by adding at the end of the following:

“(44) CHISHOLM TRAIL. –

“(A) IN GENERAL. – The Chisholm Trail (also known as the ‘Abilene Trail’), from the vicinity of San Antonio, Texas, segments from the vicinity of Cuero, Texas, to Ft. Worth, Texas, Duncan, Oklahoma, alternate segments used through Oklahoma, to Enid, Oklahoma, Caldwell, Kansas, Wichita, Kansas, Abilene, Kansas, and commonly used segments running to alternative Kansas destinations.

“(B) REQUIREMENT. – In conducting the study required under this paragraph, the Secretary of the Interior shall identify the point at which the trail originated south of San Antonio, Texas.

“(45) GREAT WESTERN TRAIL. –

“(A) IN GENERAL. – The Great Western Trail (also known as the ‘Dodge City Trail’), from the vicinity of San Antonio, Texas, north-by-northwest through the vicinities of Kerrville and Menard, Texas, north-by-northeast through the vicinities of Coleman and Albany, Texas, north through the vicinity of Vernon, Texas, to Doan’s Crossing, Texas, northward through or near the vicinities of Altus, Lone Wolf, Canute, Vici, and May, Oklahoma, north through Kansas to Dodge City, and north through Nebraska to Ogallala.

“(B) REQUIREMENT. – In conducting the study required under this paragraph, the Secretary of the Interior shall identify the point at which the trail originated south of San Antonio, Texas.”.

## APPENDIX B: SUMMARY OF PUBLIC MEETINGS

The following is taken from the scoping report originally issued in late 2010 as a result of scoping meetings held along the study routes in June 2010. The full scoping report is available at <http://parkplanning.nps.gov/document.cfm?parkID=456&projectID=30803&documentID=36301>.

### Scoping Notice, Newsletter, and Website

The NPS sent the *Trail Study News* newsletter announcing the start of the planning process to people and organizations on mailing lists that had originally been developed during three previous meetings related to the feasibility study process. These had been held in Duncan, Oklahoma in July, 2009; Vernon, Texas, in August, 2009, and Fort Worth, Texas in October, 2009. Additional names were collected during preparatory field work in Kansas and Nebraska in February, 2010. Subsequently, the mailing list was considerably expanded as a result of comments received during the scoping period. It will be reviewed and updated throughout the planning process.

The *Trail Study News* newsletter included a brief announcement about the planning process, description of the planning issues, a brief treatment of trail significance, a solicitation for participation in the planning process, and contact information. In addition, it directed interested parties to contact the NPS planning team by mail, by email, or on the NPS planning website (see below) or by telephone. The newsletter (which was also available on the NPS planning website) was emailed in early May, 2010 to approximately 725 individuals, agencies, and organizations. In addition, newsletters were mailed (via the US Postal Service) to approximately 500 individuals, agencies, and organizations. A copy was

available to each attendee at the 12 scoping meetings.

A website dedicated to the planning project was established in April, 2010, to provide project information during the scoping period, as well as throughout the planning process. The Chisholm and [Great] Western trails planning project can be found at the following website:

<http://parkplanning.nps.gov/ntir>. This website contains an overview of the planning process, contact information, a description of the planning process, the public meeting schedule, and the *Trail Study News* (which contains much of the above information plus the preliminary trail map).

In addition, agency staff contacted representatives of 31 American Indian tribes by mail.

### Media Releases

Media releases introducing the project and announcing the scoping meetings were issued in late April and early May, 2010 to local and regional newspapers, radio and television stations, and press associations.

A number of newspapers, radio stations, and television stations (and a magazine) ran stories on the project and on the public scoping meetings, including the Dodge City (Kansas) *Daily Globe*, Peabody (Kansas) *Gazette-Bulletin*, Wichita (Kansas) *Eagle*, Kansas City (Missouri) *Star*, Duncan (Oklahoma) *Banner*, Fort Worth (Texas) *Star-Telegram*, Kerrville (Texas) *Daily Times*, Menard (Texas) *News*, Saint Jo (Texas) *Tribune*, Victoria (Texas) *Advocate*, *Western Horseman*, KNSS Radio (Wichita, Kansas), Nebraska Public Radio, Texas Public Radio, KAUZ Television (Wichita Falls, Texas), and KNOP television (North Platte, Nebraska). Other media outlets, unknown to NPS staff, may also have posted articles and stories.

## Public Scoping Meeting Schedule and Format

The NPS planning team consisted of Aaron Mahr, Superintendent, National Trails Intermountain Region (NTIR); Brooke Safford, Outdoor Recreation Planner, NTIR; Frank Norris, Historian, NTIR, and Sharon

Brown, Chief of Trail Operations, NTIR. Team members conducted 12 public scoping meetings in towns along, or with a strong association to, these two trails, as shown below in table B-1. Meeting formats, information content, and public input opportunities are described briefly following the meeting schedule.

**TABLE B.1: PUBLIC SCOPING MEETINGS**

Location	Date (in 2010) and Time	Number of Attendees
Hyatt Place Stockyards Hotel, Conference Room – Fort Worth, Texas	Tuesday, June 8 12 noon–2 p.m.	32
Robert E. Johnson Conference Center South Room, Austin, Texas	Wednesday, June 9 12 noon–2 p.m.	14
San Antonio Public Library Auditorium, San Antonio, Texas	Wednesday, June 9 5:30–7:30 p.m.	35
Menard County Community Center Menard, Texas	Thursday, June 10 5–7 p.m.	17
Shackelford County Courthouse Albany, Texas	Friday, June 11 12 noon–2 p.m.	18
Francis Herron Seminar Room, Southwest Technology Center, Altus, Oklahoma	Saturday, June 12 12 noon–2 p.m.	37
Chisholm Trail Heritage Center Conference Room, Duncan, Oklahoma	Saturday, June 12 4–6 p.m.	38
City Hall, City Council Chambers Ogallala, Nebraska	Monday, June 21 5–7 p.m.	4
Boot Hill Museum Banquet Room Dodge City, Kansas	Tuesday, June 22 3–5 p.m.	25
Oklahoma History Center, OERB Classroom, Oklahoma City, Oklahoma	Wednesday, June 23 3–5 p.m.	25
Wichita-Sedgwick County Historical Museum Wichita, Kansas	Thursday, June 24 5–7 p.m.	44
Abilene Civic Center (Abilene CVB) Abilene, Kansas	Friday, June 25 5–7 p.m.	37
Total Number of Attendees, 12 meetings		326

Maps representing overall preliminary routes of the two cattle trails (in general), plus a large-scale map of preliminary trail locations in the vicinity of the day's meeting were arranged on the walls of each meeting room. Posters showing discussion topics (planning issues), designation criteria, and planning schedule were posted on the walls for review. Attendees were greeted at the door by members of the planning team and each attendee was asked to enter contact

information on a sign-in form. Each attendee was offered a newsletter and comment form.

The planning team began each meeting with a presentation of approximately 30 minutes that included greetings and introductions of the planning team. This was followed by a brief discussion of the feasibility study process and planning topics.

For the remainder of the meeting (approximately 90 minutes), attendees were

encouraged to ask questions and present oral comments structured around planning issues. One team member facilitated the open discussion portion of the meeting, while another took notes on flip charts so that attendees could view the written comments as they were recorded. Team members were available during the discussion period to answer questions. Discussions were lively and usually lasted up to the close of the two-hour meeting.

Attendees were also encouraged to provide written comments on the distributed forms, to visit the planning website, or to email comments to team member Frank Norris. Meeting attendees were advised that their

names (as noted in the sign-in sheets) would be added to the feasibility study mailing list and would receive subsequent notices from the planning team.

### Meeting Profiles

Attendees made each public scoping meeting distinct and notable for the types of topics discussed. All meetings drew an audience of local interested citizens. Local representatives of federal and state conservation agencies attended most of the meetings.

**TABLE B.2: SCOPING MEETING ATTENDEE REPRESENTATION**

Meeting Place	Attendee representation
Fort Worth, Texas	Texas Parks and Wildlife Department Historic Chisholm and Western Trails Society Stockyards Museum (Fort Worth) Denton (Texas) Convention and Visitors Bureau McLennan County (Texas) Historical Commission Montague County (Texas) Historical Society Richland College (Dallas, Texas) Tarrant County (Texas) Historical Commission Decatur (Texas) Main Street Texas Longhorn Breeders Association of America Springtown (Texas) Chamber of Commerce Sale Real Estate, Springtown, Texas
Austin, Texas	Chisholm Trail Heritage Museum, Cuero Bike Texas (Texas Bicycle Coalition), Austin Texas Historical Commission, Austin Texas Parks and Wildlife Department, Austin Lyndon B. Johnson Nat. Historical Park (NPS), Johnson City El Camino Real de los Tejas Association, Austin BarZ Adventures, Austin Texas A&M University, College Station Corpus Christi (Texas) Museum of Science & Industry
San Antonio, Texas	Bandera County (Texas) Convention and Visitors Bureau Karnes County (Texas) Historical Society Castro Colonies Heritage Assn., Medina County, Texas Wilson County (Texas) Historical Commission Medina County (Texas) Historical Commission Bandera (Texas) Community Foundation Agricultural Heritage Museum, Boerne, Texas Maverick-Altgelt Ranch/Fenstermaker-Fromme Farm, Bexar Co. San Antonio River Authority Texas Society, Daughters of the American Revolution Boerne (Texas) Sunrise Rotary

Meeting Place	Attendee representation
	<p>City of Boerne, Texas</p> <p>Pioneer, Trail Drivers &amp; Texas Rangers Memorial Museum, San Antonio</p> <p>Old Spanish Trail (Highway) Centennial Celebration, San Antonio</p> <p>Land Heritage Institute, San Antonio</p> <p>San Antonio Missions National Historical Park (NPS)</p> <p>Arthur Nagle Community Clinic, Bandera, Texas</p> <p>Bandera Music, Bandera, Texas</p>
Menard, Texas	<p>City of Menard, Texas</p> <p>Menard Chamber of Commerce</p> <p>Kimble County Chamber of Commerce and Junction Tourism</p>
Albany, Texas	<p>Shackelford County Historical Commission</p> <p>Great Western Cattle Trail Association</p> <p>Callahan County Historical Commission</p> <p>Southwest Collection Archive, Texas Tech University, Lubbock</p> <p>Albany Chamber of Commerce</p>
Altus, Oklahoma	<p>Great Plains Country Association, Duncan (tourism development)</p> <p>Western Trail Historical Society, Altus</p> <p>Vernon (Texas) Rotary Club</p> <p>City of Altus</p> <p>Seymour (Texas) Chamber of Commerce</p> <p>Red River Valley Museum, Vernon, Texas</p>
Duncan, Oklahoma	<p>Chisholm Trail Heritage Center, Duncan</p> <p>W.T. Foreman Prairie House, Duncan</p> <p>Tales 'n' Trails Museum, Nocona, Texas</p> <p>Montague County (Texas) Historical Commission</p> <p>Nocona Museum, Bowie, Texas</p> <p>Forestburg (Texas) Museum</p> <p>Grady County (Oklahoma) Board of Commissioners</p> <p>Saint Jo (Texas) Chamber of Commerce</p> <p>Green Tree Productions, Duncanville, Texas</p>
Ogallala, Nebraska	<p>Keith County Historical Society</p> <p>Ogallala/Keith County Chamber of Commerce</p> <p>Hitchcock County Historical Society</p>
Dodge City, Kansas	<p>Landmark Inn, Oberlin, Kansas</p> <p>Oberlin Convention and Visitors Bureau</p> <p>Hodgeman County (Kansas) Historical Society</p> <p>Kansas Cowboy (newspaper)</p> <p>International Chisholm Trail Association</p> <p>Great Western Cattle Trail Association</p> <p>Boot Hill Museum, Dodge City</p> <p>Ford County (Kansas) Commission</p> <p>Victory Electric, Dodge City</p> <p>Dodge City Convention and Visitors Bureau</p> <p>Santa Fe Trail Association, Dodge City</p> <p>Community Foundation of Southwest Kansas, Dodge City</p> <p>Stehlik Fundraising Management, Dodge City</p> <p>Dodge City Roundup Rodeo</p> <p>Dodge City Rotary Club</p>
Oklahoma City, Oklahoma	<p>Chisholm Trail Historical Preservation Society, Yukon</p> <p>Washita Battlefield National Historic Site (NPS)</p>

Meeting Place	Attendee representation
	Oklahoma Historical Society Chickasaw National Recreation Area (NPS) Cheyenne-Arapaho Tribes, Concho (El Reno), Oklahoma Historic Fort Reno, Inc., El Reno, Oklahoma Hennessey (Oklahoma) Public Library/History Center Oklahoma State Historic Preservation Office (OHS)
Wichita, Kansas	Wichita-Sedgwick County Metropolitan Area Planning Dept. Ag Press Commercial Printing, Manhattan, Kansas Sedgwick County (Kansas) Division of Community Development Sedgwick County (Kansas) Board of County Commissioners Sumner County (Kansas) Economic Development Commission Historic Delano, Inc., Wichita Wichita Convention and Visitors Bureau 80 <sup>th</sup> District, Kansas House of Representatives, Wellington Chisholm Trail Development Coalition, Maize, Kansas Chisholm Trail Museum, Wellington, Kansas International Chisholm Trail Association thetrailfinder.com, Goessel Wichita State University Arnold Ranch, Wichita area Caldwell (Kansas) Historical Society Travel and Tourism, Kansas Department of Commerce, Topeka Valley Center (Kansas) Historical Society Kansas Livestock Association
Abilene, Kansas	Marion County Economic Development Council Santa Fe Trail Association, Cottonwood Crossing Chapter Milford Area (Nebraska) Historical Society Harvey County (Kansas) Planning and Zoning Kanza Rail-Trails Conservancy, Topeka Eisenhower Presidential Library and Museum, Abilene Abilene Convention and Visitors Bureau Dickenson County (Kansas) Historical Society Geary County (Kansas) Museum Abilene <i>Reflector-Chronicle</i> (newspaper) Abilene Police Department City of Abilene, Kansas

### Summary of Public Comments

All of the comments and questions received from the public during the scoping period have been compiled, reviewed, and sorted by topic. Summaries appear below.

**Written Comments.** Written comments (from comment forms, letters, emails, and website comments,) were received from more than 200 people. Some respondents

represented themselves, while others represented various governmental units, advocacy organizations, and interest groups.

**Verbal Comments.** Public Scoping Meetings. A total of 326 people attended (and signed the attendance sheet at) one of the 12 public scoping meetings. Verbal comments were recorded through notes taken by hand at each meeting.

## APPENDIX C: THREATENED AND ENDANGERED SPECIES

### Flora

The list of threatened and endangered plants in the region is large. The US Fish and Wildlife Service currently lists a total of 39 plant species in Texas (29), Oklahoma (2), Kansas (3), and Nebraska (5) respectively, as federally threatened and endangered species. Ten of these plant species occur in the counties through which the potential national historic trail alignment would pass. The species, their federal status, location, and critical habitat status are listed in table C.1. Only one of the species in the table below has identified critical habitat. None of the species occur in all four states. Only the species identified in the counties related to this study are identified in tables below.

Table C-1 below was created using the US Fish and Wildlife Service Endangered Species Program website at <http://www.fws.gov/endangered/> and has been generated as part of section 7 consultation with the US Fish and Wildlife Service.

### Fauna

This large faunal group includes mammal, bird, reptile, amphibian, fish, and

invertebrate species. The US Fish and Wildlife Service currently lists a total of 112 species of animals in Texas (64), Oklahoma (18), Kansas (15), and Nebraska (15) as either federally threatened or endangered species. Fifty of these faunal species are listed as potentially occurring in the counties through which the national historic trail would pass. Critical habitat has been designated for 22 of these species (see tables C-2), though not necessarily in the area of the proposed trail route. Some species occur in all four states. Only the species identified in the counties related to this study are identified in tables below.

Table C.2 below was created using the US Fish and Wildlife Service Endangered Species Program website at <http://www.fws.gov/endangered/> and has been generated as part of section 7 consultation with the US Fish and Wildlife Service.

The landscape setting most likely to support species and critical habitats that could require special consideration during the future planning phases include aquatic, riparian, and wetland areas.

**TABLE C.1: FEDERALLY LISTED THREATENED AND ENDANGERED PLANT SPECIES POTENTIALLY FOUND IN PROXIMITY TO THE STUDY ROUTE**

Common Name	Scientific Name	Federal Status	Location (State)	Critical Habitat
South Texas ambrosia	<i>Ambrosia cheiranthifolia</i>	E	TX	No
Texas ayenia	<i>Ayenia limitaris</i>	E	TX	No
Black lace cactus	<i>Echinocereus reichenbachii</i> var. <i>albertii</i>	E	TX	No
Tobusch fishhook cactus	<i>Sclerocactus brevihamatus</i> ssp. <i>tobuschii</i>	E	TX	No
Slender rush-pea	<i>Hoffmannseggia tenella</i>	E	TX	No
Texas wild-rice	<i>Zizania texana</i>	E	TX	Yes
Eastern prairie fringed orchid	<i>Platanthera leucophaea</i>	T	OK, NE	No
Western prairie fringed orchid	<i>Platanthera praeclara</i>	T	OK	No
Running buffalo clover	<i>Trifolium stoloniferum</i>	E	KS	No
Blowout penstemon	<i>Penstemon haydenii</i>	E	NE	No

**TABLE C.2: FEDERALLY LISTED THREATENED AND ENDANGERED ANIMAL SPECIES POTENTIALLY FOUND IN PROXIMITY TO THE STUDY ROUTE**

Common Name	Scientific Name	Federal Status	Location (State)	Critical Habitat
Peck's cave amphipod	<i>Stygobromus</i> (= <i>Stygonectes</i> ) <i>pecki</i>	E	TX	Yes
Indiana bat	<i>Myotis sodalist</i>	E	KS	Yes
Coffin Cave mold beetle	<i>Batrissodes texanus</i>	E	TX	No
Comal Springs dryopid beetle	<i>Stygoparnus comalensis</i>	E	TX	Yes
Comal Springs riffle beetle	<i>Heterelmis comalensis</i>	E	TX	Yes
Helotes mold beetle	<i>Batrissodes venyivi</i>	E	TX	Yes
Kretschmarr Cave mold beetle	<i>Texamaurops reddelli</i>	E	TX	No
Tooth Cave ground beetle	<i>Rhadine persephone</i>	E	TX	No
Whooping crane	<i>Grus americana</i>	E	TX, OK, KS, NE	Yes
Fountain darter	<i>Etheostoma fonticola</i>	E	TX	Yes
Winged mapleleaf	<i>Quadrula fragosa</i>	E	NE	No
Northern aplomado falcon	<i>Falco femoralis septentrionalis</i>	E	TX	No
Clear Creek gambusia	<i>Gambusia heterochir</i>	E	TX	No
Gambusia, San Marcos gambusia	<i>Gambusia georgei</i>	E	TX	Yes
Ground beetle [unnamed]	<i>Rhadine exilis</i>	E	TX	Yes
Ground beetle [unnamed]	<i>Rhadine infernalis</i>	E	TX	Yes
Bee Creek Cave harvestman	<i>Texella reddelli</i>	E	TX	No
Bone Cave harvestman	<i>Texella reyesi</i>	E	TX	No
Cokendolpher Cave harvestman	<i>Texella cokendolpheri</i>	E	TX	Yes
Spectaclecase mussel	<i>Cumberlandia monodonta</i>	E	NE	No
Snuffbox mussel	<i>Epioblasma triquetra</i>	E	KS	No
Higgins eye pearlymussel	<i>Lampsilis higginsii</i>	E	NE	No



Common Name	Scientific Name	Federal Status	Location (State)	Critical Habitat
Gulf Coast jaguarondi	<i>Herpailurus (=Felis) yagouaroundi cacomitli</i>	E	TX	No
West Indian manatee	<i>Trichechus manatus</i>	E	TX	Yes
Braken Bat Cave meshweaver	<i>Cicurina venii</i>	E	TX	Yes
Government Canyon Bat Cave meshweaver	<i>Cicurina vespera</i>	E	TX	Yes
Madla's Cave meshweaver	<i>Cicurina madla</i>	E	TX	Yes
Robber Baron Cave meshweaver	<i>Cicurina baronia</i>	E	TX	Yes
Ocelot	<i>Leopardus (=Felis) pardalis</i>	E	TX	No
Piping plover	<i>Charadrius melodus</i>	T	TX, OK, KS, NE	Yes
Attwater's greater prairie-chicken	<i>Tympanuchus cupido attwateri</i>	E	TX	No
Tooth Cave pseudoscorpion	<i>Tartarocreagris texana</i>	E	TX	No
Barton Springs salamander	<i>Eurycea sosorum</i>	E	TX	No
San Marcos salamander	<i>Eurycea nana</i>	T	TX	Yes
Texas blind salamander	<i>Typhlomolge rathbuni</i>	E	TX	No
Smalltooth sawfish	<i>Pristis pectinata</i>	E	TX	No
Arkansas River shiner	<i>Notropis girardi</i>	T	OK, KS	Yes
Topeka shiner	<i>Notropis Topeka (=tristis)</i>	E	KS	Yes
Government Canyon Bat Cave spider	<i>Neoleptoneta microps</i>	E	TX	Yes
Tooth Cave spider	<i>Leptoneta myopica</i>	E	TX	No
Least tern	<i>Sterna antillarum</i>	E	TX, OK, KS, NE	No
Black-capped vireo	<i>Vireo atricapilla</i>	E	TX, OK, KS, NE	No
Golden-cheeked warbler (=wood)	<i>Dendroica chrysoparia</i>	E	TX	No
Red wolf	<i>Canis rufus</i>	E	TX	No
Audubon's crested caracara	<i>Polyborus plancus audubonii</i>	T	TX	No
Jaguar	<i>Panthera onca</i>	E	TX	Yes
Margay	<i>Leopardus (=Felis) wiedii</i>	E	TX	No
Eskimo curlew	<i>Numenius borealis</i>	E	OK	No
Gray wolf	<i>Canis Lupis</i>	E	TX, OK, KS, NE	No
Black-footed ferret	<i>Mustela nigripes</i>	E	KS, NE	No

## APPENDIX D: CATTLE TRAILS HISTORY TIMELINE

**TABLE D.1: CATTLE TRAILS TIMELINE**

Date	Event
ca. 1500	The first cattle herds brought from Spain to the New World (Hispaniola).
1520s	The first cattle herds brought to the mainland of North America (Present-day eastern Mexico).
1598	Don Juan de Oñate expedition enters present-day New Mexico; first example of working vaqueros (cowboys) in the present-day United States.
1655	Cattle herd driven from Springfield, Massachusetts to Boston; first known example of cattle trailing in the present-day United States.
1721	Spaniards introduce the first noteworthy cattle herds in Texas, more specifically at several early Franciscan missions.
1740s	Large, successful cattle ranches developed in present-day northeastern Mexico along the Gulf of Mexico.
1760s	Cattle ranching gains a foothold in Hispanic Texas outside of the mission environment.
1820s	Cattle trailing increases as “many took herds from Ohio and even Indiana to Baltimore.” Despite these and other documented examples, cattle trailing during this period was a rare activity or was primarily a localized (farm-to-market) activity.
1820s to 1840s	Americans invade Texas (then a part of Mexico) and later proclaim the Republic of Texas; cattle population in Texas booms.
1845	250 Illinois cattle trailed to Albany and on to Boston. Similar examples are noted with increasing frequency during this period.
Late-1840s	The first sizable cattle drives out of Texas; some to Louisiana (either by ship or on overland trails), some to the California gold fields.
Mid-1850s	Rise of the Shawnee Trail, for cattle driven from southern Texas to Missouri and southeastern Kansas, Texans only moderately successful.
Late-1850s	Cattle drives from Texas to Pike’s Peak (Denver-area) gold rush communities.
1861 to 1865	The US Civil War brings cattle driving to a halt, except for occasional attempts to supply the Confederate Army; many cattle ranches leave Texas and take part in the military effort.
1865 to 1866	Renewal of cattle driving activities along the Shawnee Trail; progress blocked by bandits, “Jayhawkers,” and farmers irate at “tick fever” losses and trampled fields.
1867 (Spring)	Joseph G. McCoy speaks with railroad officials about rates for shipping cattle.
1867 (June)	McCoy travels west on the Union Pacific Eastern Division to its end of track (at Salina) scouting possible locations for a loading facility; he selects Abilene.
1867 (Summer)	McCoy constructs loading facility, hotel and other amenities in Abilene, he sends associates south to mark a route south to the northern terminus of Jesse Chisholm’s wagon road and others south, with fliers, to publicize the improvements at Abilene.
1867 (September)	The first load of cattle shipped east from Abilene; a total of 35,000 cattle shipped east from Kansas this year.
1868 to 1870	The so-called “Chisholm Trail” becomes increasingly popular as its existence spreads to ranchers throughout central and southern Texas; a few rivals to Abilene emerge, but none make significant inroads into Abilene’s growing fame and prosperity.
1871 (June)	Santa Fe (AT&SF) Railroad branch completed south to Newton, which becomes a wild, end-of-tracks rival to Abilene.
1872 (February)	Farming interests in Abilene, weary of five years of Texas cattlemen, distribute fliers urging ranchers to take their herds elsewhere.
1872 (May)	Santa Fe Railroad branch extended south to Wichita, which soon becomes a new rival for the cattle trade.
1873	L.B. Harris takes the first northbound cattle herd from Texas along a route west of the Chisholm Trail.

Date	Event
1874	John T. Lytle takes several herds of cattle north from Texas along a route farther west than Harris had gone a year previously; the first eastbound cattle are loaded at Dodge City.
1872 to 1875	Wichita and other Kansas railroad towns compete for the northbound cattle trade. Wichita's major rival is Ellsworth, reached by the Ellsworth Trail (Cox's Cutoff), which splinters away from the Chisholm Trail near the border between Kansas and Indian Territory.
1875	Most American Indians on the Southern Plains are moved onto reservations in Indian Territory. Perhaps as a result, increasing numbers of cattle veer away from the Chisholm Trail and move north along the so-called "Western Trail" to Dodge City and on to Ogallala, Nebraska.
1876	Quarantine laws in central Kansas (passed in 1875) close the Chisholm Trail.
1876 to 1879	Most Texas cattle that head northward follow the Western Trail. Some begin this trail in San Antonio, while others veer away from the Chisholm Trail in Belton, Fort Worth, or elsewhere.
1880	Santa Fe (AT&SF) completes a rail spur south to Caldwell, near the southern border of Kansas.
1880 to 1884	Most Texas cattle driven northward go up the Western Trail to Dodge City and Ogallala, although some take the Chisholm Trail or one of its connecting trails to Caldwell.
1885 (April)	Kansas legislature passes a quarantine law that encompasses the entire state; therefore, few if any cattle are driven to Dodge City and none to Ogallala.
1885 to 1886	Cattle industry leaders respond to quarantines by promoting the idea of a national cattle trail, which would drive cattle up a dedicated corridor in eastern Colorado to the northwestern territories. The National Trail is not implemented as a legislative concept, but some cattle herds are driven north along this pathway.
1887 to 1889	The last years of substantial (though minor) trail driving, primarily along relatively short-distance routes.



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